



MonthlyPIB Summary

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1. INDIA AND OMAN ENERGIZE A NEW TRADE GATEWAY THROUGH A LANDMARK COMPREHENSIVE ECONOMIC PARTNERSHIP AGREEMENT (CEPA)



What is CEPA?

Comprehensive Economic Partnership Agreement (CEPA)

- I. A CEPA is a broad-based trade agreement covering:
 - A. Trade in goods
 - B. Trade in services
 - C. Investment cooperation
 - D. Economic and technological collaboration
 - E. Regulatory facilitation
- II. It goes beyond a traditional Free Trade Agreement (FTA).

Objectives of the India–Oman CEPA

- Increase bilateral trade.
- Promote investment flows.
- Improve market access.
- Strengthen supply-chain integration.
- Enhance economic cooperation in emerging sectors.

KEY AREAS OF COOPERATION

Trade in Goods

- Reduction of tariff and non-tariff barriers.
- Improved access to each other's markets.

Trade in Services

- I. Opportunities in:
 - A. Information Technology

- B. Healthcare
- C. Education
- D. Financial services

Investment

- I. Encourages:
 - A. Cross-border investments
 - B. Industrial partnerships
 - C. Infrastructure development

Energy Cooperation

- I. Strengthens ties in:
 - A. Oil and gas
 - B. Petrochemicals
 - C. Renewable energy

Logistics and Connectivity

- I. Enhances:
 - A. Maritime trade routes
 - B. Port connectivity
 - C. Regional supply chains

BACKGROUND: INDIA–OMAN RELATIONS

Oman

- I. Located at the strategic entrance to the:
 - A. Arabian Sea
 - B. Gulf of Oman
- II. Important partner in:
 - A. Energy security
 - B. Maritime cooperation
 - C. Trade and investment

Strategic Importance

- I. Oman occupies a crucial location near:
 - A. The Strait of Hormuz

Strait of Hormuz

- A significant share of global energy trade passes through this chokepoint.

Port Cooperation

Port of Duqm

- Emerging as an important logistics and industrial hub.
- Holds strategic significance for India's maritime and economic interests.

SIGNIFICANCE FOR INDIA

Economic Benefits

- Expands export opportunities.
- Diversifies trade destinations.

- Attracts foreign investment.

Strategic Benefits

- Strengthens India's engagement with the Gulf region.
- Supports maritime and energy security objectives.

Employment and Services

- Creates opportunities for:
 - Indian professionals
 - Service providers
 - Skilled workers

Supply Chain Resilience

- Promotes:
 - Diversified and reliable trade networks
 - Reduced dependence on limited markets

KEY HIGHLIGHTS

- **Partner Countries:** India and Oman.
- **Agreement:** Comprehensive Economic Partnership Agreement (CEPA).
- **Focus:** Trade, investment, services, and connectivity.
- **Strategic Sector:** Energy and logistics.
- **Important Location:** Strait of Hormuz.
- **Key Port:** Port of Duqm.
- **Goal:** Stronger economic integration and regional cooperation.

PRELIMS BOOSTER BOX

- **CEPA:** Comprehensive Economic Partnership Agreement
- **Partner Country:** Oman
- **Strategic Waterway:** Strait of Hormuz
- **Important Port:** Port of Duqm
- **Focus Areas:** Trade, services, investment
- **Significance:** Gulf connectivity and energy security
- **Goal:** Stronger economic integration and regional cooperation

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. A Comprehensive Economic Partnership Agreement (CEPA) generally covers trade in goods, services, and investment cooperation.
2. Oman is strategically located near the Strait of Hormuz.

3. The Port of Duqm has emerged as an important logistics hub in Oman.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

2. SPECIAL INTERACTIVE MEETING OF HON'BLE PRESIDENT OF INDIA WITH TRIBAL SCHOLARSHIP BENEFICIARIES TO BE HELD UNDER "BIRSA LIVES IN NEW BHARAT WEEK"



Key Highlights

- Direct interaction between the President of India and tribal students benefiting from scholarship schemes.
- Focus on educational empowerment and inclusive development.
- Recognition of achievements of tribal youth across the country.

Objectives

- I. Promote:
 - A. Educational opportunities for Scheduled Tribes (STs).
- II. Encourage:
 - A. Higher education and skill development.
- III. Raise awareness about:
 - A. Government welfare and scholarship schemes.
- IV. Strengthen:
 - A. Social inclusion and tribal empowerment.

BACKGROUND / CONTEXT

Who was Birsa Munda?

Birsa Munda

- I. Born in:
 - A. 1875 in present-day Jharkhand.
- II. Revered tribal leader and freedom fighter.
- III. Led the:
 - A. **Ulgulan (The Great Tumult)** movement against British rule and exploitative systems.
- IV. Advocated:
 - A. Tribal rights
 - B. Social reform
 - C. Protection of indigenous identity

Janjatiya Gaurav

- I. Birsa Munda is regarded as a symbol of:
 - A. Tribal pride
 - B. Resistance against colonial oppression
 - C. Indigenous empowerment

Scholarship Schemes for Scheduled Tribes

Key initiatives include:

Post-Matric Scholarship for Scheduled Tribe Students

- Supports higher education of ST students.

National Fellowship and Scholarship for Higher Education of ST Students

- Promotes advanced education and research.

Eklavya Model Residential Schools

- Provides quality education to tribal students.

SIGNIFICANCE

Educational Empowerment

- I. Encourages:
 - A. Academic excellence among tribal youth.

Social Inclusion

- I. Strengthens:
 - A. Participation of tribal communities in national development.

Recognition of Tribal Contributions

- I. Highlights:
 - A. Tribal heritage and leadership.

Nation Building

- I. Supports:
 - A. Inclusive and equitable development.

KEY HIGHLIGHTS

- **Event:** Special Interactive Meeting with Tribal Scholarship Beneficiaries.
- **Occasion:** Birsa Lives in New Bharat Week.
- **Focus:** Tribal education and empowerment.
- **Inspirational Figure:** Birsa Munda.
- **Target Group:** Scheduled Tribe students.
- **Objective:** Promote educational inclusion and awareness.
- **Importance:** Strengthening tribal participation in nation-building.

PRELIMS BOOSTER BOX

- **Birsa Munda:** Tribal freedom fighter and social reformer.
- **Associated Movement:** Ulgulan (The Great Tumult).
- **State Associated:** Jharkhand.
- **Community Focus:** Scheduled Tribes (STs).
- **Key Schemes:** Post-Matric Scholarship, National Fellowship for ST Students.
- **Educational Initiative:** Eklavya Model Residential Schools (EMRS).
- **Theme:** Tribal empowerment through education.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding Birsa Munda:

1. Birsa Munda was a tribal freedom fighter who led the Ulgulan movement.

2. He is associated with the tribal regions of present-day Jharkhand.
3. Birsa Munda is remembered for advocating tribal rights and social reform.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

3. AIR MARSHAL TARUN CHAUDHRY ASSUMES THE APPOINTMENT OF AIR OFFICER COMMANDING-IN-CHIEF, CENTRAL AIR COMMAND



Key Appointment

- I. Air Marshal Tarun Chaudhry has taken over as:
 - A. Air Officer Commanding-in-Chief (AOC-in-C)
 - B. Central Air Command (CAC)

Role of AOC-in-C

- I. Responsible for:
 - A. Operational preparedness
 - B. Air defence operations
 - C. Strategic planning
 - D. Administration of the Command
- II. Oversees:

- A. Air Force stations and operational units under Central Air Command

Importance

- I. Ensures:
 - A. High operational readiness of the Indian Air Force
- II. Strengthens:
 - A. National air defence and strategic capabilities

BACKGROUND / CONTEXT

Central Air Command (CAC)

Central Air Command

- I. One of the operational commands of the Indian Air Force.
- II. Headquarters:
 - A. Prayagraj
- III. Responsible for:
 - A. Air operations across central India and adjoining strategic sectors.

Indian Air Force (IAF)

Indian Air Force

- I. Established on:
 - A. 8 October 1932
- II. Functions:
 - A. Air defence of India
 - B. Protection of airspace
 - C. Strategic and tactical air operations
 - D. Humanitarian Assistance and Disaster Relief (HADR)

Command Structure of the IAF

- I. The Indian Air Force has multiple operational and functional commands, including:
 - A. Western Air Command
 - B. Eastern Air Command
 - C. Central Air Command
 - D. Southern Air Command
 - E. South Western Air Command
 - F. Training Command
 - G. Maintenance Command

SIGNIFICANCE OF CENTRAL AIR COMMAND

Air Defence

- Maintains surveillance and readiness against aerial threats.

Strategic Operations

- Supports deployment of air assets across multiple sectors.

Force Projection

- Facilitates rapid response during emergencies and contingencies.

Disaster Relief

- Plays a major role in humanitarian and relief operations.

KEY HIGHLIGHTS

- **Officer:** Air Marshal Tarun Chaudhry.
- **Appointment:** Air Officer Commanding-in-Chief.
- **Command:** Central Air Command.
- **Headquarters:** Prayagraj, Uttar Pradesh.
- **Service:** Indian Air Force.
- **Role:** Air defence and operational preparedness.
- **Importance:** Strengthening national security and air power.

PRELIMS BOOSTER BOX

- **AOC-in-C:** Air Officer Commanding-in-Chief
- **Command:** Central Air Command (CAC)
- **Headquarters:** Prayagraj, Uttar Pradesh
- **Service:** Indian Air Force
- **IAF Established:** 8 October 1932
- **Role of CAC:** Air defence and operational readiness
- **Importance:** Strategic air operations and national security

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Central Air Command is headquartered at Prayagraj.
2. The Air Officer Commanding-in-Chief (AOC-in-C) is responsible for operational and administrative control of an Air Force Command.
3. The Indian Air Force was established in 1932.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

4. ESIC LAUNCHES CENTRALIZED ONLINE PATIENT FEEDBACK SYSTEM ACROSS HOSPITALS AND DISPENSARIES TO ENSURE PATIENT-CENTRIC HEALTHCARE



Key Highlights

- Introduction of a unified digital platform for collecting patient feedback.
- Coverage of ESIC hospitals and dispensaries across the country.
- Focus on improving healthcare services through continuous monitoring and evaluation.

Objectives

- I. Capture:
 - A. Patient experiences and satisfaction levels.
- II. Improve:
 - A. Quality of healthcare services.
- III. Enable:
 - A. Timely grievance redressal and corrective action.
- IV. Strengthen:
 - A. Accountability of healthcare institutions.

BACKGROUND / CONTEXT

Employees' State Insurance Corporation (ESIC)

Employees' State Insurance Corporation

- I. A statutory body under the: **Ministry of Labour and Employment**
- II. Administers the: **Employees' State Insurance Act, 1948**

- III. Provides:
- A. Social security and health insurance benefits to workers and their dependents.

ESI Scheme

Employees' State Insurance Scheme

Provides benefits such as:

- Medical care
- Sickness benefit
- Maternity benefit
- Disability benefit
- Dependant benefit

Patient-Centric Healthcare

- I. Focuses on:
 - A. Patients' needs, preferences, and experiences.
- II. Encourages:
 - A. Better healthcare outcomes.
 - B. Improved service delivery.

SIGNIFICANCE OF THE FEEDBACK SYSTEM

Improved Healthcare Quality

- I. Enables identification of:
 - A. Service gaps and operational issues.

Real-Time Monitoring

- I. Helps administrators:
 - A. Track patient satisfaction and institutional performance.

Transparency and Accountability

- I. Encourages:
 - A. Responsive governance in healthcare institutions.

Digital Governance

- I. Supports:
 - A. Technology-driven public service delivery.

CHALLENGES

- I. Ensuring:
 - A. High participation by patients.
- II. Addressing:
 - A. Digital literacy barriers.
- III. Need for:
 - A. Timely action on feedback received.

KEY HIGHLIGHTS

- **Organisation:** Employees' State Insurance Corporation (ESIC).
- **Initiative:** Centralized Online Patient Feedback System.
- **Coverage:** ESIC hospitals and dispensaries nationwide.
- **Objective:** Patient-centric healthcare delivery.
- **Focus:** Service quality, transparency, and accountability.
- **Legal Basis:** Employees' State Insurance Act, 1948.
- **Importance:** Strengthening healthcare governance through digital feedback.

PRELIMS BOOSTER BOX

- **ESIC:** Employees' State Insurance Corporation.
- **Ministry:** Ministry of Labour and Employment.
- **Governing Law:** Employees' State Insurance Act, 1948.
- **ESI Scheme Benefits:** Medical, sickness, maternity, disability, and dependent benefits.
- **New Initiative:** Centralized Online Patient Feedback System.
- **Objective:** Improve healthcare quality and patient satisfaction.
- **Theme:** Patient-centric and technology-enabled healthcare governance.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding ESIC:

1. ESIC is a statutory body under the Ministry of Labour and Employment.
2. It administers the Employees' State Insurance Act, 1948.
3. The ESI Scheme provides medical and social security benefits to eligible workers and their dependents.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

5. SUPREME COURT GETS FIVE NEW JUDGES AS PRESIDENT APPROVES APPOINTMENTS



Key Highlights

- I. Five judges have been elevated to the Supreme Court.
- II. The appointments increase the Court's working strength.
- III. The move is expected to:
 - A. Reduce pendency of cases.
 - B. Improve judicial efficiency.
 - C. Strengthen access to justice.

Objectives

- Fill existing vacancies in the Supreme Court.
- Enhance judicial capacity.
- Ensure timely delivery of justice.
- Strengthen the functioning of the constitutional court.

BACKGROUND / CONTEXT

Supreme Court of India

Supreme Court of India

- I. Established under:
 - A. **Part V, Chapter IV** of the Constitution.
- II. It is the:
 - A. Highest judicial authority in India.

- B. Final court of appeal.

III. Functions include:

- A. Constitutional interpretation.
- B. Protection of Fundamental Rights.
- C. Adjudication of disputes between the Centre and States.

Appointment of Supreme Court Judges

Constitutional Provision

- I. **Article 124** of the Constitution provides for:
 - A. Establishment and composition of the Supreme Court.
 - B. Appointment of judges by the President.

Collegium System

Supreme Court Collegium

- I. Consists of:
 - A. Chief Justice of India (CJI)
 - B. Four senior-most Supreme Court judges
- II. Recommends:
 - A. Appointments and transfers of judges to higher judiciary.

Judges Strength

- I. The sanctioned strength of the Supreme Court is:
 - A. **34 judges** (including the Chief Justice of India).

SIGNIFICANCE

Reduction in Pendency

- I. Additional judges help:
 - A. Dispose of cases faster.

Access to Justice

- I. Improves:
 - A. Efficiency of judicial administration.

Strengthening Rule of Law

- I. Enhances:
 - A. Public confidence in the judiciary.

Constitutional Governance

- I. Supports:
 - A. Effective functioning of the apex constitutional court.

KEY HIGHLIGHTS

- **Institution:** Supreme Court of India.
- **Development:** Appointment of five new judges.

- **Appointing Authority:** President of India.
- **Relevant Article:** Article 124.
- **Recommendation Body:** Supreme Court Collegium.
- **Purpose:** Fill vacancies and improve judicial functioning.
- **Importance:** Strengthening justice delivery.

PRELIMS BOOSTER BOX

- **Apex Court:** Supreme Court of India.
- **Relevant Article:** Article 124.
- **Appointment Authority:** President of India.
- **Recommendation Mechanism:** Supreme Court Collegium.
- **Collegium Composition:** CJI + four senior-most SC judges.
- **Sanctioned Strength:** 34 judges (including CJI).
- **Function:** Constitutional interpretation and final appellate jurisdiction.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding the Supreme Court of India:

1. Article 124 of the Constitution deals with the establishment and composition of the Supreme Court.
2. The Supreme Court Collegium consists of the Chief Justice of India and four senior-most judges of the Supreme Court.
3. The President appoints Supreme Court judges.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

1. NINE YEARS OF GST: SIMPLIFYING TAXATION, STRENGTHENING INDIA



- Introduced on **1 July 2017**, GST replaced multiple indirect taxes with a unified destination-based tax regime.
- The reform has simplified taxation, reduced cascading of taxes, and created a common national market.
- GST has improved tax compliance through digital platforms such as GSTN, e-Invoicing, and e-Way Bills.
- The tax system has enhanced transparency, widened the tax base, and strengthened revenue mobilization.
- The GST Council has emerged as a key institution of cooperative federalism through consensus-based decision-making.
- Digitalization of tax administration has reduced compliance costs and improved ease of doing business.
- GST continues to support economic integration, formalization of the economy, and logistics efficiency.
- Ongoing reforms aim to simplify compliance further and improve taxpayer services.

BACKGROUND / CONTEXT

Goods and Services Tax (GST)

- Introduced on **1 July 2017**.
- A **destination-based indirect tax** levied on the supply of goods and services.
- Replaced multiple Central and State indirect taxes with a unified tax system.

Constitutional Basis

- **101st Constitutional Amendment Act, 2016** enabled the introduction of GST.
- **Article 246A:** Empowers Parliament and State Legislatures to levy GST.
- **Article 269A:** Deals with levy and collection of **Integrated GST (IGST)** on inter-State supplies.
- **Article 279A:** Provides for the constitution of the **GST Council**.

GST Council

- Constitutional body under **Article 279A**.
- **Chairperson:** Union Finance Minister.
- Members include the Union Minister of State (Finance) and Finance/Taxation Ministers of all States and Union Territories with legislatures.
- Recommends tax rates, exemptions, threshold limits, and policy changes.

Components of GST

- **CGST:** Central Goods and Services Tax.
- **SGST:** State Goods and Services Tax.
- **IGST:** Integrated Goods and Services Tax.
- **UTGST:** Union Territory Goods and Services Tax.

KEY HIGHLIGHTS

- **Launch:** GST implemented on **1 July 2017**.
- **Tax Reform:** Unified multiple indirect taxes into a single destination-based tax.
- **Institutional Mechanism:** GST Council promotes cooperative fiscal federalism through consensus.
- **Digital Governance:** GSTN, e-Way Bills, and e-Invoicing have improved compliance and transparency.
- **Economic Impact:** Supports formalization, ease of doing business, and efficient logistics.
- **Revenue Mobilization:** Broadens the tax base and strengthens indirect tax collection.
- **Challenges:** Compliance burden for MSMEs, classification disputes, inverted duty structure, and revenue dependence.
- **Way Forward:** Simplify tax structure, rationalize rates, strengthen dispute resolution, and enhance digital compliance systems.

PRELIMS BOOSTER BOX

- **GST Launch: 1 July 2017.**
- **101st Constitutional Amendment Act, 2016:** Introduced the constitutional framework for GST.

- **Article 246A:** Special provision relating to GST.
- **Article 269A:** IGST on inter-State trade and commerce.
- **Article 279A:** Establishment of the GST Council.
- **GST Type:** Destination-based indirect tax.
- **GST Council Chairperson:** Union Finance Minister.
- **GSTN (Goods and Services Tax Network):** IT backbone for GST administration.
- **e-Way Bill:** Electronic document required for movement of goods beyond the prescribed threshold.
- **Input Tax Credit (ITC):** Credit available for GST paid on inputs used in the course of business.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Article 279A of the Constitution provides for the establishment of the GST Council.
2. GST is a destination-based indirect tax on the supply of goods and services.
3. Integrated GST (IGST) is levied on intra-State supplies of goods and services.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Answer: (b)

2. GENERAL DHIRAJ SETH TAKES OVER AS THE CHIEF OF THE ARMY STAFF



- General Dhiraj Seth has taken over as the Chief of the Army Staff, becoming the professional head of the Indian Army.

- The change in leadership comes at a time when the Army is focusing on modernization, indigenisation, and capability enhancement.
- Key priorities include strengthening operational preparedness, integrating emerging technologies, and enhancing jointness among the Armed Forces.
- The Army continues to address conventional and non-conventional security challenges, including border management, counter-terrorism, and cyber threats.
- The appointment reinforces continuity in military leadership and strategic planning.
- The leadership transition is important for advancing defence reforms and improving operational effectiveness.
- It also aligns with India's objective of building self-reliance in defence manufacturing under **Aatmanirbhar Bharat**.
- Effective military leadership remains central to safeguarding national security and territorial integrity.

BACKGROUND / CONTEXT

Chief of the Army Staff (COAS)

- I. The Chief of the Army Staff is the **professional head of the Indian Army**.
- II. Responsible for:
 - A. Operational preparedness.
 - B. Force modernization.
 - C. Personnel management.
 - D. Strategic planning.
 - E. Training and doctrine.

Indian Army

- Raised on **1 April 1895**.
- Functions under the **Ministry of Defence**.
- Responsible for safeguarding India's territorial integrity and conducting land-based military operations.

Higher Defence Management

- **President of India** is the Supreme Commander of the Armed Forces.
- **Chief of Defence Staff (CDS)** promotes jointness among the Army, Navy, and Air Force.
- **Department of Military Affairs (DMA)** functions under the Ministry of Defence.

Defence Modernisation

- Indigenisation of defence equipment.
- Integrated Theatre Commands (proposed).
- Network-centric warfare.
- Artificial Intelligence and unmanned systems.
- Cyber and space capabilities.

KEY HIGHLIGHTS

- **Appointment:** General Dhiraj Seth assumes office as Chief of the Army Staff.
- **Role:** Professional head of the Indian Army.
- **Responsibilities:** Operational readiness, modernization, leadership, and strategic planning.
- **Strategic Priority:** Strengthening national security and defence preparedness.
- **Modernisation:** Focus on indigenous defence production and emerging technologies.
- **Jointness:** Supports integrated planning and coordination among the Armed Forces.
- **Challenges:** Border security, hybrid warfare, cyber threats, and rapid technological change.
- **Way Forward:** Accelerate defence reforms, enhance indigenous capabilities, strengthen joint commands, and invest in future-ready military technologies.

PRELIMS BOOSTER BOX

- **Chief of the Army Staff (COAS):** Professional head of the Indian Army.
- **Indian Army Day: 15 January.**
- **Indian Army Raised: 1 April 1895.**
- **Supreme Commander of the Armed Forces:** President of India.
- **Chief of Defence Staff (CDS):** Promotes jointness among the three Services.
- **Department of Military Affairs (DMA):** Established in 2019 under the Ministry of Defence.
- **Integrated Theatre Command:** Proposed unified command integrating Army, Navy, and Air Force resources.
- **Aatmanirbhar Bharat in Defence:** Focus on indigenous defence manufacturing and reduced import dependence.
- **Hybrid Warfare:** Combination of conventional, irregular, cyber, and information warfare.
- **Network-Centric Warfare:** Integration of sensors, communication networks, and

command systems for enhanced operational effectiveness.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Chief of the Army Staff is the professional head of the Indian Army.
2. The President of India is the Supreme Commander of the Armed Forces.
3. The Department of Military Affairs was established to promote greater integration and jointness in defence management.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Answer: (d)

3. NATIONAL TASK FORCE ON MENTAL HEALTH OF STUDENTS AND PREVENTION OF SUICIDES IN HIGHER EDUCATION INSTITUTIONS CONDUCTS FIELD VISITS TO 30 HEIs ACROSS 10 STATES SINCE MAY 2025



- The National Task Force is evaluating the preparedness of Higher Education Institutions to address student mental health concerns and prevent suicides.
- Field visits focus on counselling infrastructure, institutional support mechanisms, grievance redressal, and awareness programmes.
- The initiative promotes a holistic and preventive approach towards mental health within educational campuses.

- Recommendations are expected to strengthen student well-being through improved counselling services, early intervention, and institutional accountability.
- The exercise aligns with the objective of creating safe, inclusive, and supportive learning environments.
- Strengthening campus mental health systems is essential for improving academic outcomes and reducing psychological distress among students.
- The initiative highlights the growing importance of mental health as a component of quality higher education.
- It also supports evidence-based policymaking for student welfare and institutional reforms.

BACKGROUND / CONTEXT

National Task Force

- Constituted to examine issues relating to:
 - Student mental health.
 - Prevention of suicides in Higher Education Institutions.
 - Institutional support systems.
 - Counselling and psychological services.
 - Student well-being.

Mental Health in Higher Education

- Students may face:
 - Academic stress.
 - Examination pressure.
 - Social isolation.
 - Financial challenges.
 - Career uncertainty.
 - Emotional and psychological issues.

Institutional Support Mechanisms

- Professional counselling centres.
- Psychological support services.
- Faculty mentoring.
- Peer support programmes.
- Grievance redressal mechanisms.
- Mental health awareness initiatives.

Legal and Policy Framework

- **Mental Healthcare Act, 2017**

- **National Education Policy (NEP) 2020** promotes holistic and inclusive education with emphasis on student well-being.
- **University Grants Commission** issues guidelines on student counselling and mental health support.

KEY HIGHLIGHTS

- **Initiative:** Field visits by the National Task Force to 30 HEIs across 10 States.
- **Objective:** Strengthen student mental health support and suicide prevention mechanisms.
- **Focus Areas:** Counselling services, institutional preparedness, awareness, and early intervention.
- **Governance Impact:** Encourages evidence-based reforms and accountability in higher education institutions.
- **Educational Significance:** Promotes safe, inclusive, and supportive campus environments.
- **Policy Relevance:** Supports implementation of mental health and higher education reforms.
- **Challenges:** Shortage of trained counsellors, stigma, unequal access to mental health services, and institutional capacity gaps.
- **Way Forward:** Expand counselling infrastructure, train faculty and staff, strengthen peer support systems, promote mental health awareness, and institutionalize regular mental health assessments.

PRELIMS BOOSTER BOX

- **Mental Healthcare Act: 2017.**
- **Objective of the Act:** Protect the rights of persons with mental illness and ensure access to mental healthcare services.
- **NEP 2020:** Emphasizes holistic development, student well-being, and inclusive education.
- **UGC:** Statutory body established under the **University Grants Commission Act, 1956.**
- **HEI:** Higher Education Institution.
- **Counselling:** Professional psychological support to improve emotional and mental well-being.
- **Early Intervention:** Identification and timely support before mental health issues become severe.

- **Psychosocial Support:** Assistance addressing psychological and social needs.
- **Life Skills Education:** Develops coping, communication, and decision-making skills.
- **Student Well-being:** Encompasses physical, mental, emotional, and social health.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Mental Healthcare Act, 2017 seeks to protect the rights of persons with mental illness.
2. The National Education Policy (NEP) 2020 emphasizes holistic development and student well-being.
3. The University Grants Commission (UGC) is a constitutional body established under the Constitution of India.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Answer: (b)

4. CLARIFICATION REGARDING MEDIA REPORTS ON THE PROCEEDINGS BEFORE THE HON'BLE SUPREME COURT IN BPCL'S SPECIAL LEAVE PETITION ON ETHANOL ALLOCATION MATTER



- The clarification was issued after certain media reports inaccurately portrayed the Attorney General's submissions before the Supreme Court.
- The Government stated that the proceedings related to the allocation of ethanol to

Dedicated Ethanol Plants and the need to avoid conflicting judicial decisions in similar cases pending before different High Courts.

- It informed the Court that Transfer Petitions would be filed to enable uniform adjudication of common legal issues.
- The Supreme Court directed that **status quo** be maintained regarding ethanol allocation for the current Ethanol Supply Year (2025–26) in the present matter.
- The Government categorically denied making any submission that the **E20 Ethanol Blended Petrol (EBP) Programme** was an "experiment."
- The clarification reaffirmed the Government's commitment to maintaining uninterrupted ethanol supplies to achieve the national blending target.
- The episode highlights the importance of accurate reporting of judicial proceedings involving major public policy initiatives.
- It also underscores the significance of legal certainty for India's biofuel and energy security programmes.

BACKGROUND / CONTEXT

Ethanol Blended Petrol (EBP) Programme

- I. Launched to promote blending of ethanol with petrol.
- II. Objectives:
 - A. Reduce crude oil imports.
 - B. Enhance energy security.
 - C. Support farmers' income.
 - D. Reduce greenhouse gas emissions.

E20 Fuel

- Petrol blended with **20% ethanol**.
- India achieved the target of **20% ethanol blending** ahead of schedule.

Special Leave Petition (SLP)

- Filed under **Article 136** of the Constitution.
- Enables the Supreme Court to grant special leave to appeal against judgments or orders of any court or tribunal (except those related to Armed Forces).

Transfer Petition

- Enables transfer of cases involving similar questions of law from different High Courts to the Supreme Court to avoid conflicting judgments.

KEY HIGHLIGHTS

- **Clarification:** The Government denied reports that E20 was termed an "experiment."
- **Legal Issue:** Pertains to ethanol allocation for Dedicated Ethanol Plants.
- **Supreme Court:** Directed maintenance of status quo for the current Ethanol Supply Year in the present matter.
- **Policy Objective:** Ensure uninterrupted ethanol supply under the national EBP Programme.
- **Energy Security:** Supports reduced dependence on imported fossil fuels.
- **Environmental Impact:** Promotes cleaner transportation fuel and lower carbon emissions.
- **Challenges:** Balancing contractual obligations, judicial consistency, and uninterrupted ethanol procurement.
- **Way Forward:** Expedite adjudication of common legal issues, strengthen ethanol supply chains, and continue implementation of the National Biofuel Programme.

PRELIMS BOOSTER BOX

- **Article 136:** Special Leave to Appeal by the Supreme Court.
- **E20 Fuel:** Petrol containing **20% ethanol**.
- **EBP Programme:** Ethanol Blended Petrol Programme.
- **National Policy on Biofuels:** Approved in **2018**; amended in **2022**.
- **First Generation (1G) Ethanol:** Produced from sugarcane juice, molasses, and food grains.
- **Second Generation (2G) Ethanol:** Produced from agricultural residues and lignocellulosic biomass.
- **Dedicated Ethanol Plant:** Facility established primarily for ethanol production and supply.
- **Transfer Petition:** Seeks transfer of similar cases to a single court for uniform adjudication.
- **Status Quo Order:** Maintains the existing position until further judicial orders.
- **Biofuels:** Renewable fuels derived from biomass used as alternatives to fossil fuels.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. A Special Leave Petition (SLP) is filed under Article 136 of the Constitution of India.

2. E20 fuel contains 20% ethanol blended with petrol.
3. Second Generation (2G) ethanol is primarily produced from agricultural residues and lignocellulosic biomass.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Answer: (d)

5. APPROVAL OF MERGER SCHEME BY BOARD OF DIRECTORS OF PFC AND REC



- The merger seeks to consolidate two major public sector financial institutions engaged in financing the power sector.
- The combined entity is expected to achieve greater operational efficiency, improved resource utilization, and enhanced financial strength.
- A stronger institution can provide greater financial support for power generation, transmission, distribution, and renewable energy projects.
- The merger aligns with the Government's objective of strengthening Public Sector Enterprises through strategic consolidation.
- Enhanced financing capacity is expected to support infrastructure development and accelerate India's energy transition.

- The move may improve access to long-term finance for emerging sectors such as renewable energy, green hydrogen, and energy storage.
- The merger is expected to contribute to a more robust and resilient power financing ecosystem.
- It reinforces the role of development finance in achieving sustainable economic growth.

BACKGROUND / CONTEXT

Power Finance Corporation (PFC)

- Established in **1986**.
- A **Maharatna Central Public Sector Enterprise (CPSE)**.
- Functions under the **Ministry of Power**.
- Provides financial assistance for power generation, transmission, distribution, and infrastructure projects.

REC Limited

- Formerly **Rural Electrification Corporation**.
- Established in **1969**.
- A **Maharatna Central Public Sector Enterprise (CPSE)**.
- Provides financial assistance for power infrastructure, rural electrification, renewable energy, and distribution projects.

Role of Development Finance Institutions

- Mobilize long-term capital for infrastructure development.
- Support strategic sectors with long-gestation projects.
- Promote economic growth and public investment.

Power Sector Financing

- I. Supports:
 - A. Power generation.
 - B. Transmission networks.
 - C. Distribution infrastructure.
 - D. Renewable energy.
 - E. Smart grids.
 - F. Energy storage.

KEY HIGHLIGHTS

- **Merger:** Approved by the Boards of PFC and REC.

- **Objective:** Strengthen power sector financing through institutional consolidation.
- **Sectoral Focus:** Power generation, transmission, distribution, and renewable energy.
- **Financial Impact:** Enhanced lending capacity and operational efficiency.
- **Strategic Significance:** Supports infrastructure development and India's clean energy transition.
- **Governance:** Subject to statutory and regulatory approvals.
- **Challenges:** Integration of operations, regulatory clearances, and harmonization of institutional processes.
- **Way Forward:** Ensure seamless integration, strengthen project financing, promote renewable energy investments, and enhance financial resilience.

PRELIMS BOOSTER BOX

- **PFC:** Power Finance Corporation.
- **Established:** 1986.
- **REC Limited:** Established in 1969 as Rural Electrification Corporation.
- **Administrative Ministry:** Ministry of Power.
- **Maharatna CPSE:** Highest category of Central Public Sector Enterprises based on financial and operational criteria.
- **Development Finance Institution (DFI):** Institution providing long-term finance for infrastructure and strategic sectors.
- **Transmission:** Bulk transfer of electricity from generating stations to substations.
- **Distribution:** Delivery of electricity from substations to end consumers.
- **Renewable Energy:** Energy derived from naturally replenishing sources such as solar, wind, hydro, and biomass.
- **Energy Transition:** Shift from fossil fuels to cleaner and sustainable energy systems.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Power Finance Corporation functions under the Ministry of Power.
2. REC Limited was originally established as the Rural Electrification Corporation.

3. Development Finance Institutions primarily provide long-term financing for infrastructure and strategic sectors.

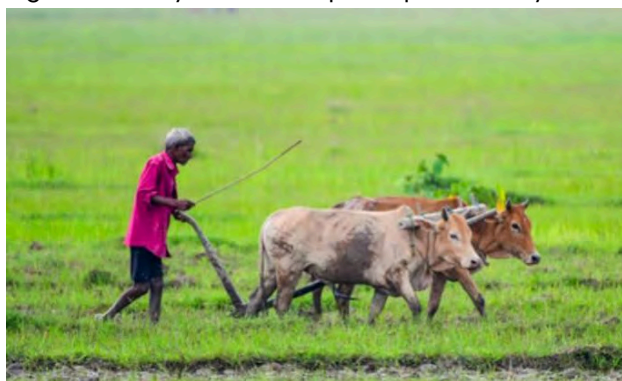
Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Answer: (d)

1. THE KISAN SARATHI PLATFORM

- Kisan Sarathi is a digital platform designed to provide farmers with reliable and location-specific agricultural advisory services.
- It facilitates access to expert guidance on crop management, pest and disease control, weather, input use, and best agricultural practices.
- The platform strengthens agricultural extension by connecting farmers with scientists, experts, and institutions.
- Digital advisory services improve productivity,



reduce cultivation risks, and promote climate-resilient agriculture.

- The initiative supports the modernization of agriculture through information and communication technologies (ICT).
- It complements the Government's vision of Digital Agriculture by enhancing farmers' access to knowledge and advisory services.
- The platform contributes to sustainable agricultural practices and better farm-level decision-making.
- It represents a significant step towards technology-enabled, farmer-centric agricultural governance.

BACKGROUND / CONTEXT

What is Kisan Sarathi?

- **Kisan Sarathi** is a digital agricultural advisory platform.
- It provides **real-time, location-specific, and personalized advisory services** to farmers.
- The platform enables interaction between farmers and agricultural experts.

Objectives

- Improve access to scientific agricultural advice.

- Promote informed farm-level decision-making.
- Strengthen agricultural extension services.
- Enhance productivity and sustainability.
- Reduce crop losses through timely advisories.

Key Features

- Crop management advisories.
- Pest and disease management.
- Weather-based agricultural recommendations.
- Soil and nutrient management guidance.
- Expert consultation.
- Digital dissemination of best agricultural practices.

Digital Agriculture in India

Major initiatives include:

- **Digital Agriculture Mission**
- **AgriStack**
- **National e-Governance Plan in Agriculture (NeGPA)**
- **e-NAM (National Agriculture Market)**
- **Kisan Call Centres**

KEY HIGHLIGHTS

- **Platform:** Kisan Sarathi digital agricultural advisory platform.
- **Primary Objective:** Deliver timely and personalized advisory services to farmers.
- **Technology:** Uses digital platforms to connect farmers with agricultural experts.
- **Agricultural Impact:** Improves productivity, crop management, and climate resilience.
- **Extension Services:** Strengthens dissemination of scientific agricultural knowledge.
- **Digital Governance:** Supports technology-driven agricultural transformation.
- **Challenges:** Digital literacy, internet connectivity, regional language accessibility, and awareness among farmers.
- **Way Forward:** Expand digital infrastructure, improve multilingual advisory services, integrate AI-based recommendations, and strengthen last-mile agricultural extension.

PRELIMS BOOSTER BOX

- **Kisan Sarathi:** Digital platform for agricultural advisory services.
- **Digital Agriculture Mission:** Promotes the use of emerging technologies in agriculture.

- **AgriStack:** Digital ecosystem for agriculture integrating farmer-centric services.
- **NeGPA:** National e-Governance Plan in Agriculture.
- **e-NAM:** National electronic agricultural market integrating APMC mandis.
- **Agricultural Extension:** Transfer of scientific knowledge and technologies from experts to farmers.
- **Climate-Smart Agriculture:** Agricultural practices that improve productivity, resilience, and sustainability.
- **Precision Agriculture:** Farm management using technologies such as GPS, sensors, drones, and data analytics.
- **Integrated Pest Management (IPM):** Eco-friendly approach to pest control using biological, cultural, mechanical, and chemical methods.
- **Soil Health Card Scheme:** Provides farmers with soil nutrient status and fertilizer recommendations.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Kisan Sarathi is a digital platform that provides personalized agricultural advisory services to farmers.
2. AgriStack aims to create a digital ecosystem for agriculture by integrating farmer-centric services.
3. Precision agriculture relies solely on traditional farming practices without the use of digital technologies.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Answer: (b)

2.IAF CONCLUDES NO. 5 WARFARE & AEROSPACE STRATEGY PROGRAMME (WASP)



- The Warfare & Aerospace Strategy Programme (WASP) is an advanced professional military education initiative designed to enhance strategic leadership within the Indian Air Force.
- The programme focuses on evolving concepts of air and aerospace power, national security, and multi-domain operations.
- It equips officers with knowledge of emerging technologies, geopolitical developments, and future warfare strategies.
- WASP promotes jointness among the Armed Forces by encouraging integrated planning and inter-service cooperation.
- The programme supports the development of strategic decision-making and operational preparedness in an evolving security environment.
- It reflects India's emphasis on capacity building and modernization of its military leadership.
- Professional military education is essential for addressing challenges posed by cyber, space, information, and aerospace domains.
- The initiative contributes to strengthening India's overall defence preparedness and strategic capabilities.

BACKGROUND / CONTEXT

Warfare & Aerospace Strategy Programme (WASP)

- I. A professional military education programme conducted by the **Indian Air Force**.
- II. Designed to develop strategic thinking among senior military officers.

III. Focuses on:

- A. Air and aerospace power
- B. National security
- C. Military strategy
- D. Joint operations
- E. Emerging technologies
- F. Geopolitics
- G. Future warfare

Indian Air Force (IAF)

- Established on **8 October 1932**.
- Responsible for safeguarding India's airspace and conducting aerial warfare.
- Operates under the **Ministry of Defence**.

Emerging Domains of Warfare

- Aerospace
- Cyber
- Space
- Artificial Intelligence
- Electronic Warfare
- Information Warfare
- Unmanned Systems

Jointness in Defence

- Refers to integrated planning, training, and operations among the Army, Navy, and Air Force.
- Enhances operational effectiveness and resource optimization.
- Promoted through the establishment of the **Department of Military Affairs (DMA)** and the office of the **Chief of Defence Staff (CDS)**.

KEY HIGHLIGHTS

- **Programme:** No. 5 Warfare & Aerospace Strategy Programme (WASP).
- **Organizer:** Indian Air Force.
- **Objective:** Develop strategic leadership and preparedness for future warfare.
- **Focus Areas:** Aerospace strategy, national security, emerging technologies, and joint military operations.
- **Strategic Importance:** Strengthens professional military education and defence planning.
- **Operational Relevance:** Enhances decision-making in multi-domain and technology-driven conflicts.

- **Challenges:** Rapid technological advancements, hybrid warfare, cyber threats, and evolving geopolitical dynamics.
- **Way Forward:** Expand joint training, integrate emerging technologies into military education, strengthen inter-service cooperation, and promote continuous strategic learning.

PRELIMS BOOSTER BOX

- **Indian Air Force (IAF):** Established on **8 October 1932**.
- **Supreme Commander of the Armed Forces:** President of India.
- **Chief of Defence Staff (CDS):** Promotes jointness among the three services.
- **Department of Military Affairs (DMA):** Established in **2019** under the Ministry of Defence.
- **Aerospace Power:** Combined use of air and space capabilities for national security objectives.
- **Multi-Domain Operations (MDO):** Integrated military operations across land, air, sea, cyber, and space domains.
- **Electronic Warfare (EW):** Military use of the electromagnetic spectrum for offensive and defensive purposes.
- **Hybrid Warfare:** Combination of conventional, irregular, cyber, and information warfare.
- **Artificial Intelligence (AI):** Increasingly used in surveillance, logistics, decision support, and autonomous systems.
- **Professional Military Education (PME):** Structured education to develop strategic, operational, and leadership competencies in the armed forces.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Multi-Domain Operations integrate military capabilities across land, air, sea, cyber, and space domains.
2. The Chief of Defence Staff (CDS) was created to promote jointness among the Armed Forces.
3. Electronic Warfare involves only cyber operations conducted over computer networks.

Which of the statements given above is/are correct?

- (a) 1 only
(b) 1 and 2 only

(c) 2 and 3 only

(d) 1, 2 and 3

Answer: (b)

3. TEAM INDIA CLINCHES 3 GOLD, 1 SILVER AND 1 BRONZE AT GLOBAL SKILLS CHALLENGE AUSTRALIA 2026, BOOSTS WORLDSKILLS SHANGHAI PREPARATIONS



- Team India's outstanding performance at the Global Skills Challenge demonstrates the country's improving standards in technical and vocational skills.
- The competition provided participants with international exposure and benchmarking against global skill standards ahead of WorldSkills Shanghai 2026.
- The achievement highlights the success of India's skill development ecosystem in preparing a globally competitive workforce.
- International skill competitions foster innovation, practical expertise, and industry-relevant competencies among youth.

- Strong performance enhances India's reputation as an emerging hub for skilled human resources and advanced manufacturing.
- The initiative supports employment generation, productivity enhancement, and industry competitiveness.
- Skill development remains central to India's demographic dividend and economic transformation.
- The success reinforces the importance of industry-academia collaboration and continuous upskilling.

BACKGROUND / CONTEXT

WorldSkills Competition

- Organised by **WorldSkills International**.
- Known as the "**Olympics of Skills**."
- Conducted biennially.
- Brings together young skilled professionals from countries across the world to compete in various vocational skill categories.

Global Skills Challenge

- International preparatory competition held before the WorldSkills event.
- Enables participants to benchmark their performance against global standards.
- Helps countries evaluate readiness for the WorldSkills Competition.

Skill Development Ecosystem in India

- **Skill India Mission**
- **Pradhan Mantri Kaushal Vikas Yojana (PMKVY)**
- **National Skill Development Corporation (NSDC)**
- **National Skill Development Mission**
- **Industrial Training Institutes (ITIs)**
- **National Apprenticeship Promotion Scheme (NAPS)**

Importance of Skill Development

- Enhances employability.
- Supports manufacturing and services sectors.
- Promotes entrepreneurship.
- Improves productivity and innovation.
- Strengthens global competitiveness.

KEY HIGHLIGHTS

- **Achievement:** Team India secured 3 Gold, 1 Silver, and 1 Bronze medals.
- **Event:** Global Skills Challenge Australia 2026.
- **Purpose:** Preparatory competition for WorldSkills Shanghai 2026.
- **Strategic Significance:** Enhances India's global standing in vocational skills and technical excellence.
- **Economic Impact:** Supports skilled workforce development, employment generation, and industrial competitiveness.
- **Institutional Support:** Strengthens the objectives of Skill India and vocational education reforms.
- **Challenges:** Skill gaps, industry alignment, infrastructure quality, and regional disparities in vocational training.
- **Way Forward:** Expand industry partnerships, strengthen apprenticeship programmes, modernize skill training institutions, and promote international skill benchmarking.

PRELIMS BOOSTER BOX

- **WorldSkills International:** Global organization promoting vocational skills excellence.
- **WorldSkills Competition:** Biennial international vocational skills competition.
- **Popular Name:** "Olympics of Skills."
- **Skill India Mission:** Launched in 2015.
- **PMKVY:** Flagship skill development scheme for youth.
- **NSDC:** Public-private partnership promoting skill development.
- **NAPS:** National Apprenticeship Promotion Scheme encourages apprenticeship training.
- **ITI:** Industrial Training Institute providing vocational education.
- **Demographic Dividend:** Economic advantage arising from a large working-age population.
- **Vocational Education:** Training focused on occupation-specific practical skills.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. WorldSkills International organizes the biennial WorldSkills Competition.
2. The Global Skills Challenge serves as a preparatory event for the WorldSkills Competition.

3. The National Skill Development Corporation (NSDC) is one of the key institutions supporting skill development in India.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Answer: (d)

4.GOVERNMENT WITHDRAWS TEMPORARY RESTRICTIONS ON SALE AND DISTRIBUTION OF PETROL AND DIESEL



- The withdrawal of temporary restrictions marks the restoration of normal fuel supply and distribution across the country.
- The measures had been introduced as a precautionary step to ensure equitable availability of petroleum fuels during a period of heightened demand and logistical concerns.
- Lifting the restrictions reflects improved supply chain stability and adequate fuel availability.
- The decision is expected to facilitate smooth transportation, industrial operations, and economic activities dependent on petroleum products.
- Ensuring uninterrupted fuel availability is essential for maintaining energy security and supporting critical sectors of the economy.
- The move demonstrates the Government's flexible approach in managing temporary supply-side disruptions.

- Efficient petroleum logistics and inventory management remain crucial for preventing future supply constraints.
- Stable fuel distribution supports economic resilience and public confidence.

BACKGROUND / CONTEXT

Petrol and Diesel in India

- Petrol (Motor Spirit) and High-Speed Diesel (HSD) are the primary transportation fuels in India.
- They are supplied through a nationwide network of refineries, depots, terminals, and retail outlets.

Petroleum Supply Chain

- Crude oil imports.
- Refining.
- Storage in depots and terminals.
- Transportation through pipelines, railways, roads, and coastal shipping.
- Distribution to retail fuel outlets.

Energy Security

- I. Refers to the uninterrupted availability of energy at affordable prices.
- II. Involves:
 - A. Reliable supply
 - B. Adequate strategic reserves
 - C. Efficient logistics
 - D. Diversified energy sources

Strategic Petroleum Reserves (SPR)

- India maintains Strategic Petroleum Reserves to strengthen energy security during emergencies and supply disruptions.
- Managed by the **Indian Strategic Petroleum Reserves Limited (ISPRL)**.

KEY HIGHLIGHTS

- **Decision:** Withdrawal of temporary restrictions on petrol and diesel sale and distribution.
- **Objective:** Restore normal fuel availability and distribution.
- **Energy Security:** Ensures uninterrupted supply for transport, industry, and essential services.
- **Economic Impact:** Supports logistics, manufacturing, agriculture, and overall economic activity.

- **Supply Chain:** Reflects stabilization of petroleum logistics and inventory management.
- **Governance:** Demonstrates responsive regulatory intervention during supply disruptions.
- **Challenges:** Global crude oil price volatility, import dependence, and geopolitical risks.
- **Way Forward:** Strengthen strategic reserves, diversify energy sources, improve fuel logistics, and accelerate the transition towards cleaner energy.

PRELIMS BOOSTER BOX

- **Petrol:** Also known as **Motor Spirit (MS)**.
- **Diesel:** Officially referred to as **High-Speed Diesel (HSD)**.
- **India's Crude Oil Dependence:** India imports over **80%** of its crude oil requirement.
- **Strategic Petroleum Reserves (SPR):** Emergency crude oil reserves maintained for energy security.
- **ISPRL:** Indian Strategic Petroleum Reserves Limited.
- **Major SPR Locations:** Visakhapatnam, Mangaluru, and Padur.
- **Public Sector Oil Marketing Companies (OMCs):** Indian Oil Corporation, Bharat Petroleum Corporation Limited, and Hindustan Petroleum Corporation Limited.
- **Energy Security:** Reliable, affordable, and uninterrupted access to energy.
- **Oil Marketing Companies (OMCs):** Responsible for refining, distribution, and retail sale of petroleum products.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Strategic Petroleum Reserves are maintained to strengthen a country's energy security during supply disruptions.
2. High-Speed Diesel (HSD) is the official term used for diesel in India.
3. India meets its entire crude oil requirement through domestic production.

Which of the statements given above is/are correct?

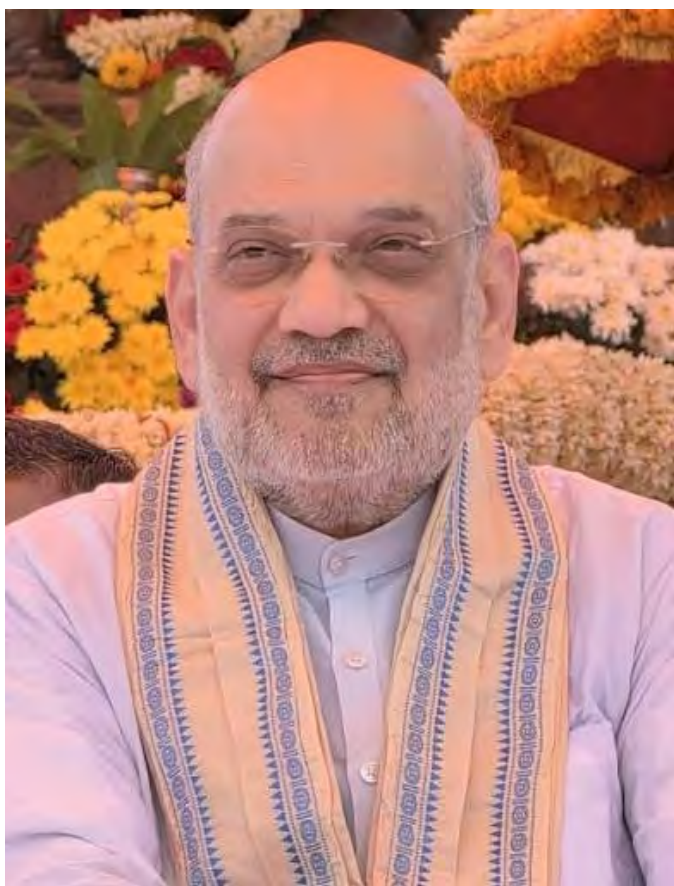
- (a) 1 only
(b) 1 and 2 only

(c) 2 and 3 only

(d) 1, 2 and 3

Answer: (b)

5. RAJASTHAN AND HARYANA SIGN YAMUNA WATER PROJECT AGREEMENT IN PRESENCE OF AMIT SHAH



- The Yamuna Water Project agreement marks a significant step in inter-state cooperation for equitable water distribution.
- The project is expected to enhance irrigation potential and improve drinking water availability in both states.
- It reflects a coordinated approach to addressing water scarcity and optimizing river basin management.
- The initiative strengthens cooperative federalism through joint infrastructure development.
- Efficient utilization of Yamuna river waters is critical for agricultural productivity and rural development.

- The project supports long-term water security and sustainable resource management.
- It also aims to reduce water stress in vulnerable regions through improved infrastructure.
- The agreement demonstrates the role of consensus-building in resolving inter-state water issues.

BACKGROUND / CONTEXT

Yamuna River System

- The Yamuna is a major tributary of the **Ganga River system**.
- Originates from the **Yamunotri Glacier** in the **Uttarakhand Himalayas**.
- Flows through Haryana, Delhi, Uttar Pradesh, and Rajasthan catchment areas before merging with the Ganga at Prayagraj.

Inter-State River Water Sharing

- I. Governed under provisions of:
 - A. Article 262 of the Constitution (dispute resolution)
 - B. Inter-State River Water Disputes Act, 1956
- II. Focuses on equitable distribution of river waters among states.

Importance of Water Management

- Agriculture-dependent economy requires reliable irrigation.
- Drinking water supply is essential for urban and rural populations.
- Industrial demand is increasing water stress.
- Climate variability necessitates efficient water resource planning.

Cooperative Federalism

- Emphasizes collaboration between Centre and States.
- Ensures coordinated planning and implementation of development projects.
- Helps resolve resource-sharing disputes amicably.

KEY HIGHLIGHTS

- **Project:** Yamuna Water Project agreement between Rajasthan and Haryana.
- **Objective:** Improve irrigation and drinking water availability.
- **Facilitated by:** Union Government in presence of Home Minister.

- **Governance Model:** Cooperative federalism in inter-state water sharing.
- **Strategic Importance:** Enhances water security and agricultural productivity.
- **River Basin Management:** Promotes efficient use of Yamuna river waters.
- **Challenges:** Water scarcity, upstream-downstream conflicts, climate variability, and infrastructure gaps.
- **Way Forward:** Strengthen basin-level planning, invest in water conservation, promote efficient irrigation, and enhance inter-state coordination.

PRELIMS BOOSTER BOX

- **Yamuna River:** Tributary of the Ganga River.
- **Source:** Yamunotri Glacier, Uttarakhand.
- **Mouth:** Joins Ganga at Prayagraj.
- **Article 262:** Parliament may provide for adjudication of inter-state river disputes.
- **Inter-State River Water Disputes Act, 1956:** Legal framework for resolving water disputes.
- **Cooperative Federalism:** Centre-State collaboration in governance.
- **Drip Irrigation:** Water-efficient irrigation method reducing water wastage.
- **Watershed Management:** Sustainable management of land and water resources in a drainage basin.
- **Canal Irrigation:** Artificial channels used to distribute water for agriculture.
- **River Basin:** Area drained by a river and its tributaries.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Yamuna River originates from the Yamunotri Glacier in Uttarakhand.
2. Article 262 of the Constitution deals with inter-state river water dispute resolution.
3. The Yamuna River is a tributary of the Brahmaputra River.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Answer: (b)

1. UNION MINISTRY OF HEALTH AND FAMILY WELFARE PROPOSES AMENDMENTS TO MEDICAL DEVICES RULES, 2017 TO STREAMLINE LICENSING PROCESS



- The proposed amendments are intended to simplify the licensing framework for medical devices by reducing procedural complexities.
- The reforms aim to create a transparent, efficient, and predictable regulatory environment for manufacturers and importers.
- Streamlined licensing is expected to reduce compliance costs and accelerate the availability of quality medical devices.
- The amendments support the growth of India's medical technology sector and encourage domestic manufacturing under **Make in India**.
- A robust regulatory framework is essential to ensure patient safety and maintain quality standards.
- The reforms align with the Government's objective of promoting innovation while strengthening regulatory oversight.
- Improved regulatory processes are expected to attract investments and enhance India's competitiveness in the global medical devices market.
- The initiative contributes to strengthening healthcare infrastructure and improving access to medical technologies.

BACKGROUND / CONTEXT

Medical Devices Rules, 2017

- Framed under the **Drugs and Cosmetics Act, 1940**.
- Came into force on **1 January 2018**.

- Regulate the manufacture, import, clinical investigation, sale, and distribution of medical devices in India.
- Adopt a **risk-based classification** for medical devices.

Risk Classification of Medical Devices

- **Class A:** Low Risk
- **Class B:** Low-Moderate Risk
- **Class C:** Moderate-High Risk
- **Class D:** High Risk

Central Drugs Standard Control Organisation (CDSCO)

- India's National Regulatory Authority for drugs and medical devices.
- Responsible for licensing, regulation, and ensuring quality and safety standards.
- Functions under the Ministry of Health and Family Welfare.

Medical Devices Sector in India

- Covers products such as diagnostic equipment, implants, surgical instruments, imaging systems, and in-vitro diagnostic devices.
- Identified as a priority sector under **Make in India**.
- Plays a vital role in strengthening healthcare delivery and medical innovation.

KEY HIGHLIGHTS

- **Regulatory Reform:** Proposed amendments to the Medical Devices Rules, 2017.
- **Primary Objective:** Streamline licensing and simplify regulatory procedures.
- **Ease of Doing Business:** Reduce compliance burden and improve regulatory efficiency.
- **Patient Safety:** Maintain stringent standards for quality, safety, and efficacy.
- **Industrial Growth:** Promote domestic manufacturing and innovation in the medical devices sector.
- **Investment Promotion:** Improve the regulatory ecosystem to attract investment.
- **Challenges:** Regulatory capacity, technological advancements, post-market surveillance, and quality assurance.
- **Way Forward:** Strengthen digital licensing systems, enhance regulatory harmonization

with global standards, improve post-market monitoring, and support indigenous medical device manufacturing.

PRELIMS BOOSTER BOX

- **Medical Devices Rules: 2017** (effective from 1 January 2018).
- **Parent Legislation: Drugs and Cosmetics Act, 1940.**
- **Regulator: Central Drugs Standard Control Organisation (CDSCO).**
- **Risk Classification:** Class A, B, C, and D.
- **Class A:** Low-risk devices.
- **Class D:** High-risk devices.
- **Medical Device:** Instrument, apparatus, implant, reagent, or software intended for medical purposes.
- **In-vitro Diagnostic (IVD):** Medical device used to examine samples such as blood or tissue outside the human body.
- **Post-Market Surveillance:** Monitoring the safety and performance of medical devices after commercialization.
- **Make in India:** Initiative promoting domestic manufacturing and investment.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Medical Devices Rules, 2017 are framed under the Drugs and Cosmetics Act, 1940.
2. The Central Drugs Standard Control Organisation (CDSCO) is India's national regulatory authority for medical devices.
3. Under the Medical Devices Rules, Class D devices are classified as low-risk medical devices.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Answer: (b)

2. UNION MINISTER FOR RURAL DEVELOPMENT SHIVRAJ SINGH CHOUHAN LAUNCHES AI-ENABLED 'RURAL INTERNAL AUDIT PORTAL' AT "RASHTRIYA GRAMIN VIKAS SAMMELAN"



- The AI-enabled Rural Internal Audit Portal has been launched to modernize the internal audit system for rural development programmes.
- Artificial Intelligence will assist in identifying financial irregularities, improving risk assessment, and enabling timely corrective actions.
- The portal is expected to enhance transparency, accountability, and data-driven decision-making in programme implementation.
- Digital auditing will improve monitoring of public expenditure and strengthen governance at various administrative levels.
- The initiative aligns with the Government's vision of leveraging emerging technologies for efficient public administration.
- AI-enabled audits can reduce manual errors, improve compliance, and ensure optimal utilization of public funds.
- The portal supports evidence-based governance and promotes greater public trust in rural development programmes.
- It represents an important step towards digital transformation in rural governance and public financial management.

BACKGROUND / CONTEXT

Internal Audit

- Internal audit is an independent and systematic process to evaluate financial management, compliance, and operational efficiency.
- It helps ensure transparency, accountability, and effective utilization of public resources.

Artificial Intelligence (AI) in Governance

- I. AI enables automated data analysis, pattern recognition, predictive analytics, and anomaly detection.
- II. Applications include:
 - A. Financial audits
 - B. Public service delivery
 - C. Fraud detection
 - D. Decision support
 - E. Resource allocation
 - F. Monitoring and evaluation

Ministry of Rural Development

- Responsible for planning and implementing rural development programmes.
- Focuses on poverty alleviation, livelihood generation, rural infrastructure, and social protection.

Major Rural Development Programmes

- **Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)**
- **Pradhan Mantri Awaas Yojana – Gramin (PMAY-G)**
- **Deendayal Antyodaya Yojana – National Rural Livelihoods Mission (DAY-NRLM)**
- **Pradhan Mantri Gram Sadak Yojana (PMGSY)**

KEY HIGHLIGHTS

- **Launch:** AI-enabled Rural Internal Audit Portal.
- **Objective:** Strengthen transparency, accountability, and financial oversight in rural development programmes.
- **Technology:** Artificial Intelligence for automated audit and risk assessment.
- **Governance Impact:** Improves monitoring, compliance, and utilization of public funds.
- **Administrative Efficiency:** Enables data-driven auditing and faster identification of irregularities.
- **Digital Transformation:** Promotes technology-enabled rural governance.

- **Challenges:** Data quality, cybersecurity, AI adoption, digital capacity, and infrastructure gaps.
- **Way Forward:** Strengthen digital infrastructure, build AI capacity, ensure data security, and integrate advanced analytics into public financial management.

PRELIMS BOOSTER BOX

- **Nodal Ministry:** Ministry of Rural Development.
- **Internal Audit:** Independent evaluation of financial and operational processes.
- **Artificial Intelligence (AI):** Technology enabling machines to perform tasks requiring human intelligence.
- **Predictive Analytics:** Use of historical data to forecast future outcomes.
- **Risk-Based Audit:** Audit approach focusing on areas with higher probability of financial or operational risks.
- **MGNREGS:** Legal guarantee of at least **100 days** of wage employment to eligible rural households.
- **PMAY-G:** Rural housing scheme for providing pucca houses.
- **DAY-NRLM:** Rural livelihoods mission promoting Self-Help Groups (SHGs).
- **PMGSY:** Programme for all-weather rural road connectivity.
- **Good Governance Principles:** Transparency, accountability, efficiency, responsiveness, and participation.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Internal audit primarily aims to improve transparency, accountability, and operational efficiency.
2. Artificial Intelligence can assist audit systems by identifying anomalies and supporting risk assessment.
3. The Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) guarantees at least 100 days of wage employment to every urban household.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Answer: (b)

3. PRIME MINISTER HONoured WITH 'GUARDIAN OF THE BLUE HORIZON' PRESIDENTIAL DISTINCTION



- The Presidential Distinction reflects the growing strategic partnership between India and Cyprus.
- The honour acknowledges India's expanding global engagement and contribution to peace, diplomacy, and sustainable development.
- India and Cyprus are strengthening cooperation in trade, investment, maritime affairs, digital innovation, education, and tourism.
- The visit reaffirmed the commitment of both countries to deepen political, economic, and people-to-people ties.
- Cyprus holds strategic importance due to its location in the Eastern Mediterranean and its membership in the European Union.
- Enhanced bilateral engagement supports India's broader outreach to Europe and the Mediterranean region.
- The recognition highlights India's increasing diplomatic profile and its role as a trusted global partner.
- The visit contributes to stronger cooperation in regional stability, connectivity, and economic development.

BACKGROUND / CONTEXT

India-Cyprus Relations

- I. India and Cyprus established diplomatic relations in **1962**.
- II. Bilateral cooperation includes:
 - A. Trade and investment

- B. Maritime cooperation
- C. Education
- D. Tourism
- E. Information Technology
- F. Financial services
- G. Culture

Strategic Importance of Cyprus

- Located in the **Eastern Mediterranean**.
- Member of the **European Union (EU)** since **2004**.
- Serves as a gateway for trade and investment between Europe, Asia, and the Middle East.
- Important partner in maritime connectivity and regional cooperation.

India's Engagement with Europe

- Expanding trade and investment partnerships.
- Strengthening connectivity and supply chains.
- Promoting cooperation in digital technologies, clean energy, and innovation.
- Enhancing strategic partnerships with European countries.

Blue Economy

- Refers to the sustainable use of ocean and marine resources for economic growth while conserving marine ecosystems.
- Covers sectors such as shipping, fisheries, marine renewable energy, coastal tourism, and marine biotechnology.

KEY HIGHLIGHTS

- **Honour:** 'Guardian of the Blue Horizon' Presidential Distinction.
- **Awarding Country:** Cyprus.
- **Recognition:** Contribution to strengthening India-Cyprus relations and international cooperation.
- **Strategic Significance:** Reinforces India's engagement with Europe and the Mediterranean region.
- **Bilateral Cooperation:** Trade, investment, maritime affairs, digital technologies, education, and tourism.
- **Diplomatic Impact:** Enhances political trust and long-term strategic partnership.

- **Blue Economy:** Offers opportunities for maritime cooperation and sustainable economic development.
- **Way Forward:** Expand economic collaboration, strengthen maritime partnerships, promote innovation, and deepen people-to-people exchanges.

PRELIMS BOOSTER BOX

- **Country:** Cyprus.
- **Capital:** Nicosia.
- **Region:** Eastern Mediterranean.
- **EU Membership:** Since **2004**.
- **Currency:** Euro (€).
- **Blue Economy:** Sustainable use of ocean resources for economic growth and environmental conservation.
- **India–Cyprus Diplomatic Relations:** Established in **1962**.
- **Mediterranean Sea:** Connects Europe, Asia, and Africa through important maritime trade routes.
- **Exclusive Economic Zone (EEZ):** Maritime zone extending up to **200 nautical miles** from the baseline under the United Nations Convention on the Law of the Sea.
- **UNCLOS:** International legal framework governing the use of oceans and marine resources.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Cyprus is a member of the European Union.
2. The Blue Economy promotes the sustainable use of ocean resources for economic development.
3. Under UNCLOS, the Exclusive Economic Zone (EEZ) extends up to 100 nautical miles from a country's baseline.

Which of the statements given above is/are correct?

- (a) 1 only
(b) 1 and 2 only
(c) 2 and 3 only
(d) 1, 2 and 3

Answer: (b)

4. DIKSHA: POWERING INDIA'S DIGITAL LEARNING ECOSYSTEM



Digital Infrastructure for Knowledge Sharing

- DIKSHA has emerged as India's flagship Digital Public Infrastructure (DPI) for school education, providing accessible, multilingual, and curriculum-aligned learning resources.
- The platform supports students, teachers, and administrators through e-content, assessments, teacher training, and digital certificates.
- Integration with QR-coded textbooks enables blended learning and enhances classroom teaching.
- DIKSHA promotes equitable access to quality education by supporting online, offline, and multilingual learning.
- The platform aligns with the objectives of **NEP 2020** by fostering digital literacy, competency-based education, and technology integration.
- It strengthens teacher professional development through continuous digital training and certification.
- DIKSHA contributes to improving learning outcomes while reducing geographical and socio-economic barriers to education.
- The initiative reflects India's commitment to building an inclusive, technology-driven education ecosystem.

BACKGROUND / CONTEXT

What is DIKSHA?

- **DIKSHA (Digital Infrastructure for Knowledge Sharing)** is India's national digital platform for school education.
- Launched in **2017**.
- Developed by the **Ministry of Education**.
- Provides digital learning resources for students, teachers, parents, and school administrators.

Key Features

- Curriculum-aligned digital content.
- QR code-enabled textbooks (**Energized Textbooks**).
- Teacher training and certification.
- Interactive assessments.
- Multilingual educational resources.
- Offline access to learning content.

National Education Policy (NEP) 2020

- Promotes technology integration in education.
- Encourages digital learning and blended education.
- Focuses on equitable access, foundational literacy, and competency-based learning.

Related Digital Education Initiatives

- **PM eVIDYA**
- **SWAYAM**
- **SWAYAM PRABHA**
- **National Digital Education Architecture (NDEAR)**
- **e-Pathshala**
- **NIPUN Bharat Mission**

KEY HIGHLIGHTS

- **Flagship Platform:** DIKSHA is India's national digital platform for school education.
- **Primary Objective:** Provide accessible, high-quality, curriculum-aligned digital learning resources.
- **Beneficiaries:** Students, teachers, parents, and school administrators.
- **Technology Integration:** QR-enabled textbooks, digital assessments, teacher training, and multilingual content.
- **Educational Impact:** Supports blended learning, teacher capacity building, and improved learning outcomes.
- **Policy Linkage:** Contributes to the implementation of NEP 2020 and Digital India.

- **Challenges:** Digital divide, internet connectivity, device availability, and digital literacy.
- **Way Forward:** Expand digital infrastructure, improve multilingual content, strengthen teacher training, and ensure universal access to digital learning.

PRELIMS BOOSTER BOX

- **DIKSHA:** Digital Infrastructure for Knowledge Sharing.
- **Launch Year: 2017.**
- **Nodal Ministry:** Ministry of Education.
- **NEP 2020:** National Education Policy emphasizing technology-enabled learning.
- **PM eVIDYA:** Integrated digital education initiative launched in **2020**.
- **SWAYAM:** National online learning platform for higher education and lifelong learning.
- **SWAYAM PRABHA:** DTH channels providing educational content.
- **NDEAR:** National Digital Education Architecture.
- **e-Pathshala:** Digital repository of NCERT educational resources.
- **Energized Textbooks:** QR code-enabled textbooks linked to digital learning content.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. DIKSHA is a national digital platform designed primarily for school education.
2. DIKSHA supports QR code-enabled textbooks linked to digital learning resources.
3. The National Education Policy (NEP) 2020 encourages the integration of technology into education.

Which of the statements given above is/are correct?

- (a) 1 only
(b) 1 and 2 only
(c) 2 and 3 only
(d) 1, 2 and 3

Answer: (d)

5. UNION MINISTER OF COMMERCE AND INDUSTRY PIYUSH GOYAL LEADS HIGH-LEVEL BUSINESS DELEGATION TO GREECE FOLLOWING SUCCESSFUL UK ENGAGEMENTS



- The high-level visit focuses on expanding India–Greece economic relations through greater trade, investment, and industry collaboration.
- Discussions are expected to enhance cooperation in sectors such as infrastructure, shipping, logistics, renewable energy, tourism, startups, and technology.
- Business-to-business engagement is intended to promote investment opportunities and strengthen commercial partnerships.
- The visit reflects India's strategy of diversifying trade partnerships and expanding its economic footprint in Europe.
- Enhanced cooperation with Greece can improve connectivity and facilitate India's integration with European and Mediterranean markets.
- The engagement supports resilient supply chains and encourages collaboration in emerging and high-growth sectors.
- The visit also strengthens diplomatic and economic ties under India's broader engagement with Europe.
- Sustained economic cooperation can contribute to increased bilateral trade, innovation, and long-term strategic partnership.

BACKGROUND / CONTEXT

India–Greece Relations

- I. India and Greece maintain friendly diplomatic relations based on shared democratic values and mutual cooperation.
- II. Bilateral cooperation covers:
 - A. Trade and investment
 - B. Shipping and maritime affairs
 - C. Tourism
 - D. Renewable energy
 - E. Pharmaceuticals
 - F. Information Technology
 - G. Defence and security
 - H. Culture and education

Importance of Greece

- Strategic location connecting Europe, Asia, and Africa.
- Gateway to the Mediterranean and European markets.
- Major global maritime and shipping hub.
- Important partner under India's engagement with Europe.

Economic Cooperation

- Promotion of bilateral trade and investments.
- Business collaborations in logistics and infrastructure.
- Cooperation in innovation, startups, and digital technologies.
- Expansion of clean energy partnerships.

India's Trade Diversification Strategy

- Strengthening economic partnerships with European countries.
- Expanding export markets.
- Enhancing global value chain integration.
- Promoting investment-led growth.

KEY HIGHLIGHTS

- **High-Level Visit:** Commerce Minister led an Indian business delegation to Greece.
- **Primary Objective:** Strengthen bilateral trade, investment, and business cooperation.
- **Priority Sectors:** Shipping, logistics, infrastructure, renewable energy, tourism, technology, and startups.
- **Strategic Significance:** Expands India's economic engagement with Europe and the Mediterranean region.
- **Business Engagement:** Encourages industry partnerships and investment opportunities.

- **Economic Impact:** Supports trade diversification, resilient supply chains, and export growth.
- **Challenges:** Market access, regulatory coordination, logistics costs, and global economic uncertainties.
- **Way Forward:** Deepen institutional cooperation, facilitate business exchanges, promote innovation partnerships, and strengthen connectivity initiatives.

Answer: (b)

PRELIMS BOOSTER BOX

- **Capital of Greece:** Athens.
- **Currency:** Euro (€).
- **Member of:** European Union (EU), NATO.
- **Strategic Importance:** Gateway to Europe and the Eastern Mediterranean.
- **Mediterranean Sea:** Connects Europe, Asia, and Africa through major maritime trade routes.
- **Piraeus Port:** One of the largest ports in the Mediterranean.
- **Blue Economy:** Sustainable use of ocean resources for economic growth and environmental conservation.
- **Global Value Chains (GVCs):** International production networks spread across multiple countries.
- **Trade Diversification:** Expanding trade with multiple markets to reduce dependence on a limited number of partners.
- **Logistics:** Planning and management of the movement of goods and services across supply chains.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Greece is a member of both the European Union and NATO.
2. Greece occupies a strategically important position connecting Europe, Asia, and Africa through the Mediterranean region.
3. The Blue Economy focuses exclusively on offshore oil and gas exploration.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

1. HONOURING THE BRAVEHEARTS



- India has established a comprehensive framework to recognize the bravery and supreme sacrifice of its Armed Forces through gallantry awards, war memorials, and commemorative initiatives.
- National memorials and museums preserve the legacy of military personnel while promoting patriotism and public awareness.
- Gallantry awards recognize exceptional courage displayed during war and peacetime operations.
- The Government has undertaken several initiatives to document, preserve, and disseminate the stories of India's bravehearts.
- These efforts strengthen civil-military relations and foster national unity and respect for the Armed Forces.
- Honouring military personnel reinforces the values of duty, courage, sacrifice, and service to the nation.
- The initiatives also contribute to preserving India's military history for future generations.
- The backgrounder reflects the importance of recognizing the Armed Forces as a cornerstone of national security.

BACKGROUND / CONTEXT

Gallantry Awards in India

India's gallantry awards are divided into **wartime** and **peacetime** categories.

Wartime Gallantry Awards

- **Param Vir Chakra** – Highest wartime gallantry award.
- **Maha Vir Chakra**
- **Vir Chakra**

Peacetime Gallantry Awards

- **Ashoka Chakra**
- **Kirti Chakra**
- **Shaurya Chakra**

National War Memorial

- Located near India Gate in **New Delhi**.
- Inaugurated on **25 February 2019**.
- Honors members of the Armed Forces who made the supreme sacrifice in service of the nation.
- It features the **Amar Chakra, Veerta Chakra, Tyag Chakra**, and **Rakshak Chakra**.

National War Museum

- Planned to preserve and showcase India's military heritage, campaigns, and sacrifices.
- Intended to complement the National War Memorial.

Importance of Military Commemoration

- Preserves national memory.
- Recognizes sacrifices made by defence personnel.
- Promotes patriotism and civic responsibility.
- Inspires future generations to serve the nation.

KEY HIGHLIGHTS

- **National Recognition:** India honours military personnel through gallantry awards and national memorials.
- **War Memorial:** National War Memorial commemorates the supreme sacrifice of Armed Forces personnel.
- **Gallantry Awards:** Recognize extraordinary courage during war and peace.
- **National Security:** Reinforces public appreciation for the role of the Armed Forces.
- **Military Heritage:** Preserves historical records and stories of military operations and heroes.
- **Civic Significance:** Promotes patriotism, national integration, and respect for defence services.
- **Challenges:** Documentation, preservation of military history, and increasing public awareness.
- **Way Forward:** Strengthen military museums, digital archives, educational outreach, and initiatives to preserve India's military legacy.

PRELIMS BOOSTER BOX

- **Highest Wartime Gallantry Award:** Param Vir Chakra.
- **Second Highest Wartime Award:** Maha Vir Chakra.
- **Third Highest Wartime Award:** Vir Chakra.
- **Highest Peacetime Gallantry Award:** Ashoka Chakra.
- **National War Memorial:** Inaugurated on **25 February 2019** in New Delhi.
- **War Memorial Circles:** Amar Chakra, Veerta Chakra, Tyag Chakra, Rakshak Chakra.
- **Supreme Commander of the Armed Forces:** President of India.
- **Armed Forces Flag Day:** 7 December.
- **Kargil Vijay Diwas:** 26 July.
- **Armed Forces Veterans Day:** 14 January.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Param Vir Chakra is India's highest wartime gallantry award.
2. Ashoka Chakra is awarded for the highest degree of gallantry during peacetime.
3. The National War Memorial is located in New Delhi.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Answer: (d)

2.PRIME MINISTER SHARES AN ARTICLE ON INDIA SEEKING TO PLACE THE GLOBAL SOUTH AT THE CENTRE OF GLOBAL ENERGY FUTURE



United Nations Framework Convention on Climate Change

- India advocates an inclusive global energy transition that addresses the developmental needs of the Global South while advancing climate goals.
- The country is promoting renewable energy, green hydrogen, and sustainable technologies through international partnerships.
- India's approach emphasizes **energy access, affordability, energy security, and sustainability** as interconnected priorities.
- Platforms such as the International Solar Alliance and Global Biofuels Alliance reflect India's commitment to South-South cooperation.
- The initiative seeks to bridge financing and technology gaps faced by developing countries in their clean energy transition.
- India's leadership reinforces the principle of **Common but Differentiated Responsibilities and Respective Capabilities (CBDR-RC)** in addressing climate change.
- The strategy strengthens India's position as a leading voice of the Global South in global climate and energy governance.
- It contributes to sustainable development, energy security, and inclusive economic growth.

BACKGROUND / CONTEXT

What is the Global South?

- Refers to developing and emerging economies primarily located in Asia, Africa, Latin America, and Oceania.
- These countries often share common developmental challenges such as energy access, climate vulnerability, poverty, and infrastructure deficits.
- The term is socio-economic rather than purely geographical.

India's Energy Transition

India is pursuing a diversified clean energy strategy through:

- Renewable Energy Expansion
- National Green Hydrogen Mission
- Biofuels Promotion
- Electric Mobility
- Energy Efficiency Programmes

Major International Initiatives

- **International Solar Alliance (ISA)**
- **Global Biofuels Alliance (GBA)**
- **Coalition for Disaster Resilient Infrastructure (CDRI)**
- **One Sun, One World, One Grid (OSOWOG)**

Energy Trilemma

The energy transition seeks to balance:

- **Energy Security**
- **Energy Affordability**
- **Environmental Sustainability**

CBDR-RC Principle

- Enshrined under the **United Nations Framework Convention on Climate Change (UNFCCC)**.
- Recognizes that all countries share responsibility for addressing climate change, but developed countries have greater historical responsibility and capabilities.

KEY HIGHLIGHTS

- **Global Leadership:** India advocates an equitable energy transition for the Global South.
- **Clean Energy:** Focus on renewable energy, green hydrogen, biofuels, and clean technologies.
- **International Cooperation:** Strengthening South-South collaboration through global partnerships.
- **Climate Justice:** Promotes equity, affordability, and differentiated responsibilities.
- **Energy Security:** Supports diversified and resilient energy systems.
- **Developmental Impact:** Enhances sustainable growth, energy access, and economic resilience in developing countries.
- **Challenges:** Climate finance gaps, technology access, infrastructure deficits, and energy inequality.
- **Way Forward:** Expand climate finance, strengthen technology transfer, deepen international partnerships, and accelerate renewable energy deployment.

PRELIMS BOOSTER BOX

- **Global South:** Collective term for developing and emerging economies.
- **International Solar Alliance (ISA):** Launched by India and France during **COP21 (2015)**.

- **ISA Headquarters:** **Gurugram**.
- **Global Biofuels Alliance:** Launched during the **G20 Summit 2023** under India's Presidency.
- **National Green Hydrogen Mission:** Approved in **2023**.
- **UNFCCC:** Adopted in **1992** at the Rio Earth Summit.
- **CBDR-RC:** Common but Differentiated Responsibilities and Respective Capabilities.
- **Energy Trilemma:** Balancing energy security, affordability, and sustainability.
- **OSOWOG:** One Sun, One World, One Grid—initiative for global solar energy connectivity.
- **CDRI:** Coalition for Disaster Resilient Infrastructure, launched in **2019**.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The International Solar Alliance was jointly launched by India and France.
2. The principle of Common but Differentiated Responsibilities and Respective Capabilities (CBDR-RC) is associated with the UNFCCC.
3. The term "Global South" refers exclusively to countries located in the Southern Hemisphere.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Answer: (b)

3.UNION COMMERCE MINISTER PIYUSH GOYAL URGES COMPANIES TO BUILD ON INDIA-UK CETA MOMENTUM THROUGH SUSTAINED BUSINESS ENGAGEMENT



- The Commerce Minister called upon businesses to actively utilize the opportunities created by the India–UK CETA to deepen bilateral economic relations.
- The agreement is expected to enhance trade in goods and services, promote investment flows, and improve market access for businesses in both countries.
- CETA aims to reduce trade barriers, strengthen supply chains, and foster collaboration in emerging sectors such as technology, innovation, and green industries.
- Greater business-to-business engagement will support employment generation, export growth, and industrial competitiveness.
- The agreement reflects India's strategy of expanding high-quality trade partnerships with major global economies.
- Enhanced economic cooperation is expected to contribute to resilient global value chains and diversified trade networks.
- The partnership also reinforces India's vision of becoming a global manufacturing and investment hub.
- Successful implementation will depend on industry participation, regulatory cooperation, and continuous stakeholder engagement.

BACKGROUND / CONTEXT

What is a Comprehensive Economic and Trade Agreement (CETA)?

- A Comprehensive Economic and Trade Agreement is a broad-based trade agreement covering:
 - Trade in goods
 - Trade in services
 - Investment
 - Intellectual Property Rights (IPR)
 - Digital Trade
 - Government Procurement
 - Rules of Origin
 - Customs Cooperation
 - Sustainable Development

India–UK Economic Relations

- The United Kingdom is an important trading and investment partner of India.

- Bilateral cooperation spans trade, education, technology, defence, clean energy, financial services, healthcare, and innovation.
- Both countries are working to strengthen economic integration through CETA.

Benefits of CETA

- Improved market access.
- Reduction or elimination of tariffs.
- Increased foreign investment.
- Enhanced services trade.
- Stronger global value chain integration.
- Greater regulatory cooperation.
- Improved ease of doing business.

India's Trade Strategy

- Expansion of Free Trade Agreements (FTAs) and Comprehensive Economic Partnerships.
- Diversification of export markets.
- Promotion of manufacturing under **Make in India**.
- Integration into global supply chains.

KEY HIGHLIGHTS

- **Agreement:** India–UK Comprehensive Economic and Trade Agreement (CETA).
- **Objective:** Expand bilateral trade, investment, and economic cooperation.
- **Business Focus:** Encourage sustained industry engagement to maximize benefits.
- **Trade Impact:** Improved market access and reduced trade barriers.
- **Investment:** Greater opportunities for cross-border investments and business partnerships.
- **Strategic Importance:** Strengthens India's trade diversification and global competitiveness.
- **Challenges:** Regulatory harmonization, implementation, MSME awareness, and utilization of agreement provisions.
- **Way Forward:** Promote industry outreach, strengthen trade facilitation, support MSMEs, and enhance innovation-driven bilateral collaboration.

PRELIMS BOOSTER BOX

- **CETA:** *Comprehensive Economic and Trade Agreement.*
- **FTA:** *Free Trade Agreement.*

- **Rules of Origin:** Criteria used to determine the national source of a product for preferential tariff treatment.
- **Tariff:** Tax imposed on imported goods.
- **Non-Tariff Barriers (NTBs):** Regulations or standards that restrict international trade without imposing tariffs.
- **Global Value Chains (GVCs):** International production networks where different stages of production occur across countries.
- **Make in India:** Initiative launched in **2014** to promote manufacturing and investment.
- **Ease of Doing Business:** Measures the regulatory environment affecting business operations.
- **Services Trade:** Includes sectors such as IT, finance, education, healthcare, and professional services.
- **Trade Facilitation:** Simplification and modernization of customs and border procedures.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. A Comprehensive Economic and Trade Agreement (CETA) generally covers trade in goods, services, investment, and other economic cooperation areas.
2. Rules of Origin determine whether a product qualifies for preferential treatment under a trade agreement.
3. Non-Tariff Barriers refer exclusively to customs duties imposed on imported goods.

Which of the statements given above is/are correct?

- (a) 1 only
(b) 1 and 2 only
(c) 2 and 3 only
(d) 1, 2 and 3

Answer: (b)

4.ON THE EVE OF DOCTOR'S DAY, DR. JITENDRA SINGH ILLUMINATES THE PRACTICE OF PRECISION MEDICINE IN THE FUTURE



- Precision Medicine is an emerging healthcare approach that tailors prevention, diagnosis, and treatment based on an individual's genetic, environmental, and lifestyle characteristics.
- The approach moves beyond the conventional "one-size-fits-all" model of treatment, enabling more accurate and effective medical interventions.
- Advances in genomics, artificial intelligence, big data analytics, and biotechnology are accelerating the adoption of precision medicine.
- Personalized therapies can improve treatment outcomes while minimizing adverse drug reactions.
- Precision medicine has significant applications in cancer treatment, rare diseases, cardiovascular disorders, and infectious diseases.
- India's expanding biotechnology ecosystem and genomic research initiatives are strengthening its capabilities in this field.
- The approach is expected to improve healthcare quality, innovation, and long-term disease management.
- Precision medicine represents a major step toward technology-driven, evidence-based, and patient-centric healthcare.

BACKGROUND / CONTEXT

What is Precision Medicine?

- I. Precision Medicine is a medical approach that customizes healthcare based on an individual's:
 - A. Genetic profile
 - B. Environment
 - C. Lifestyle
- II. It aims to provide the right treatment to the right patient at the right time.

Key Technologies

- **Genomics**
- **Artificial Intelligence (AI)**
- **Machine Learning**
- **Bioinformatics**
- **Big Data Analytics**
- **Biotechnology**

Applications

- Cancer treatment
- Rare genetic disorders
- Cardiovascular diseases
- Diabetes management
- Infectious disease surveillance
- Pharmacogenomics

Genome India Project

- National initiative to create a comprehensive database of India's genetic diversity.
- Supports biomedical research and development of personalized healthcare solutions.

Benefits of Precision Medicine

- Early disease detection.
- Improved diagnostic accuracy.
- Personalized drug therapies.
- Reduced adverse drug reactions.
- Better preventive healthcare.
- Improved clinical outcomes.

KEY HIGHLIGHTS

- **Core Concept:** Personalized healthcare based on genetic, environmental, and lifestyle factors.
- **Technology Drivers:** Genomics, AI, biotechnology, and data analytics.
- **Healthcare Impact:** Improves diagnosis, treatment precision, and disease prevention.
- **Research Significance:** Strengthens biomedical innovation and translational research.

- **Economic Potential:** Promotes biotechnology, pharmaceutical innovation, and digital health industries.
- **Public Health Relevance:** Supports evidence-based and patient-centric healthcare delivery.
- **Challenges:** High costs, genomic data privacy, ethical concerns, skilled manpower, and infrastructure gaps.
- **Way Forward:** Expand genomic research, strengthen digital health infrastructure, promote ethical governance, and improve accessibility of precision medicine.

PRELIMS BOOSTER BOX

- **Precision Medicine:** Personalized healthcare based on genetic, environmental, and lifestyle factors.
- **Genomics:** Study of an organism's complete set of genes (genome).
- **Genome India Project:** National initiative to map India's genetic diversity.
- **Pharmacogenomics:** Study of how genes influence an individual's response to medicines.
- **Bioinformatics:** Application of computational tools to biological data.
- **Artificial Intelligence (AI):** Enables predictive analytics and clinical decision support.
- **National Doctor's Day:** Observed annually on **1 July** in India in honour of Bidhan Chandra Roy.
- **Biotechnology:** Use of biological systems and organisms to develop useful products and technologies.
- **Whole Genome Sequencing (WGS):** Technique used to determine the complete DNA sequence of an organism.
- **Personalized Medicine:** Another term commonly used for precision medicine.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Precision Medicine customizes treatment based on an individual's genetic, environmental, and lifestyle characteristics.
2. Pharmacogenomics studies how genetic variations influence an individual's response to drugs.
3. The Genome India Project aims to create a database of India's genetic diversity.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Answer: (d)

5.DIGITAL INDIA NEARS 11 YEARS, DRIVING INDIA'S NEXT PHASE OF TECHNOLOGY-LED GROWTH THROUGH ARTIFICIAL INTELLIGENCE, SEMICONDUCTOR MANUFACTURING, DIGITAL PUBLIC INFRASTRUCTURE AND AFFORDABLE DIGITAL CONNECTIVITY



- Since its launch in **2015**, the Digital India Programme has transformed governance, public service delivery, and digital inclusion across the country.
- The next phase focuses on frontier technologies such as AI, semiconductor manufacturing, and Digital Public Infrastructure to enhance economic competitiveness.
- Expansion of affordable broadband, digital payments, and e-governance has strengthened financial inclusion and citizen-centric governance.
- India is developing a robust semiconductor ecosystem to reduce import dependence and strengthen technological self-reliance.
- AI is being promoted to improve productivity, innovation, healthcare, agriculture, education, and public administration.

- Digital Public Infrastructure has emerged as a global model for secure, scalable, and interoperable digital governance.
- The initiative supports the vision of **Aatmanirbhar Bharat** and **Viksit Bharat 2047** by promoting innovation-led growth.
- Continued investments in digital infrastructure and emerging technologies are expected to enhance India's global competitiveness.

BACKGROUND / CONTEXT

Digital India Programme

- Launched on **1 July 2015**.
- Implemented by the **Ministry of Electronics and Information Technology (MeitY)**.
- Vision:
 - Digital infrastructure as a core utility to every citizen.
 - Governance and services on demand.
 - Digital empowerment of citizens.

Digital Public Infrastructure (DPI)

India's DPI ecosystem includes:

- Aadhaar
- UPI
- DigiLocker
- CoWIN
- FASTag
- ONDC
- Government e-Marketplace (GeM)

Artificial Intelligence (AI)

- AI enables machines to perform tasks requiring human intelligence.
- Applications include healthcare, education, agriculture, manufacturing, governance, finance, and defence.
- India is promoting AI through the **IndiaAI Mission**.

Semiconductor Mission

- The **India Semiconductor Mission (ISM)** was launched in **2021**.
- Aims to establish a comprehensive semiconductor and display manufacturing ecosystem.
- Supports chip fabrication, design, packaging, and research.

Affordable Digital Connectivity

- Expansion of **BharatNet**.
- Growth of 4G and 5G networks.
- Promotion of public Wi-Fi through **PM-WANI**.
- Improved internet accessibility in rural and remote areas.

KEY HIGHLIGHTS

- **Digital India:** Completing 11 years of technology-driven governance and digital transformation.
- **AI Ecosystem:** Promoting innovation, productivity, and responsible adoption of Artificial Intelligence.
- **Semiconductor Manufacturing:** Building indigenous chip manufacturing capabilities under the India Semiconductor Mission.
- **Digital Public Infrastructure:** Strengthening platforms such as Aadhaar, UPI, DigiLocker, and ONDC.
- **Digital Connectivity:** Expanding broadband access and affordable internet services.
- **Economic Impact:** Enhances innovation, employment, entrepreneurship, and global competitiveness.
- **Challenges:** Digital divide, cybersecurity, data privacy, semiconductor supply chains, and skilled workforce requirements.
- **Way Forward:** Increase investments in frontier technologies, strengthen cybersecurity, promote digital literacy, and expand indigenous manufacturing capabilities.

PRELIMS BOOSTER BOX

- **Digital India Launch: 1 July 2015.**
- **Nodal Ministry:** Ministry of Electronics and Information Technology (MeitY).
- **IndiaAI Mission:** National initiative for AI innovation and computing infrastructure.
- **India Semiconductor Mission (ISM):** Launched in **2021**.
- **DPI:** Digital Public Infrastructure.
- **UPI:** Developed by the National Payments Corporation of India (NPCI).
- **BharatNet:** Rural broadband connectivity programme.
- **PM-WANI:** Prime Minister Wi-Fi Access Network Interface.
- **ONDC:** Open Network for Digital Commerce.

- **Semiconductor:** Material with electrical conductivity between a conductor and an insulator; used in integrated circuits and electronic devices.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The India Semiconductor Mission aims to develop a domestic semiconductor manufacturing ecosystem.
2. Digital Public Infrastructure (DPI) includes platforms such as Aadhaar, UPI, and DigiLocker.
3. BharatNet is a programme to expand broadband connectivity in rural areas.

Which of the statements given above is/are correct?

- (a) 1 only
(b) 1 and 2 only
(c) 2 and 3 only
(d) 1, 2 and 3

Answer: (d)

1. FROM ENTERPRISE TO EMPOWERMENT: THE MSME STORY



- The MSME sector has emerged as one of the key pillars of India's economic development, contributing significantly to GDP, manufacturing output, and exports.
- Government initiatives have focused on improving access to finance, technology, skill development, formalization, and market access for MSMEs.
- Digital platforms and policy reforms have enhanced ease of doing business and expanded opportunities for small enterprises.
- The sector plays a crucial role in promoting balanced regional development by generating employment in rural and semi-urban areas.
- MSMEs are central to the vision of **Aatmanirbhar Bharat**, strengthening domestic manufacturing and global competitiveness.
- The backgrounder highlights the importance of innovation, digitalization, and sustainability in transforming MSMEs into globally competitive enterprises.
- Strengthening the MSME ecosystem is essential for achieving inclusive, resilient, and employment-intensive economic growth.
- Continued policy support will help MSMEs integrate into global value chains and contribute to India's long-term development goals.

BACKGROUND / CONTEXT

What is an MSME?

Under the revised classification (effective from **1 July 2020**), MSMEs are classified based on **investment in plant & machinery/equipment** and **annual turnover**.

Category	Investment	Annual Turnover
Micro Enterprise	Up to ₹2.5 crore	Up to ₹10 crore
Small Enterprise	Up to ₹25 crore	Up to ₹100 crore
Medium Enterprise	Up to ₹125 crore	Up to ₹500 crore

Contribution of MSMEs

- Contribute about **30% of India's GDP**.
- Account for around **36% of India's merchandise exports**.
- Employ over **20 crore people**, making MSMEs the second-largest source of employment after agriculture.
- Play a vital role in manufacturing, services, handicrafts, and rural industrialization.

Major Government Initiatives

- **PM Vishwakarma**
- **Prime Minister's Employment Generation Programme (PMEGP)**
- **Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE)**
- **Udyam Registration Portal**
- **Raising and Accelerating MSME Performance (RAMP) Scheme**
- **Public Procurement Policy for MSEs**
- **MSME Champions Portal**

Challenges Faced by MSMEs

- Limited access to affordable credit.
- Technology gaps and low productivity.
- Delayed payments.
- Limited export competitiveness.
- Informal business practices.
- Skill shortages.

KEY HIGHLIGHTS

- **Economic Contribution:** MSMEs are major contributors to GDP, exports, and employment.
- **Employment Generation:** Largest non-agricultural source of employment in India.

- **Formalization:** Udyam Registration has improved the formal recognition of MSMEs.
- **Financial Inclusion:** Credit guarantee schemes improve access to institutional finance.
- **Digital Transformation:** Digital platforms facilitate market access, e-commerce, and business compliance.
- **Inclusive Development:** Promotes entrepreneurship among women, youth, artisans, SC/STs, and rural communities.
- **Challenges:** Credit constraints, technological adoption, delayed payments, and global competition.
- **Way Forward:** Expand digital adoption, improve credit availability, strengthen innovation ecosystems, promote cluster development, and integrate MSMEs into global value chains.

PRELIMS BOOSTER BOX

- **Ministry:** Ministry of Micro, Small and Medium Enterprises.
- **MSME Classification:** Based on investment and annual turnover (revised from 1 July 2020).
- **Udyam Registration:** Online registration portal for MSMEs.
- **CGTMSE:** Credit Guarantee Fund Trust for Micro and Small Enterprises.
- **PMEGP:** Prime Minister's Employment Generation Programme.
- **RAMP Scheme:** Raising and Accelerating MSME Performance.
- **MSME Champions Portal:** ICT-based grievance redressal and support platform.
- **Public Procurement Policy:** Mandates procurement from Micro and Small Enterprises by Central Ministries/CPSEs.
- **Aatmanirbhar Bharat:** Promotes self-reliance through domestic manufacturing and enterprise development.
- **Cluster Development:** Strategy to improve competitiveness through geographical concentration of enterprises.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. MSMEs in India are classified based on investment and annual turnover.
2. Udyam Registration is the official online registration system for MSMEs.

3. The RAMP Scheme is aimed at improving the performance and competitiveness of MSMEs.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Answer: (d)

2.GOVERNMENT EXPLORING ROADMAP TO MAKE GREEN UREA PRODUCTION A REALITY IN INDIA



- The Government is examining technological and policy pathways to establish Green Urea production using renewable energy-based Green Hydrogen.
- Conventional urea production relies on natural gas, making it energy-intensive and carbon-emitting, whereas Green Urea can substantially reduce greenhouse gas emissions.
- The initiative supports India's objective of reducing dependence on imported fossil fuels and enhancing energy security.
- Green Urea can contribute to sustainable agriculture by promoting environmentally responsible fertilizer production.
- The roadmap complements the objectives of the National Green Hydrogen Mission and India's net-zero commitment.
- Domestic production of Green Urea can improve fertilizer security and reduce import dependence on ammonia and feedstock.
- The initiative is expected to encourage innovation, investment, and industrial

development in the green hydrogen ecosystem.

- It represents a convergence of climate action, energy transition, industrial policy, and agricultural sustainability.

BACKGROUND / CONTEXT

What is Green Urea?

- Green Urea is urea produced using **Green Hydrogen** and **Green Ammonia** instead of hydrogen derived from fossil fuels.
- It significantly lowers the carbon footprint of fertilizer manufacturing.
- The final product (urea) remains chemically the same; the difference lies in the production process.

How is Conventional Urea Produced?

- Hydrogen is produced from **Natural Gas** through **Steam Methane Reforming (SMR)**.
- Hydrogen reacts with atmospheric nitrogen to produce **Ammonia (NH₃)** through the **Haber-Bosch Process**.
- Ammonia reacts with carbon dioxide to produce **Urea [CO(NH₂)₂]**.

How is Green Urea Produced?

- Renewable electricity powers **electrolysis** to split water into hydrogen and oxygen.
- The resulting **Green Hydrogen** combines with nitrogen to produce **Green Ammonia**.
- Green Ammonia is then converted into urea using carbon dioxide from sustainable sources.

National Green Hydrogen Mission

- Launched in **2023**.
- Aims to make India a global hub for the production, utilization, and export of Green Hydrogen.
- Supports decarbonization of industries such as fertilizers, steel, refining, and transport.

Benefits of Green Urea

- Reduces greenhouse gas emissions.
- Promotes energy security.
- Supports sustainable agriculture.
- Encourages renewable energy integration.
- Reduces dependence on imported fossil fuels.

KEY HIGHLIGHTS

- **Primary Objective:** Develop a roadmap for Green Urea production in India.
- **Core Technology:** Production using Green Hydrogen and Green Ammonia.
- **Climate Significance:** Reduces carbon emissions from fertilizer manufacturing.
- **Agricultural Impact:** Supports sustainable and secure fertilizer availability.
- **Energy Security:** Reduces reliance on imported natural gas and ammonia.
- **Industrial Significance:** Promotes growth of India's green hydrogen ecosystem.
- **Challenges:** High production costs, infrastructure requirements, renewable energy availability, and technological scalability.
- **Way Forward:** Scale up renewable energy capacity, promote Green Hydrogen investments, incentivize low-carbon fertilizer production, and strengthen research and development.

PRELIMS BOOSTER BOX

- **Green Hydrogen:** Hydrogen produced using renewable electricity through electrolysis.
- **Green Ammonia:** Ammonia synthesized using Green Hydrogen and atmospheric nitrogen.
- **Urea Formula:** $\text{CO}(\text{NH}_2)_2$.
- **Ammonia Formula:** NH_3 .
- **Electrolysis:** Process of splitting water into hydrogen and oxygen using electricity.
- **Haber-Bosch Process:** Industrial process for manufacturing ammonia from nitrogen and hydrogen.
- **Steam Methane Reforming (SMR):** Conventional method of producing hydrogen from natural gas.
- **National Green Hydrogen Mission:** Launched in 2023.
- **Net Zero Target:** India aims to achieve net-zero emissions by 2070.
- **Major Nutrient in Urea:** Nitrogen (46%), making it the most widely used nitrogenous fertilizer.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Green Hydrogen is produced by electrolysis of water using renewable electricity.
2. The Haber-Bosch Process is used for the industrial production of ammonia.

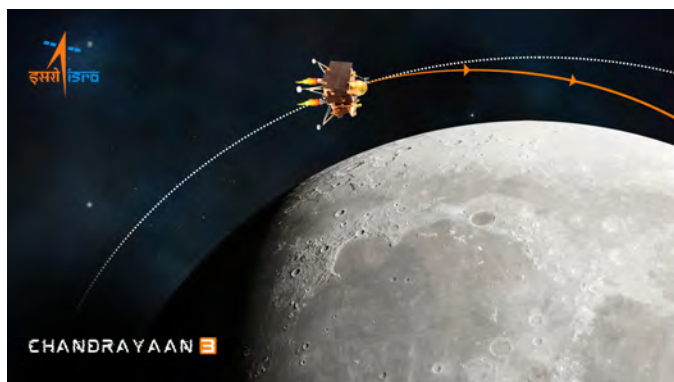
3. Green Urea differs from conventional urea in its chemical composition.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Answer: (b)

3.AI, NUCLEAR, SPACE, QUANTUM TECHNOLOGIES TO DETERMINE CONTOURS OF FUTURE GROWTH AND GLOBAL COMPETITIVENESS: DR JITENDRA SINGH



- The Minister emphasized that frontier technologies such as AI, nuclear energy, space technology, and quantum computing will be the primary drivers of India's future economic transformation.
- These technologies are expected to enhance productivity, innovation, national security, and industrial competitiveness.
- The Government is promoting research, innovation, and startup ecosystems to accelerate technological advancement.
- Investments in frontier technologies are critical for achieving technological sovereignty and reducing dependence on foreign technologies.
- The focus aligns with India's objectives of becoming a global innovation hub and knowledge economy.
- Emerging technologies are expected to transform sectors such as healthcare, agriculture, manufacturing, defence, education, and governance.

- Public-private partnerships, skilled human resources, and robust research infrastructure will be key to realizing these ambitions.
- The initiative supports India's long-term vision of sustainable, innovation-led, and globally competitive economic growth.

BACKGROUND / CONTEXT

Artificial Intelligence (AI)

- AI refers to the capability of machines to perform tasks that normally require human intelligence.
- Applications include healthcare, education, agriculture, finance, governance, defence, and manufacturing.
- India launched the **IndiaAI Mission** to strengthen AI infrastructure, innovation, and skill development.

Nuclear Technology

- Nuclear technology is used for electricity generation, healthcare, agriculture, food preservation, and scientific research.
- India follows a **three-stage nuclear power programme** proposed by Homi Jehangir Bhabha.
- Civil nuclear energy contributes to India's clean energy transition.

Space Technology

- India has emerged as a major spacefaring nation through the efforts of Indian Space Research Organisation.
- Applications include communication, navigation, disaster management, weather forecasting, agriculture, and national security.
- Space sector reforms have expanded private sector participation.

Quantum Technology

- Quantum technology utilizes principles of quantum mechanics for advanced computing, communication, and sensing.
- Potential applications include cryptography, drug discovery, climate modelling, financial modelling, and defence.
- India launched the **National Quantum Mission** in **2023** to build indigenous quantum capabilities.

Importance of Frontier Technologies

- Enhance economic productivity.

- Strengthen national security.
- Promote technological self-reliance.
- Generate high-skilled employment.
- Improve global competitiveness.
- Accelerate digital transformation.

KEY HIGHLIGHTS

- **Growth Drivers:** AI, Nuclear, Space, and Quantum technologies identified as strategic sectors for future growth.
- **Innovation Ecosystem:** Emphasis on research, startups, academia-industry collaboration, and technology commercialization.
- **Strategic Importance:** Strengthens national security, technological sovereignty, and economic resilience.
- **Economic Impact:** Boosts productivity, exports, industrial modernization, and knowledge-based industries.
- **Governance Applications:** Enables better public service delivery through advanced digital technologies.
- **Global Competitiveness:** Positions India as an emerging technology leader in frontier innovation.
- **Challenges:** High R&D costs, talent shortages, infrastructure gaps, cybersecurity concerns, and ethical governance.
- **Way Forward:** Increase R&D investment, strengthen industry-academia partnerships, develop skilled manpower, and promote responsible innovation through supportive regulatory frameworks.

PRELIMS BOOSTER BOX

- **IndiaAI Mission:** National initiative to strengthen AI innovation and computing infrastructure.
- **National Quantum Mission:** Approved in 2023 to promote quantum computing, communication, sensing, and materials.
- **ISRO:** India's national space agency under the Department of Space.
- **Quantum Computing:** Uses qubits instead of classical bits for computation.
- **Artificial Intelligence:** Simulation of human intelligence by machines.

- **Three-Stage Nuclear Programme:** Proposed by Homi J. Bhabha to utilize India's thorium reserves.
- **Small Modular Reactors (SMRs):** Advanced nuclear reactors with lower generating capacity and enhanced safety features.
- **Quantum Cryptography:** Secure communication based on principles of quantum mechanics.
- **Deep Tech:** Technology based on substantial scientific or engineering innovation.
- **Viksit Bharat 2047:** Vision to transform India into a developed nation by 2047.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The National Quantum Mission aims to promote quantum computing, communication, sensing, and related technologies in India.
2. India's three-stage nuclear power programme was proposed by Homi Jehangir Bhabha.
3. Artificial Intelligence applications are limited to the information technology sector.

Which of the statements given above is/are correct?

- (a) 1 only
(b) 1 and 2 only
(c) 2 and 3 only
(d) 1, 2 and 3

Answer: (b)

4.INDIA REAFFIRMS COMMITMENT TO WOMEN-LED DEVELOPMENT AT SCO WOMEN'S FORUM 2026, BISHKEK



- India reiterated its commitment to shifting from **women's development** to **women-led**

development, placing women at the centre of policymaking and economic growth.

- The delegation showcased flagship initiatives aimed at enhancing women's participation in entrepreneurship, education, digital access, financial inclusion, and governance.
- Discussions focused on strengthening women's role in sustainable development, innovation, climate resilience, and economic transformation.
- India emphasized inclusive growth through skill development, self-help groups, and digital public infrastructure.
- The forum provided an opportunity to exchange best practices among SCO member states on gender-responsive policies.
- Women's empowerment was highlighted as a key driver of economic productivity, social progress, and inclusive governance.
- The participation reflects India's broader commitment to Sustainable Development Goals (SDGs) and international cooperation on gender equality.
- The event strengthens India's engagement within the Shanghai Cooperation Organisation beyond traditional areas of security and regional cooperation.

BACKGROUND / CONTEXT

Shanghai Cooperation Organisation (SCO)

- The SCO is a Eurasian political, economic, and security organization established in **2001**.
- India became a **full member in 2017**.
- The organization promotes regional cooperation in security, trade, connectivity, culture, and people-to-people exchanges.

SCO Women's Forum

- A platform for dialogue and cooperation among SCO member states on women's empowerment.
- Encourages exchange of best practices in entrepreneurship, education, innovation, leadership, and social inclusion.
- Promotes greater participation of women in economic and public life.

Women-Led Development

- Moves beyond welfare-oriented approaches by recognizing women as leaders, entrepreneurs, innovators, and decision-makers.
- Focuses on enhancing women's participation in governance, economic activities, science, technology, and leadership.

Major Government Initiatives for Women

- **Beti Bachao Beti Padhao (BBBP)**
- **Mission Shakti**
- **Pradhan Mantri Mudra Yojana (PMMY)**
- **Stand-Up India Scheme**
- **DAY-NRLM (Self-Help Groups)**
- **Lakhpati Didi Initiative**
- **Digital India initiatives for financial inclusion**

KEY HIGHLIGHTS

- **International Platform:** India participated in the SCO Women's Forum 2026 in Bishkek.
- **Core Theme:** Promotion of women-led development and inclusive growth.
- **Policy Focus:** Entrepreneurship, financial inclusion, digital empowerment, leadership, and skill development.
- **Global Cooperation:** Strengthened collaboration among SCO member countries on gender equality.
- **Economic Significance:** Greater women's participation contributes to higher productivity and sustainable growth.
- **Social Impact:** Promotes inclusive governance, education, and community development.
- **Challenges:** Gender gaps in workforce participation, digital access, financial inclusion, and leadership representation.
- **Way Forward:** Enhance education, digital literacy, entrepreneurship support, access to finance, and leadership opportunities for women.

PRELIMS BOOSTER BOX

- **SCO:** Shanghai Cooperation Organisation.
- **Established:** 2001.
- **Headquarters:** Beijing.
- **India's Membership:** Full member since 2017.
- **Current Members:** China, India, Kazakhstan, Kyrgyzstan, Pakistan, Russia, Tajikistan, Uzbekistan, Iran, and Belarus.

- **Women-Led Development:** Policy approach that positions women as active agents of development and leadership.
- **SDG 5:** Achieve gender equality and empower all women and girls.
- **Mission Shakti:** Umbrella scheme for women's safety, security, and empowerment.
- **DAY-NRLM:** Deendayal Antyodaya Yojana – National Rural Livelihoods Mission.
- **Lakhpati Didi:** Initiative to enable women in Self-Help Groups to earn an annual income of at least ₹1 lakh.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. India became a full member of the Shanghai Cooperation Organisation (SCO) in 2017.
2. Sustainable Development Goal (SDG) 5 relates to gender equality and women's empowerment.
3. The concept of women-led development emphasizes women only as beneficiaries of welfare schemes.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Answer: (b)

5. GOVERNMENT OPERATIONALISES JAN VISHWAS ACT REFORMS IN HEALTH SECTOR; RATIONALISES MINOR OFFENCES UNDER DRUGS, COSMETICS AND FOOD SAFETY LAWS



- The Government has implemented Jan Vishwas Act reforms to reduce criminal penalties for specified minor and technical violations in health-related laws.
- Certain procedural offences have been converted from criminal offences to civil penalties through an adjudication mechanism.
- Serious offences involving adulterated, spurious, unsafe drugs or food continue to attract stringent criminal punishment.
- The reforms aim to improve the ease of doing business while maintaining high standards of public health and consumer protection.
- The initiative promotes a trust-based regulatory framework by distinguishing procedural lapses from intentional violations.
- It is expected to reduce unnecessary litigation, improve regulatory efficiency, and encourage voluntary compliance.
- The reforms support legal simplification and modernization of India's regulatory ecosystem.
- The approach balances economic growth with effective health governance and public safety.

BACKGROUND / CONTEXT

Jan Vishwas (Amendment of Provisions) Act, 2023

- Enacted to improve **Ease of Doing Business (EoDB)** and **Ease of Living**.
- Amends **42 Central Acts** by decriminalising several minor and technical offences.
- Replaces imprisonment for specified procedural violations with monetary penalties and adjudication.

Drugs and Cosmetics Act, 1940

- Regulates the import, manufacture, distribution, and sale of drugs and cosmetics in India.
- Ensures the safety, efficacy, and quality of drugs and cosmetics.
- Administered by the **Central Drugs Standard Control Organisation (CDSCO)**.

Food Safety and Standards Act, 2006

- Consolidates laws relating to food safety.
- Establishes the Food Safety and Standards Authority of India as the apex food regulator.
- Ensures availability of safe and wholesome food for human consumption.

Decriminalisation vs Deregulation

- **Decriminalisation:** Removes criminal penalties for specified minor offences while retaining regulatory oversight.
- **Deregulation:** Reduces or removes regulatory controls altogether.

The Jan Vishwas Act focuses on **decriminalisation**, not deregulation.

Significance of the Reforms

- Reduces compliance burden for businesses.
- Promotes a trust-based regulatory regime.
- Improves administrative efficiency.
- Retains strict penalties for offences affecting public health.

KEY HIGHLIGHTS

- **Legislative Reform:** Operationalisation of Jan Vishwas Act provisions in the health sector.
- **Covered Laws:** Drugs and Cosmetics Act, 1940 and Food Safety and Standards Act, 2006.
- **Regulatory Approach:** Decriminalisation of minor procedural violations through civil penalties.
- **Public Health Protection:** Serious offences involving unsafe drugs and food remain criminal offences.
- **Ease of Doing Business:** Reduces unnecessary criminal litigation and compliance burden.
- **Governance Impact:** Encourages voluntary compliance and improves regulatory efficiency.
- **Challenges:** Ensuring uniform implementation, capacity building, and effective adjudication mechanisms.
- **Way Forward:** Strengthen digital compliance systems, improve regulatory awareness, ensure timely adjudication, and maintain strict enforcement against offences threatening public health.

PRELIMS BOOSTER BOX

- **Jan Vishwas (Amendment of Provisions) Act:** Enacted in **2023**.
- **Central Acts Amended: 42.**
- **Drugs and Cosmetics Act: 1940.**
- **Food Safety and Standards Act: 2006.**
- **FSSAI:** Statutory body established under the Food Safety and Standards Act, 2006.

- **CDSCO:** National regulatory authority for drugs and cosmetics in India.
- **Decriminalisation:** Replacement of criminal penalties with civil or administrative penalties for specified offences.
- **Adjudication:** Administrative mechanism for imposing civil penalties.
- **Ease of Doing Business (EoDB):** Measures the regulatory environment for businesses.
- **Consumer Protection:** Serious offences affecting public health continue to attract criminal penalties.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Jan Vishwas (Amendment of Provisions) Act, 2023 decriminalises certain minor procedural offences under various Central Acts.
2. The Food Safety and Standards Authority of India (FSSAI) was established under the Food Safety and Standards Act, 2006.
3. Under the Jan Vishwas Act reforms, offences involving adulterated and unsafe drugs are no longer punishable with criminal penalties.

Which of the statements given above is/are correct?

- (a) 1 only
(b) 1 and 2 only
(c) 2 and 3 only
(d) 1, 2 and 3

Answer: (b)

India

on the move



- The PIB backgrounder highlights India's rapid progress in physical and digital connectivity over the past decade.
- Investments in roads, railways, airports, ports, and logistics networks have enhanced mobility and reduced transaction costs.
- Modern infrastructure is strengthening economic competitiveness and supporting regional development.
- Improved connectivity is facilitating trade, tourism, employment generation, and market integration.
- Digital public infrastructure has complemented physical infrastructure by improving service delivery and governance efficiency.
- The initiative reflects a shift toward integrated multimodal transport systems and logistics-led growth.
- Infrastructure development is being positioned as a key driver of inclusive growth and national productivity.
- The broader objective is to create a seamless, efficient, and future-ready mobility ecosystem for citizens and businesses.

Infrastructure-Led Development Strategy

- Infrastructure is considered a key multiplier for economic growth.
- Investments in transport and logistics reduce costs and improve competitiveness.
- Better connectivity enhances regional balance and market access.

PM Gati Shakti National Master Plan

- Launched in 2021.
- Integrates infrastructure planning across ministries through a GIS-based platform.
- Promotes multimodal connectivity and coordinated project implementation.

National Logistics Policy (NLP), 2022

- Aims to reduce logistics costs and improve supply-chain efficiency.
- Supports seamless movement of goods through multimodal transport systems.

Digital Public Infrastructure (DPI)

India has developed globally recognized digital infrastructure including:

- Aadhaar
- UPI
- DigiLocker
- CoWIN

These platforms have improved governance, financial inclusion, and service delivery.

Multimodal Connectivity

- Integration of road, rail, air, inland waterways, and ports.
- Enhances efficiency and reduces transportation bottlenecks.
- Supports the vision of a unified national market.

KEY HIGHLIGHTS

- **Road Infrastructure:** Expansion of national highways and expressway networks improving regional connectivity.
- **Railway Modernization:** Introduction of semi-high-speed trains, station redevelopment, and network electrification.
- **Airport Expansion:** Growth of aviation infrastructure under the regional connectivity framework.
- **Port Development:** Strengthening maritime infrastructure and logistics efficiency.

- **Digital Connectivity:** Expansion of digital public infrastructure and e-governance platforms.
- **Economic Significance:** Lower logistics costs and improved ease of doing business.
- **Social Impact:** Better access to education, healthcare, markets, and public services.
- **Challenges:** Land acquisition, financing requirements, environmental concerns, and project execution delays.
- **Way Forward:** Accelerate multimodal integration, sustainable infrastructure financing, and technology-enabled project management.

PRELIMS BOOSTER BOX

- **PM Gati Shakti:** National Master Plan for multimodal connectivity launched in 2021.
- **National Logistics Policy:** Launched in 2022.
- **DPI:** Digital Public Infrastructure.
- **UPI:** Unified Payments Interface developed by National Payments Corporation of India.
- **Aadhaar:** World's largest biometric identity programme.
- **Bharatmala Pariyojana:** Highway development programme.
- **Sagarmala Programme:** Port-led development initiative.
- **UDAN:** Ude Desh ka Aam Nagrik scheme for regional air connectivity.
- **Multimodal Transport:** Integration of two or more modes of transport.
- **Logistics Cost:** Estimated as a percentage of GDP; lower logistics costs improve export competitiveness.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. PM Gati Shakti aims to integrate infrastructure planning across different ministries through a digital platform.
2. The National Logistics Policy seeks to improve logistics efficiency and reduce logistics costs.
3. Sagarmala Programme focuses primarily on railway electrification.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Answer: (b)

2.MINISTRY OF CULTURE COMMEMORATES 'SAMVIDHAN HATYA DIWAS'



- The Ministry of Culture observed 'Samvidhan Hatya Diwas' to remember the events associated with the declaration of Emergency in 1975.
- The commemoration aims to create awareness about the significance of constitutional governance and democratic institutions.
- It highlights the importance of safeguarding fundamental rights, civil liberties, and the rule of law.
- The Emergency period remains a critical chapter in India's constitutional and political history due to restrictions imposed on democratic freedoms.
- The observance encourages reflection on the need for institutional checks and balances in a democracy.
- It reinforces public understanding of constitutional values and citizen participation in democratic processes.
- The event also underscores the role of constitutional safeguards in protecting democratic governance.
- The broader message is to strengthen commitment to democracy, accountability, and constitutional morality.

BACKGROUND / CONTEXT

What is 'Samvidhan Hatya Diwas'?

- The Government of India decided to observe **25 June** as 'Samvidhan Hatya Diwas'.
- The day commemorates the proclamation of the Internal Emergency in India on 25 June 1975.

- It serves as a reminder of the importance of preserving democratic institutions and constitutional freedoms.

The Emergency (1975–1977)

- Emergency was declared under **Article 352** on the grounds of internal disturbance (term later replaced by "armed rebellion" through the 44th Constitutional Amendment).
- It remained in force from **25 June 1975 to 21 March 1977**.
- During this period, civil liberties were curtailed and political opposition faced significant restrictions.

Constitutional Provisions Related to Emergency

Article 352

- National Emergency due to war, external aggression, or armed rebellion.

Article 356

- President's Rule in States due to failure of constitutional machinery.

Article 360

- Financial Emergency.

44th Constitutional Amendment Act, 1978

- Introduced safeguards against misuse of Emergency provisions.
- Replaced the term "**internal disturbance**" with "**armed rebellion**".
- Strengthened protection of Fundamental Rights during emergencies.
- Made Emergency proclamation subject to stricter parliamentary approval.

Constitutional Morality

- Refers to adherence to constitutional principles, values, and procedures.
- Ensures that governmental power remains subject to constitutional limitations.

KEY HIGHLIGHTS

- **Historical Significance:** Marks the anniversary of the Emergency proclaimed on 25 June 1975.
- **Constitutional Focus:** Reinforces the importance of democracy, rule of law, and constitutional governance.
- **Fundamental Rights:** Highlights the need to protect civil liberties and democratic freedoms.

- **Institutional Relevance:** Emphasizes checks and balances within constitutional institutions.
- **Public Awareness:** Promotes understanding of constitutional history among citizens.
- **Democratic Values:** Encourages vigilance against concentration of power and erosion of freedoms.
- **Challenges:** Ensuring continuous public awareness regarding constitutional safeguards and democratic accountability.
- **Way Forward:** Strengthen constitutional literacy, civic education, and commitment to democratic institutions.

PRELIMS BOOSTER BOX

- **Article 352:** National Emergency.
- **Article 356:** President's Rule.
- **Article 360:** Financial Emergency.
- **Emergency Period:** 25 June 1975 – 21 March 1977.
- **44th Constitutional Amendment Act, 1978:** Introduced safeguards against misuse of Emergency powers.
- **Internal Disturbance:** Replaced by "Armed Rebellion" through the 44th Amendment.
- **Constitutional Morality:** Adherence to constitutional values and procedures.
- **Rule of Law:** No individual or authority is above the law.
- **Fundamental Rights:** Part III of the Constitution.
- **Basic Structure Doctrine:** Established by the Kesavananda Bharati Case.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The 44th Constitutional Amendment Act replaced the term "internal disturbance" with "armed rebellion" in Article 352.
2. Article 356 deals with Financial Emergency.
3. The Emergency declared in 1975 was proclaimed under Article 352.

Which of the statements given above is/are correct?

- (a) 1 only
(b) 1 and 3 only
(c) 2 and 3 only
(d) 1, 2 and 3

Answer: (b)

3.IAF GETS FINAL OPERATIONAL CLEARANCE OF INDIGENOUS AIRBORNE EARLY WARNING & CONTROL SYSTEM 'NETRA'



- Netra is an indigenous Airborne Early Warning and Control (AEW&C) system designed to provide airborne surveillance, threat detection, tracking, and command-and-control functions.
- The grant of Final Operational Clearance signifies successful completion of operational evaluation and readiness for full-scale deployment.
- The system enhances India's capability to detect aircraft, drones, missiles, and other aerial threats at long ranges.
- AEW&C platforms act as force multipliers by improving situational awareness and enabling network-centric warfare.
- Indigenous development reduces dependence on foreign surveillance systems and strengthens strategic autonomy.
- The programme contributes to the objectives of Aatmanirbhar Bharat in the defence sector.
- Enhanced airborne surveillance improves air defence preparedness, border security, and operational effectiveness of the armed forces.
- The achievement reflects India's growing technological capabilities in advanced defence electronics and radar systems.

BACKGROUND / CONTEXT

What is Netra AEW&C?

- Netra is an indigenous airborne surveillance and command platform developed by DRDO.
- It is mounted on an Embraer aircraft platform.

- The system integrates advanced radar, communication, identification, and electronic support measures.

Functions of AEW&C Systems

- Detection of enemy aircraft and missiles.
- Airspace monitoring and surveillance.
- Battle management and command functions.
- Identification of friendly and hostile targets.
- Coordination of air operations.

How Does It Work?

- The radar mounted on the aircraft scans large areas of airspace.
- Data collected is transmitted to command centres and operational units.
- Provides real-time situational awareness for military decision-making.

Difference Between AEW&C and AWACS

AEW&C	AWACS
Smaller platform	Larger platform
Tactical surveillance role	Strategic surveillance role
Lower operational cost	Higher operational capability and coverage
Suitable for regional operations	Suitable for extensive theatre operations

Defence Indigenization

- Supports Aatmanirbhar Bharat in defence manufacturing.
- Reduces import dependence for critical military technologies.
- Strengthens domestic defence research and development ecosystem.

KEY HIGHLIGHTS

- **Developing Agency:** DRDO in collaboration with the Indian Air Force.
- **Platform:** Indigenous Airborne Early Warning & Control (AEW&C) System 'Netra'.
- **Operational Status:** Granted Final Operational Clearance (FOC).

- **Primary Role:** Airborne surveillance, threat detection, tracking, and command-and-control.
- **Strategic Significance:** Enhances India's air defence and situational awareness capabilities.
- **Force Multiplier:** Improves effectiveness of fighter aircraft, air defence systems, and military operations.
- **Indigenization Impact:** Reduces reliance on imported airborne surveillance systems.
- **Challenges:** Need for larger coverage, advanced networking, and integration with future combat systems.
- **Way Forward:** Expansion of indigenous AEW&C fleet and development of next-generation airborne surveillance platforms.

PRELIMS BOOSTER BOX

- **AEW&C:** Airborne Early Warning and Control.
- **AWACS:** Airborne Warning and Control System.
- **Developed By:** DRDO.
- **User:** Indian Air Force.
- **Force Multiplier:** Capability that significantly enhances combat effectiveness without proportionately increasing force size.
- **Network-Centric Warfare:** Military operations enabled through integrated information and communication networks.
- **Radar:** Radio Detection and Ranging.
- **Aatmanirbhar Bharat:** Initiative to promote self-reliance across sectors, including defence.
- **Integrated Air Command and Control System (IACCS):** IAF's automated command and control network.
- **Electronic Support Measures (ESM):** Systems used to detect and identify electromagnetic emissions.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Netra is an indigenous Airborne Early Warning & Control (AEW&C) system developed by DRDO.
2. AEW&C systems provide airborne surveillance and command-and-control capabilities.
3. AWACS platforms generally provide wider surveillance coverage than AEW&C platforms.

Which of the statements given above is/are correct?

- (a) 1 only
(b) 1 and 2 only

(c) 2 and 3 only

(d) 1, 2 and 3

Answer: (d)

4.CALENDAR FOR AUCTION OF GOVERNMENT OF INDIA TREASURY BILLS (FOR THE QUARTER ENDING SEPTEMBER 2026)



- The auction calendar provides advance information regarding the issuance of Government of India Treasury Bills during the July–September 2026 quarter.
- Treasury Bills are short-term debt instruments issued by the Government to meet temporary financing requirements.
- The auctions are conducted by the RBI on behalf of the Government of India.
- Advance publication of the calendar improves transparency and predictability in financial markets.
- T-Bills play a crucial role in liquidity management and public debt management.
- The schedule assists banks, financial institutions, mutual funds, and investors in planning their investments.
- The Government and RBI retain flexibility to modify notified amounts depending on fiscal requirements and market conditions.
- Efficient debt management contributes to macroeconomic stability and smooth functioning of money markets.

BACKGROUND / CONTEXT

What are Treasury Bills (T-Bills)?

- Treasury Bills are short-term debt instruments issued by the Government of India.
- They are issued at a discount to face value and redeemed at par upon maturity.
- T-Bills do not carry periodic interest payments (zero-coupon securities).

Types of Treasury Bills

91-Day Treasury Bills

- Maturity period of 91 days.
- Primarily used for short-term liquidity management.

182-Day Treasury Bills

- Maturity period of 182 days.
- Popular among institutional investors.

364-Day Treasury Bills

- Maturity period of 364 days.
- Provides relatively higher returns among T-Bills.

Role of RBI

- RBI acts as the debt manager of the Central Government.
- Conducts auctions through electronic bidding platforms.
- Ensures orderly borrowing and market stability.

Government Securities (G-Secs)

- Treasury Bills are part of Government Securities.
- Unlike T-Bills, dated Government Securities have maturities extending beyond one year.

Auction Mechanism

- Conducted through competitive and non-competitive bidding.
- Retail investors can participate through the non-competitive bidding route.
- Auctions help determine market-based yields.

KEY HIGHLIGHTS

- **Issuing Authority:** Government of India in consultation with RBI.
- **Instrument Type:** Short-term Government Securities (Treasury Bills).
- **Maturity Categories:** 91-day, 182-day, and 364-day T-Bills.
- **Debt Management Role:** Helps finance short-term government funding requirements.
- **Market Significance:** Provides benchmark risk-free rates for financial markets.

- **Liquidity Management:** Assists RBI and Government in managing liquidity conditions.
- **Investor Base:** Banks, insurance companies, mutual funds, pension funds, and retail investors.
- **Challenges:** Interest rate volatility, liquidity fluctuations, and changing borrowing requirements.
- **Way Forward:** Strengthen debt market participation, improve retail access, and maintain transparent borrowing practices.

PRELIMS BOOSTER BOX

- **Treasury Bills:** Short-term debt instruments issued by the Government of India.
- **Issuer:** Government of India.
- **Auction Conducted By:** Reserve Bank of India.
- **Nature:** Zero-coupon securities.
- **Maturity Periods:** 91 days, 182 days, and 364 days.
- **Issued At:** Discount to face value.
- **Redeemed At:** Face value (Par).
- **Government Securities (G-Secs):** Include both Treasury Bills and Dated Securities.
- **Non-Competitive Bidding:** Route through which retail investors can participate in auctions.
- **Risk Profile:** Considered sovereign-backed and virtually risk-free in terms of default risk.
- **Money Market Instrument:** T-Bills are important instruments of the money market.
- **Debt Management:** Managed by RBI on behalf of the Central Government.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Treasury Bills are issued at a discount and redeemed at face value on maturity.
2. Treasury Bills carry periodic coupon payments to investors.
3. The Reserve Bank of India conducts Treasury Bill auctions on behalf of the Government of India.

Which of the statements given above is/are correct?

- (a) 1 only
(b) 1 and 3 only
(c) 2 and 3 only
(d) 1, 2 and 3

Answer: (b)

5. MINISTRY OF CIVIL AVIATION & DELHI INTERNATIONAL AIRPORT LIMITED LAUNCH AIR SUVIDHA 2.0 PORTAL FOR EBOLA HEALTH SCREENING AT POEs IN INDIA



Ministry of Civil Aviation Government of India

- Air Suvidha 2.0 is a digital health declaration and screening platform designed to support Ebola surveillance at international Points of Entry.
- The portal enables travellers to submit health information electronically before arrival, improving efficiency and reducing manual processing.
- It strengthens India's preparedness against cross-border transmission of infectious diseases.
- The platform facilitates real-time coordination among aviation authorities, airport operators, and public health agencies.
- Digital screening mechanisms enhance early detection, monitoring, and response to potential public health threats.
- The initiative reflects India's growing emphasis on technology-driven public health surveillance systems.
- Strengthened border health measures contribute to national health security and pandemic preparedness.
- The launch aligns with international obligations for disease surveillance under global health frameworks.

BACKGROUND / CONTEXT

What is Air Suvidha?

- Air Suvidha is a digital platform for health screening and traveller health declarations.
- It was initially developed to facilitate health monitoring of international passengers.
- The upgraded **Air Suvidha 2.0** incorporates enhanced screening and surveillance features.

What are Points of Entry (PoEs)?

- Points of Entry are designated locations where international travellers enter a country.
- These include:
 - International Airports
 - Seaports
 - Land Border Crossings
- Health screening measures are often implemented at PoEs during disease outbreaks.

Ebola Virus Disease (EVD)

- Ebola Virus Disease is a severe viral illness affecting humans and non-human primates.
- It is caused by viruses belonging to the genus **Ebolavirus**.
- The disease is characterized by fever, weakness, and multi-organ complications.
- Human-to-human transmission occurs through direct contact with infected bodily fluids.

International Health Regulations (IHR), 2005

- Legally binding framework developed by the World Health Organization.
- Aims to prevent and respond to international spread of diseases.
- Requires member countries to strengthen surveillance and response capacities at Points of Entry.

Digital Health Surveillance

- Utilizes digital platforms for disease monitoring and risk assessment.
- Enables rapid data collection and evidence-based public health responses.
- Enhances coordination among multiple stakeholders during health emergencies.

KEY HIGHLIGHTS

- **Launching Agencies:** Ministry of Civil Aviation and Delhi International Airport Limited (DIAL).
- **Platform:** Air Suvidha 2.0.

- **Primary Objective:** Ebola-related health screening and traveller surveillance.
- **Coverage:** International passengers arriving through designated Points of Entry.
- **Public Health Significance:** Strengthens early detection and monitoring of infectious diseases.
- **Digital Governance:** Promotes paperless and technology-driven health screening systems.
- **National Health Security:** Enhances preparedness against cross-border disease transmission.
- **Challenges:** Data integration, real-time monitoring, passenger compliance, and evolving disease risks.
- **Way Forward:** Expand digital surveillance capabilities, strengthen inter-agency coordination, and integrate advanced public health monitoring systems.

3. Points of Entry include international airports, seaports, and designated land border crossings.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Answer: (d)

PRELIMS BOOSTER BOX

- **EVD:** Ebola Virus Disease.
- **Causative Agent:** Virus of the genus *Ebolavirus*.
- **Reservoir Host:** Fruit bats are considered natural reservoirs.
- **Transmission:** Direct contact with infected bodily fluids.
- **Incubation Period:** Typically 2–21 days.
- **PoE:** Point of Entry (Airport, Seaport, or Land Border).
- **IHR (2005):** International Health Regulations administered by WHO.
- **WHO:** Specialized agency of the United Nations for international public health.
- **Surveillance:** Continuous collection, analysis, and interpretation of health data.
- **Health Declaration Form:** Traveller-provided information used for disease screening and risk assessment.
- **One Health Approach:** Integrates human, animal, and environmental health for disease prevention.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Ebola Virus Disease is caused by viruses belonging to the genus *Ebolavirus*.
2. International Health Regulations (2005) are administered by the World Health Organization.

1. VICE-PRESIDENT RELEASES BOOK "VIP CULTURE IN INDIA: POWER, PRIVILEGE AND THE DISTANCE FROM DEMOCRACY"



- The book examines the persistence of VIP culture in India and its impact on democratic governance.
- It highlights how excessive privileges and special treatment can create a disconnect between public institutions and citizens.
- The Vice-President stressed that democracy flourishes when public office is viewed as a responsibility rather than a privilege.
- The discussion reinforced constitutional principles of equality before law and equal access to public services.
- The publication contributes to debates on governance reforms, administrative ethics, and democratic accountability.
- It draws attention to the need for responsive institutions that remain accessible to ordinary citizens.
- The issue is significant for strengthening trust between citizens and the state.
- It aligns with broader efforts to promote transparency, good governance, and public service delivery.

BACKGROUND / CONTEXT

VIP Culture in India

- VIP culture refers to the practice of granting special privileges, preferential treatment, and

exclusive access to individuals holding public office or positions of influence.

- It is often viewed as inconsistent with democratic ideals of equality and inclusiveness.

Constitutional Foundation

India's constitutional framework emphasizes equality and rule of law.

- **Article 14:** Equality before law and equal protection of laws.
- **Article 15:** Prohibition of discrimination on specified grounds.
- **Article 16:** Equality of opportunity in matters of public employment.
- **Preamble:** Justice, Liberty, Equality, and Fraternity.

Administrative Reforms Against VIP Culture

- Removal of red beacons from vehicles of dignitaries (except emergency services) in 2017.
- Expansion of e-governance initiatives to reduce discretionary access.
- Citizen grievance redressal mechanisms.
- Focus on transparency and accountability in public administration.

Democratic Significance

- Public institutions derive legitimacy from serving citizens.
- Equal treatment strengthens trust in governance.
- Citizen-centric administration deepens democratic participation and accountability.

KEY HIGHLIGHTS

- **Core Theme:** Examines the relationship between power, privilege, and democratic values.
- **Constitutional Principle:** Reinforces equality before law as a cornerstone of Indian democracy.
- **Governance Perspective:** Advocates citizen-centric and accountable public administration.
- **Institutional Significance:** Encourages greater accessibility of public institutions.
- **Administrative Ethics:** Public office should be treated as a public trust rather than a source of privilege.

- **Democratic Relevance:** Highlights the importance of reducing barriers between citizens and decision-makers.
- **Challenges:** Persistence of hierarchical administrative practices and symbolic privileges.
- **Way Forward:** Promote transparency, accountability, responsiveness, and service-oriented governance.

PRELIMS BOOSTER BOX

- **Article 14:** Equality before law and equal protection of laws.
- **Article 15:** Prohibits discrimination on grounds of religion, race, caste, sex, or place of birth.
- **Article 16:** Equality of opportunity in public employment.
- **Rule of Law:** Concept popularized by A. V. Dicey.
- **Preamble Keywords:** Justice, Liberty, Equality, Fraternity.
- **2017 Reform:** Ban on red beacon vehicles for most dignitaries.
- **Good Governance Principles:** Transparency, accountability, participation, responsiveness, efficiency.
- **Citizen-Centric Governance:** Governance model prioritizing public welfare and service delivery.
- **Public Office as Public Trust:** Important principle of administrative ethics.
- **Fraternity:** Ensures dignity of the individual and unity and integrity of the nation.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Article 14 of the Constitution guarantees equality before law and equal protection of laws.
2. Citizen-centric governance emphasizes accessibility and accountability of public institutions.
3. The Constitution explicitly provides a special category of legal privileges for VIP citizens.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Answer: (b)

2.DISCUSSION PAPER ON METHODOLOGICAL APPROACHES FOR COMPILATION OF MONETARY ASSET ACCOUNTS OF COAL IN INDIA



- MoSPI has proposed a methodology to estimate the monetary value of India's coal resources through the compilation of Monetary Asset Accounts.
- The framework seeks to integrate natural resource wealth into national accounting systems.
- Coal, being India's dominant energy source, constitutes a significant component of the country's natural capital.
- The initiative will improve evidence-based policymaking regarding resource extraction, conservation, and sustainable development.
- Monetary valuation enables assessment of resource depletion and its economic implications over time.
- The framework aligns India with global practices under environmental-economic accounting systems.
- It can support long-term energy planning, fiscal policy, and sustainable resource management.
- The initiative represents a shift from measuring only economic output to accounting for natural wealth alongside conventional assets.

BACKGROUND / CONTEXT

What are Monetary Asset Accounts?

- Monetary Asset Accounts estimate the economic value of natural resources in monetary terms.
- They record changes in the value of assets due to extraction, discoveries, revaluation, and depletion.
- These accounts complement physical asset accounts, which measure quantities rather than value.

Natural Capital Accounting (NCA)

- Natural Capital refers to stocks of natural resources that provide economic and environmental benefits.
- Examples include coal, forests, minerals, water resources, and ecosystems.
- Natural Capital Accounting integrates environmental assets into economic accounting frameworks.

System of Environmental-Economic Accounting (SEEA)

- Developed by the United Nations Statistical Commission.
- Serves as the international standard for environmental-economic accounting.
- Links environmental information with economic statistics.

Coal Sector in India

- Coal remains the backbone of India's energy sector.
- India possesses the world's fifth-largest coal reserves.
- Coal contributes significantly to electricity generation, industrial production, and energy security.

Importance of Resource Valuation

- Helps quantify depletion of natural resources.
- Supports sustainable extraction policies.
- Facilitates intergenerational equity in resource management.
- Improves transparency in national wealth estimation.

KEY HIGHLIGHTS

- **Objective:** Develop a methodology for estimating the monetary value of coal assets in India.

- **Institutional Framework:** Led by the Ministry of Statistics and Programme Implementation under Natural Capital Accounting initiatives.
- **International Alignment:** Based on the System of Environmental-Economic Accounting (SEEA).
- **Policy Significance:** Supports evidence-based resource management and sustainable development planning.
- **Economic Relevance:** Enables incorporation of coal wealth into broader national wealth assessments.
- **Energy Security:** Assists long-term planning for India's energy transition and resource utilization.
- **Challenges:** Valuation complexities, price fluctuations, reserve estimation uncertainties, and environmental externalities.
- **Way Forward:** Strengthen environmental-economic accounting, improve resource valuation methodologies, and expand natural capital accounting to other sectors.

PRELIMS BOOSTER BOX

- **SEEA:** System of Environmental-Economic Accounting.
- **Developed By:** United Nations Statistical Commission.
- **Natural Capital:** Stock of natural resources yielding economic and ecological benefits.
- **Asset Account:** Records opening stock, additions, reductions, and closing stock of an asset.
- **Physical Asset Account:** Measures quantity (tonnes, hectares, cubic metres, etc.).
- **Monetary Asset Account:** Measures economic value of resources.
- **Natural Capital Accounting (NCA):** Integration of environmental assets into national accounts.
- **Coal Type Classification:** Anthracite, Bituminous, Sub-bituminous, Lignite.
- **India's Energy Mix:** Coal remains the largest source of electricity generation.
- **Resource Depletion:** Reduction in natural resource stock due to extraction exceeding replenishment.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

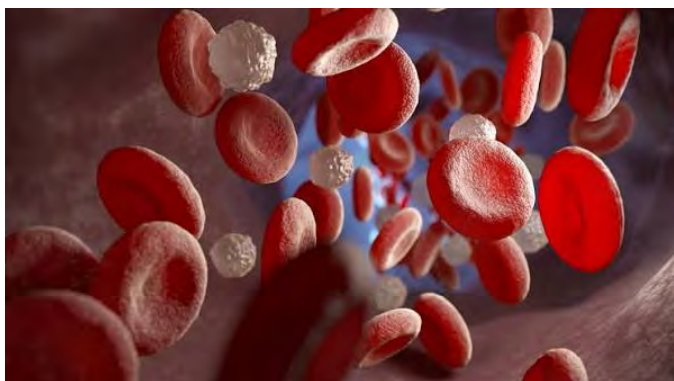
1. Monetary Asset Accounts estimate the economic value of natural resources in monetary terms.
2. The System of Environmental-Economic Accounting (SEEA) is an internationally recognized framework for integrating environmental and economic data.
3. Physical Asset Accounts record only the monetary value of natural resources.

Which of the statements given above is/are correct?

- (a) 1 only
(b) 1 and 2 only
(c) 2 and 3 only
(d) 1, 2 and 3

Answer: (b)

3.IPC ORGANIZES NATIONAL CONFERENCE ON ENSURING QUALITY OF BLOOD AND BLOOD COMPONENTS THROUGH IP 2026 STANDARDS



- The conference was organized to promote the adoption of IP 2026 standards for blood and blood components across blood centres in India.
- It brought together healthcare professionals, regulatory authorities, laboratory experts, and blood bank personnel to discuss quality management practices.
- The initiative seeks to enhance the safety, efficacy, and quality of blood products used in transfusion medicine.
- Standardized quality protocols help reduce transfusion-related risks and improve patient outcomes.

- The conference aligns with India's broader objective of strengthening healthcare quality assurance systems.
- It highlights the growing role of pharmacopoeial standards in ensuring uniformity and regulatory compliance in healthcare services.
- The initiative contributes to public health security by improving the reliability of blood transfusion infrastructure.

BACKGROUND / CONTEXT

Indian Pharmacopoeia (IP)

- Indian Pharmacopoeia is the official book of standards for drugs, pharmaceuticals, and biological products in India.
- It prescribes quality specifications, testing methods, storage conditions, and standards for healthcare products.
- The latest edition, **IP 2026**, was released to strengthen quality benchmarks in the pharmaceutical and healthcare sectors.

Indian Pharmacopoeia Commission (IPC)

- IPC is an autonomous institution under the Ministry of Health and Family Welfare.
- It is responsible for setting standards for drugs and healthcare products in India.
- It also functions as a WHO Collaborating Centre for Pharmacovigilance in Public Health Programmes.

Blood and Blood Components

Blood collected from donors is separated into various components:

- **Packed Red Blood Cells (PRBCs):** Treatment of anemia and blood loss.
- **Platelets:** Management of bleeding disorders and thrombocytopenia.
- **Fresh Frozen Plasma (FFP):** Used in coagulation disorders.
- **Cryoprecipitate:** Rich source of clotting factors.

Importance of Quality Standards

- Ensures safety of recipients.
- Minimizes risk of transfusion-transmitted infections.
- Standardizes testing and storage practices.
- Improves traceability and regulatory oversight.

Blood Transfusion Services in India

- Governed through the framework of the Drugs and Cosmetics Act, 1940 and Rules, 1945.
- Blood is legally classified as a "drug" under Indian law.

KEY HIGHLIGHTS

- **Institutional Initiative:** Organized by the Indian Pharmacopoeia Commission under the Ministry of Health and Family Welfare.
- **Primary Objective:** Strengthen implementation of IP 2026 standards for blood and blood components.
- **Quality Assurance:** Focus on standardization of collection, testing, processing, storage, and distribution practices.
- **Patient Safety:** Aims to reduce transfusion-related adverse events and improve healthcare outcomes.
- **Regulatory Compliance:** Enhances adherence to national quality and safety requirements.
- **Public Health Significance:** Supports safe and reliable blood transfusion services across the country.
- **Challenges:** Variations in infrastructure, quality management systems, and technical capacity among blood centres.
- **Way Forward:** Capacity building, regular audits, adoption of best practices, and nationwide implementation of IP 2026 standards.

PRELIMS BOOSTER BOX

- **Indian Pharmacopoeia (IP):** Official compendium of drug standards in India.
- **Latest Edition:** IP 2026.
- **IPC:** Autonomous body under Ministry of Health and Family Welfare.
- **Blood Status in India:** Classified as a "drug" under the Drugs and Cosmetics Act, 1940.
- **WHO Goal:** Universal access to safe blood and blood products.
- **PRBC:** Packed Red Blood Cells.
- **FFP:** Fresh Frozen Plasma.
- **Hemovigilance:** Monitoring and reporting of adverse events related to blood transfusion.
- **Pharmacovigilance:** Science of monitoring adverse effects of medicines.
- **Transfusion-Transmitted Infections (TTIs):** HIV, Hepatitis B, Hepatitis C, Syphilis, etc.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Blood is classified as a drug under the Drugs and Cosmetics Act, 1940.
2. Indian Pharmacopoeia prescribes standards for drugs and biological products in India.
3. Hemovigilance refers to the monitoring of adverse events related to blood transfusion.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Answer: (d)

4.AMBASSADOR JAMIESON GREER LEADS U.S. DELEGATION TO INDIA FOR BILATERAL TRADE AGREEMENT TALKS



- India and the United States held ministerial-level negotiations to advance the proposed Bilateral Trade Agreement.
- Discussions covered market access, digital trade, supply-chain resilience, reduction of non-tariff barriers, and cooperation in strategic sectors.
- Both countries acknowledged substantial progress made through technical and ministerial engagements in recent months.
- The proposed interim agreement is expected to serve as a foundation for a broader and more comprehensive trade pact.
- The negotiations assume significance amid evolving global trade dynamics, supply-chain

diversification efforts, and tariff-related uncertainties.

- Enhanced trade cooperation can strengthen investment flows, technology partnerships, and economic resilience between the two countries.
- The talks reflect the growing importance of India–U.S. economic relations within the framework of the Comprehensive Global Strategic Partnership.
- Successful conclusion of the agreement could contribute to greater market integration and expansion of bilateral trade.

BACKGROUND / CONTEXT

India–U.S. Bilateral Trade Agreement (BTA)

- The proposed BTA seeks to deepen economic engagement between India and the United States.
- It aims to address tariff and non-tariff barriers while facilitating trade and investment.
- The agreement is being negotiated in phases, beginning with an interim arrangement.

Interim Agreement Framework

- India and the U.S. agreed on a framework for an Interim Agreement in February 2026.
- The framework reaffirmed commitment to broader BTA negotiations.
- It focuses on reciprocal and mutually beneficial trade arrangements.

Key Areas Under Negotiation

- Market Access
- Digital Trade
- Customs and Trade Facilitation
- Non-Tariff Measures
- Investment Promotion
- Economic Security Alignment
- Supply Chain Resilience

India–U.S. Economic Relations

- The United States is among India's largest trading partners.
- Bilateral trade spans goods, services, technology, energy, defence, and investment.
- Both countries have set ambitious goals to expand trade and strengthen trusted supply chains.

Strategic Importance

- Reduces overdependence on concentrated supply chains.
- Supports diversification of manufacturing ecosystems.
- Enhances economic cooperation in emerging technologies and critical sectors.

KEY HIGHLIGHTS

- **Lead Negotiators:** Jamieson Greer (USTR) and Piyush Goyal (India).
- **Primary Objective:** Advance negotiations for an interim India–U.S. Bilateral Trade Agreement.
- **Trade Focus:** Market access, digital trade, customs facilitation, and non-tariff barriers.
- **Supply Chain Dimension:** Emphasis on resilient and trusted supply chains.
- **Strategic Significance:** Strengthens India–U.S. Comprehensive Global Strategic Partnership.
- **Economic Impact:** Potential boost to trade, investment, exports, and technology cooperation.
- **Challenges:** Tariff disputes, regulatory barriers, market access concerns, and trade investigations.
- **Way Forward:** Conclude the interim agreement and progressively negotiate a comprehensive trade pact.

PRELIMS BOOSTER BOX

- **BTA:** *Bilateral Trade Agreement between two countries.*
- **FTA (Free Trade Agreement):** *Eliminates or reduces tariffs and trade barriers.*
- **USTR:** *Office of the United States Trade Representative.*
- **Market Access:** *Ability of goods and services to enter a foreign market.*
- **Non-Tariff Barriers (NTBs):** *Regulations, standards, quotas, and procedures affecting trade.*
- **Trade Facilitation:** *Simplification and harmonization of customs procedures.*
- **Supply Chain Resilience:** *Capacity to withstand disruptions in production and logistics.*
- **Digital Trade:** *Trade enabled through digital technologies and cross-border data flows.*

- **Economic Security Alignment:** Cooperation in critical sectors, technology, and strategic industries.
- **Comprehensive Global Strategic Partnership:** Framework guiding India–U.S. relations across multiple sectors.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Non-tariff barriers include regulations, standards, and customs procedures that affect trade.
2. A Bilateral Trade Agreement is negotiated between more than two countries.
3. Trade facilitation aims to simplify and harmonize cross-border trade procedures.

Which of the statements given above is/are correct?

- (a) 1 only
(b) 1 and 3 only
(c) 2 and 3 only
(d) 1, 2 and 3

Answer: (b)

5.SIX YOUTH-LED SUSTAINABILITY STARTUPS WIN YOUTH CO:LAB NATIONAL INNOVATION CHALLENGE 2026



- The Youth Co:Lab National Innovation Challenge 2026 recognized six innovative startups working on sustainability-focused solutions.
- The challenge received over 350 applications from 28 States, reflecting growing youth participation in social entrepreneurship and sustainable innovation.
- Fifty startups were shortlisted for the National Springboard Programme, a capacity-building initiative involving mentorship and business development support.

- The competition focused on promoting responsible consumption through innovations in sustainable textiles, circular economy solutions, and sustainable food and water systems.
- Winning startups will receive seed grants and ecosystem support to scale their impact-driven ventures.
- The initiative strengthens India's startup ecosystem while advancing the Sustainable Development Goals (SDGs) and Mission LiFE objectives.
- It highlights the increasing role of youth-led enterprises in addressing environmental and developmental challenges through innovation.
- The programme contributes to building an inclusive and sustainability-oriented entrepreneurial ecosystem.

BACKGROUND / CONTEXT

What is Youth Co:Lab?

- Youth Co:Lab is a regional initiative co-created in 2017 by the United Nations Development Programme and Citi Foundation.
- It aims to empower young entrepreneurs and innovators across the Asia-Pacific region.
- The initiative promotes leadership, social innovation, and entrepreneurship to accelerate achievement of the Sustainable Development Goals (SDGs).

Youth Co:Lab in India

- Launched in 2019 in partnership with Atal Innovation Mission.
- Supports youth-led startups through mentorship, incubation, networking, and seed funding.
- Has conducted multiple national innovation challenges focused on developmental priorities.

Theme of 2026 Challenge

Responsible Consumption aligned with **Mission LiFE (Lifestyle for Environment)**.

Focus Areas:

- Sustainable Textiles and Fashion
- Circular Economy Innovations
- Sustainable Food Systems and Water Conservation

Mission LiFE

- Launched by India to promote environmentally conscious lifestyles.
- Encourages sustainable production and consumption patterns.
- Supports climate action through behavioural change and community participation.

Startup Support Structure

- National Springboard Programme
- Expert Mentorship
- Regional Immersion Programme
- Seed Grants
- Investor and Ecosystem Linkages

KEY HIGHLIGHTS

- **Organizing Partners:** UNDP, Citi Foundation, AIM-NITI Aayog, and T-Hub Foundation.
- **Participation Scale:** Over 350 applications received from 28 States.
- **Capacity Building:** Top 50 startups selected for the National Springboard Programme.
- **Focus Areas:** Responsible consumption, circular economy, sustainable textiles, and water conservation.
- **Mission LiFE Linkage:** Encourages sustainable lifestyles and environmentally responsible behaviour.
- **Entrepreneurship Promotion:** Provides mentorship, incubation support, and funding opportunities.
- **SDG Contribution:** Advances goals related to sustainable consumption, innovation, and climate action.
- **Challenges:** Scaling sustainable business models, access to finance, market linkages, and technology adoption.
- **Way Forward:** Expand youth entrepreneurship support, strengthen green innovation financing, and integrate sustainability into startup ecosystems.

PRELIMS BOOSTER BOX

- **Youth Co:Lab:** Co-created by UNDP and Citi Foundation in 2017.
- **Youth Co:Lab India Launch:** 2019.
- **Indian Partner:** Atal Innovation Mission (AIM), NITI Aayog.

- **Implementation Partner (2026):** T-Hub Foundation.
- **Mission LiFE:** Lifestyle for Environment.
- **SDG 12:** Responsible Consumption and Production.
- **SDG 9:** Industry, Innovation and Infrastructure.
- **Circular Economy:** Economic model emphasizing reuse, recycling, and resource efficiency.
- **Social Entrepreneurship:** Business approach addressing social and environmental challenges.
- **Seed Grant:** Early-stage funding provided to startups for product development and scaling.
- **T-Hub:** Startup incubation and innovation ecosystem platform based in Hyderabad.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Youth Co:Lab is a joint initiative of UNDP and Citi Foundation.
2. The 2026 Youth Co:Lab National Innovation Challenge focused on Responsible Consumption aligned with Mission LiFE.
3. Circular Economy Innovations were among the focus areas of the challenge.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Answer: (d)

1. DEPARTMENT OF PHARMACEUTICALS INVITES STAKEHOLDER COMMENTS ON PROPOSED AMENDMENTS TO THE GTE EXEMPTION LIST OF MEDICAL DEVICES



Key Highlights

- I. Proposed amendments have been issued for stakeholder consultation.
- II. Changes relate to the **General Technical Exemption (GTE) List** applicable to medical devices.
- III. The initiative seeks to:
 - A. Improve regulatory efficiency.
 - B. Promote ease of doing business.
 - C. Support domestic medical device manufacturing.
 - D. Enhance availability of medical technologies.
- IV. Stakeholder consultations form an important part of evidence-based policymaking and regulatory reform.

BACKGROUND/CONTEXT

- India is one of the fastest-growing medical device markets globally.
- Medical devices are critical components of modern healthcare systems and include diagnostic, therapeutic, monitoring, and life-support equipment.
- To ensure quality, safety, and accessibility, the sector is regulated through a combination of import controls, quality standards, licensing requirements, and regulatory approvals.

- Certain categories of imports are provided exemptions under the **General Technical Exemption (GTE)** framework to facilitate research, testing, development, manufacturing, and healthcare-related activities.
- As the medical device ecosystem evolves, periodic revisions are required to ensure that regulations remain aligned with technological developments and industry needs.

WHAT IS THE GENERAL TECHNICAL EXEMPTION (GTE)?

Definition

- General Technical Exemption (GTE) refers to specific exemptions provided from certain regulatory requirements for designated categories of imports.

Purpose

- I. Facilitate:
 - A. Research and development.
 - B. Product testing and validation.
 - C. Manufacturing processes.
 - D. Innovation activities.
 - E. Healthcare technology advancement.

Importance

- Reduces regulatory burden for eligible activities.
- Promotes innovation and industrial growth.
- Supports quicker access to advanced technologies.

MEDICAL DEVICES SECTOR IN INDIA

Definition

- I. Medical devices are instruments, apparatus, implants, software, or machines used for:
 - A. Diagnosis.
 - B. Prevention.
 - C. Monitoring.
 - D. Treatment of diseases and medical conditions.

Categories

- Diagnostic devices.
- Imaging equipment.
- Surgical instruments.
- Implantable devices.
- Monitoring systems.
- Life-support equipment.

REGULATORY FRAMEWORK FOR MEDICAL DEVICES

Medical Devices Rules, 2017

Medical Devices Rules, 2017

Objective

- Regulate manufacture, import, sale, and distribution of medical devices.

Regulatory Authority

Central Drugs Standard Control Organisation (CDSCO)

Functions

- Licensing and approvals.
- Quality assurance.
- Safety monitoring.
- Regulatory oversight.

NATIONAL MEDICAL DEVICES POLICY, 2023

National Medical Devices Policy, 2023

Objectives

- Strengthen domestic manufacturing.
- Enhance research and innovation.
- Improve the regulatory ecosystem.
- Promote exports.
- Reduce import dependence.

Vision

- Make India a global hub for medical device manufacturing and innovation.

SIGNIFICANCE OF THE PROPOSED AMENDMENTS

Ease of Doing Business

- Simplifies regulatory compliance for industry stakeholders.

Promotion of Innovation

- Facilitates research, testing, and product development.

Strengthening Domestic Manufacturing

- Supports the growth of India's medical device industry.

Healthcare Access

- Helps improve availability of advanced medical technologies.

Regulatory Modernization

- Aligns regulations with evolving technological and industrial requirements.

CHALLENGES

- Balancing ease of compliance with patient safety requirements.
- Ensuring quality assurance and regulatory oversight.
- Dependence on imports for high-end medical devices.
- Need for stronger testing and certification infrastructure.
- Rapid technological changes requiring frequent regulatory updates.

WAY FORWARD

- Strengthen stakeholder consultation mechanisms.
- Promote indigenous medical device manufacturing.
- Expand testing and certification infrastructure.
- Enhance regulatory transparency and predictability.
- Align Indian regulations with global best practices while ensuring patient safety.

KEY HIGHLIGHTS

- The Department of Pharmaceuticals has sought stakeholder feedback on proposed amendments to the GTE exemption list for medical devices.
- The move aims to improve regulatory efficiency and support innovation.
- Medical devices are regulated under the Medical Devices Rules, 2017.
- The National Medical Devices Policy, 2023 seeks to position India as a global medical device manufacturing hub.
- Regulatory reforms are critical for enhancing healthcare access and industrial competitiveness.

PRELIMS BOOSTER BOX

- I. **Department of Pharmaceuticals**
 - A. Functions under the **Ministry of Chemicals and Fertilizers**.
- II. **Medical Devices Rules, 2017**
 - A. Regulate manufacture, import, sale, and distribution of medical devices in India.
- III. **CDSCO**
 - A. Central Drugs Standard Control Organisation.
 - B. National regulatory authority for drugs and medical devices.
- IV. **National Medical Devices Policy, 2023**
 - A. Aims to strengthen manufacturing, innovation, and exports in the medical devices sector.
- V. **Medical Devices**

- A. Include diagnostic, therapeutic, monitoring, and life-support equipment used in healthcare.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Central Drugs Standard Control Organisation (CDSCO) is the regulatory authority for medical devices in India.
2. The National Medical Devices Policy, 2023 aims to promote domestic manufacturing and innovation in the medical devices sector.
3. The Medical Devices Rules, 2017 regulate the manufacture, import, sale, and distribution of medical devices in India.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Answer: (d)

2.INCOIS LAUNCHES SPECIALIZED EL NIÑO BULLETINS TO SAFEGUARD INDIA'S MARITIME SECTORS



Key Highlights

- I. INCOIS has introduced dedicated El Niño Bulletins for maritime stakeholders.
- II. The bulletins will provide:
 - A. Oceanic forecasts.
 - B. Climate-related advisories.
 - C. Marine impact assessments.
- III. Intended beneficiaries include:
 - A. Fisheries sector.
 - B. Shipping and navigation.
 - C. Coastal management agencies.
 - D. Disaster management authorities.
- IV. The initiative enhances India's marine forecasting and ocean information services.

BACKGROUND/CONTEXT

- I. El Niño is a naturally occurring climate phenomenon associated with abnormal warming of sea surface temperatures in the central and eastern equatorial Pacific Ocean.
- II. It forms part of the broader **El Niño–Southern Oscillation (ENSO)** cycle.
- III. El Niño can influence weather patterns across the globe, including:
 - A. Monsoon variability.
 - B. Marine productivity.
 - C. Cyclone activity.
 - D. Ocean circulation patterns.
- IV. India's economy, agriculture, fisheries, and maritime sectors are highly sensitive to climate variability and oceanic changes.
- V. Accurate forecasting and dissemination of ocean information are essential for minimizing risks and enhancing climate resilience.

WHAT IS EL NIÑO?

El Niño

Definition

- El Niño refers to the periodic warming of sea surface temperatures in the central and eastern tropical Pacific Ocean.

Characteristics

- Weakening of trade winds.
- Altered ocean-atmosphere interactions.
- Changes in global weather patterns.

Frequency

- Typically occurs every 2–7 years.
- Can last for several months to more than a year.

EL NIÑO–SOUTHERN OSCILLATION (ENSO)

El Niño–Southern Oscillation

Components

El Niño

- Warmer-than-normal Pacific Ocean temperatures.

La Niña

- Cooler-than-normal Pacific Ocean temperatures.

Neutral Phase

- Near-normal oceanic and atmospheric conditions.

Importance

- One of the most significant drivers of global climate variability.

IMPACT OF EL NIÑO ON INDIA

Monsoon Variability

- Often associated with weaker southwest monsoon rainfall.
- Can contribute to drought-like conditions in some years.

Marine Ecosystems

- Influences ocean temperature and nutrient availability.
- Can affect fish distribution and marine productivity.

Cyclonic Activity

- May alter cyclone formation patterns in different ocean basins.

Agriculture

- Variations in rainfall can impact crop production and water availability.

ROLE OF INCOIS

Indian National Centre for Ocean Information Services

Establishment

- Founded in **1999**.

Ministry

- Autonomous organization under the **Ministry of Earth Sciences**.

Functions

- Ocean observation and monitoring.
- Marine forecasting.
- Tsunami warning services.
- Ocean information dissemination.
- Support to fisheries, shipping, and coastal management.

SIGNIFICANCE OF SPECIALIZED EL NIÑO BULLETINS

Early Warning Capability

- Provides advance information regarding oceanic and climatic changes.

Support to Fisheries

- Assists fishermen and fisheries managers in planning operations.

Maritime Safety

- Supports shipping and navigation decisions.

Disaster Risk Reduction

- Enhances preparedness against climate-related risks.

Blue Economy Development

- Promotes sustainable utilization of marine resources.

SIGNIFICANCE

Climate Resilience

- Strengthens adaptive capacity of maritime sectors.

Scientific Decision-Making

- Enables evidence-based planning and risk management.

Economic Security

- Protects livelihoods dependent on marine resources.

Ocean Governance

- Supports sustainable marine resource management.

CHALLENGES

- Uncertainty in long-range climate forecasting.
- Need for greater awareness among stakeholders.
- Integrating forecasts into local decision-making systems.
- Enhancing last-mile dissemination of ocean information.

WAY FORWARD

- Strengthen ocean observation networks.
- Improve climate and ocean forecasting capabilities.
- Enhance stakeholder outreach and awareness.
- Integrate marine forecasts with disaster management systems.
- Promote climate-resilient planning across maritime sectors.

KEY HIGHLIGHTS

- INCOIS has launched specialized El Niño Bulletins for maritime stakeholders.
- El Niño influences climate, ocean conditions, fisheries, and maritime activities.
- The initiative supports early warning, risk reduction, and climate resilience.
- INCOIS is India's premier ocean information and marine forecasting institution.
- The bulletins contribute to sustainable Blue Economy development.

PRELIMS BOOSTER BOX

I. INCOIS

- A. Indian National Centre for Ocean Information Services.
- B. Established in 1999.
- C. Autonomous body under the Ministry of Earth Sciences.

II. El Niño

- A. Periodic warming of sea surface temperatures in the equatorial Pacific Ocean.
- B. Part of the ENSO cycle.

III. La Niña

- A. Cooling of sea surface temperatures in the equatorial Pacific.
- B. Often associated with stronger monsoon conditions in India.

IV. ENSO

- A. El Niño–Southern Oscillation.
- B. Major driver of global climate variability.

V. Blue Economy

- A. Sustainable use of ocean resources for economic growth, livelihoods, and ecosystem health.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. El Niño is associated with warming of sea surface temperatures in the central and eastern equatorial Pacific Ocean.
2. INCOIS functions under the Ministry of Earth Sciences.
3. El Niño forms part of the El Niño–Southern Oscillation (ENSO) climate system.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

3.OFFICE OF CHIEF LABOUR COMMISSIONER (CENTRAL) ORGANIZES SPECIAL COURT CAMP AT RVNL OFFICE; TEN WAGE CLAIMS RESOLVED WITH ON-THE-SPOT PAYMENT



Key Highlights

- I. A Special Court Camp was organized by the Chief Labour Commissioner (Central).
- II. Ten pending wage claims were resolved during the camp.
- III. Workers received immediate settlement through on-the-spot payment.
- IV. The initiative promoted:
 - A. Timely wage payment.
 - B. Labour welfare.
 - C. Access to justice.
 - D. Efficient dispute resolution.
- V. It reflects efforts to strengthen labour law enforcement and worker protection mechanisms.

BACKGROUND/CONTEXT

- Wage-related disputes constitute a significant portion of labour grievances in India.
- Delays in wage payments can adversely affect workers' livelihoods, social security, and economic well-being.
- The Government has undertaken several reforms to improve labour administration, simplify compliance mechanisms, and ensure timely dispute resolution.
- Special Court Camps serve as a mechanism for expeditious settlement of labour disputes by bringing employers, workers, and labour authorities together at a common platform.

- Such initiatives align with the broader objective of promoting industrial harmony and safeguarding workers' rights.

OFFICE OF THE CHIEF LABOUR COMMISSIONER (CENTRAL)

Chief Labour Commissioner (Central)

Administrative Ministry

- Functions under the **Ministry of Labour and Employment**.

Functions

- Enforcement of labour laws under the Central Sphere.
- Prevention and settlement of industrial disputes.
- Protection of workers' rights.
- Monitoring wage payments and working conditions.
- Promoting industrial peace and harmony.

SPECIAL COURT CAMP MECHANISM

Purpose

- Facilitate quick disposal of labour-related claims and disputes.
- Ensure direct interaction among stakeholders.

Benefits

- Faster grievance redressal.
- Reduced litigation burden.
- Immediate relief to workers.
- Improved compliance by employers.

Importance

- Enhances accessibility of labour justice mechanisms.
- Strengthens confidence in labour administration.

WAGE PROTECTION IN INDIA

Importance of Timely Wage Payment

- Ensures livelihood security.
- Protects workers from economic distress.
- Supports social justice and labour welfare.

Legal Framework

Code on Wages, 2019

Code on Wages, 2019

Key Features

- Universalizes minimum wage provisions.
- Ensures timely payment of wages.
- Promotes gender-neutral wage policies.
- Covers both organized and unorganized sectors.

LABOUR REFORMS AND WORKER WELFARE

Objectives

- Simplification of labour laws.
- Improved compliance.
- Enhanced social security.
- Better dispute resolution mechanisms.

Labour Codes

India has consolidated multiple labour laws into four Labour Codes:

- Code on Wages, 2019
- Industrial Relations Code, 2020
- Code on Social Security, 2020
- Occupational Safety, Health and Working Conditions Code, 2020

SIGNIFICANCE

Worker Welfare

- Ensures protection of workers' economic rights.

Access to Justice

- Provides speedy and affordable dispute resolution.

Industrial Harmony

- Reduces labour-management conflicts.

Good Governance

- Demonstrates responsive and citizen-centric administration.

Labour Law Compliance

- Encourages employers to adhere to statutory obligations.

CHALLENGES

- Delays in dispute resolution in some cases.
- Lack of awareness among workers regarding legal remedies.
- Informal sector workers often face greater vulnerabilities.
- Need for stronger enforcement mechanisms.

WAY FORWARD

- Expand Special Court Camps across sectors and regions.
- Strengthen labour inspection and compliance systems.
- Improve legal awareness among workers.
- Promote digital grievance redressal mechanisms.
- Ensure effective implementation of labour codes.

KEY HIGHLIGHTS

Special Court Camp organized by the Chief Labour Commissioner (Central) at RVNL office.

- Ten wage claims resolved through on-the-spot payment.
- Initiative promotes timely wage payment and labour welfare.
- Supports speedy grievance redressal and industrial harmony.
- Reinforces implementation of labour laws and worker protection measures.

PRELIMS BOOSTER BOX

- I. **Chief Labour Commissioner (Central)**
 - A. Apex labour enforcement authority in the Central Sphere.
 - B. Functions under the Ministry of Labour and Employment.
- II. **Code on Wages, 2019**
 - A. Replaced four wage-related labour laws.
 - B. Provides for minimum wages and timely payment of wages.
- III. **Industrial Relations Code, 2020**
 - A. Governs trade unions, industrial disputes, and dispute resolution.
- IV. **Code on Social Security, 2020**
 - A. Extends social security provisions to wider categories of workers.
- V. **Occupational Safety, Health and Working Conditions Code, 2020**
 - A. Consolidates laws relating to workplace safety and welfare.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

- The Chief Labour Commissioner (Central) functions under the Ministry of Labour and Employment.
- The Code on Wages, 2019 seeks to ensure timely payment of wages and minimum wage protection.
- The Industrial Relations Code, 2020 deals with trade unions and industrial dispute resolution.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

4.ETHANOL BLENDING PROGRAMME IS SCIENTIFICALLY VALIDATED AND CLOSELY MONITORED BY THE GOVERNMENT; MISLEADING CLAIMS AND OLD IMAGES BEING CIRCULATED ON SOCIAL MEDIA



Key Highlights

- I. The Ethanol Blended Petrol Programme is based on scientific studies and technical evaluations.
- II. Ethanol blending levels are monitored and implemented in accordance with prescribed standards.
- III. The programme contributes to:
 - A. Energy security.
 - B. Reduction in crude oil imports.
 - C. Lower carbon emissions.
 - D. Additional income opportunities for farmers.
- IV. Government agencies regularly assess the programme's performance and environmental impact.

BACKGROUND/CONTEXT

- I. India is among the world's largest importers of crude oil, making energy security a major policy priority.
- II. To reduce dependence on imported fossil fuels and promote cleaner energy sources, the Government launched the **Ethanol Blended Petrol (EBP) Programme**.
- III. Ethanol, a renewable biofuel, is blended with petrol in specified proportions.
- IV. The programme aligns with India's commitments towards:
 - A. Sustainable development.
 - B. Climate action.
 - C. Energy transition.

D. Atmanirbhar Bharat.

- V. Over the years, ethanol blending has expanded significantly through policy support, production incentives, and infrastructure development.

ETHANOL BLENDED PETROL (EBP) PROGRAMME

Definition

- The EBP Programme involves blending ethanol with petrol to create a cleaner and more sustainable transportation fuel.

Objectives

- Reduce crude oil import dependence.
- Improve energy security.
- Reduce greenhouse gas emissions.
- Promote renewable fuels.
- Enhance farmers' income.

Implementation

- I. Coordinated by:
- A. Ministry of Petroleum and Natural Gas
 - B. Ministry of Consumer Affairs, Food and Public Distribution
 - C. Oil Marketing Companies (OMCs).

WHAT IS ETHANOL?

Ethanol

Characteristics

- Renewable biofuel.
- Produced through fermentation of sugar-rich and starch-rich feedstocks.
- Can be blended with petrol.

Major Feedstocks

- Sugarcane juice.
- Molasses.
- Damaged food grains.
- Maize.
- Surplus agricultural produce.

BENEFITS OF ETHANOL BLENDING

Energy Security

- Reduces dependence on imported crude oil.

Environmental Benefits

- Lower carbon monoxide and hydrocarbon emissions.
- Supports cleaner fuel use.

Farmer Welfare

- Creates additional demand for agricultural feedstocks.

- Enhances income opportunities for farmers.

Foreign Exchange Savings

- Reduces expenditure on petroleum imports.

Rural Development

- Promotes investment in biofuel infrastructure and rural industries.

NATIONAL POLICY ON BIOFUELS

National Policy on Biofuels

Objectives

- Accelerate biofuel adoption.
- Promote advanced biofuels.
- Strengthen energy security.
- Support environmental sustainability.

Key Features

- Expanded feedstock eligibility.
- Promotion of second-generation biofuels.
- Support for ethanol production capacity.

ETHANOL BLENDING TARGETS

Achievements

- India has achieved substantial increases in ethanol blending over the past decade.

Long-Term Goal

- Achieve higher levels of ethanol blending in transportation fuels while ensuring compatibility with vehicle and fuel standards.

SCIENTIFIC VALIDATION AND MONITORING

Technical Evaluation

- I. Ethanol blending levels are assessed for:
- A. Engine compatibility.
 - B. Fuel performance.
 - C. Environmental impact.

Monitoring Mechanisms

- Continuous oversight by relevant ministries and oil marketing companies.
- Compliance with fuel quality standards.

Regulatory Safeguards

- Implementation based on scientific evidence and established protocols.

SIGNIFICANCE

Energy Transition

- Supports India's shift towards cleaner and renewable energy sources.

Climate Action

- Contributes to reduction in greenhouse gas emissions.

Atmanirbhar Bharat

- Reduces dependence on imported fossil fuels.

Agricultural Growth

- Creates new market opportunities for farmers.

Economic Benefits

- Generates savings in foreign exchange expenditure.

CHALLENGES

- Feedstock availability and sustainability.
- Balancing food security with fuel production.
- Water-intensive nature of some feedstocks.
- Need for expansion of ethanol production infrastructure.
- Regional disparities in production capacity.

WAY FORWARD

- Diversify feedstock sources, including grain-based and second-generation biofuels.
- Enhance ethanol production capacity.
- Promote water-efficient feedstocks and technologies.
- Strengthen scientific monitoring and public awareness.
- Encourage innovation in advanced biofuels and sustainable energy solutions.

KEY HIGHLIGHTS

- Government has reaffirmed that the Ethanol Blended Petrol Programme is scientifically validated and continuously monitored.
- Ethanol blending enhances energy security and reduces crude oil imports.
- The programme supports climate goals and rural economic development.
- Ethanol is produced from agricultural feedstocks such as sugarcane, molasses, and grains.
- The initiative forms an important component of India's broader biofuel and energy transition strategy.

PRELIMS BOOSTER BOX

I. Ethanol

- Renewable biofuel produced through fermentation of biomass-based feedstocks.

II. Ethanol Blended Petrol (EBP) Programme

- Seeks to blend ethanol with petrol to reduce fossil fuel dependence and emissions.

III. National Policy on Biofuels

- Promotes biofuel production and adoption.
- Encourages advanced and second-generation biofuels.

IV. Second-Generation (2G) Biofuels

- Produced from agricultural residues, crop waste, and non-food biomass.

V. Oil Marketing Companies (OMCs)

- Include entities such as Indian Oil Corporation, Bharat Petroleum Corporation Limited, and Hindustan Petroleum Corporation Limited.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

- Ethanol is a renewable biofuel that can be blended with petrol.
- The Ethanol Blended Petrol Programme aims to reduce dependence on imported crude oil.
- Second-generation biofuels are produced from agricultural residues and non-food biomass.

Which of the statements given above is/are correct?

- 1 and 2 only
- 2 and 3 only
- 1 and 3 only
- 1, 2 and 3

Answer: (d)

5.INDIA'S CRITICAL MINERAL MISSION GAINS MOMENTUM: 56 CRITICAL MINERAL BLOCKS AND 11 EXPLORATION LICENCE BLOCKS SUCCESSFULLY AUCTIONED



Key Highlights

- 56 Critical Mineral Blocks and 11 Exploration Licence Blocks have been successfully auctioned.

- II. The initiative seeks to accelerate exploration and development of critical mineral resources.
- III. Critical minerals are essential for:
 - A. Electric vehicles (EVs).
 - B. Renewable energy systems.
 - C. Advanced electronics.
 - D. Semiconductors.
 - E. Defence technologies.
- IV. The auctions are part of India's broader strategy to ensure long-term mineral security and support industrial growth.

BACKGROUND/CONTEXT

- The global transition towards clean energy and advanced technologies has significantly increased demand for critical minerals.
- These minerals are essential inputs for batteries, solar panels, wind turbines, semiconductors, telecommunications equipment, and defence systems.
- Many critical minerals are concentrated in a limited number of countries, creating supply-chain vulnerabilities and geopolitical risks.
- Recognizing their strategic importance, India has launched initiatives to identify, explore, and develop domestic reserves while diversifying global supply sources.
- The auction of critical mineral blocks marks a significant step towards achieving resource security and technological self-reliance.

WHAT ARE CRITICAL MINERALS?

Definition

- I. Critical minerals are minerals that are:
 - A. Essential for economic development and strategic sectors.
 - B. Vulnerable to supply disruptions.
 - C. Difficult to substitute.

Importance

- Support emerging technologies.
- Enable energy transition.
- Strengthen national security.
- Promote industrial competitiveness.

MAJOR CRITICAL MINERALS

Lithium

Lithium

- Used in lithium-ion batteries.
- Essential for electric vehicles and energy storage systems.

Cobalt

- Important component of rechargeable batteries.

Nickel

- Used in batteries, alloys, and stainless steel production.

Graphite

- Key input for battery manufacturing.

Rare Earth Elements (REEs)

Rare Earth Elements

- I. Used in:
 - A. Electronics.
 - B. Defence systems.
 - C. Wind turbines.
 - D. Permanent magnets.

NATIONAL CRITICAL MINERAL MISSION

National Critical Mineral Mission

Objectives

- Enhance domestic exploration.
- Promote mining and processing capabilities.
- Strengthen supply-chain resilience.
- Reduce import dependence.
- Support advanced manufacturing sectors.

Focus Areas

- Exploration and resource mapping.
- Technology development.
- International partnerships.
- Recycling and resource efficiency.

EXPLORATION LICENCE (EL) BLOCKS

Purpose

- Facilitate private sector participation in mineral exploration.

Significance

- Encourages investment in mineral discovery.
- Improves geological knowledge.
- Accelerates resource development.

Expected Outcomes

- Identification of new mineral deposits.
- Expansion of India's critical mineral resource base.

LEGAL AND POLICY FRAMEWORK

Mines and Minerals (Development and Regulation) Act, 1957

Mines and Minerals (Development and Regulation) Act, 1957

Objectives

- Regulate mining activities.
- Promote scientific mineral development.
- Facilitate transparent allocation of mineral resources.

Recent Reforms

- Introduction of exploration licences.
- Increased private sector participation.
- Simplified auction mechanisms.

SIGNIFICANCE

Energy Transition

- Supports electric mobility and renewable energy deployment.

Atmanirbhar Bharat

- Reduces dependence on imported strategic minerals.

Industrial Growth

- Strengthens manufacturing and technology sectors.

Strategic Security

- Enhances resilience against global supply disruptions.

Economic Development

- Generates investment, employment, and value addition opportunities.

CHALLENGES

- Limited domestic reserves of certain critical minerals.
- Long gestation periods for exploration and mining.
- Environmental and social concerns.
- Technological challenges in extraction and processing.
- Global competition for access to mineral resources.

WAY FORWARD

- Accelerate geological exploration and resource mapping.
- Strengthen processing and refining capabilities.
- Promote recycling and circular economy approaches.
- Enhance international mineral partnerships.
- Encourage research and innovation in critical mineral technologies.

KEY HIGHLIGHTS

- India has successfully auctioned 56 Critical Mineral Blocks and 11 Exploration Licence Blocks.
- Critical minerals are vital for clean energy, advanced manufacturing, and strategic sectors.
- The National Critical Mineral Mission aims to strengthen mineral security and technological self-reliance.
- Exploration licences encourage greater private sector participation in mineral exploration.
- The initiative supports India's energy transition and Atmanirbhar Bharat goals.

PRELIMS BOOSTER BOX

I. Critical Minerals

- A. Minerals essential for economic and strategic sectors with high supply-risk concerns.

II. Lithium

- A. Key component of lithium-ion batteries used in EVs and energy storage systems.

III. Rare Earth Elements (REEs)

- A. Group of strategically important elements used in electronics, defence, and renewable energy technologies.

IV. Exploration Licence (EL)

- A. Introduced to facilitate private participation in mineral exploration.

V. MMDR Act, 1957

- A. Principal legislation governing mining and mineral development in India.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Lithium is an important mineral used in lithium-ion batteries.
2. Rare Earth Elements are widely used in electronics, renewable energy technologies, and defence systems.
3. Exploration Licences are intended to encourage private sector participation in mineral exploration.

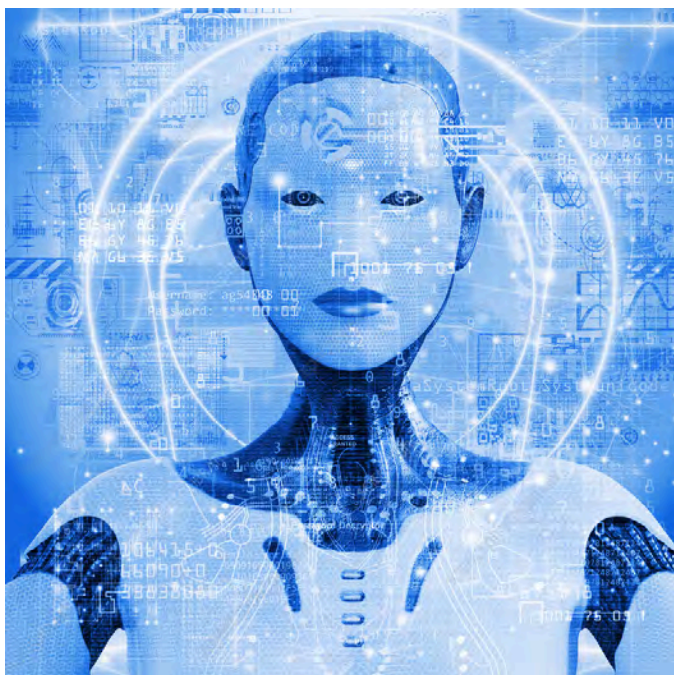
Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

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1. INDIA'S EMERGING TECHNOLOGY ECOSYSTEM



Key Highlights

- I. India is rapidly emerging as a global technology and innovation hub.
- II. Focus areas include:
 - A. Artificial Intelligence (AI)
 - B. Semiconductors
 - C. Quantum Technologies
 - D. Biotechnology
 - E. Space Technology
 - F. Robotics and Advanced Manufacturing
- III. Government initiatives such as IndiaAI Mission, National Quantum Mission, and Semicon India Programme are strengthening the innovation ecosystem.
- IV. Digital Public Infrastructure (DPI) and the startup ecosystem are acting as major growth enablers.
- V. Emerging technologies are expected to drive economic growth, employment generation, strategic autonomy, and national security.

BACKGROUND/CONTEXT

- I. The Fourth Industrial Revolution (Industry 4.0) is characterized by the convergence of digital, physical, and biological technologies.
- II. Countries across the world are investing heavily in frontier technologies due to their

transformative impact on economic competitiveness, industrial growth, military capabilities, and governance.

- III. India's rapid digital transformation over the last decade has created a strong foundation for technological innovation through:
 - A. Expanding internet connectivity.
 - B. Digital governance.
 - C. Financial inclusion.
 - D. Startup-led innovation.
- IV. With increasing geopolitical competition and supply-chain vulnerabilities, technological self-reliance has become a strategic imperative.
- V. India's emerging technology ecosystem seeks to position the country as both a developer and exporter of advanced technologies.

ARTIFICIAL INTELLIGENCE (AI)

Artificial Intelligence

Applications

- Healthcare diagnostics and medical research.
- Precision agriculture.
- Education and personalized learning.
- Smart governance.
- Financial technology.
- Defence and security.

Government Initiative

IndiaAI Mission

- I. Aims to build:
 - A. AI computing infrastructure.
 - B. AI datasets.
 - C. Innovation ecosystem.
 - D. Startup support.
 - E. Skilled workforce.

SEMICONDUCTOR ECOSYSTEM

Importance

- I. Semiconductors are the foundation of modern electronic devices.
- II. Critical for:
 - A. Mobile phones.
 - B. Computers.
 - C. Data centres.
 - D. Electric vehicles.
 - E. Defence equipment.

F. AI hardware.

Government Initiative

Semicon India Programme

Objectives

- Develop domestic semiconductor manufacturing capabilities.
- Reduce dependence on imports.
- Strengthen supply-chain resilience.

QUANTUM TECHNOLOGIES

Quantum Technology

Applications

- Quantum computing.
- Quantum communication.
- Advanced cryptography.
- Precision sensing.
- Secure information systems.

National Initiative

National Quantum Mission

- Approved in 2023.
- Seeks to establish indigenous quantum technology capabilities.

SPACE TECHNOLOGY

Indian Space Research Organisation (ISRO)

Emerging Areas

- Satellite communications.
- Earth observation.
- Navigation services.
- Launch vehicles.
- Commercial space applications.

Space Sector Reforms

Indian National Space Promotion and Authorization Center (IN-SPACe)

- Facilitates participation of private players in the space sector.
- Encourages commercialization and innovation.

BIOTECHNOLOGY

Biotechnology

Key Areas

- Vaccines and pharmaceuticals.
- Agricultural biotechnology.
- Bio-manufacturing.
- Healthcare innovation.
- Environmental sustainability.

Importance

- Strengthens healthcare security.
- Supports India's growing bioeconomy.

DEEP-TECH STARTUP ECOSYSTEM

Focus Areas

- Artificial Intelligence.
- Robotics.
- Drones.
- Aerospace.
- Cybersecurity.
- Clean Energy.
- Advanced Manufacturing.

Significance

- Accelerates commercialization of frontier technologies.
- Drives innovation-led economic growth.

DIGITAL PUBLIC INFRASTRUCTURE (DPI): THE FOUNDATION

India's Digital Public Infrastructure includes:

- Aadhaar
- Unified Payments Interface (UPI)
- DigiLocker

Role

- Enables digital service delivery at scale.
- Supports entrepreneurship and innovation.
- Facilitates financial inclusion and digital governance.

SIGNIFICANCE

Economic Growth

- Enhances productivity and innovation-driven development.

Strategic Autonomy

- Reduces dependence on foreign technologies.

Employment Generation

- Creates high-skilled jobs and entrepreneurial opportunities.

National Security

- Strengthens cyber security, defence capabilities, and technological resilience.

Global Competitiveness

- Positions India as a major global innovation hub.

CHALLENGES

- Low expenditure on Research & Development (R&D).
- Dependence on imports for critical technologies.
- Skill shortages in frontier technology domains.
- Cybersecurity and data privacy concerns.
- Need for stronger industry-academia collaboration.

WAY FORWARD

- Increase investment in research and innovation.
- Strengthen indigenous technology development.
- Promote deep-tech startup financing.
- Foster public-private partnerships.
- Enhance skilling in emerging technologies.
- Develop robust ethical and regulatory frameworks for responsible technology deployment.

KEY HIGHLIGHTS

- Emerging technologies are central to India's vision of **Viksit Bharat @ 2047**.
- Major focus sectors include AI, semiconductors, quantum technology, biotechnology, and space technology.
- India's Digital Public Infrastructure and startup ecosystem provide a strong foundation for innovation.
- Technological leadership is increasingly linked to economic growth, national security, and strategic autonomy.

PRELIMS BOOSTER BOX

I. **IndiaAI Mission**

- A. National initiative to develop AI computing infrastructure, datasets, innovation ecosystem, and skilled talent.

II. **National Quantum Mission (2023)**

- A. Implemented by the Department of Science and Technology (DST).
- B. Focuses on quantum computing, communication, sensing, and materials.

III. **Semicon India Programme**

- A. Aims to create a sustainable semiconductor and display manufacturing ecosystem in India.

IV. **Digital Public Infrastructure (DPI)**

- A. Refers to interoperable digital systems such as Aadhaar, UPI, and DigiLocker.

V. **IN-SPACE**

- A. Autonomous agency under the Department of Space.
- B. Facilitates private sector participation in India's space activities.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The National Quantum Mission is implemented by the Department of Science and Technology.
2. The Semicon India Programme aims to promote semiconductor and display manufacturing in India.
3. Aadhaar, UPI, and DigiLocker are components of India's Digital Public Infrastructure.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

2.RESILIENT SUPPLY CHAINS: FOUR FERTILIZER SHIPS SUCCESSFULLY CROSS STRAIT OF HORMUZ TO BOLSTER INDIAN AGRI-STOCKS



Key Highlights

- I. Four fertilizer ships carrying critical agricultural inputs safely transited through the Strait of Hormuz.
- II. The shipments are expected to strengthen fertilizer availability for Indian farmers.
- III. The successful transit highlights:
 - A. Supply-chain resilience.
 - B. Strategic inventory management.
 - C. Diversified sourcing mechanisms.
- IV. The development assumes significance amid concerns regarding disruptions in global maritime trade routes due to regional tensions.

BACKGROUND/CONTEXT

- I. The Strait of Hormuz is one of the world's most important maritime chokepoints connecting the Persian Gulf with the Gulf of Oman and the Arabian Sea.
- II. A significant share of global crude oil, LNG, petrochemicals, and fertilizer-related raw materials passes through this route.
- III. India imports a substantial portion of its fertilizer requirements and fertilizer feedstocks from countries in West Asia and other global suppliers.
- IV. Any disruption in this maritime corridor can affect:
 - A. Fertilizer availability.
 - B. Energy security.
 - C. Global commodity prices.
 - D. Food security.
- V. Therefore, ensuring uninterrupted shipping through strategic sea lanes is critical for India's agricultural and economic stability.

IMPORTANCE OF FERTILIZERS IN INDIAN AGRICULTURE

Major Fertilizers Used

- Urea (Nitrogenous fertilizer).
- DAP (Di-Ammonium Phosphate).
- MOP (Muriate of Potash).
- NPK Complex Fertilizers.

Role in Agriculture

- Improve soil nutrient availability.
- Enhance crop productivity.
- Support food security.
- Sustain agricultural growth.

Dependence on Imports

- I. India is largely self-sufficient in urea production but remains dependent on imports for:
 - A. Phosphatic fertilizers.
 - B. Potassic fertilizers.
 - C. Fertilizer raw materials.

STRAIT OF HORMUZ: A STRATEGIC MARITIME CHOKEPOINT

Strait of Hormuz

Location

- I. Connects the Persian Gulf to the Gulf of Oman and the Arabian Sea.
- II. Lies between:
 - A. Iran (north).
 - B. Oman and the UAE (south).

Strategic Importance

- I. One of the busiest energy trade routes globally.
- II. Critical for transportation of:
 - A. Crude oil.
 - B. Natural gas.
 - C. Petrochemicals.
 - D. Fertilizer inputs.

Significance for India

- Vital for energy imports.
- Important for fertilizer and commodity supply chains.
- Supports maritime trade with West Asian countries.

INDIA'S FERTILIZER SECURITY STRATEGY

Diversification of Sources

- Expanding fertilizer sourcing from multiple countries.
- Reducing overdependence on any single supplier.

Strategic Stock Management

- Maintaining adequate fertilizer inventories.
- Ensuring timely availability during Kharif and Rabi seasons.

Domestic Production Enhancement

- Revival of urea plants.
- Promotion of nano-fertilizers.
- Encouragement of balanced nutrient use.

International Cooperation

- Long-term fertilizer supply agreements.
- Strengthening partnerships with resource-rich countries.

SIGNIFICANCE

Food Security

- Ensures uninterrupted agricultural production.

Supply Chain Resilience

- Demonstrates India's ability to manage external disruptions.

Farmer Welfare

- Supports timely fertilizer availability during crop seasons.

Economic Stability

- Minimizes risks of price volatility and shortages.

Strategic Preparedness

- Strengthens resilience against geopolitical uncertainties.

CHALLENGES

- Dependence on imported fertilizer inputs.
- Geopolitical instability in critical supply regions.
- Volatility in global fertilizer prices.
- Maritime security risks in key shipping corridors.
- Rising logistics and transportation costs.

WAY FORWARD

- Strengthen domestic fertilizer production capacity.
- Diversify import sources and logistics routes.
- Promote nano-fertilizers and alternative nutrient solutions.
- Enhance strategic reserves of critical agricultural inputs.
- Strengthen maritime security cooperation and supply-chain monitoring mechanisms.

KEY HIGHLIGHTS

- Four fertilizer vessels successfully crossed the Strait of Hormuz.
- Supports fertilizer availability for India's agricultural sector.
- Highlights resilience of India's supply-chain management.
- Strait of Hormuz remains a critical global maritime chokepoint.

- Fertilizer security is closely linked with food security and farmer welfare.

PRELIMS BOOSTER BOX

I. Strait of Hormuz

- A. Connects the Persian Gulf with the Gulf of Oman and Arabian Sea.
- B. Lies between Iran and Oman.
- C. One of the world's most important maritime chokepoints.

II. Di-Ammonium Phosphate (DAP)

- A. Major phosphatic fertilizer.
- B. Contains both nitrogen and phosphorus.

III. Muriate of Potash (MOP)

- A. Major source of potassium for crops.
- B. India imports most of its potash requirements.

IV. Nano Urea

- A. Developed by **Indian Farmers Fertiliser Cooperative Limited**.
- B. Intended to improve nutrient-use efficiency and reduce conventional urea consumption.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Strait of Hormuz connects the Persian Gulf with the Gulf of Oman.
2. India is fully self-sufficient in the production of phosphatic and potassic fertilizers.
3. Disruptions in the Strait of Hormuz can affect both India's energy security and fertilizer supply chains.

Which of the statements given above is/are correct?

- (a) 1 and 3 only
(b) 1 only
(c) 2 and 3 only
(d) 1, 2 and 3

Answer: (a)

**3.HUMAN SKELETAL REMAINS FROM
RAKHIGARHI TRANSFERRED TO
ANTHROPOLOGICAL SURVEY OF INDIA FOR
ADVANCED SCIENTIFIC RESEARCH**



Key Highlights

- I. Human skeletal remains recovered from Rakhigarhi will undergo advanced anthropological and scientific examination.
- II. Research will focus on:
 - A. Ancient population studies.
 - B. Biological anthropology.
 - C. Health and disease patterns.
 - D. Dietary habits.
 - E. Migration and ancestry.
- III. The initiative is expected to contribute significantly to understanding the origins and evolution of ancient South Asian populations.

BACKGROUND/CONTEXT

- I. Rakhigarhi is one of the largest known urban settlements of the Indus Valley Civilization (IVC), also known as the Harappan Civilization.
- II. Archaeological excavations have revealed:
 - A. Urban planning.
 - B. Drainage systems.
 - C. Burial sites.
 - D. Craft production centres.
 - E. Residential complexes.
- III. Human skeletal remains discovered from burial sites provide valuable evidence about the lifestyle, health, genetics, and social organization of ancient communities.
- IV. Modern scientific techniques such as DNA analysis, isotope studies, and osteological examination have become important tools for reconstructing human history.

RAKHIGARHI: AN IMPORTANT HARAPPAN SITE

Rakhigarhi

Location

- Situated in Haryana's Hisar district.
- Located in the Ghaggar-Hakra river basin region.

Significance

- I. One of the largest sites of the Indus Valley Civilization.
- II. Larger than many other well-known Harappan sites.
- III. Provides crucial evidence regarding:
 - A. Urbanization.
 - B. Trade.
 - C. Craft specialization.
 - D. Social organization.

Archaeological Findings

- Planned settlements.
- Drainage systems.
- Pottery and ornaments.
- Burial grounds.
- Evidence of agriculture and animal husbandry.

ANTHROPOLOGICAL SURVEY OF INDIA (AnSI)

Anthropological Survey of India

Establishment

- Founded in **1945**.

Ministry

- Functions under the **Ministry of Culture**.

Objectives

- Study human diversity in India.
- Conduct anthropological and ethnographic research.
- Preserve and document biological and cultural heritage.
- Support archaeological and population studies.

SCIENTIFIC ANALYSIS OF HUMAN SKELETAL REMAINS

Osteological Studies

- I. Examination of bones and teeth.
- II. Provides information regarding:
 - A. Age.
 - B. Sex.
 - C. Health status.
 - D. Disease patterns.

Ancient DNA (aDNA) Analysis

- I. Helps understand:
 - A. Genetic ancestry.
 - B. Population movements.
 - C. Evolutionary relationships.

Isotope Analysis

- I. Reveals:
 - A. Dietary patterns.
 - B. Migration history.
 - C. Environmental conditions.

Palaeopathology

- Study of diseases in ancient populations.
- Helps reconstruct health conditions and lifestyle.

INDUS VALLEY CIVILIZATION (IVC)

Indus Valley Civilization

Time Period

- Approximately **2500 BCE – 1900 BCE** (Mature Harappan Phase).

Major Features

- Planned urban settlements.
- Advanced drainage systems.
- Standardized weights and measures.
- Extensive trade networks.
- Craft specialization.

Important Sites

- Harappa
- Mohenjo-daro
- Dholavira
- Lothal
- Kalibangan
- Rakhigarhi

SIGNIFICANCE

Understanding Ancient Populations

- Provides insights into the biological history of South Asia.

Reconstructing Human Migration

- Helps trace population movements and genetic linkages.

Knowledge of Ancient Health Systems

- Reveals disease patterns, nutrition, and lifestyle.

Strengthening Archaeological Research

- Combines archaeology with modern scientific methods.

Cultural Heritage Preservation

- Enhances understanding of India's ancient civilizational legacy.

CHALLENGES

- Preservation of ancient biological material.
- Risk of contamination during sampling.
- Limited availability of well-preserved DNA.
- Need for interdisciplinary collaboration.
- Ethical considerations in handling human remains.

WAY FORWARD

- Strengthen archaeological-scientific collaboration.
- Expand ancient DNA and bioarchaeological research facilities.
- Promote multidisciplinary studies involving archaeology, genetics, and anthropology.
- Enhance conservation standards for archaeological remains.
- Develop comprehensive databases of archaeological and anthropological findings.

KEY HIGHLIGHTS

- Human skeletal remains from Rakhigarhi have been transferred to the Anthropological Survey of India.
- Research will focus on ancestry, health, diet, and migration patterns.
- Rakhigarhi is among the largest sites of the Indus Valley Civilization.
- Advanced scientific methods will help reconstruct ancient population history.
- The initiative strengthens evidence-based understanding of India's ancient past.

PRELIMS BOOSTER BOX

I. **Rakhigarhi**

- A. Located in Hisar district, Haryana.
- B. One of the largest known settlements of the Indus Valley Civilization.

II. **Anthropological Survey of India (AnSI)**

- A. Established in 1945.
- B. Functions under the Ministry of Culture.

III. **Ancient DNA (aDNA)**

- A. Genetic material recovered from ancient human, animal, or plant remains.
- B. Used to study ancestry and population history.

IV. **Dholavira**

- A. UNESCO World Heritage Site (2021).
- B. Located in Gujarat's Kutch district.

V. **Lothal**

- A. Known for its dockyard and maritime trade connections.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Rakhigarhi is one of the largest known sites of the Indus Valley Civilization.
2. The Anthropological Survey of India functions under the Ministry of Culture.
3. Ancient DNA analysis can help reconstruct population history and migration patterns.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

4.INDIA ACHIEVES LANDMARK MILESTONE OF 5 LAKH ORGAN DONATION PLEDGES



Key Highlights

- India has crossed **5 lakh organ donation pledges**.
- The milestone highlights increasing public awareness regarding organ and tissue donation.
- Organ donation can save multiple lives by facilitating transplantation of vital organs and tissues.
- Government initiatives and awareness campaigns have played a crucial role in promoting organ donation.
- The achievement supports efforts to strengthen India's organ transplantation ecosystem.

BACKGROUND/CONTEXT

- Organ transplantation is often the only life-saving treatment for patients suffering from end-stage organ failure.
- India faces a significant shortage of donated organs despite a large number of patients requiring transplants every year.
- Low awareness, social misconceptions, and procedural challenges have historically limited organ donation rates.
- To address these issues, the Government has undertaken various reforms and awareness campaigns aimed at promoting voluntary organ donation and improving transplant infrastructure.
- The milestone of 5 lakh pledges reflects increasing societal acceptance and awareness regarding the importance of organ donation.

ORGAN DONATION: AN OVERVIEW

Definition

- Organ donation refers to the voluntary donation of organs and tissues for transplantation after death or, in certain cases, during life.

Types of Organ Donation

Living Donation

- I. Donation by a living person.
- II. Commonly includes:
 - A. Kidney.
 - B. Part of the liver.
 - C. Bone marrow.

Deceased Donation

- Donation after brain-stem death or cardiac death.
- Multiple organs can be retrieved and transplanted.

ORGANS AND TISSUES THAT CAN BE DONATED

Organs

- Heart.
- Liver.
- Kidneys.
- Lungs.
- Pancreas.
- Intestine.

Tissues

- Cornea.
- Skin.
- Bone.
- Tendons.
- Heart valves.

NATIONAL ORGAN TRANSPLANT FRAMEWORK IN INDIA

National Organ and Tissue Transplant Organization (NOTTO)

National Organ and Tissue Transplant Organization

Functions

- National apex body for organ procurement and transplantation.
- Maintains national waiting lists.
- Coordinates organ allocation.
- Promotes awareness and capacity building.

Administrative Ministry

- Ministry of Health and Family Welfare

LEGAL FRAMEWORK

Transplantation of Human Organs and Tissues Act, 1994 (THOTA)

Transplantation of Human Organs and Tissues Act, 1994

Objectives

- Regulate organ transplantation.
- Prevent commercial trading of human organs.
- Define legal provisions relating to organ donation and brain-stem death.

Key Features

- Recognition of brain-stem death.
- Authorization committees for transplantation.
- Regulation of organ retrieval and transplantation procedures.

GOVERNMENT INITIATIVES

Organ Donation Awareness Campaigns

- Promotion of voluntary organ donation through nationwide awareness programmes.

Simplification of Procedures

- Removal of domicile requirements in certain transplant registrations.
- Streamlining transplant processes.

Digital Platforms

- Strengthening organ allocation and registration systems through digital infrastructure.

SIGNIFICANCE

Saving Lives

- One donor can save multiple lives through organ transplantation.

Improved Healthcare Outcomes

- Enhances treatment options for patients with organ failure.

Public Participation

- Encourages citizen involvement in healthcare and social responsibility.

Strengthening Health Infrastructure

- Supports development of transplant centres and medical expertise.

CHALLENGES

- Low deceased organ donation rates.
- Lack of awareness in certain regions.
- Social and cultural misconceptions.
- Shortage of trained transplant coordinators.
- Infrastructure gaps in smaller healthcare facilities.

WAY FORWARD

- Intensify public awareness campaigns.
- Strengthen transplant infrastructure across states.

- Improve training of healthcare professionals and transplant coordinators.
- Promote ethical and transparent organ allocation mechanisms.
- Encourage community participation and family consent for organ donation.

KEY HIGHLIGHTS

- India has achieved 5 lakh organ donation pledges.
- Organ donation is critical for addressing end-stage organ failure.
- NOTTO serves as the apex national body for organ transplantation.
- THOTA, 1994 provides the legal framework for organ donation and transplantation.
- Greater awareness and infrastructure development remain essential for increasing donation rates.

PRELIMS BOOSTER BOX

I. NOTTO

- National Organ and Tissue Transplant Organization.*
- Apex body for organ procurement and transplantation in India.*

II. THOTA, 1994

- Transplantation of Human Organs and Tissues Act.*
- Regulates organ donation and transplantation.*
- Recognizes brain-stem death.*

III. Brain-Stem Death

- Irreversible cessation of all functions of the brain stem.*
- Legally recognized for organ donation purposes in India.*

IV. Living Organ Donation

- Most commonly involves kidney and partial liver donation.*

V. World Organ Donation Day

- Observed annually on 13 August to promote awareness about organ donation.*

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

- The National Organ and Tissue Transplant Organization (NOTTO) is the apex body for

organ procurement and transplantation in India.

- The Transplantation of Human Organs and Tissues Act, 1994 recognizes brain-stem death.
- A deceased donor can potentially donate multiple organs and tissues for transplantation.

Which of the statements given above is/are correct?

- 1 and 2 only
- 2 and 3 only
- 1 and 3 only
- 1, 2 and 3

Answer: (d)

5.INDIA BECOMES WORLD'S TOP SHIP RECYCLING NATION IN 2025



Key Highlights

- India has become the world's largest ship recycling destination in 2025.
- The country's ship recycling industry is centered around the **Alang Ship Recycling Yard**.
- Ship recycling contributes to:
 - Resource recovery.
 - Circular economy.
 - Employment generation.
 - Steel production.
- India has undertaken significant reforms to improve environmental protection, worker safety, and compliance with international conventions.

BACKGROUND/CONTEXT

- Ship recycling involves dismantling end-of-life vessels to recover steel, machinery, equipment, and reusable materials.

- The global shipping industry generates a large number of obsolete vessels each year that require environmentally sound disposal.
- Historically, South Asian countries have dominated the global ship recycling industry due to cost advantages and extensive coastal infrastructure.
- India has progressively strengthened its regulatory framework to align with global environmental and occupational safety standards.
- The sector plays a crucial role in promoting resource efficiency and supporting the circular economy by reducing dependence on virgin raw materials.

SHIP RECYCLING: AN OVERVIEW

Definition

- Ship recycling refers to the process of dismantling ships at the end of their operational life for recovering reusable materials and components.

Major Recoverable Materials

- Steel.
- Non-ferrous metals.
- Machinery.
- Electrical equipment.
- Furniture and fixtures.

Importance

- Conserves natural resources.
- Reduces industrial waste.
- Supports sustainable industrial development.

ALANG: THE GLOBAL SHIP RECYCLING HUB

Alang Ship Recycling Yard

Location

- Situated in Bhavnagar district of Gujarat along the Gulf of Khambhat.

Significance

- One of the world's largest ship recycling facilities.
- Handles a substantial share of global ship dismantling activities.
- Provides employment to thousands of workers.

Advantages

- Favorable tidal conditions.

- Extensive coastal infrastructure.
- Established ecosystem for ship dismantling and material recovery.

REGULATORY FRAMEWORK

Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships

International Maritime Organization

Objective

- Ensure safe and environmentally sound ship recycling practices.

Key Provisions

- Hazardous material management.
- Worker safety standards.
- Environmental protection measures.
- Inventory of hazardous materials onboard ships.

Recycling of Ships Act, 2019

Recycling of Ships Act, 2019

Objectives

- Align India's ship recycling sector with international standards.
- Ensure worker safety and environmental protection.
- Promote sustainable ship recycling practices.

ECONOMIC SIGNIFICANCE

Resource Recovery

- Recovered steel serves as an important raw material for industries.

Employment Generation

- Provides direct and indirect employment opportunities.

Industrial Growth

- Supports steel, manufacturing, and ancillary industries.

Foreign Exchange Earnings

- Enhances India's position in the global maritime economy.

ENVIRONMENTAL SIGNIFICANCE

Circular Economy

- Promotes reuse and recycling of valuable materials.

Reduced Resource Extraction

- Lowers dependence on mining and primary metal production.

Waste Minimization

- Ensures scientific disposal and management of ship waste.

Sustainable Development

- Supports environmentally responsible industrial practices.

SIGNIFICANCE

Global Maritime Leadership

- Strengthens India's position in the global maritime sector.

Atmanirbhar Bharat

- Supports domestic industrial and manufacturing ecosystems.

Blue Economy

- Contributes to sustainable utilization of marine resources and maritime infrastructure.

Green Transition

- Encourages environmentally sound recycling and resource efficiency.

CHALLENGES

- Management of hazardous waste materials.
- Ensuring continuous compliance with international standards.
- Occupational safety concerns.
- Need for modernization and technological upgradation.
- Competition from other ship recycling nations.

WAY FORWARD

- Strengthen compliance with global environmental norms.
- Promote adoption of advanced recycling technologies.
- Enhance worker training and safety standards.
- Improve hazardous waste management systems.
- Integrate ship recycling with India's broader circular economy initiatives.

KEY HIGHLIGHTS

- India became the world's top ship recycling nation in 2025.
- Alang Ship Recycling Yard remains the backbone of the sector.
- Ship recycling supports resource recovery, employment, and industrial growth.
- The Recycling of Ships Act, 2019 aligns India with international best practices.
- The sector contributes significantly to the circular economy and sustainable development.

PRELIMS BOOSTER BOX

- I. **Alang Ship Recycling Yard**
 - A. Located in Bhavnagar district, Gujarat.
 - B. One of the world's largest ship recycling facilities.
- II. **Recycling of Ships Act, 2019**
 - A. Provides a legal framework for safe and environmentally sound ship recycling in India.
- III. **Hong Kong Convention**
 - A. Adopted under the International Maritime Organization (IMO).
 - B. Focuses on safe and environmentally sound recycling of ships.
- IV. **Blue Economy**
 - A. Refers to the sustainable use of ocean resources for economic growth, livelihoods, and ecosystem health.
- V. **Circular Economy**
 - A. Economic model emphasizing reuse, recycling, refurbishment, and resource efficiency.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Alang Ship Recycling Yard is located in Gujarat.
2. The Recycling of Ships Act, 2019 aims to align India's ship recycling sector with international environmental and safety standards.
3. Ship recycling contributes to the circular economy by recovering reusable materials from end-of-life vessels.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only (d) 1, 2 and 3

Answer: (d)

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1. INDIA'S SPACE ODYSSEY



Key Highlights

- I. India has evolved from a developing space programme to a major space-faring nation.
- II. Achievements span:
 - A. Satellite communication.
 - B. Earth observation.
 - C. Navigation systems.
 - D. Planetary exploration.
 - E. Human spaceflight preparation.
- III. The space sector is increasingly driven by:
 - A. Innovation.
 - B. Startups.
 - C. Private participation.
 - D. International collaboration.

EVOLUTION OF INDIA'S SPACE PROGRAMME

1962: INCOSPAR

Indian National Committee for Space Research (INCOSPAR)

- Established under the leadership of **Vikram Sarabhai**.

1969: Formation of ISRO

Indian Space Research Organisation (ISRO)

- Established to develop and utilize space technology for national development.

1975: Aryabhata

Aryabhata

- India's first satellite launched into space.

MAJOR ACHIEVEMENTS

Launch Vehicle Programme

PSLV

Polar Satellite Launch Vehicle (PSLV)

- Known as ISRO's "workhorse launcher."
- Highly reliable for satellite launches.

GSLV

Geosynchronous Satellite Launch Vehicle (GSLV)

- Designed for heavier payloads and geostationary missions.

Lunar Exploration

Chandrayaan-1

- Confirmed the presence of water molecules on the Moon.

Chandrayaan-3

- Achieved the first successful soft landing near the Moon's south polar region in 2023.

Mars Exploration

Mars Orbiter Mission

- Made India the first country to reach Mars orbit in its maiden attempt.

Solar Mission

Aditya-L1

- Studies the Sun from the Lagrange Point L1.

Navigation System

NavIC

- India's regional satellite navigation system.
- Provides positioning and timing services.

Human Spaceflight

Gaganyaan Mission

- India's first human spaceflight programme.
- Aims to send Indian astronauts (Gagannauts) into Low Earth Orbit.

SPACE REFORMS AND PRIVATE PARTICIPATION

IN-SPACE

Indian National Space Promotion and Authorization Center (IN-SPACE)

- Established to promote and regulate private participation in the space sector.

NSIL

NewSpace India Limited

- Commercial arm of ISRO.
- Facilitates commercialization of space technologies.

Space Startups

- I. India now hosts **hundreds of space startups** working in:
- Launch vehicles.
 - Satellites.
 - Earth observation.
 - Space applications.

SIGNIFICANCE

National Development

- Supports communication, weather forecasting, agriculture, disaster management, and navigation.

Strategic Security

- Enhances surveillance, navigation, and defence capabilities.

Economic Growth

- Expands the space economy and creates high-skilled jobs.

Scientific Advancement

- Strengthens India's capabilities in advanced research and innovation.

Global Leadership

- Positions India as a reliable and cost-effective space partner.

CHALLENGES

- Increasing global competition.
- Need for advanced launch capabilities.
- Space debris management.
- High R&D investments.
- Commercial scaling of indigenous technologies.

WAY FORWARD

- Accelerate private sector participation.
- Expand international collaborations.
- Strengthen deep-space exploration capabilities.
- Invest in reusable launch technologies.
- Enhance India's share in the global space economy.

KEY HIGHLIGHTS

- Nodal Agency:** ISRO.
- Major Missions:** Chandrayaan, Mangalyaan, Aditya-L1, Gaganyaan.
- Navigation System:** NavIC.

- Space Reforms:** IN-SPACe and increased private sector participation.
- Vision:** Becoming a leading global space power and expanding India's space economy.

PRELIMS BOOSTER BOX

I. **Vikram Sarabhai**

- Widely regarded as the **Father of the Indian Space Programme**.
- Played a key role in establishing India's space research framework.

II. **Chandrayaan-3**

- Achieved a successful soft landing near the Moon's south polar region in **August 2023**.
- Made India the **fourth country** to achieve a soft lunar landing.

III. **Aditya-L1**

- India's first dedicated solar observatory mission.
- Positioned around the **Lagrange Point L1**, enabling uninterrupted observation of the Sun.

IV. **NavIC**

- India's indigenous regional navigation satellite system.
- Provides accurate positioning services over India and surrounding regions.

V. **IN-SPACe**

- An autonomous agency under the **Department of Space**.
- Facilitates and authorizes participation of private entities in India's space activities.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

- Chandrayaan-1 provided evidence of water molecules on the Moon.
- NavIC is India's indigenous regional satellite navigation system.
- IN-SPACe has been established to facilitate and regulate private sector participation in the space sector.

Which of the statements given above is/are correct?

- 1 and 2 only
- 2 and 3 only
- 1 and 3 only

(d) 1, 2 and 3

Answer: (d)

2. PRESIDENT OF INDIA PARTICIPATES IN A MASS YOGA DEMONSTRATION ON INTERNATIONAL YOGA DAY AT JABALPUR, MADHYA PRADESH



Key Highlights

- I. President joined citizens in a large-scale yoga demonstration.
- II. Event celebrated the global appeal and benefits of yoga.
- III. Emphasis on:
 - A. Healthy lifestyle.
 - B. Preventive healthcare.
 - C. Mental well-being.
 - D. Holistic development.
- IV. Reinforced India's role as the birthplace of yoga.

ABOUT INTERNATIONAL DAY OF YOGA (IDY)

Observed On

- **21 June** every year.

United Nations Recognition

- Declared by the **United Nations General Assembly** in **2014**.
- Resolution proposed by India and supported by a record number of countries.

Why 21 June?

- Marks the **Summer Solstice** in the Northern Hemisphere, considered significant in yogic traditions.

ABOUT YOGA

Definition

- I. Yoga is an ancient Indian discipline that integrates:

- A. Physical postures (Asanas).
- B. Breathing techniques (Pranayama).
- C. Meditation (Dhyana).
- D. Ethical and spiritual practices.

Historical Roots

- Originated in ancient India and is deeply associated with Indian philosophical traditions.
- Systematically compiled in the **Yoga Sutras of Patanjali**.

BENEFITS OF YOGA

Physical Health

- Improves flexibility, strength, and balance.
- Enhances cardiovascular and respiratory health.

Mental Well-being

- Reduces stress and anxiety.
- Improves concentration and emotional resilience.

Preventive Healthcare

- Encourages healthy lifestyles and disease prevention.

Healthy Ageing

- Supports mobility, mental health, and overall quality of life among older adults.

GLOBAL RECOGNITION OF YOGA

UNESCO Recognition

UNESCO

- Yoga was inscribed on UNESCO's **Representative List of the Intangible Cultural Heritage of Humanity** in **2016**.

Cultural Diplomacy

- Yoga serves as a powerful instrument of India's soft power and cultural outreach.

SIGNIFICANCE

Public Health

- Encourages preventive healthcare and wellness.

Cultural Heritage

- Promotes India's ancient knowledge traditions globally.

Social Harmony

- Encourages collective participation and community well-being.

Global Outreach

- Strengthens India's cultural and diplomatic engagement worldwide.

CHALLENGES

- Commercialization leading to dilution of traditional practices.
- Need for scientifically informed awareness.
- Ensuring accessibility in rural and underserved areas.
- Standardization of training and certification.

WAY FORWARD

- Integrate yoga into preventive healthcare programmes.
- Promote evidence-based research on yoga's health benefits.
- Expand community-level yoga awareness initiatives.
- Strengthen international cooperation through yoga diplomacy.
- Encourage regular practice across all age groups.

KEY HIGHLIGHTS

- **Event:** International Day of Yoga.
- **Date:** 21 June.
- **Location:** Jabalpur, Madhya Pradesh.
- **Participant:** President Droupadi Murmu.
- **Focus:** Health, wellness, preventive healthcare, and India's cultural heritage.

PRELIMS BOOSTER BOX

- International Day of Yoga**
 - A. Celebrated annually on **21 June**.
 - B. Proclaimed by the **UN General Assembly in 2014**.
- Yoga Sutras of Patanjali**
 - A. Foundational text of classical yoga philosophy.
 - B. Describes the **Ashtanga (Eight-fold) Path of Yoga**.
- UNESCO Intangible Cultural Heritage**
 - A. Yoga was inscribed in **2016** on UNESCO's Representative List of the Intangible Cultural Heritage of Humanity.

IV. Ministry of Ayush

- A. Established in **2014**.
- B. Responsible for promotion and development of Ayurveda, Yoga & Naturopathy, Unani, Siddha, Sowa-Rigpa, and Homoeopathy.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. International Day of Yoga is observed annually on 21 June.
2. Yoga was included in UNESCO's Representative List of the Intangible Cultural Heritage of Humanity in 2016.
3. The Yoga Sutras of Patanjali are considered a foundational text of classical yoga philosophy.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

3.15 SKILLED YOUTH TO REPRESENT TEAM INDIA AT THE GLOBAL SKILLS CHALLENGE 2026 IN AUSTRALIA AHEAD OF WORLDSKILLS SHANGHAI 2026; MSDE EXTENDS BEST WISHES



Key Highlights

- I. 15 Indian competitors will participate in the Global Skills Challenge 2026.
- II. The competition will help participants:
 - A. Gain international exposure.

- B. Benchmark skills against global standards.
 - C. Prepare for WorldSkills Shanghai 2026.
- III. Reflects India's growing focus on:
- A. Skill development.
 - B. Vocational education.
 - C. Industry-ready workforce.

ABOUT THE GLOBAL SKILLS CHALLENGE

Purpose

- I. An international skill competition that provides:
 - A. High-quality competitive exposure.
 - B. Assessment against global benchmarks.
 - C. Opportunities to improve performance before WorldSkills.

Importance

- Helps contestants refine technical and professional skills.
- Simulates the environment of international skill competitions.
- Strengthens preparedness for WorldSkills.

ABOUT WORLDSKILLS

WorldSkills International

What is it?

- A global movement promoting excellence in vocational education and skills.
- Organizes the **WorldSkills Competition**, the world's largest skill competition.

Features

- I. Participants are generally under the age of 23.
- II. Competitions are held across diverse skill categories such as:
 - A. Manufacturing.
 - B. Construction.
 - C. Information technology.
 - D. Engineering.
 - E. Creative arts.
 - F. Hospitality services.

Significance

- Encourages global standards in vocational training.
- Promotes industry-relevant competencies.
- Facilitates international exchange of best practices.

INDIA'S SKILL DEVELOPMENT ECOSYSTEM

Skill India Mission

Skill India Mission

- Launched in **2015**.
- Aims to create a skilled and employable workforce.

Pradhan Mantri Kaushal Vikas Yojana (PMKVY)

Pradhan Mantri Kaushal Vikas Yojana

- Flagship skill certification programme.
- Focuses on industry-relevant skill training.

National Skill Development Corporation (NSDC)

National Skill Development Corporation

- Public-private partnership organization promoting skill development initiatives.

SIGNIFICANCE

Human Capital Development

- Enhances employability and workforce productivity.

Global Competitiveness

- Enables Indian youth to compete at international standards.

Economic Growth

- Supports industry demand for skilled manpower.

Demographic Dividend

- Converts India's young population into a productive workforce.

International Recognition

- Strengthens India's standing in global skill competitions.

CHALLENGES

- Skill gaps across sectors.
- Need for stronger industry-academia linkages.
- Uneven access to quality vocational training.
- Rapid technological changes requiring continuous upskilling.

WAY FORWARD

- Strengthen industry-aligned training programmes.
- Expand advanced skill centres and Centres of Excellence.

- Promote vocational education from school level.
- Increase international collaboration in skill development.
- Enhance participation in global skill competitions.

KEY HIGHLIGHTS

- **Event:** Global Skills Challenge 2026.
- **Venue:** Australia.
- **Participants:** 15 members of Team India.
- **Objective:** Preparation for WorldSkills Shanghai 2026.
- **Focus:** Excellence in vocational skills and workforce readiness.

PRELIMS BOOSTER BOX

I. WorldSkills Competition

- Conducted by **WorldSkills International**.
- Often called the "**Olympics of Skills**."
- Showcases excellence in vocational and technical skills.

II. Skill India Mission

- Launched on **15 July 2015**.
- Seeks to train millions of youth in market-relevant skills.

III. National Skill Development Corporation (NSDC)

- Established in **2008**.
- Functions under the **Ministry of Skill Development and Entrepreneurship**.
- Promotes private-sector participation in skill development.

IV. Pradhan Mantri Kaushal Vikas Yojana (PMKVY)

- Flagship skill certification scheme of the Government of India.
- Focuses on short-term training, recognition of prior learning, and industry-relevant skills.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

- WorldSkills International organizes the WorldSkills Competition, often referred to as the "Olympics of Skills."

- The Skill India Mission was launched in 2015 to promote employability through skill development.
- The National Skill Development Corporation (NSDC) promotes private-sector participation in skill development initiatives.

Which of the statements given above is/are correct?

- 1 and 2 only
- 2 and 3 only
- 1 and 3 only
- 1, 2 and 3

Answer: (d)

4.CCPA IMPOSES ₹1 LAKH PENALTY EACH ON STORIA FOODS AND MRS. BECTORS FOR MISLEADING "100%" CLAIMS



Key Highlights

- CCPA found certain "100%" claims to be misleading to consumers.
- Penalty imposed:
 - ₹1 lakh on Storia Foods.
 - ₹1 lakh on Mrs. Bectors Food Specialities.
- Action taken under provisions of consumer protection law.
- Reinforces the principle that advertisements must be:
 - Truthful.
 - Transparent.
 - Non-deceptive.

ABOUT THE CENTRAL CONSUMER PROTECTION AUTHORITY (CCPA)

Central Consumer Protection Authority

Established Under

- Consumer Protection Act, 2019

Nodal Ministry

- Department of Consumer Affairs

Functions

- Protect consumer rights.
- Prevent unfair trade practices.
- Regulate misleading advertisements.
- Initiate investigations and enforcement actions.
- Order recall of unsafe goods and services.

MISLEADING ADVERTISEMENTS

Definition

A misleading advertisement may:

- Falsely describe a product or service.
- Exaggerate benefits without adequate evidence.
- Conceal important information.
- Create a false impression among consumers.

Why "100%" Claims Matter

- Such claims suggest absolute purity, completeness, or superiority.
- Consumers may make purchasing decisions based on these representations.
- Unsupported claims can amount to unfair trade practices.

LEGAL FRAMEWORK

Consumer Protection Act, 2019

Key Features

- Establishment of CCPA.
- Consumer rights protection.
- Product liability provisions.
- E-commerce consumer protection.
- Regulation of misleading advertisements.

Powers of CCPA

- Investigate violations.
- Impose penalties.
- Direct discontinuation or modification of advertisements.
- Issue consumer protection guidelines.

SIGNIFICANCE

Consumer Rights Protection

- Safeguards consumers from deceptive marketing practices.

Market Transparency

- Encourages truthful disclosure and ethical advertising.

Corporate Accountability

- Holds companies responsible for marketing claims.

Informed Consumer Choice

- Enables consumers to make decisions based on accurate information.

CHALLENGES

- Proliferation of digital and influencer advertising.
- Difficulty in verifying certain marketing claims.
- Consumer awareness gaps.
- Monitoring large volumes of advertisements across platforms.

WAY FORWARD

- Strengthen scrutiny of advertising claims.
- Increase consumer awareness regarding misleading advertisements.
- Encourage self-regulation by industry bodies.
- Improve coordination among regulatory authorities.
- Promote scientific substantiation of product claims before advertising.

KEY HIGHLIGHTS

- **Regulator:** Central Consumer Protection Authority (CCPA).
- **Penalty:** ₹1 lakh each on Stori Foods and Mrs. Bectors Food Specialities.
- **Issue:** Misleading "100%" claims.
- **Legal Basis:** Consumer Protection Act, 2019.
- **Objective:** Protect consumer interests and ensure truthful advertising.

PRELIMS BOOSTER BOX

I. Consumer Protection Act, 2019

- A. Replaced the Consumer Protection Act, 1986.
- B. Provides for:
 1. Consumer rights.

2. *Product liability.*
3. *E-commerce regulation.*
4. *Establishment of the CCPA.*

II. **Consumer Rights in India**

- A. *Right to Safety.*
- B. *Right to Information.*
- C. *Right to Choose.*
- D. *Right to be Heard.*
- E. *Right to Seek Redressal.*
- F. *Right to Consumer Education.*

III. **Central Consumer Protection Authority (CCPA)**

- A. *Established in **2020** under the Consumer Protection Act, 2019.*
- B. *Can act against misleading advertisements and unfair trade practices.*

IV. **Misleading Advertisement**

- A. *Any advertisement that falsely describes a product or service, gives false guarantees, conceals material facts, or is likely to mislead consumers.*

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Central Consumer Protection Authority (CCPA) was established under the Consumer Protection Act, 2019.
2. The CCPA has the power to take action against misleading advertisements.
3. The Consumer Protection Act, 2019 introduced provisions relating to product liability.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

5.PRIME MINISTER NARENDRA MODI COMMISSIONS INDIAN NAVY'S FRONTLINE PLATFORMS – INS DUNAGIRI, INS SANSHODHAK & INS AGRAY – IN KOLKATA



Key Highlights

- I. Three indigenous naval platforms inducted into the Indian Navy.
- II. Built by Indian shipyards under the government's defence indigenisation drive.
- III. Enhance:
 - A. Maritime surveillance.
 - B. Anti-submarine warfare capabilities.
 - C. Hydrographic and survey operations.
 - D. Blue-water naval operations.
- IV. Reflect India's growing shipbuilding and defence manufacturing capabilities.

THE THREE NAVAL PLATFORMS

INS Dunagiri

Project 17A Stealth Frigate

- I. Advanced guided missile stealth frigate.
- II. Successor to the Project 17 (Shivalik-class) programme.
- III. Equipped for:
 - A. Air defence.
 - B. Surface warfare.
 - C. Anti-submarine warfare.
- IV. Features:
 - A. Reduced radar signature.
 - B. Advanced sensors and weapons.
 - C. Network-centric combat capability.

Significance

- Strengthens India's blue-water naval capability.
- Enhances operational readiness in the Indian Ocean Region.

INS Sanshodhak

Survey Vessel Large (SVL)

- I. Designed for:

- A. Hydrographic surveys.
 - B. Coastal and deep-sea mapping.
 - C. Navigation support.
- II. Generates critical nautical charts for maritime operations.

Significance

- Supports safe navigation.
- Assists maritime infrastructure planning.
- Enhances oceanographic and hydrographic capabilities.

INS Agray

Anti-Submarine Warfare Shallow Water Craft (ASW-SWC)

- I. Designed specifically for:
- A. Detecting and neutralizing enemy submarines in coastal waters.
 - B. Coastal surveillance.
 - C. Maritime security operations.

Features

- Advanced sonar systems.
- Lightweight torpedoes.
- Indigenous combat systems.

Significance

- Strengthens coastal defence.
- Enhances anti-submarine warfare capability in littoral zones.

DEFENCE INDIGENISATION

Aatmanirbhar Bharat in Defence

- Promotes domestic design, development, and manufacturing of defence equipment.
- Reduces dependence on imports.
- Strengthens strategic autonomy.

Key Benefits

- Technology development.
- Employment generation.
- Export potential.
- Growth of India's defence industrial ecosystem.

SIGNIFICANCE

Maritime Security

- Enhances India's ability to secure maritime interests and sea lanes.

Indian Ocean Region (IOR)

- Strengthens India's role as a net security provider in the region.

Blue Economy

- Supports safe maritime trade and resource management.

Strategic Preparedness

- Improves naval readiness against conventional and emerging threats.

Self-Reliance

- Demonstrates progress in indigenous warship design and construction.

CHALLENGES

- Rapid technological changes in naval warfare.
- Need for indigenous propulsion and advanced electronics.
- Expanding maritime competition in the Indo-Pacific.
- Sustained investment requirements for naval modernization.

WAY FORWARD

- Accelerate indigenous warship and submarine programmes.
- Promote collaboration between Navy, industry, academia, and DRDO.
- Strengthen maritime domain awareness.
- Expand exports of Indian-built naval platforms.
- Invest in AI, autonomous systems, and next-generation naval technologies.

KEY HIGHLIGHTS

- **Event:** Commissioning of INS Dunagiri, INS Sanshodhak, and INS Agray.
- **Location:** Kolkata.
- **Focus:** Maritime security, anti-submarine warfare, hydrographic capability, and defence indigenisation.
- **Vision:** Aatmanirbhar Bharat and enhanced naval power.

PRELIMS BOOSTER BOX

- I. **Project 17A**
- A. Follow-on class of stealth frigates to the **Shivalik-class Frigate**.
 - B. Incorporates advanced stealth features, modern sensors, and improved combat systems.
- II. **Hydrographic Survey**

- A. *Measurement and mapping of oceans, seas, and coastal areas.*
- B. *Essential for navigation safety, maritime infrastructure, and naval operations.*

III. **Anti-Submarine Warfare (ASW)**

- A. *Military operations aimed at detecting, tracking, and neutralizing hostile submarines.*
- B. *Uses sonar systems, torpedoes, maritime patrol aircraft, and ASW warships.*

IV. **Maritime Domain Awareness (MDA)**

- A. *Effective understanding of activities in the maritime domain that may impact security, economy, safety, or the environment.*

V. **Blue Water Navy**

- A. *A naval force capable of sustained operations across the open oceans far from national shores.*

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. INS Dunagiri is a Project 17A stealth-guided missile frigate.
2. INS Sanshodhak is a Survey Vessel Large designed for hydrographic and oceanographic surveys.
3. INS Agray is an Anti-Submarine Warfare Shallow Water Craft intended for operations in coastal waters.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

1. IITs HAVE CARRIED INDIA'S ANCIENT KNOWLEDGE TRADITIONS INTO MODERN SCIENCE AND TECHNOLOGY: LOK SABHA SPEAKER



सत्यमेव जयते

शिक्षा मंत्रालय MINISTRY OF EDUCATION

Key Highlights

- I. IITs blend:
 - A. India's ancient knowledge traditions.
 - B. Modern scientific research.
 - C. Technological innovation.
- II. Emphasis on:
 - A. Innovation and entrepreneurship.
 - B. Research and development.
 - C. Indigenous technologies.
 - D. Global academic excellence.
- III. Supports the vision of **Viksit Bharat @ 2047** and **Atmanirbhar Bharat**.

ABOUT THE INDIAN INSTITUTES OF TECHNOLOGY (IITs)

Indian Institutes of Technology

Established

- The first IIT, **Indian Institute of Technology Kharagpur**, was established in **1951**.

Governance

- IITs are autonomous institutions functioning under the **Ministry of Education**.

Legal Framework

- Governed by the **Institutes of Technology Act, 1961**, which declares them **Institutions of National Importance**.

Objectives

- Deliver world-class technical education.
- Promote cutting-edge research and innovation.
- Develop skilled human resources.

- Foster entrepreneurship and technological advancement.

ANCIENT KNOWLEDGE AND MODERN SCIENCE

Ancient Knowledge Systems

- Mathematics.
- Astronomy.
- Metallurgy.
- Medicine (Ayurveda).
- Architecture.
- Environmental sustainability.

Modern Applications

- Artificial Intelligence (AI).
- Quantum technologies.
- Semiconductors.
- Renewable energy.
- Biotechnology.
- Space technology.

ROLE OF IITs IN NATION BUILDING

Research and Innovation

- Conduct advanced research in science, engineering, and emerging technologies.

Startup Ecosystem

- Support innovation through incubation centres and technology parks.

Global Recognition

- IIT graduates contribute significantly to academia, industry, and entrepreneurship worldwide.

Self-Reliance

- Strengthen indigenous technology development under **Atmanirbhar Bharat**.

Industry Collaboration

- Promote partnerships between academia, industry, and government.

SIGNIFICANCE

Human Capital Development

- Produce highly skilled engineers, scientists, and innovators.

Economic Growth

- Drive technological advancement and industrial competitiveness.

Global Competitiveness

- Enhance India's reputation in higher education and research.

Knowledge Economy

- Promote innovation-led economic development.

CHALLENGES

- Brain drain.
- Need for greater industry-academia collaboration.
- Expanding research funding.
- Bridging regional disparities in higher education.
- Scaling innovation for societal impact.

WAY FORWARD

- Strengthen interdisciplinary research.
- Promote global academic collaborations.
- Encourage innovation based on India's traditional knowledge systems.
- Expand incubation and startup support.
- Increase investment in frontier technologies.

KEY HIGHLIGHTS

- Institutions:** Indian Institutes of Technology (IITs).
- Established:** First IIT in 1951.
- Status:** Institutions of National Importance.
- Focus:** Technical education, research, innovation, and entrepreneurship.

PRELIMS BOOSTER BOX

- I. **Indian Institutes of Technology (IITs)**
 - A. Governed by the **Institutes of Technology Act, 1961**.
 - B. Declared **Institutions of National Importance**.
 - C. Function under the **Ministry of Education**.
- II. **Institution of National Importance (INI)**
 - A. A status granted by **Parliament** to institutions that play a pivotal role in developing highly skilled personnel and advancing research in areas of national importance.
- III. **National Education Policy (NEP) 2020**
 - A. Encourages:
 1. Multidisciplinary education.

2. Research and innovation.
3. Integration of **Indian Knowledge Systems (IKS)** into education.
4. Greater internationalization of higher education.

IV. Indian Knowledge Systems (IKS)

- A. Refers to India's traditional knowledge across disciplines such as **mathematics, astronomy, medicine, metallurgy, architecture, philosophy, and environmental practices**, and their integration with contemporary education and research.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Indian Institutes of Technology (IITs) are governed by the Institutes of Technology Act, 1961.
2. IITs are designated as Institutions of National Importance.
3. The National Education Policy (NEP) 2020 encourages the integration of Indian Knowledge Systems into higher education.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

2. TECHNOLOGICAL AGILITY, STRATEGIC FORESIGHT & INSTITUTIONAL INNOVATION ESSENTIAL FOR ROBUST PREPAREDNESS IN TODAY'S UNCERTAIN WORLD ORDER: RAKSHA MANTRI



Key Highlights

- I. Emphasis on:
 - A. Technological innovation.
 - B. Strategic planning.
 - C. Institutional reforms.
 - D. Indigenous defence capabilities.
- II. Called for preparing the Armed Forces to address:
 - A. Hybrid warfare.
 - B. Cyber threats.
 - C. Space security.
 - D. Artificial Intelligence (AI)-driven warfare.
- III. Reinforced the vision of **Aatmanirbhar Bharat** in defence.

KEY THEMES

Technological Agility

Meaning

- Rapid adoption and integration of emerging technologies into defence systems.

Key Technologies

- Artificial Intelligence (AI).
- Autonomous systems.
- Robotics.
- Quantum technologies.
- Cybersecurity.
- Space-based surveillance.

Strategic Foresight

Meaning

- Anticipating future security challenges and preparing long-term defence strategies.

Importance

- Early identification of emerging threats.
- Better force planning.
- Improved resource allocation.
- Enhanced national resilience.

Institutional Innovation

Meaning

- Reforming defence institutions to improve efficiency, coordination, and adaptability.

Focus Areas

- Jointness among the Armed Forces.
- Faster decision-making.

- Integration of emerging technologies.
- Collaboration with academia, startups, and industry.

MAJOR DEFENCE INITIATIVES

Aatmanirbhar Bharat in Defence

- Promotes indigenous design, development, and manufacturing of defence equipment.

Innovations for Defence Excellence (iDEX)

- I. Encourages innovation through:
 - A. Startups.
 - B. MSMEs.
 - C. Academia.
 - D. Individual innovators.

Defence Industrial Corridors

- I. Established in:
 - A. Tamil Nadu
 - B. Uttar Pradesh
- II. Promote indigenous defence manufacturing and investment.

Integrated Theatre Commands

- Aim to enhance joint operational capability among the Army, Navy, and Air Force.

SIGNIFICANCE

National Security

- Strengthens preparedness against conventional and emerging threats.

Strategic Autonomy

- Reduces dependence on imported defence technologies.

Technological Leadership

- Encourages indigenous research and innovation.

Economic Growth

- Boosts the domestic defence manufacturing ecosystem.

Global Standing

- Enhances India's role as a responsible security provider in the Indo-Pacific.

CHALLENGES

- Rapid pace of technological change.
- Cyber and information warfare.
- Dependence on imports for certain critical technologies.

- Need for skilled human resources.
- Increasing geopolitical uncertainties.

WAY FORWARD

- Increase investment in defence R&D.
- Strengthen collaboration among DRDO, industry, startups, and academia.
- Accelerate defence indigenisation.
- Enhance cyber and space capabilities.
- Foster continuous skill development in emerging technologies.

KEY HIGHLIGHTS

- **Speaker:** Defence Minister Rajnath Singh.
- **Focus:** Technological agility, strategic foresight, and institutional innovation.
- **Priority Areas:** AI, cyber security, space, indigenous defence manufacturing, and institutional reforms.
- **Vision:** A technologically advanced and self-reliant defence ecosystem.

PRELIMS BOOSTER BOX

- I. **Defence Research and Development Organisation (DRDO)**
 - A. Established in **1958**.
 - B. India's premier agency for defence research and development.
 - C. Functions under the **Ministry of Defence**.
- II. **Innovations for Defence Excellence (iDEX)**
 - A. Launched in **2018**.
 - B. Supports innovation in defence and aerospace through startups, MSMEs, and academic institutions.
- III. **Defence Industrial Corridors**
 - A. Located in **Tamil Nadu** and **Uttar Pradesh**.
 - B. Aim to strengthen the indigenous defence manufacturing ecosystem by attracting investment and promoting industrial clusters.
- IV. **Integrated Theatre Command**
 - A. A unified command structure that integrates assets and personnel from the Army, Navy, and Air Force under a single operational commander for enhanced jointness and operational efficiency.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

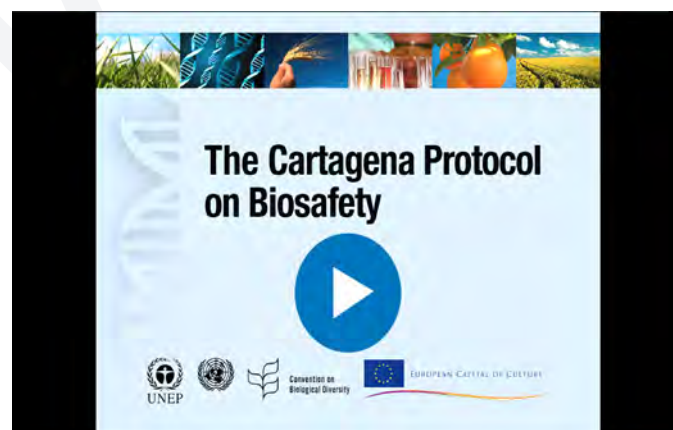
1. The Defence Research and Development Organisation (DRDO) functions under the Ministry of Defence.
2. Innovations for Defence Excellence (iDEX) supports innovation by startups, MSMEs, and academic institutions in the defence sector.
3. Defence Industrial Corridors have been established in Tamil Nadu and Uttar Pradesh.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

3. BIODIVERSITY PAYS BACK: INDIA'S ACCESS AND BENEFIT SHARING (ABS) FRAMEWORK DELIVERS ₹145 CRORE TO BENEFICIARIES



Key Highlights

- I. More than **₹145 crore** has been shared with beneficiaries under the ABS framework.
- II. The framework ensures:
 - A. Fair and equitable sharing of benefits.
 - B. Conservation of biodiversity.
 - C. Protection of traditional knowledge.
 - D. Sustainable use of biological resources.
- III. Local communities are recognized as custodians of biodiversity and receive benefits from its commercial utilization.

WHAT IS ACCESS AND BENEFIT SHARING (ABS)?

Access and Benefit Sharing

Definition

- Access and Benefit Sharing (ABS) is a mechanism through which **users of biological resources and associated traditional knowledge share monetary and non-monetary benefits** with the communities and institutions that conserve these resources.

Objectives

- Ensure equitable benefit sharing.
- Promote biodiversity conservation.
- Encourage sustainable utilization of biological resources.
- Protect the rights and traditional knowledge of indigenous and local communities.

LEGAL FRAMEWORK IN INDIA

Biological Diversity Act, 2002

Objectives

- Conservation of biological diversity.
- Sustainable use of biological resources.
- Fair and equitable sharing of benefits arising from their use.

Institutional Structure

National Biodiversity Authority (NBA)

- Apex statutory body implementing the Act.

State Biodiversity Boards (SBBs)

- Regulate access to biological resources at the state level.

Biodiversity Management Committees (BMCs)

- Constituted by local bodies.
- Prepare **People's Biodiversity Registers (PBRs)**.
- Facilitate conservation and benefit sharing.

HOW DOES THE ABS FRAMEWORK WORK?

1. Industries, researchers, or companies access biological resources or associated traditional knowledge.
2. Benefits arising from commercial use are determined.

3. Monetary and/or non-monetary benefits are shared with local communities through the ABS mechanism.
4. Funds support biodiversity conservation and community development.

SIGNIFICANCE

Biodiversity Conservation

- Creates financial incentives for conserving ecosystems and species.

Community Empowerment

- Recognizes the contribution of indigenous and local communities.

Livelihood Support

- Generates income for biodiversity-rich rural and tribal communities.

Sustainable Development

- Balances economic utilization with ecological conservation.

Traditional Knowledge Protection

- Prevents exploitation without recognition or benefit sharing.

CHALLENGES

- Limited awareness among local communities.
- Difficulty in valuation of biological resources and traditional knowledge.
- Monitoring compliance by users.
- Capacity constraints of Biodiversity Management Committees.

WAY FORWARD

- Strengthen Biodiversity Management Committees.
- Increase awareness regarding ABS provisions.
- Improve digital monitoring and transparency.
- Promote value addition to biodiversity-based products.
- Enhance capacity building for local communities.

KEY HIGHLIGHTS

- **Framework:** Access and Benefit Sharing (ABS).
- **Legal Basis:** Biological Diversity Act, 2002.
- **Benefits Distributed:** Over ₹145 crore.
- **Implementing Authority:** National Biodiversity Authority.

- **Objective:** Fair benefit sharing, biodiversity conservation, and protection of traditional knowledge.

PRELIMS BOOSTER BOX

- I. **Biological Diversity (Amendment) Act, 2023**
 - A. Amended the Biological Diversity Act, 2002.
 - B. Seeks to facilitate research, encourage cultivation of medicinal plants, support the AYUSH sector, and streamline access to biological resources while retaining benefit-sharing provisions.
- II. **Convention on Biological Diversity (CBD)**
 - A. Opened for signature at the **Earth Summit**.
 - B. Has three objectives:
 1. Conservation of biological diversity.
 2. Sustainable use of its components.
 3. Fair and equitable sharing of benefits arising from the use of genetic resources.
- III. **Nagoya Protocol**
 - A. Adopted in **2010** under the CBD.
 - B. Provides the international legal framework for Access and Benefit Sharing (ABS).
- IV. **People's Biodiversity Register (PBR)**
 - A. A document prepared by **Biodiversity Management Committees (BMCs)** recording local biological resources and associated traditional knowledge.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

- The Biological Diversity Act, 2002 provides for fair and equitable sharing of benefits arising from the use of biological resources.
- The National Biodiversity Authority is the apex statutory body responsible for implementing the Biological Diversity Act.
- The Nagoya Protocol provides an international legal framework for Access and Benefit Sharing (ABS).

Which of the statements given above is/are correct?

- (a) 1 and 2 only
(b) 2 and 3 only

(c) 1 and 3 only

(d) 1, 2 and 3

Answer: (d)

4. UNION MINISTRY OF HEALTH AND FAMILY WELFARE PROHIBITS MANUFACTURE, SALE AND DISTRIBUTION OF 16 FIXED DOSE COMBINATIONS (FDCs) IN PUBLIC INTEREST



Key Highlights

- I. **16 Fixed Dose Combinations (FDCs)** have been banned.
- II. Decisions taken in the interest of **public health and patient safety**.
- III. Based on recommendations of an expert committee after scientific evaluation.
- IV. The ban aims to:
 - A. Prevent irrational drug use.
 - B. Reduce adverse drug reactions.
 - C. Promote rational prescription practices.

WHAT ARE FIXED DOSE COMBINATIONS (FDCs)?

Definition

- **Fixed Dose Combinations (FDCs)** are pharmaceutical formulations containing **two or more active pharmaceutical ingredients (APIs)** combined in a fixed ratio into a single dosage form.

Advantages (When Rational)

- Improved patient compliance.
- Reduced pill burden.

- Better therapeutic outcomes in specific diseases (e.g., tuberculosis, HIV/AIDS, hypertension).

Risks (When Irrational)

- Increased risk of adverse drug reactions.
- Difficulty in dose adjustment.
- Drug interactions.
- Development of antimicrobial resistance (in case of irrational antibiotic combinations).
- Unnecessary exposure to multiple medicines.

LEGAL FRAMEWORK

Drugs and Cosmetics Act, 1940

- I. Empowers the Central Government to regulate the manufacture, sale, and distribution of drugs.
- II. Under **Section 26A**, the Central Government may prohibit drugs if they are found to be:
 - A. Likely to involve risk to human beings or animals.
 - B. Lacking therapeutic justification.
 - C. Unsafe when safer alternatives exist.

ROLE OF REGULATORY AUTHORITIES

Central Drugs Standard Control Organisation (CDSCO)

- I. India's national drug regulatory authority.
- II. Responsible for:
 - A. Approval of new drugs.
 - B. Regulation of clinical trials.
 - C. Drug quality standards.
 - D. Monitoring safety and efficacy.

Drugs Controller General of India

- Heads CDSCO.
- Responsible for approval of new drugs and enforcement of drug regulations.

SIGNIFICANCE

Patient Safety

- Protects the public from irrational and potentially harmful medicines.

Rational Drug Use

- Encourages evidence-based prescribing practices.

Public Health

- Helps reduce adverse drug events and medication errors.

Regulatory Strengthening

- Reinforces scientific regulation of pharmaceuticals.

CHALLENGES

- Continued availability of irrational drug combinations in some markets.
- Ensuring effective enforcement across states.
- Need for greater awareness among healthcare professionals.
- Monitoring compliance by manufacturers and distributors.

WAY FORWARD

- Strengthen post-marketing surveillance (pharmacovigilance).
- Increase awareness among doctors and pharmacists about rational drug use.
- Enhance coordination between Central and State drug regulators.
- Promote evidence-based prescribing and periodic review of approved FDCs.

KEY HIGHLIGHTS

- **Authority:** Ministry of Health and Family Welfare.
- **Action:** Ban on 16 Fixed Dose Combinations (FDCs).
- **Legal Basis:** Section 26A of the Drugs and Cosmetics Act, 1940.
- **Objective:** Protect public health by eliminating irrational and unsafe drug combinations.

PRELIMS BOOSTER BOX

- I. **Fixed Dose Combination (FDC)**
 - A. A pharmaceutical product containing **two or more active pharmaceutical ingredients** in a fixed ratio within a single dosage form.
- II. **Central Drugs Standard Control Organisation (CDSCO)**
 - A. India's **national drug regulatory authority**.
 - B. Functions under the **Ministry of Health and Family Welfare**.
 - C. Responsible for approval of new drugs, regulation of clinical trials, and ensuring drug quality and safety.
- III. **Drugs Controller General of India (DCGI)**

- A. Heads the CDSCO.
- B. Grants approvals for new drugs and oversees enforcement of drug regulatory standards.

IV. Pharmacovigilance

- A. The science and activities related to the **detection, assessment, understanding, and prevention of adverse effects** or other drug-related problems after medicines are marketed.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. A Fixed Dose Combination (FDC) contains two or more active pharmaceutical ingredients in a fixed ratio.
2. Section 26A of the Drugs and Cosmetics Act, 1940 empowers the Central Government to prohibit drugs that pose a risk to human health or lack therapeutic justification.
3. The Central Drugs Standard Control Organisation (CDSCO) is India's national drug regulatory authority.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

5. 'NIRBHAY CHETNA' ROLLED OUT TO SENSITIZE OVER 17.5 LAKH MALE ELECTED REPRESENTATIVES ON WOMEN'S SAFETY & GENDER EQUALITY AT THE GRASSROOTS



Key Highlights

- I. **'Nirbhay Chetna'** is a nationwide gender sensitization initiative.
- II. Targets **over 17.5 lakh male elected representatives** in Panchayati Raj Institutions.
- III. Focus areas include:
 - A. Women's safety.
 - B. Gender equality.
 - C. Prevention of gender-based violence.
 - D. Respect for women's rights.
 - E. Gender-responsive governance.
- IV. Seeks to promote behavioural change and community participation.

OBJECTIVES OF 'NIRBHAY CHETNA'

- Promote awareness on gender equality.
- Encourage elected representatives to become advocates for women's safety.
- Strengthen community-based prevention of violence against women.
- Improve implementation of women-centric welfare schemes.
- Foster inclusive and gender-sensitive local governance.

WHY TARGET PANCHAYATI RAJ REPRESENTATIVES?

- I. They are the **first level of democratic governance** in rural areas.
- II. Play a crucial role in:
 - A. Community mobilization.
 - B. Local decision-making.
 - C. Implementation of government schemes.
 - D. Addressing social issues at the grassroots.
- III. Can influence community attitudes and behavioural change.

CONSTITUTIONAL BASIS

73rd Constitutional Amendment Act, 1992

- Granted constitutional status to **Panchayati Raj Institutions (PRIs)**.
- Added **Part IX (Articles 243–243O)** to the Constitution.
- Introduced the **Eleventh Schedule**, listing **29 subjects** for devolution to Panchayats.

SIGNIFICANCE

Women's Safety

- Promotes safer and more inclusive communities.

Gender Equality

- Encourages equal participation and respect for women in public and private life.

Grassroots Governance

- Strengthens the role of Panchayats in addressing gender-related issues.

Behavioural Change

- Focuses on transforming societal attitudes rather than only enforcing legal measures.

Inclusive Development

- Supports the achievement of **Sustainable Development Goal (SDG) 5 – Gender Equality**.

CHALLENGES

- Deep-rooted patriarchal social norms.
- Limited awareness in remote areas.
- Variations in implementation across states.
- Need for sustained capacity building and follow-up.

WAY FORWARD

- Conduct regular gender-sensitization programmes for elected representatives.
- Strengthen community participation in promoting women's safety.
- Integrate gender perspectives into Panchayat development plans.
- Improve coordination among local governments, civil society, and government departments.
- Monitor behavioural and institutional outcomes of the initiative.

KEY HIGHLIGHTS

- **Initiative:** Nirbhay Chetna.
- **Target Group:** Over 17.5 lakh male elected representatives of Panchayati Raj Institutions.
- **Focus:** Women's safety, gender equality, and prevention of gender-based violence.
- **Approach:** Grassroots awareness and gender-responsive governance.

PRELIMS BOOSTER BOX

I. 73rd Constitutional Amendment Act, 1992

- Granted **constitutional status** to Panchayati Raj Institutions.
- Added **Part IX (Articles 243–243O)** and the **Eleventh Schedule** to the Constitution.

II. Panchayati Raj Institutions (PRIs)

- A **three-tier system** of rural local self-government:
 1. Gram Panchayat (Village level)
 2. Panchayat Samiti (Block/Intermediate level)
 3. Zila Parishad (District level)

III. Eleventh Schedule

- Contains **29 subjects** that may be devolved to Panchayats, including agriculture, health, education, drinking water, rural housing, and social welfare.

IV. Sustainable Development Goal (SDG) 5

- Aims to **achieve gender equality and empower all women and girls** by eliminating discrimination, violence, and harmful practices while ensuring equal participation in decision-making.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The 73rd Constitutional Amendment Act, 1992 granted constitutional status to Panchayati Raj Institutions.
2. The Eleventh Schedule of the Constitution contains 29 subjects that may be devolved to Panchayats.
3. Sustainable Development Goal (SDG) 5 focuses on achieving gender equality and empowering all women and girls.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Answer: (d)

1. PRESIDENT OF INDIA GRACES INTERNATIONAL SICKLE CELL DAY COMMEMORATION AT OMKARESHWAR, MADHYA PRADESH



Key Highlights

- I. International Sickle Cell Day observed on **19 June**.
- II. President emphasized:
 - A. Early diagnosis and screening.
 - B. Timely treatment and counselling.
 - C. Community awareness.
 - D. Special focus on tribal populations.
- III. Reinforced the goal of **eliminating Sickle Cell Disease as a public health problem by 2047**.

ABOUT INTERNATIONAL SICKLE CELL DAY

International Sickle Cell Day

Observed On

- **19 June** every year.

Declared By

- **United Nations General Assembly** in 2008.

Objective

- I. Raise awareness about:
 - A. Sickle Cell Disease.
 - B. Early diagnosis.
 - C. Treatment and care.
 - D. Genetic counselling.
 - E. Research and public health interventions.

ABOUT SICKLE CELL DISEASE (SCD)

Sickle Cell Disease

What is it?

- A **hereditary genetic blood disorder** caused by a mutation in the **hemoglobin (HBB) gene**.
- Red blood cells become **sickle (crescent)-shaped**, making them rigid and prone to blocking small blood vessels.

Causes

- Inherited in an **autosomal recessive** pattern.
- A person develops the disease only if **both parents pass on the mutated gene**.

Symptoms

- Severe pain episodes (vaso-occlusive crises).
- Chronic anaemia.
- Frequent infections.
- Fatigue.
- Organ damage in severe cases.

NATIONAL SICKLE CELL ANAEMIA

ELIMINATION MISSION

Launched

- **2023**

Nodal Ministry

- Ministry of Health and Family Welfare

Goal

- Eliminate **Sickle Cell Disease as a public health problem by 2047**.

Key Components

- Universal screening of vulnerable populations, especially in tribal areas.
- Genetic counselling.
- Early diagnosis and treatment.
- Awareness campaigns.
- Digital health records and monitoring.

WHY IS SCD A MAJOR CONCERN IN INDIA?

- I. Higher prevalence among **Scheduled Tribe (ST)** populations.
- II. Significant burden in states such as:
 - A. Madhya Pradesh
 - B. Maharashtra
 - C. Gujarat
 - D. Chhattisgarh
 - E. Odisha

F. Jharkhand

SIGNIFICANCE

Public Health

- Early detection reduces complications and mortality.

Social Justice

- Improves healthcare access for vulnerable tribal communities.

Genetic Counselling

- Helps families understand inheritance and make informed reproductive choices.

Universal Health Coverage

- Supports equitable access to diagnosis and treatment.

CHALLENGES

- Low awareness in remote areas.
- Limited access to specialized healthcare.
- Social stigma associated with genetic disorders.
- Need for wider screening and counselling services.

WAY FORWARD

- Expand newborn and community screening programmes.
- Strengthen healthcare infrastructure in tribal districts.
- Promote genetic counselling and awareness campaigns.
- Improve access to medicines, blood transfusion services, and comprehensive care.
- Enhance research on gene-based therapies and affordable treatments.

KEY HIGHLIGHTS

- **Occasion:** International Sickle Cell Day.
- **Date:** 19 June.
- **Venue:** Omkareshwar, Madhya Pradesh.
- **National Mission:** National Sickle Cell Anaemia Elimination Mission.
- **Target:** Eliminate Sickle Cell Disease as a public health problem by **2047**.

PRELIMS BOOSTER BOX

I. Sickle Cell Disease (SCD)

- A. An **autosomal recessive genetic disorder** caused by a mutation in the **HBB gene**.
- B. Characterized by abnormal sickle-shaped red blood cells that can obstruct blood flow.

II. Sickle Cell Trait

- A. Individuals inherit **one normal and one mutated HBB gene**.
- B. Usually asymptomatic but can pass the mutated gene to their children.

III. National Sickle Cell Anaemia Elimination Mission

- A. Launched in **2023**.
- B. Aims to screen **about 7 crore individuals aged 0–40 years** in affected tribal areas by **2047**.

IV. Haemoglobin

- A. An iron-containing protein in red blood cells responsible for transporting oxygen from the lungs to body tissues.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Sickle Cell Disease is inherited in an autosomal recessive pattern.
2. International Sickle Cell Day is observed annually on 19 June.
3. The National Sickle Cell Anaemia Elimination Mission aims to eliminate Sickle Cell Disease as a public health problem in India by 2047.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Answer: (d)

2. SECURING THE NATION



Key Highlights

- I. Strengthening national security through a **whole-of-government approach**.
- II. Focus on:
 - A. Defence modernization.
 - B. Border infrastructure.
 - C. Maritime security.
 - D. Counter-terrorism.
 - E. Cybersecurity.
 - F. Indigenous defence manufacturing.
- III. Promotes self-reliance under **Atmanirbhar Bharat** while enhancing operational preparedness.

KEY PILLARS OF NATIONAL SECURITY

Defence Modernization

- Induction of advanced indigenous defence platforms.
- Modernization of the Armed Forces through network-centric and technology-driven capabilities.

Border Infrastructure

- I. Development of:
 - A. Border roads.
 - B. Strategic tunnels.
 - C. Bridges.
 - D. Forward connectivity.
- II. Enhances rapid deployment and logistics.

Maritime Security

- Strengthening coastal surveillance.
- Expanding the capabilities of the **Indian Navy** and the **Indian Coast Guard**.
- Ensuring security in the **Indian Ocean Region**.

Internal Security

- Enhanced intelligence coordination.
- Counter-terrorism measures.
- Capacity building of police and security forces.

Cyber Security

- Strengthening protection of critical information infrastructure.
- Enhancing cyber resilience against evolving threats.

MAJOR INITIATIVES

Atmanirbhar Bharat in Defence

- Promotes indigenous defence production and procurement.

Innovations for Defence Excellence (iDEX)

- Supports defence innovation through startups, MSMEs, and academia.

Border Infrastructure Development

- Accelerated construction of strategic infrastructure in border areas.

Maritime Domain Awareness (MDA)

- Improves surveillance and monitoring of India's maritime interests.

SIGNIFICANCE

National Sovereignty

- Strengthens India's ability to safeguard territorial integrity.

Strategic Preparedness

- Enhances readiness against conventional and emerging security threats.

Economic Security

- Protects trade routes and critical infrastructure.

Technological Advancement

- Encourages indigenous innovation in defence and cybersecurity.

Regional Stability

- Reinforces India's role as a net security provider in the Indian Ocean Region.

CHALLENGES

- Emerging cyber threats.
- Cross-border terrorism.
- Maritime security challenges.
- Rapid technological evolution in warfare.
- High capital requirements for defence modernization.

WAY FORWARD

- Expand indigenous defence R&D.
- Strengthen cyber security architecture.
- Improve jointness among the Armed Forces.
- Enhance maritime surveillance capabilities.
- Promote greater public-private collaboration in defence technology.

KEY HIGHLIGHTS

- **Focus:** Comprehensive national security.
- **Priority Areas:** Defence modernization, border management, maritime security, internal security, and cybersecurity.
- **Approach:** Technology-driven, self-reliant, and integrated security framework.

PRELIMS BOOSTER BOX

- I. **Chief of Defence Staff (CDS)**
 - A. Created in **2019**.
 - B. Acts as the principal military adviser to the Government.
 - C. Promotes **jointness** and **theatre command** integration among the three services.
- II. **Border Roads Organisation (BRO)**
 - A. Established in **1960**.
 - B. Responsible for constructing and maintaining strategic road infrastructure in border areas.
- III. **Maritime Domain Awareness (MDA)**
 - A. Refers to the effective understanding of activities in the maritime domain that could affect security, safety, the economy, or the environment.
- IV. **Critical Information Infrastructure (CII)**
 - A. Infrastructure whose disruption can have a debilitating impact on **national security, economy, public health, or public safety**.
 - B. Protected under the **Information Technology Act, 2000**, with the

National Critical Information Infrastructure Protection Centre (NCIIPC) serving as the nodal agency for its protection.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Chief of Defence Staff (CDS) is the principal military adviser to the Government of India.
2. The Border Roads Organisation (BRO) is responsible for developing strategic road infrastructure in border areas.
3. The National Critical Information Infrastructure Protection Centre (NCIIPC) is the nodal agency for protecting India's Critical Information Infrastructure.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

3. ASTRONOMERS FIND CLUES TO THE ORIGIN OF ENERGETIC COSMIC X-RAY FLASHES



Key Highlights

- I. Researchers have identified mechanisms that may explain the origin of powerful cosmic X-ray flashes.
- II. The study enhances understanding of:
 - A. High-energy astrophysical processes.
 - B. Matter under extreme gravity.
 - C. Accretion around compact objects.
- III. Findings may improve models of stellar evolution and extreme cosmic environments.

WHAT ARE COSMIC X-RAY FLASHES?

Definition

- **Cosmic X-ray flashes** are **brief, intense bursts of X-ray radiation** originating from highly energetic astrophysical events.

Characteristics

- Very short duration (from milliseconds to minutes).
- Extremely high energy.
- Detected only by **space-based X-ray observatories**, as Earth's atmosphere absorbs X-rays.

POSSIBLE SOURCES

Neutron star

- Formed after the collapse of massive stars during supernova explosions.
- Possess extremely high density and strong magnetic fields.
- Can emit X-ray bursts when matter accumulates on their surface.

Black Holes

- Matter falling into a black hole forms an **accretion disk**.
- Friction within the disk heats matter to millions of degrees, producing X-rays.

Binary Star Systems

- Many X-ray flashes originate in **X-ray binaries**, where a neutron star or black hole accretes matter from a companion star.

WHY ARE THEY IMPORTANT?

Understanding Extreme Physics

- Provide insights into matter under immense pressure, temperature, and gravity.

Stellar Evolution

- Help explain the life cycle and death of massive stars.

Testing Fundamental Physics

- Offer opportunities to study **General relativity** in extreme gravitational environments.

Space Astronomy

- Improve knowledge of high-energy processes across the universe.

HOW ARE X-RAYS DETECTED?

- I. Earth's atmosphere blocks X-rays.

- II. Detection requires **space-based X-ray telescopes** aboard satellites.

- III. These observatories study:
 - A. Black holes.
 - B. Neutron stars.
 - C. Supernova remnants.
 - D. Active galactic nuclei.

SIGNIFICANCE

Astrophysics

- Advances understanding of compact celestial objects.

Fundamental Science

- Helps investigate gravity, magnetism, and nuclear matter under extreme conditions.

Space Exploration

- Supports future high-energy astronomy missions.

Technology Development

- Drives innovation in advanced space observatories and detectors.

CHALLENGES

- X-ray flashes are short-lived and unpredictable.
- Require highly sensitive space-based instruments.
- Difficult to determine precise origins due to their transient nature.

WAY FORWARD

- Develop next-generation X-ray observatories.
- Strengthen international collaboration in space astronomy.
- Integrate observations across X-ray, radio, optical, and gravitational-wave astronomy.
- Improve theoretical models of compact objects and high-energy phenomena.

KEY HIGHLIGHTS

- **Phenomenon:** Cosmic X-ray flashes.
- **Possible Sources:** Neutron stars, black holes, and X-ray binary systems.
- **Importance:** Understanding extreme astrophysical processes and testing theories of gravity.
- **Observation:** Through space-based X-ray telescopes.

PRELIMS BOOSTER BOX

I. X-rays

- A. A form of **electromagnetic radiation** with wavelengths shorter than ultraviolet light and longer than gamma rays.
- B. Earth's atmosphere absorbs X-rays, necessitating **space-based observations**.

II. Neutron Star

- A. Forms after the gravitational collapse of a massive star following a **supernova**.
- B. Composed predominantly of neutrons and is among the densest known objects in the Universe.

III. Accretion Disk

- A. A rotating disk of gas and dust spiralling into a compact object such as a **black hole** or **neutron star**.
- B. Friction within the disk generates intense heat, producing high-energy radiation, including X-rays.

IV. Electromagnetic Spectrum (in increasing energy)

- A. Radio waves → Microwaves → Infrared → Visible light → Ultraviolet → **X-rays** → Gamma rays.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Earth's atmosphere absorbs most incoming X-rays from outer space.
2. Neutron stars are formed from the remnants of massive stars after supernova explosions.
3. An accretion disk around a black hole can emit X-rays due to intense heating caused by friction.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

4. MAHINDRA GROUP COMPANIES JOIN GOVERNMENT OF INDIA SCHEME TO OFFER DISCOUNTS FOR REPLACEMENT OF OLD TRUCKS AND BUSES IN DELHI-NCR



Key Highlights

- I. Mahindra Group companies have become part of the replacement incentive programme.
- II. Applicable to:
 - A. Old trucks.
 - B. Old buses.
- III. Focus Area:
 - A. Delhi-NCR.
- IV. Objectives:
 - A. Reduce vehicular emissions.
 - B. Improve air quality.
 - C. Modernize commercial vehicle fleets.
 - D. Enhance road safety.

ABOUT THE VEHICLE SCRAPPING POLICY

Vehicle Scrapping Policy

Launched

- 2021

Nodal Ministry

- Ministry of Road Transport and Highways

Objectives

- Phase out old and polluting vehicles.
- Reduce vehicular emissions.
- Improve fuel efficiency.
- Enhance road safety.
- Promote scientific recycling of end-of-life vehicles.

Key Features

- Mandatory **fitness testing** for older vehicles.
- Scrapping through **Registered Vehicle Scrapping Facilities (RVSFs)**.
- Incentives for owners purchasing new vehicles after scrapping eligible old ones.

SIGNIFICANCE

Cleaner Air

- Accelerates replacement of highly polluting commercial vehicles in Delhi-NCR.

Road Safety

- Newer vehicles are equipped with improved safety features and comply with modern standards.

Fuel Efficiency

- Modern commercial vehicles consume less fuel and emit fewer pollutants.

Circular Economy

- Scientific recycling enables recovery of valuable materials such as steel, aluminium, plastics, and rubber.

Economic Benefits

- Supports the automobile manufacturing sector and the organized vehicle recycling industry.

CHALLENGES

- High replacement costs for transport operators.
- Limited scrappage infrastructure in some regions.
- Need for greater awareness of available incentives.
- Financing constraints for small fleet owners.

WAY FORWARD

- Expand Registered Vehicle Scrapping Facilities across India.
- Strengthen access to affordable financing for vehicle replacement.
- Increase public awareness regarding scrappage benefits.
- Encourage broader participation by automobile manufacturers.
- Ensure effective implementation of emission and fitness regulations.

KEY HIGHLIGHTS

- **Company:** Mahindra Group.
- **Region:** Delhi-NCR.
- **Target Vehicles:** Old trucks and buses.
- **Objective:** Reduce pollution, improve road safety, and modernize commercial transport.
- **Supporting Policy:** Vehicle Scrapping Policy, 2021.

PRELIMS BOOSTER BOX

- I. **Vehicle Scrapping Policy (2021)**
 - A. Seeks to remove **unfit and highly polluting vehicles** from Indian roads.
 - B. Encourages replacement with safer and cleaner vehicles through incentives.
- II. **Registered Vehicle Scrapping Facility (RVSF)**
 - A. An authorized centre for the **scientific dismantling and recycling** of end-of-life vehicles.
 - B. Ensures environmentally sound disposal and recovery of recyclable materials.
- III. **Bharat Stage (BS) Emission Standards**
 - A. Emission norms prescribed by the Government to limit pollutants from motor vehicles.
 - B. **BS-VI** standards are the current nationwide norms and are significantly stricter than **BS-IV**.
- IV. **Commission for Air Quality Management (CAQM)**
 - A. A statutory body responsible for coordinating measures to improve air quality in the **National Capital Region (NCR)** and adjoining areas.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Vehicle Scrapping Policy encourages the replacement of old vehicles through incentives after scientific scrapping.
2. Registered Vehicle Scrapping Facilities (RVSFs) are authorized centres for dismantling and recycling end-of-life vehicles.
3. Bharat Stage VI (BS-VI) emission standards are stricter than Bharat Stage IV (BS-IV) standards.

Which of the statements given above is/are correct?

(a) 1 and 2 only

- (b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Answer: (d)

5. INDIAN NAVY SET TO COMMISSION THREE INDIGENOUS NAVAL PLATFORMS IN KOLKATA



Key Highlights

- I. Three indigenous naval platforms are being commissioned.
- II. The commissioning strengthens:
 - A. Maritime security.
 - B. Coastal defence.
 - C. Anti-submarine warfare (ASW) capabilities.
 - D. Indigenous shipbuilding ecosystem.
- III. Demonstrates India's growing self-reliance in defence production.

THE THREE NAVAL PLATFORMS

INS Himgiri

- I. A **Project 17A stealth-guided missile frigate**.
- II. Designed for:
 - A. Multi-role operations.
 - B. Air defence.
 - C. Surface warfare.
 - D. Anti-submarine warfare.
- III. Features advanced stealth characteristics and modern sensors.

INS Arnala

- I. An **Anti-Submarine Warfare Shallow Water Craft (ASW-SWC)**.

- II. Designed for:
 - A. Detecting and tracking submarines in coastal waters.
 - B. Coastal surveillance.
 - C. Low-intensity maritime operations.

INS Nistar

- I. A **Diving Support Vessel (DSV)**.
- II. Capable of:
 - A. Deep-sea diving operations.
 - B. Salvage missions.
 - C. Submarine rescue support.
 - D. Underwater maintenance and recovery.

INDIGENOUS SHIPBUILDING

Major Shipyards

- Garden Reach Shipbuilders & Engineers Limited (GRSE)
- Mazagon Dock Shipbuilders Limited (MDL)
- Cochin Shipyard Limited (CSL)

Importance

- Reduces dependence on imports.
- Promotes indigenous technology.
- Strengthens the domestic defence industrial base.
- Generates employment and develops high-end manufacturing capabilities.

SIGNIFICANCE

Maritime Security

- Enhances India's ability to secure its coastline and maritime interests.

Force Modernisation

- Strengthens the operational capabilities of the Indian Navy.

Aatmanirbhar Bharat

- Demonstrates progress in indigenous defence production.

Blue Economy

- Supports secure sea lanes and protection of maritime trade.

Strategic Deterrence

- Improves readiness in the **Indian Ocean Region**.

CHALLENGES

- Rapid technological advancements in naval warfare.
- High capital costs of naval platforms.
- Need for continuous R&D and indigenous development of advanced systems.
- Increasing strategic competition in the Indian Ocean Region.

WAY FORWARD

- Accelerate indigenous warship and submarine construction.
- Strengthen collaboration between the Navy, DRDO, shipyards, and private industry.
- Invest in next-generation technologies such as AI, autonomous systems, and advanced sensors.
- Expand export opportunities for Indian-built naval platforms.

KEY HIGHLIGHTS

- **Event:** Commissioning of three indigenous naval platforms.
- **Location:** Kolkata.
- **Platforms:** INS Himgiri, INS Arnala, and INS Nistar.
- **Objective:** Enhance maritime security, anti-submarine warfare, and self-reliance in defence manufacturing.

PRELIMS BOOSTER BOX

I. Project 17A

- A. Follow-on class to the **Project 17 (Shivalik-class)** stealth frigates.
- B. Equipped with advanced stealth features, modern sensors, and network-centric combat systems.

II. Anti-Submarine Warfare (ASW)

- A. Military operations aimed at detecting, tracking, and neutralizing enemy submarines.
- B. Uses sonar systems, torpedoes, helicopters, and maritime patrol aircraft.

III. Diving Support Vessel (DSV)

- A. Provides logistical and operational support for deep-sea diving, underwater repairs, salvage operations, and submarine rescue.

IV. Indigenous Defence Manufacturing

- A. A key pillar of **Aatmanirbhar Bharat**, promoting domestic design, development, and production of defence equipment while reducing import dependence.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Project 17A frigates are designed with enhanced stealth features and multi-role combat capabilities.
2. Anti-Submarine Warfare (ASW) focuses on detecting and neutralizing hostile submarines.
3. Diving Support Vessels are used for submarine rescue, underwater maintenance, and salvage operations.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

1. VIKAS BHI, VIRASAT BHI: BALANCING DEVELOPMENT WITH CULTURAL HERITAGE



Key Highlights

- I. Focus on integrating **development with heritage conservation**.
- II. Promotion of:
 - A. Cultural heritage preservation.
 - B. Tourism.
 - C. Urban rejuvenation.
 - D. Traditional crafts and artisans.
 - E. Digital documentation of heritage.
- III. Supports the vision of **Viksit Bharat @ 2047** through sustainable and inclusive development.

WHAT IS 'VIKAS BHI, VIRASAT BHI'?

Objective

- Achieve rapid economic growth while preserving India's civilizational and cultural legacy.
- Ensure heritage conservation becomes an integral part of infrastructure and urban development.
- Promote cultural tourism and local livelihoods.

MAJOR INITIATIVES

Heritage Conservation

- Restoration and conservation of monuments and archaeological sites.
- Scientific conservation of cultural assets.

Pilgrimage and Spiritual Tourism

- Development of major pilgrimage centres.
- Improved connectivity and visitor amenities.

Digital Preservation

- Digitization of manuscripts, museum collections, and historical records.
- Use of modern technologies for heritage documentation.

Promotion of Traditional Arts

- Support for artisans, handicrafts, handlooms, and indigenous cultural traditions.

IMPORTANT GOVERNMENT INITIATIVES

PRASHAD Scheme

- Develops pilgrimage destinations with improved infrastructure and amenities.

Swadesh Darshan Scheme

- Develops theme-based tourist circuits across the country.

National Mission on Cultural Mapping

- Maps India's cultural resources, artists, and heritage assets.

Adopt a Heritage Programme

- Encourages partnerships for developing tourist amenities at heritage sites.

SIGNIFICANCE

Cultural Preservation

- Protects India's rich historical and civilizational heritage.

Tourism Growth

- Boosts domestic and international tourism.

Employment Generation

- Creates livelihoods through tourism, handicrafts, and cultural industries.

Inclusive Development

- Ensures heritage conservation complements infrastructure development.

Soft Power

- Enhances India's global cultural influence and civilizational outreach.

CHALLENGES

- Urbanization pressures on heritage sites.
- Climate change impacts on monuments.
- Funding and maintenance constraints.
- Balancing conservation with tourism.
- Encroachments and environmental degradation.

WAY FORWARD

- Strengthen heritage impact assessments in development projects.
- Promote community participation in conservation.
- Expand digital documentation using advanced technologies.
- Encourage sustainable tourism practices.
- Enhance public-private partnerships for heritage conservation.

KEY HIGHLIGHTS

- **Theme:** Vikas Bhi, Virasat Bhi.
- **Focus:** Development with heritage conservation.
- **Priority Areas:** Cultural preservation, tourism, infrastructure, and sustainable development.
- **Vision:** Inclusive growth while safeguarding India's civilizational heritage.

PRELIMS BOOSTER BOX

- I. **Archaeological Survey of India (ASI)**
 - A. Established in **1861** by **Alexander Cunningham**.
 - B. Functions under the **Ministry of Culture**.
 - C. Responsible for the conservation and protection of monuments and archaeological sites of national importance.
- II. **PRASHAD Scheme**
 - A. Launched in **2014–15**.
 - B. Focuses on integrated development of pilgrimage and heritage destinations.
- III. **Swadesh Darshan Scheme**
 - A. Launched in **2014–15**.
 - B. Develops **theme-based tourism circuits** with a focus on sustainable and responsible tourism.
- IV. **World Heritage Convention**
 - A. Adopted by **UNESCO** in **1972**.
 - B. Provides the framework for identifying and conserving cultural and natural heritage of Outstanding Universal Value.

2. The PRASHAD Scheme aims at the integrated development of pilgrimage and heritage destinations.
3. The UNESCO World Heritage Convention was adopted in 1972.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

2. SOCIAL JUSTICE AND EMPOWERMENT DEPARTMENT RECORDS SIGNIFICANT GROWTH IN SCHOLARSHIP COVERAGE FOR SC STUDENTS



Key Highlights

- I. Expanded scholarship coverage for **Scheduled Caste (SC)** students.
- II. Focus on:
 - A. Improving access to higher education.
 - B. Reducing financial barriers.
 - C. Promoting educational equity.
 - D. Supporting skill development and employability.
- III. Scholarships are implemented through Direct Benefit Transfer (DBT) for greater transparency and timely disbursal.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Archaeological Survey of India (ASI) functions under the Ministry of Culture.

MAJOR SCHOLARSHIP SCHEMES FOR SC STUDENTS

Post Matric Scholarship (PMS) for SC Students

Objective

- Financial assistance to SC students pursuing studies beyond Class X.

Benefits

- Tuition fees.
- Maintenance allowance.
- Compulsory non-refundable fees.
- Other admissible educational expenses.

Top Class Education Scheme for SC Students

Objective

- Support meritorious SC students studying in premier educational institutions.

Coverage

- Tuition fees.
- Living expenses.
- Books and stationery.
- Computer and related accessories (as per scheme norms).

National Fellowship for SC Students

Objective

- Financial assistance for **M.Phil.** (where applicable) and **Ph.D.** studies.
- Promotes advanced research among SC scholars.

Free Coaching Scheme for SCs and OBCs

Objective

- Provide quality coaching for:
 - Competitive examinations.
 - Professional entrance examinations.
 - Employment-oriented courses.

IMPLEMENTATION MECHANISM

Direct Benefit Transfer (DBT)

- Scholarships are transferred directly to beneficiaries' bank accounts.
- Ensures:
 - Transparency.
 - Timely disbursement.

- Reduced leakages.

National Scholarship Portal (NSP)

- A unified digital platform for:
 - Online application.
 - Verification.
 - Scholarship disbursement.
 - Monitoring.

SIGNIFICANCE

Educational Inclusion

- Enhances access to quality education for SC students.

Reduction in Dropout Rates

- Financial assistance enables students to continue higher education.

Social Justice

- Promotes equity and equal opportunities.

Human Capital Development

- Improves employability and skill development.

Inclusive Growth

- Contributes to socio-economic empowerment of marginalized communities.

CHALLENGES

- Low awareness of scholarship schemes in some regions.
- Delays in verification by institutions.
- Digital accessibility issues.
- Need for better monitoring of outcomes.
- Regional disparities in scholarship uptake.

WAY FORWARD

- Increase awareness through outreach campaigns.
- Strengthen digital infrastructure for scholarship delivery.
- Improve institutional verification processes.
- Enhance monitoring and evaluation of scholarship outcomes.
- Expand mentoring and academic support for beneficiaries.

KEY HIGHLIGHTS

- **Target Group:** Scheduled Caste (SC) students.
- **Objective:** Improve access to education and reduce financial barriers.

- **Major Schemes:** Post Matric Scholarship, Top Class Education Scheme, National Fellowship, Free Coaching Scheme.
- **Implementation:** Direct Benefit Transfer (DBT) through the National Scholarship Portal.

PRELIMS BOOSTER BOX

- I. **Post Matric Scholarship (PMS) for SC Students**
 - A. Centrally Sponsored Scheme implemented by the **Ministry of Social Justice and Empowerment**.
 - B. Covers studies **beyond Class X**.
- II. **Top Class Education Scheme for SC Students**
 - A. Supports meritorious SC students admitted to **identified premier institutions**.
 - B. Covers tuition fees, living expenses, books, and other approved educational costs.
- III. **National Scholarship Portal (NSP)**
 - A. A **one-stop digital platform** for application, processing, verification, and disbursement of scholarships offered by Central and State Governments.
- IV. **Direct Benefit Transfer (DBT)**
 - A. Transfers government benefits directly into beneficiaries' bank accounts linked to verified identities, improving transparency and reducing leakages.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

- The Post Matric Scholarship for Scheduled Caste students is available for studies beyond Class X.
- The National Scholarship Portal serves as a unified platform for scholarship application, verification, and disbursement.
- Direct Benefit Transfer (DBT) is used to transfer scholarship amounts directly to beneficiaries' bank accounts.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

3. ADVANCING ELECTROLYTE ENGINEERING FOR DURABLE AND AFFORDABLE AQUEOUS BATTERIES



Key Highlights

- I. Researchers have engineered improved **electrolytes** for aqueous batteries.
- II. The innovation aims to:
 - A. Increase battery lifespan.
 - B. Improve energy efficiency.
 - C. Enhance operational stability.
 - D. Reduce overall cost.
- III. The development could accelerate the deployment of **grid-scale energy storage systems** for renewable energy integration.

WHAT ARE AQUEOUS BATTERIES?

Definition

- **Aqueous batteries** are electrochemical energy storage devices that use a **water-based electrolyte** instead of organic solvents.

Components

- **Anode** – Negative electrode.
- **Cathode** – Positive electrode.
- **Aqueous electrolyte** – Water-based ionic solution that enables ion transport between electrodes.
- **Separator** – Prevents direct contact between electrodes while allowing ion movement.

WHAT IS ELECTROLYTE ENGINEERING?

Definition

- Electrolyte engineering involves **designing and optimizing the composition and properties of the electrolyte** to improve battery performance.

Objectives

- Improve ionic conductivity.
- Expand the electrochemical stability window.
- Reduce unwanted side reactions.
- Prevent corrosion and electrode degradation.
- Enhance long-term cycling stability.

ADVANTAGES OF AQUEOUS BATTERIES

Enhanced Safety

- Water-based electrolytes are **non-flammable**, reducing fire risks compared to conventional lithium-ion batteries.

Lower Cost

- Use relatively inexpensive and readily available materials.

Environmental Friendliness

- Lower toxicity and easier disposal compared to batteries using organic electrolytes.

Long Cycle Life

- Improved electrolyte design enhances durability and operational life.

Grid-Scale Applications

- Well-suited for stationary energy storage supporting renewable energy systems.

CHALLENGES

- Lower energy density than lithium-ion batteries.
- Limited electrochemical stability of water.
- Electrode corrosion and side reactions.
- Performance degradation over repeated charge-discharge cycles.

SIGNIFICANCE

Renewable Energy Integration

- Facilitates storage of intermittent solar and wind energy.

Energy Security

- Supports reliable electricity supply through large-scale storage.

Sustainability

- Promotes environmentally friendly battery technologies.

Affordable Energy Storage

- Reduces the cost of stationary energy storage systems.

Climate Goals

- Supports decarbonization of the power sector.

WAY FORWARD

- Continue research on advanced electrolyte formulations.
- Develop high-energy-density aqueous battery chemistries.
- Scale up manufacturing for commercial deployment.
- Promote collaboration between research institutions and industry.
- Integrate aqueous batteries into smart grids and renewable energy systems.

KEY HIGHLIGHTS

- **Innovation:** Advanced electrolyte engineering.
- **Technology:** Aqueous batteries.
- **Major Benefits:** Improved safety, durability, affordability, and sustainability.
- **Applications:** Grid-scale energy storage, renewable energy integration, and stationary power systems.

PRELIMS BOOSTER BOX

I. Electrolyte

- A. A medium containing **mobile ions** that conducts electricity by enabling ion movement between the battery's electrodes during charging and discharging.

II. Lithium-ion Batteries

- A. Widely used in electric vehicles and portable electronics.
- B. Offer **high energy density** but generally use **flammable organic electrolytes**, posing safety concerns under certain conditions.

III. Grid-Scale Energy Storage

- A. Stores electricity on a large scale to balance supply and demand.
- B. Helps integrate renewable energy sources such as **solar** and **wind** into the power grid.

IV. Electrochemical Stability Window

- A. The range of voltages over which an electrolyte remains chemically stable without undergoing decomposition.

- B. A wider stability window generally enables higher battery performance.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Aqueous batteries use a water-based electrolyte instead of an organic solvent.
2. Electrolyte engineering aims to improve ionic conductivity and reduce unwanted side reactions in batteries.
3. Compared to conventional lithium-ion batteries, aqueous batteries are generally considered safer because their electrolytes are non-flammable.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Answer: (d)

4. TATA MOTORS JOINS GOVERNMENT OF INDIA SCHEME TO OFFER DISCOUNTS FOR REPLACEMENT OF OLD TRUCKS AND BUSES IN DELHI-NCR



Key Highlights

- I. Tata Motors has joined the replacement incentive programme for old commercial vehicles.
- II. Applicable to:
 - A. Old trucks.

- B. Old buses.

III. Focus Area:

- A. Delhi-NCR.

IV. Objectives:

- A. Reduce vehicular emissions.
- B. Promote fleet modernization.
- C. Improve road safety.
- D. Encourage environmentally friendly transport.

ABOUT THE VEHICLE SCRAPPING POLICY

Vehicle Scrapping Policy

Launched

- 2021

Nodal Ministry

- Ministry of Road Transport and Highways

Objectives

- Remove old and polluting vehicles from roads.
- Improve fuel efficiency.
- Enhance road safety.
- Reduce air pollution.
- Promote a circular economy through vehicle recycling.

Key Features

- **Fitness testing** for older vehicles.
- **Registered Vehicle Scrapping Facilities (RVSFs)** for scientific dismantling and recycling.
- Incentives for purchasing new vehicles after scrapping eligible old vehicles.

SIGNIFICANCE OF THE INITIATIVE

Air Pollution Control

- Accelerates replacement of highly polluting commercial vehicles in Delhi-NCR.

Cleaner Transport

- Encourages adoption of modern vehicles complying with the latest emission norms.

Road Safety

- Newer vehicles incorporate improved safety technologies and better performance.

Economic Benefits

- Reduces maintenance and operating costs for fleet owners.
- Supports growth of the automobile manufacturing and recycling industries.

Circular Economy

- Promotes recovery and recycling of steel, aluminium, plastics, and other materials from end-of-life vehicles.

CHALLENGES

- High upfront cost of purchasing new commercial vehicles.
- Limited awareness among vehicle owners about scrappage incentives.
- Need for more Registered Vehicle Scrapping Facilities.
- Financing constraints for small transport operators.

WAY FORWARD

- Expand scrappage infrastructure across the country.
- Increase awareness about scrappage incentives.
- Improve access to affordable financing for fleet replacement.
- Encourage greater participation by automobile manufacturers.
- Strengthen enforcement of emission and fitness standards.

KEY HIGHLIGHTS

- **Company:** Tata Motors.
- **Region:** Delhi-NCR.
- **Target Vehicles:** Old trucks and buses.
- **Objective:** Reduce pollution, modernize commercial fleets, and promote cleaner transportation.
- **Supporting Policy:** Vehicle Scrapping Policy, 2021.

PRELIMS BOOSTER BOX

- Vehicle Scrapping Policy (2021)**
 - Aims to phase out **unfit and polluting vehicles** through mandatory fitness testing and scientific scrapping.
 - Encourages replacement with safer and cleaner vehicles.
- Registered Vehicle Scrapping Facility (RVSF)**
 - Authorized facility for the environmentally sound dismantling and recycling of end-of-life vehicles.
 - Ensures proper recovery and disposal of vehicle components and materials.

III. Bharat Stage (BS) Emission Standards

- Emission standards notified by the Government to regulate air pollutants from motor vehicles.
- BS-VI** norms are the current nationwide emission standards and are significantly stricter than **BS-IV**, helping reduce particulate matter and nitrogen oxide emissions.

IV. Commission for Air Quality Management (CAQM)

- A statutory body responsible for coordinating measures to improve air quality in the **National Capital Region (NCR)** and adjoining areas.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

- The Vehicle Scrapping Policy aims to phase out old and polluting vehicles through fitness testing and scientific scrapping.
- Registered Vehicle Scrapping Facilities (RVSFs) are authorized centres for dismantling and recycling end-of-life vehicles.
- Bharat Stage VI (BS-VI) emission norms are stricter than Bharat Stage IV (BS-IV) norms.

Which of the statements given above is/are correct?

- 1 and 2 only
- 2 and 3 only
- 1 and 3 only
- 1, 2 and 3

Answer: (d)

5. INDIA EMERGES AS A GLOBAL RENEWABLE ENERGY LEADER BACKED BY A STRONG POLICY ECOSYSTEM



Key Highlights

- I. India is among the **fastest-growing renewable energy markets** globally.
- II. Growth supported by:
 - A. Stable policy framework.
 - B. Competitive bidding mechanisms.
 - C. Ease of investment.
 - D. Domestic manufacturing initiatives.
 - E. Green energy transition.
- III. Renewable energy is central to achieving **energy security, net-zero goals, and Viksit Bharat @ 2047.**

INDIA'S RENEWABLE ENERGY POLICY ECOSYSTEM

National Solar Mission

Jawaharlal Nehru National Solar Mission

- Launched in **2010** under the National Action Plan on Climate Change (NAPCC).
- Promotes large-scale deployment of solar energy.

PM Surya Ghar: Muft Bijli Yojana

- Launched in **2024**.
- Promotes rooftop solar installations for households through financial assistance.

National Green Hydrogen Mission

- Approved in **2023**.
- Aims to make India a global hub for the production, utilization, and export of green hydrogen.

PM-KUSUM Scheme

Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM-KUSUM)

- I. Promotes:
 - A. Solar pumps.
 - B. Decentralized renewable energy.
 - C. Solarization of agricultural feeders.

Production Linked Incentive (PLI) Scheme

- I. Supports domestic manufacturing of:
 - A. High-efficiency solar PV modules.
 - B. Renewable energy equipment.

INDIA'S RENEWABLE ENERGY TARGETS

National Targets

- Achieve **500 GW of non-fossil fuel-based installed electricity capacity by 2030.**

- Meet **50% of electricity requirements from non-fossil fuel sources by 2030.**
- Achieve **Net Zero emissions by 2070.**

International Commitments

- Commitments announced under the **Paris Agreement**.
- Active leadership in the **International Solar Alliance**.

SIGNIFICANCE

Energy Security

- Reduces dependence on imported fossil fuels.

Climate Change Mitigation

- Helps lower greenhouse gas emissions.

Economic Growth

- Attracts investment and generates employment.

Technological Leadership

- Promotes domestic manufacturing and innovation.

Global Leadership

- Enhances India's role in international clean energy cooperation.

CHALLENGES

- Grid integration of renewable energy.
- Energy storage requirements.
- Land acquisition issues.
- Transmission infrastructure gaps.
- Dependence on imports for some critical components.

WAY FORWARD

- Expand battery and pumped hydro energy storage.
- Strengthen Green Energy Corridors.
- Promote domestic manufacturing under Make in India.
- Increase investments in research and development.
- Accelerate deployment of offshore wind and green hydrogen.

KEY HIGHLIGHTS

- **Sector:** Renewable Energy.
- **Nodal Ministry:** Ministry of New and Renewable Energy.

- **Key Missions:** National Solar Mission, PM Surya Ghar, National Green Hydrogen Mission, PM-KUSUM.
- **Major Target:** 500 GW non-fossil fuel-based installed electricity capacity by 2030.

(c) 1 and 3 only

(d) 1, 2 and 3

Answer: (d)

PRELIMS BOOSTER BOX

I. **International Solar Alliance (ISA)**

- A. Launched jointly by **India** and **France** during **COP21** in Paris.
- B. Headquarters: Gurugram.
- C. Aims to promote solar energy deployment and cooperation among solar resource-rich countries.

II. **National Green Hydrogen Mission**

- A. Seeks to position India as a **global hub for green hydrogen production, utilization, and export.**
- B. Supports decarbonization of sectors such as steel, fertilizers, refining, and heavy transport.

III. **PM-KUSUM**

- A. Encourages farmers to adopt **solar-powered irrigation pumps** and enables decentralized renewable energy generation, reducing dependence on diesel and conventional electricity.

IV. **Green Energy Corridor**

- A. A transmission infrastructure initiative designed to facilitate the integration of renewable energy into the national grid by strengthening transmission networks.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The International Solar Alliance (ISA) was jointly launched by India and France during COP21 in Paris.
2. The National Green Hydrogen Mission aims to make India a global hub for green hydrogen production and exports.
3. PM-KUSUM promotes solar-powered irrigation and decentralized renewable energy generation in the agricultural sector.

Which of the statements given above is/are correct?

(a) 1 and 2 only

(b) 2 and 3 only

1. THE DEFENCE DECADE



Key Highlights

- Emphasis on **Atmanirbhar Bharat** in defence manufacturing.
- Significant increase in indigenous defence production and exports.
- Modernization of the Armed Forces.
- Promotion of private sector participation and innovation.
- Development of advanced indigenous defence platforms and technologies.

MAJOR INITIATIVES

Atmanirbhar Bharat in Defence

- Focus on reducing dependence on defence imports.
- Encourages indigenous design, development, and manufacturing.

Positive Indigenisation Lists

- Notified by the **Ministry of Defence**.
- Specify defence equipment to be procured only from domestic sources after stipulated timelines.

Defence Acquisition Procedure (DAP), 2020

- Gives preference to indigenous procurement.
- Promotes participation of Indian industry and startups.

Innovations for Defence Excellence (iDEX)

- Encourages innovation by startups, MSMEs, and academia.
- Supports development of cutting-edge defence technologies.

Defence Industrial Corridors

- Established in:
 - Uttar Pradesh
 - Tamil Nadu

- Aim to strengthen defence manufacturing ecosystems.

MAJOR ACHIEVEMENTS

Defence Production

- Record growth in indigenous defence manufacturing.
- Greater participation of the private sector.

Defence Exports

- India has emerged as a significant exporter of defence equipment to multiple countries.

Modern Indigenous Platforms

- LCA Tejas.
- INS Vikrant.
- Akash Missile System.
- BrahMos.
- Indigenous artillery systems, drones, and surveillance technologies.

SIGNIFICANCE

National Security

- Enhances operational preparedness and strategic autonomy.

Economic Growth

- Promotes manufacturing, employment, and technology development.

Strategic Autonomy

- Reduces dependence on foreign defence imports.

Global Competitiveness

- Positions India as a reliable defence manufacturing and export hub.

Innovation Ecosystem

- Encourages startups and MSMEs to develop advanced defence technologies.

CHALLENGES

- Dependence on imports for certain critical technologies.
- Long gestation periods for defence projects.
- Need for higher investment in defence R&D.
- Global competition in defence exports.
- Supply chain vulnerabilities.

WAY FORWARD

- Increase investment in defence research and innovation.
- Strengthen public-private partnerships.
- Expand indigenous manufacturing capabilities.
- Enhance export competitiveness.
- Promote advanced technologies such as AI, cyber, space, and unmanned systems.

KEY HIGHLIGHTS

- **Focus:** Atmanirbhar Bharat in Defence.
- **Major Policies:** Defence Acquisition Procedure (DAP), 2020; Positive Indigenisation Lists; iDEX.
- **Industrial Corridors:** Uttar Pradesh and Tamil Nadu.
- **Goal:** Self-reliance, modernization, and global competitiveness.

PRELIMS BOOSTER BOX

- I. **Defence Acquisition Procedure (DAP), 2020**
 - A. Replaced the Defence Procurement Procedure (DPP), 2016.
 - B. Prioritizes procurement from indigenous sources under categories such as **Buy (Indian-IDDM)**.
- II. **Innovations for Defence Excellence (iDEX)**
 - A. Launched in **2018**.
 - B. Managed by the **Defence Innovation Organisation (DIO)** under the **Ministry of Defence**.
 - C. Supports startups, MSMEs, innovators, and academia in developing defence technologies.
- III. **Defence Industrial Corridors**
 - A. **Uttar Pradesh Defence Industrial Corridor:**
 1. Nodes: **Lucknow, Kanpur, Agra, Aligarh, Jhansi, and Chitrakoot.**
 - B. **Tamil Nadu Defence Industrial Corridor:**
 1. Nodes: **Chennai, Coimbatore, Salem, Hosur, and Tiruchirappalli.**
- IV. **Defence Innovation Organisation (DIO)**
 - A. A not-for-profit company established to implement the **iDEX** framework and foster innovation in the defence sector.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Defence Acquisition Procedure (DAP), 2020 replaced the Defence Procurement Procedure (DPP), 2016.
2. Innovations for Defence Excellence (iDEX) was launched to promote innovation by startups, MSMEs, and academia in the defence sector.
3. India has established Defence Industrial Corridors in Uttar Pradesh and Tamil Nadu.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Answer: (d)

2. GOVERNMENT OF INDIA COMMITTED TO STRENGTHEN A SAFE, INCLUSIVE AND EMPOWERED ECOSYSTEM FOR WOMEN



Key Highlights

- I. Focus on **women-led development**.
- II. Strengthening women's:
 - A. Safety and security.
 - B. Education.
 - C. Health and nutrition.
 - D. Financial inclusion.
 - E. Entrepreneurship.
 - F. Political and economic participation.
- III. Promotes gender equality and inclusive growth under the vision of **Viksit Bharat @ 2047**.

MAJOR GOVERNMENT INITIATIVES

Beti Bachao Beti Padhao (BBBP)

- Launched in **2015**.
- Aims to improve the child sex ratio and promote education and empowerment of the girl child.

Mission Shakti

- I. Umbrella scheme for women's safety, protection, and empowerment.
- II. Comprises:
 - A. **Sambal** – Safety and security.
 - B. **Samarthya** – Empowerment and welfare.

Pradhan Mantri Matru Vandana Yojana (PMMVY)

- Provides cash assistance to eligible pregnant and lactating women to support maternal health and nutrition.

Lakshpati Didi Scheme

- Promotes women-led Self-Help Groups (SHGs) to achieve an annual household income of at least ₹1 lakh through sustainable livelihoods.

One Stop Centre Scheme

- Provides integrated support to women affected by violence, including legal, medical, psychological, and temporary shelter services.

Women Helpline (181)

- Offers 24×7 emergency support and information services for women in distress.

LEGAL & INSTITUTIONAL MEASURES

- Strengthening implementation of laws relating to women's safety.
- Promotion of gender-responsive governance.
- Expansion of institutional support services such as One Stop Centres and Women Helplines.
- Encouraging women's participation in decision-making and leadership.

SIGNIFICANCE

Gender Equality

- Promotes equal opportunities and rights for women.

Economic Empowerment

- Encourages entrepreneurship, financial inclusion, and livelihood generation.

Social Development

- Improves education, health, nutrition, and overall well-being.

Women's Safety

- Strengthens institutional mechanisms for protection and justice.

Inclusive Growth

- Enhances women's participation in nation-building and economic development.

CHALLENGES

- Gender-based violence and discrimination.
- Gaps in workforce participation.
- Unequal access to education and digital resources.
- Socio-cultural barriers to women's empowerment.
- Need for stronger implementation of welfare schemes.

WAY FORWARD

- Expand skill development and entrepreneurship opportunities.
- Improve access to quality education and healthcare.
- Strengthen institutional mechanisms for women's safety.
- Promote digital and financial literacy.
- Encourage greater representation of women in leadership and governance.

KEY HIGHLIGHTS

- **Focus:** Women-led development.
- **Priority Areas:** Safety, education, health, financial inclusion, entrepreneurship, and leadership.
- **Major Schemes:** Beti Bachao Beti Padhao, Mission Shakti, PMMVY, Lakshpati Didi, One Stop Centre Scheme.
- **Vision:** Safe, inclusive, and empowered ecosystem for women.

PRELIMS BOOSTER BOX

I. Mission Shakti

- A. Umbrella scheme of the **Ministry of Women and Child Development**.
- B. Two components:
 1. **Sambal** – Women's safety and security.

2. **Samarthya** – Women's empowerment and welfare.

II. **One Stop Centre (OSC) Scheme**

- A. Provides integrated support to women affected by violence.
- B. Services include **medical assistance, legal aid, police facilitation, psychosocial counselling, and temporary shelter.**

III. **Beti Bachao Beti Padhao (BBBP)**

- A. Launched in **2015**.
- B. Joint initiative of:
 1. **Ministry of Women and Child Development.**
 2. **Ministry of Health and Family Welfare.**
 3. **Ministry of Education.**

IV. **Lakhpati Didi**

- A. Aims to enable women associated with **Self-Help Groups (SHGs)** to earn at **least ₹1 lakh annually** through diversified livelihood activities and enterprise development.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Mission Shakti is an umbrella scheme for women's safety and empowerment implemented by the Ministry of Women and Child Development.
2. The One Stop Centre Scheme provides integrated support, including legal aid, medical assistance, and counselling to women affected by violence.
3. Beti Bachao Beti Padhao is jointly implemented by the Ministries of Women and Child Development, Health and Family Welfare, and Education.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

3. RESEARCHERS TRACKING AIR QUALITY RISKS IN THE HIMALAYA IDENTIFY SHIFT FROM CLEAN TO POLLUTED AIR



Key Highlights

- I. Air quality in the Central Himalaya is deteriorating.
- II. Polluted air is increasingly replacing the region's traditionally clean atmosphere.
- III. Major contributors include:
 - A. Long-range transport of pollutants from the Indo-Gangetic Plain (IGP).
 - B. Vehicular emissions.
 - C. Biomass burning.
 - D. Industrial activities.
 - E. Urbanization.
- IV. Findings underscore the need for continuous mountain air quality monitoring.

KEY FINDINGS OF THE STUDY

Shift in Air Mass Characteristics

- Researchers observed more frequent episodes of polluted air replacing clean mountain air.

Role of the Indo-Gangetic Plain (IGP)

- Pollutants are transported to the Himalayas through atmospheric circulation, especially during certain seasons.

Major Pollutants

- Fine particulate matter (**PM_{2.5}**).
- Black Carbon (BC).
- Aerosols.
- Ozone and other trace gases.

Environmental Impact

- Accelerated glacier melting due to black carbon deposition.
- Reduced visibility.
- Adverse effects on ecosystems and biodiversity.
- Increased health risks for mountain communities.

WHY THE HIMALAYA IS IMPORTANT

Himalaya

Ecological Importance

- Known as the "**Water Tower of Asia**".
- Source of major perennial rivers such as the **Ganga, Brahmaputra, and Indus**.
- Supports rich biodiversity and fragile mountain ecosystems.

Climate Regulation

- Influences the Indian monsoon.
- Acts as a climatic barrier.
- Stores vast quantities of freshwater in glaciers.

BLACK CARBON

What is Black Carbon?

- A component of **PM_{2.5}** produced by the incomplete combustion of fossil fuels, biomass, and diesel.

Sources

- Biomass burning.
- Diesel vehicles.
- Forest fires.
- Coal combustion.

Impacts

- Absorbs solar radiation, contributing to atmospheric warming.
- Deposits on snow and ice, reducing albedo and accelerating glacier melt.
- Adversely affects respiratory and cardiovascular health.

SIGNIFICANCE

Climate Change

- Accelerates glacier retreat and alters regional hydrology.

Water Security

- Threatens long-term water availability for millions downstream.

Public Health

- Increases respiratory and cardiovascular diseases.

Biodiversity Conservation

- Affects sensitive mountain ecosystems and species.

Disaster Risk

- Glacier retreat can increase the risk of **Glacial Lake Outburst Floods (GLOFs)**.

CHALLENGES

- Long-range transport of pollutants across regions.
- Rapid urbanization in Himalayan towns.
- Inadequate air quality monitoring in mountain regions.
- Climate change amplifying pollution impacts.

WAY FORWARD

- Expand high-altitude air quality monitoring networks.
- Reduce emissions from transport, industry, and biomass burning.
- Strengthen regional cooperation for air pollution control.
- Promote clean energy and sustainable mountain development.
- Integrate air quality management with climate adaptation strategies.

KEY HIGHLIGHTS

- **Finding:** Shift from clean to polluted air in the Central Himalaya.
- **Major Source:** Long-range transport from the Indo-Gangetic Plain.
- **Key Pollutants:** PM_{2.5}, Black Carbon, aerosols.
- **Major Concern:** Glacier melting, ecosystem degradation, and health impacts.

PRELIMS BOOSTER BOX

I. **Black Carbon (BC)**

- A. A short-lived climate pollutant produced by incomplete combustion.
- B. Contributes to global warming and accelerates glacier melt by reducing snow albedo.

II. **PM_{2.5}**

- A. Particulate matter with a diameter of **2.5 micrometres or less**.
- B. Can penetrate deep into the lungs and bloodstream, posing serious health risks.

III. **Indo-Gangetic Plain (IGP)**

- A. One of the world's most densely populated and agriculturally productive regions.
- B. Frequently experiences severe air pollution due to vehicular emissions, industries, crop residue burning, and biomass combustion.

IV. **Glacial Lake Outburst Flood (GLOF)**

- A. Sudden release of water from a glacial lake due to failure of the natural dam.
- B. A major climate-related hazard in the Himalayan region.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Black Carbon is produced primarily by the incomplete combustion of fossil fuels and biomass.
2. Deposition of Black Carbon on snow reduces surface albedo and accelerates glacier melting.
3. PM_{2.5} refers to particulate matter with an aerodynamic diameter of 2.5 micrometres or less.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

4. SECRETARY, DAE & CHAIRMAN, AEC VISITS TARAPUR ATOMIC POWER STATION; COMMENDS THE CONTINUING LEGACY OF THE WORLD'S OLDEST RUNNING POWER REACTORS



Key Highlights

- I. Secretary, DAE & Chairman, AEC reviewed the functioning of Tarapur Atomic Power Station.
- II. Appreciated the plant's:
 - A. Long operational legacy.
 - B. Strong safety culture.
 - C. High plant availability and reliability.
 - D. Contribution to India's clean energy goals.
- III. Reiterated the importance of nuclear energy in ensuring India's long-term energy security and low-carbon development.

ABOUT TARAPUR ATOMIC POWER STATION (TAPS)

Tarapur Atomic Power Station

Location

- Tarapur, Palghar district, Maharashtra.

Commissioned

- 1969.

Operator

- Nuclear Power Corporation of India Limited (NPCIL).

Reactor Units

- I. **Units 1 & 2**

- A. **Boiling Water Reactors (BWRs).**
- B. Among the **world's oldest operating commercial nuclear reactors.**

II. Units 3 & 4

- A. **Pressurised Heavy Water Reactors (PHWRs).**
- B. Indigenous reactor design.

INDIA'S NUCLEAR POWER PROGRAMME

Nodal Department

- Department of Atomic Energy (DAE).

Regulatory Authority

- Atomic Energy Regulatory Board (AERB).

Major Objectives

- Ensure energy security.
- Reduce carbon emissions.
- Promote indigenous nuclear technology.
- Support sustainable economic growth.

THREE-STAGE NUCLEAR POWER PROGRAMME

Stage I

- **Pressurised Heavy Water Reactors (PHWRs)** using **natural uranium.**

Stage II

- **Fast Breeder Reactors (FBRs)** using **plutonium-based fuel.**

Stage III

- **Thorium-based reactors** utilizing India's abundant thorium reserves.

SIGNIFICANCE

Energy Security

- Provides reliable base-load electricity generation.

Clean Energy

- Produces low greenhouse gas emissions during operation.

Technological Self-Reliance

- Demonstrates India's indigenous capabilities in nuclear technology.

Climate Commitments

- Supports India's transition to a low-carbon energy mix.

Operational Excellence

- TAPS showcases long-term safe operation of nuclear power plants.

CHALLENGES

- High capital costs.
- Nuclear waste management.
- Public concerns regarding nuclear safety.
- Long project gestation periods.
- Fuel supply and infrastructure requirements.

WAY FORWARD

- Expand indigenous PHWR capacity.
- Accelerate deployment of Fast Breeder and thorium-based technologies.
- Strengthen nuclear safety and regulatory oversight.
- Promote public awareness on the role of nuclear energy in clean energy transition.
- Enhance research in advanced reactor technologies, including Small Modular Reactors (SMRs).

KEY HIGHLIGHTS

- **Power Station:** Tarapur Atomic Power Station (TAPS).
- **Location:** Palghar, Maharashtra.
- **Commissioned:** 1969.
- **Operator:** Nuclear Power Corporation of India Limited (NPCIL).
- **Significance:** Home to the world's oldest operating commercial nuclear power reactors.

PRELIMS BOOSTER BOX

- I. **Tarapur Atomic Power Station (TAPS)**
 - A. India's **first commercial nuclear power station.**
 - B. Commissioned in **1969.**
 - C. Located in **Maharashtra.**
 - D. Operated by **NPCIL.**
- II. **Department of Atomic Energy (DAE)**
 - A. Established in **1954.**
 - B. Functions directly under the **Prime Minister's Office (PMO).**
 - C. Responsible for nuclear energy, atomic research, and related strategic programmes.
- III. **Atomic Energy Commission (AEC)**
 - A. Established in **1948.**

- B. Formulates policies related to atomic energy in India.
- C. The **Secretary, DAE** also serves as the **Chairman of the AEC**.

IV. **India's Three-Stage Nuclear Power Programme**

- A. Conceived by **Homi Jehangir Bhabha**.
- B. Aims to maximize utilization of India's limited uranium and abundant thorium resources through a phased nuclear fuel cycle.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Tarapur Atomic Power Station is India's first commercial nuclear power station.
2. The Department of Atomic Energy functions directly under the Prime Minister's Office.
3. India's three-stage nuclear power programme was conceived by Homi Jehangir Bhabha.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

5. WORLD DAY TO COMBAT DESERTIFICATION AND DROUGHT CELEBRATED ACROSS WDC-PMKSY 2.0 PROJECT AREAS



Key Highlights

- I. Observed on **17 June** across WDC-PMKSY 2.0 project areas.

- II. Activities included:
 - A. Tree plantation drives.
 - B. Awareness campaigns.
 - C. Water conservation initiatives.
 - D. Soil conservation measures.
 - E. Community participation programmes.
- III. Reinforced India's commitment to **land restoration** and **sustainable natural resource management**.

ABOUT WORLD DAY TO COMBAT DESERTIFICATION AND DROUGHT

World Day to Combat Desertification and Drought

Observed On

- **17 June** every year.

Established By

- **United Nations General Assembly** in **1994**.

Objective

- I. Raise awareness about:
 - A. Desertification.
 - B. Land degradation.
 - C. Drought.
- II. Promote sustainable land management and ecosystem restoration.

ABOUT WDC-PMKSY 2.0

Watershed Development Component of Pradhan Mantri Krishi Sinchayee Yojana (WDC-PMKSY 2.0)

Nodal Ministry

- **Department of Land Resources**
- **Ministry of Rural Development**

Objectives

- Restore degraded lands.
- Improve soil moisture.
- Enhance groundwater recharge.
- Increase agricultural productivity.
- Strengthen climate resilience.
- Improve rural livelihoods.

Major Activities

- Watershed treatment.
- Afforestation.
- Rainwater harvesting.
- Check dams and farm ponds.
- Soil conservation.

- Pasture development.

WHAT IS DESERTIFICATION?

Desertification

Definition

- Desertification refers to **land degradation in arid, semi-arid, and dry sub-humid areas**, caused by climatic variations and human activities.

Major Causes

- Deforestation.
- Overgrazing.
- Unsustainable agricultural practices.
- Soil erosion.
- Climate change.
- Water scarcity.

SIGNIFICANCE

Environmental Conservation

- Restores degraded ecosystems.

Water Security

- Enhances groundwater recharge and water availability.

Climate Resilience

- Reduces vulnerability to droughts and extreme weather events.

Agricultural Productivity

- Improves soil health and crop yields.

Livelihood Security

- Supports sustainable livelihoods in rural and drought-prone areas.

CHALLENGES

- Increasing frequency of droughts due to climate change.
- Land degradation and soil erosion.
- Overexploitation of groundwater.
- Unsustainable land-use practices.
- Limited community awareness in vulnerable regions.

WAY FORWARD

- Scale up watershed development programmes.
- Promote climate-resilient agriculture.
- Encourage community-led natural resource management.

- Strengthen afforestation and soil conservation efforts.
- Improve monitoring using geospatial technologies.

KEY HIGHLIGHTS

- **Occasion:** World Day to Combat Desertification and Drought.
- **Date:** 17 June.
- **Major Programme:** WDC-PMKSY 2.0.
- **Focus:** Land restoration, watershed development, water conservation, and sustainable agriculture.
- **Nodal Department:** Department of Land Resources, Ministry of Rural Development.

PRELIMS BOOSTER BOX

- I. **United Nations Convention to Combat Desertification (UNCCD)**
 - A. Adopted in **1994** and entered into force in **1996**.
 - B. One of the three **Rio Conventions**, alongside the **United Nations Framework Convention on Climate Change** and the **Convention on Biological Diversity**.
 - C. Aims to combat desertification and mitigate the effects of drought through sustainable land management.
- II. **Land Degradation Neutrality (LDN)**
 - A. A global goal under the UNCCD to **balance land degradation with restoration**, ensuring no net loss of healthy and productive land.
- III. **Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)**
 - A. Launched in **2015**.
 - B. Seeks to improve irrigation efficiency under the motto "**Har Khet Ko Pani**" and promote "**Per Drop More Crop**".
- IV. **Watershed Development**
 - A. An integrated approach to conserving **soil, water, and vegetation** within a drainage basin to improve ecological sustainability and agricultural productivity.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The World Day to Combat Desertification and Drought is observed annually on 17 June.
2. WDC-PMKSY 2.0 is implemented by the Department of Land Resources under the Ministry of Rural Development.
3. The United Nations Convention to Combat Desertification (UNCCD) is one of the three Rio Conventions.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

1. CCI APPROVES ACQUISITION OF PGIM INDIA ASSET MANAGEMENT AND PGIM INDIA TRUSTEES BY TVS EMERALD LTD. AND TVS VENU MANAGEMENT & CONSULTANCY SERVICES



Key Highlights

- I. CCI approved the proposed acquisition involving:
 - A. PGIM India Asset Management Pvt. Ltd.
 - B. PGIM India Trustees Pvt. Ltd.
- II. Acquirers:
 - A. TVS Emerald Ltd.
 - B. TVS Venu Management & Consultancy Services Pvt. Ltd.
- III. Approval granted under the **Competition Act, 2002**.
- IV. Objective is to ensure that the transaction does not result in an **Appreciable Adverse Effect on Competition (AAEC)** in India.

ABOUT THE COMPETITION COMMISSION OF INDIA (CCI)

Competition Commission of India

Established

- 2003

Statutory Basis

- **Competition Act, 2002**

Ministry

- **Ministry of Corporate Affairs**

Objectives

- Prevent anti-competitive practices.
- Promote and sustain competition.

- Protect consumer interests.
- Ensure freedom of trade in Indian markets.

WHAT IS A COMBINATION?

Under the **Competition Act, 2002**, a **Combination** refers to:

- Acquisition of shares, voting rights, assets, or control.
- Merger of enterprises.
- Amalgamation of enterprises.

Such transactions must be notified to the CCI if they cross the prescribed asset or turnover thresholds.

CCI'S ROLE IN COMBINATION APPROVALS

The CCI examines whether the proposed transaction is likely to:

- Cause an **Appreciable Adverse Effect on Competition (AAEC)**.
- Create or strengthen a dominant market position.
- Reduce consumer welfare.
- Restrict market competition.

If no significant competition concerns arise, the combination is approved.

SIGNIFICANCE

Healthy Market Competition

- Ensures mergers and acquisitions do not distort competition.

Consumer Protection

- Safeguards consumer interests through competitive markets.

Investor Confidence

- Provides regulatory certainty for corporate restructuring and investments.

Economic Growth

- Facilitates legitimate business expansion while maintaining fair competition.

CHALLENGES

- Assessing complex market structures.
- Balancing ease of doing business with effective competition regulation.
- Evaluating rapidly evolving financial and digital markets.
- Monitoring post-merger market behaviour.

WAY FORWARD

- Strengthen competition assessment in emerging sectors.
- Ensure timely disposal of merger applications.
- Promote greater regulatory transparency.
- Continuously update competition law to address evolving business models.

KEY HIGHLIGHTS

- **Regulator:** Competition Commission of India (CCI).
- **Law:** Competition Act, 2002.
- **Transaction:** Acquisition of PGIM India Asset Management and PGIM India Trustees.
- **Acquirers:** TVS Emerald Ltd. and TVS Venu Management & Consultancy Services Pvt. Ltd.
- **Purpose of CCI Approval:** Ensure the transaction does not adversely affect competition.

PRELIMS BOOSTER BOX

- I. **Competition Commission of India (CCI)**
 - A. Statutory body established under the **Competition Act, 2002**.
 - B. Became operational in **2009**.
 - C. Functions under the **Ministry of Corporate Affairs**.
- II. **Competition Act, 2002**
 - A. Replaced the **Monopolies and Restrictive Trade Practices (MRTP) Act, 1969**.
 - B. Regulates:
 1. Anti-competitive agreements.
 2. Abuse of dominant position.
 3. Combinations (mergers, acquisitions, and amalgamations).
- III. **Combination**
 - A. Includes mergers, acquisitions, or amalgamations that meet specified financial thresholds.
 - B. Subject to CCI approval where applicable.
- IV. **Appreciable Adverse Effect on Competition (AAEC)**
 - A. The principal test used by the CCI to assess whether a merger or acquisition

is likely to substantially lessen competition in the relevant market.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Competition Commission of India (CCI) was established under the Competition Act, 2002.
2. The Competition Act, 2002 replaced the Monopolies and Restrictive Trade Practices (MRTP) Act, 1969.
3. The CCI assesses mergers and acquisitions primarily to determine whether they are likely to cause an Appreciable Adverse Effect on Competition (AAEC).

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

2. 381ST REPORT OF THE DEPARTMENT-RELATED PARLIAMENTARY STANDING COMMITTEE ON EDUCATION, WOMEN, CHILDREN, YOUTH AND SPORTS



Key Highlights

- **381st Report** is an **Action Taken Report (ATR)**.
- Examines the Government's response to the recommendations made in the **364th Report**.

- Pertains to the **Department of Higher Education**, Ministry of Education.
- Reinforces **Parliamentary oversight** over executive functioning and implementation of committee recommendations.

ABOUT DEPARTMENT-RELATED PARLIAMENTARY STANDING COMMITTEES (DRPSCs)

Establishment

- Introduced in **1993** to strengthen legislative scrutiny.

Composition

- I. **31 Members**
 - A. **21** from the **Lok Sabha**
 - B. **10** from the **Rajya Sabha**

Tenure

- **One year.**

Appointment

- Members are nominated by the **Speaker of the Lok Sabha** and the **Chairman of the Rajya Sabha**, respectively.

FUNCTIONS OF THE COMMITTEE

- Examine **Demands for Grants** of the Ministries/Departments under its jurisdiction.
- Scrutinize Bills referred by the Presiding Officers.
- Examine Annual Reports of Ministries.
- Review Long-Term Policy Documents.
- Present **Action Taken Reports (ATRs)** assessing implementation of earlier recommendations.

WHAT IS AN ACTION TAKEN REPORT (ATR)?

- I. An ATR reviews the action taken by the Government on the recommendations made in an earlier Parliamentary Committee report.
- II. It enhances accountability by evaluating:
 - A. Recommendations accepted.
 - B. Recommendations pending implementation.
 - C. Reasons for non-acceptance or partial implementation.

SIGNIFICANCE

Parliamentary Accountability

- Ensures Ministries report back on actions taken on Committee recommendations.

Improved Governance

- Helps identify implementation gaps and policy bottlenecks.

Legislative Oversight

- Strengthens Parliament's role in monitoring executive performance.

Policy Improvement

- Facilitates evidence-based refinement of government programmes and policies.

CHALLENGES

- Delays in implementing recommendations.
- Non-binding nature of Committee recommendations.
- Need for timely submission of Action Taken Notes by Ministries.
- Ensuring continuous monitoring of implementation.

WAY FORWARD

- Ensure prompt implementation of accepted recommendations.
- Strengthen follow-up through periodic Action Taken Reports.
- Improve coordination between Ministries and Parliamentary Committees.
- Enhance transparency in reporting implementation status.

KEY HIGHLIGHTS

- **Report:** 381st Report.
- **Type:** Action Taken Report (ATR).
- **Related to:** 364th Report on Demands for Grants (2025–26).
- **Ministry:** Ministry of Education.
- **Department:** Department of Higher Education.
- **Purpose:** Review Government's action on Parliamentary Committee recommendations.

PRELIMS BOOSTER BOX

- I. **Department-related Parliamentary Standing Committees (DRPSCs)**
 - A. Introduced in **1993**.
 - B. Currently **24 DRPSCs** examine the functioning of various Ministries and Departments.
- II. **Demands for Grants**
 - A. Presented annually as part of the **Union Budget**.

- B. Examined by the respective DRPSCs before being voted upon in the Lok Sabha.

III. **Action Taken Report (ATR)**

- A. Reviews the Government's response to recommendations made by a Parliamentary Committee.
B. Strengthens executive accountability to Parliament.

IV. **Committee on Education, Women, Children, Youth and Sports**

- A. Examines matters relating to:
1. Department of Higher Education.
 2. Department of School Education & Literacy.
 3. Ministry of Women and Child Development.
 4. Department of Youth Affairs.
 5. Department of Sports.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Department-related Parliamentary Standing Committees were introduced in 1993.
2. An Action Taken Report (ATR) reviews the Government's response to recommendations made in an earlier Parliamentary Committee report.
3. Department-related Parliamentary Standing Committees examine the Demands for Grants of Ministries under their jurisdiction.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Answer: (d)

3. PCIM&H REPRESENTS INDIA AT THE 5TH WHO EXPERT MEETING ON INTERNATIONAL HERBAL PHARMACOPOEIA



Key Highlights

- I. India is participating through **PCIM&H** in the WHO Expert Meeting.
- II. **Raman Mohan Singh** is representing India as an expert member.
- III. Technical experts from PCIM&H are participating virtually.
- IV. India is presenting:
 - A. Herbal monographs.
 - B. Technical documents prepared in consultation with WHO experts.
- V. The meeting aims to develop an **International Herbal Pharmacopoeia** with globally harmonized quality standards for herbal medicines.

ABOUT THE WHO EXPERT MEETING

Objective

- Develop an **International Herbal Pharmacopoeia**.
- Harmonize global standards for herbal medicines.
- Promote quality, safety, purity, and scientific validation of traditional medicines.
- Facilitate international regulatory cooperation.

Participants

- Experts from WHO Member States.
- Pharmacopoeia specialists.
- Regulatory authorities.
- Traditional medicine experts.

ABOUT PCIM&H

Pharmacopoeia Commission for Indian Medicine & Homoeopathy

Ministry

- **Ministry of Ayush**

Functions

- I. Develop pharmacopoeial standards for:
 - A. Ayurveda.
 - B. Siddha.
 - C. Unani.
 - D. Homoeopathy.
- II. Publish official pharmacopoeias and formularies.
- III. Standardize medicinal plants and herbal formulations.
- IV. Support quality assurance of AYUSH medicines.

WHAT IS A PHARMACOPOEIA?

Definition

A **Pharmacopoeia** is an **official publication** that lays down standards for the **identity, quality, purity, strength, testing methods, and storage** of medicines and medicinal substances.

Importance

- Ensures safety and efficacy of medicines.
- Provides standardized analytical methods.
- Facilitates international acceptance and trade.
- Supports regulatory oversight.

SIGNIFICANCE

Global Recognition of Indian Traditional Medicine

- Enhances the international credibility of Ayurveda, Siddha, and other Indian systems of medicine.

Quality Assurance

- Promotes globally harmonized standards for herbal medicines.

Evidence-Based Traditional Medicine

- Strengthens scientific validation of traditional medicinal systems.

International Trade

- Facilitates wider acceptance of Indian herbal products in global markets.

Healthcare Cooperation

- Reinforces India's leadership in traditional and integrative healthcare.

CHALLENGES

- Variability in medicinal plant quality.
- Differences in national regulatory frameworks.
- Need for stronger scientific evidence.
- Conservation of medicinal plant biodiversity.
- Standardization across diverse traditional systems.

WAY FORWARD

- Expand research on medicinal plants and herbal formulations.
- Strengthen quality control and pharmacopoeial standards.
- Promote international collaboration through WHO.
- Encourage sustainable cultivation of medicinal plants.
- Build global acceptance through evidence-based research.

KEY HIGHLIGHTS

- **Indian Institution:** Pharmacopoeia Commission for Indian Medicine & Homoeopathy (PCIM&H).
- **Ministry:** Ministry of Ayush.
- **Event:** 5th WHO Expert Meeting on the Development of the International Herbal Pharmacopoeia.
- **Venue:** Hong Kong SAR, China.
- **Objective:** Develop harmonized global standards for herbal medicines.

PRELIMS BOOSTER BOX

- I. **Pharmacopoeia Commission for Indian Medicine & Homoeopathy (PCIM&H)**
 - A. Autonomous organization under the **Ministry of Ayush**.
 - B. Responsible for developing pharmacopoeial standards for **Ayurveda, Siddha, Unani, and Homoeopathy (ASU&H)** medicines.
- II. **Pharmacopoeia**
 - A. An official compendium prescribing standards for medicines, including their identity, purity, strength, quality, and methods of analysis.

- III. **World Health Organization Traditional Medicine Programme**
 - A. Supports Member States in integrating traditional medicine into national health systems through evidence-based policies, quality standards, and safety guidelines.
- IV. **WHO Global Centre for Traditional Medicine (GCTM)**
 - A. Established in **Jamnagar** in **2022**.
 - B. Serves as WHO's global knowledge hub for research, innovation, and evidence generation in traditional medicine.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Pharmacopoeia Commission for Indian Medicine & Homoeopathy (PCIM&H) functions under the Ministry of Ayush.
2. A pharmacopoeia prescribes official standards for the identity, quality, purity, and testing of medicines.
3. The WHO Global Centre for Traditional Medicine is located in Jamnagar, Gujarat.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

4. ADVANCED SURGICAL EYE CAMP 'OPERATION DRISHTI' COMMENCES IN JHARKHAND



Key Highlights

- **Operation DRISHTI** is a humanitarian healthcare outreach initiative.
- Conducted jointly by the **Indian Army** and **Indian Air Force**.
- Venue: **Military Hospital Namkum, Ranchi**.
- More than **200 beneficiaries** will receive advanced eye surgeries free of cost.
- State-of-the-art medical equipment was airlifted by the Indian Air Force to support the camp.

ABOUT OPERATION DRISHTI

Objective

- Restore vision through advanced ophthalmic care.
- Improve access to specialized eye treatment in underserved regions.
- Extend humanitarian healthcare services beyond the Armed Forces.

Major Procedures Performed

- **Phacoemulsification** for cataract surgery.
- **Minimally Invasive Glaucoma Surgery (MIGS)**.
- **Anti-VEGF Intravitreal Injections** for vitreo-retinal diseases.
- Comprehensive ophthalmic screening and diagnosis.

Leadership

- Surgical team led by **Sanjay Kumar Mishra**.

PREVIOUS OUTREACHS

Before Ranchi, **Operation DRISHTI** successfully organized advanced eye camps in:

- Leh
- Lakshadweep
- Bhuj
- Kutch
- Bagdogra

These initiatives have expanded access to specialized ophthalmic care in remote and underserved regions.

SIGNIFICANCE

Healthcare Accessibility

- Delivers advanced eye care services to populations with limited access to specialized treatment.

Civil-Military Cooperation

- Demonstrates the Armed Forces' contribution to humanitarian and public health initiatives.

Prevention of Avoidable Blindness

- Early diagnosis and treatment improve vision and quality of life.

Regional Healthcare Capacity

- Brings advanced medical equipment and specialist expertise to underserved areas.

CHALLENGES

- Limited availability of specialized ophthalmologists in remote regions.
- High burden of preventable blindness.
- Need for sustained follow-up after surgery.
- Healthcare infrastructure gaps in rural and tribal areas.

WAY FORWARD

- Organize similar outreach camps in other underserved regions.
- Strengthen community-based eye screening programmes.
- Promote awareness on early detection of cataract, glaucoma, and retinal diseases.
- Improve coordination between Armed Forces medical services and civilian healthcare institutions.

KEY HIGHLIGHTS

- **Initiative:** Operation DRISHTI.
- **Location:** Military Hospital Namkum, Ranchi.
- **Duration:** 15–19 June 2026.
- **Organizers:** Indian Army and Indian Air Force.
- **Beneficiaries:** Ex-servicemen, serving dependents, and underprivileged civilians.
- **Target:** More than 200 free advanced eye surgeries.

PRELIMS BOOSTER BOX

I. Phacoemulsification

- A. A modern **cataract surgery** technique that uses ultrasonic vibrations to break and remove the cloudy lens, followed by implantation of an artificial intraocular lens.

II. Glaucoma

- A. A group of eye diseases characterized by damage to the **optic nerve**, often associated with raised intraocular pressure.

- B. It is one of the leading causes of **irreversible blindness** worldwide.

III. Anti-VEGF Therapy

- A. Involves medicines that inhibit **Vascular Endothelial Growth Factor (VEGF)**.
- B. Used to treat retinal disorders such as **age-related macular degeneration** and **diabetic macular edema** by reducing abnormal blood vessel growth and leakage.

IV. Armed Forces Medical Services (AFMS)

- A. The integrated medical service of the **Indian Army, Indian Navy, and Indian Air Force**.
- B. Responsible for providing healthcare to serving personnel, veterans, and their dependents, while also contributing to humanitarian assistance and disaster relief.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Operation DRISHTI is a humanitarian eye-care initiative jointly undertaken by the Indian Army and the Indian Air Force.
2. Phacoemulsification is a commonly used surgical technique for cataract treatment.
3. Anti-VEGF therapy is used in the treatment of certain retinal diseases.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

5. FIELD OPERATIONS FOR HOUSELISTING AND HOUSING CENSUS COMMENCE IN HIMACHAL PRADESH; SELF-ENUMERATION BEGINS IN KERALA AND NAGALAND



Key Highlights

- I. **Houselisting and Housing Census (HLO)** begins in **Himachal Pradesh**.
- II. **Self-Enumeration (SE)** starts in:
 - A. **Kerala**
 - B. **Nagaland**
- III. Citizens in the two states can digitally submit census information.
- IV. Aims to improve the efficiency, accuracy, and transparency of census operations through digital technology.

ABOUT THE CENSUS OF INDIA

Conducted By

- **Office of the Registrar General and Census Commissioner, India (ORGI)**

Administrative Ministry

- **Ministry of Home Affairs**

Legal Basis

- **Census Act, 1948**
- **Census Rules, 1990**

Frequency

- Conducted **every 10 years (Decennial Census)**.

Importance

- Provides official demographic, social, and economic data.

- Supports policy formulation, planning, and resource allocation.
- Forms the basis for delimitation, welfare schemes, and development planning.

PHASES OF THE CENSUS

Phase I: Houselisting and Housing Census (HLO)

Collects information on:

- Housing conditions.
- Household amenities.
- Assets.
- Availability of drinking water, sanitation, electricity, etc.

Phase II: Population Enumeration (PE)

Collects information on:

- Population characteristics.
- Age.
- Sex.
- Education.
- Occupation.
- Migration.
- Language.
- Religion and other demographic details.

SELF-ENUMERATION (SE)

What is Self-Enumeration?

- A **digital facility** allowing households to **fill and submit census information online** before the enumerator's visit.

Benefits

- Reduces data entry errors.
- Improves accuracy and efficiency.
- Saves time during field verification.
- Promotes digital governance and citizen participation.

SIGNIFICANCE

Evidence-Based Governance

- Provides reliable data for public policy and planning.

Digital Transformation

- Introduces technology into census operations through self-enumeration.

Efficient Service Delivery

- Helps in better targeting of welfare schemes.

Urban and Rural Planning

- Supports infrastructure development and resource allocation.

CHALLENGES

- Digital literacy and internet accessibility.
- Ensuring data privacy and cybersecurity.
- Training enumerators in digital tools.
- Achieving complete population coverage in remote areas.

WAY FORWARD

- Expand awareness about self-enumeration.
- Strengthen digital infrastructure in rural and remote regions.
- Ensure robust data protection measures.
- Build capacity of census officials through continuous training.

KEY HIGHLIGHTS

- **Field Operations Started:** Houselisting and Housing Census in Himachal Pradesh.
- **Self-Enumeration Started:** Kerala and Nagaland.
- **Conducted By:** Office of the Registrar General & Census Commissioner, India.
- **Legal Framework:** Census Act, 1948.
- **Objective:** Accurate, technology-enabled collection of demographic and housing data.

PRELIMS BOOSTER BOX

I. Census of India

- A. Conducted every **10 years**.
- B. Administered by the **Office of the Registrar General & Census Commissioner, India (ORGI)** under the **Ministry of Home Affairs**.

II. Census Act, 1948

- A. Provides the legal framework for conducting the Census in India.
- B. Ensures confidentiality of individual census information.

III. Registrar General & Census Commissioner of India

- A. Head of the **Office of the Registrar General & Census Commissioner, India (ORGI)**.
- B. Also oversees the **Civil Registration System (CRS)** and **Sample Registration System (SRS)**.

IV. Houselisting and Housing Census (HLO)

- A. The **first phase** of the Census.
- B. Collects information on housing stock, household amenities, and living conditions.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

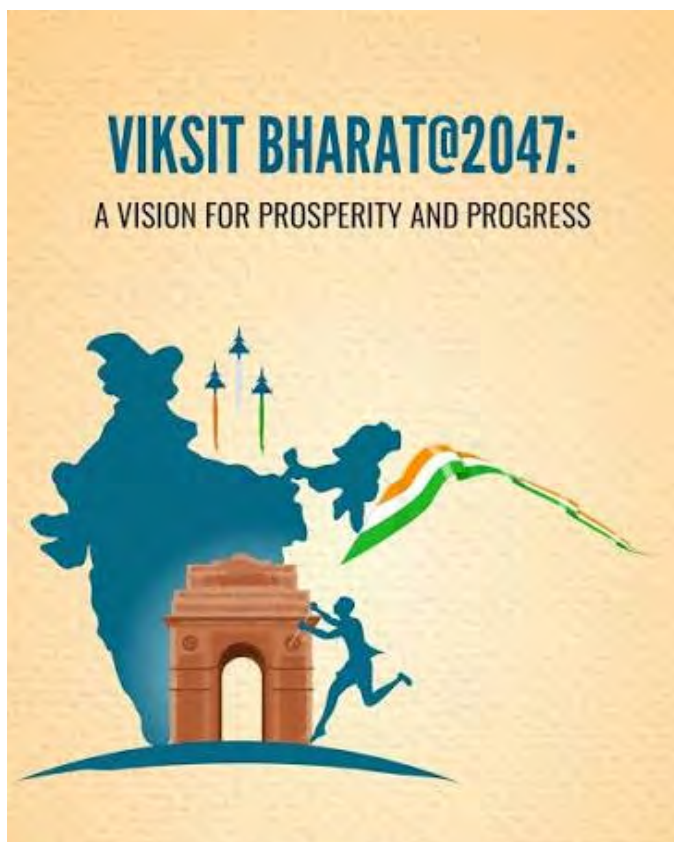
1. The Census of India is conducted under the provisions of the Census Act, 1948.
2. The Houselisting and Housing Census is the first phase of the Census and collects information on housing conditions and household amenities.
3. The Office of the Registrar General & Census Commissioner, India functions under the Ministry of Home Affairs.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

1. EASE OF LIVING: INDIA'S JOURNEY OF INCLUSIVE PROGRESS



Key Highlights

- I. Focus on improving the quality of life through citizen-centric governance.
- II. Emphasis on:
 - A. Affordable housing.
 - B. Universal healthcare.
 - C. Safe drinking water.
 - D. Sanitation.
 - E. Digital governance.
 - F. Financial inclusion.
 - G. Social security.
- III. Promotes inclusive and sustainable development.

WHAT IS EASE OF LIVING?

Objective

- I. Improve citizens' quality of life by ensuring:
 - A. Access to basic services.
 - B. Efficient public service delivery.
 - C. Better urban and rural infrastructure.
 - D. Inclusive economic opportunities.

E. Digital empowerment.

MAJOR GOVERNMENT INITIATIVES

Pradhan Mantri Awas Yojana (PMAY)

- Provides affordable housing for eligible urban and rural households.

Ayushman Bharat

- Expands access to affordable healthcare through health insurance and Health & Wellness Centres.

Jal Jeevan Mission

- Aims to provide Functional Household Tap Connections (FHTCs) to rural households.

Swachh Bharat Mission

- Promotes sanitation, cleanliness, and elimination of open defecation.

Pradhan Mantri Jan Dhan Yojana

- Enhances financial inclusion through universal access to banking services.

Digital India

- Expands digital infrastructure, e-governance, and digital public services.

PM SVANidhi

- Provides collateral-free working capital loans to street vendors.

SIGNIFICANCE

Improved Quality of Life

- Expands access to essential public services.

Inclusive Development

- Reduces socio-economic disparities.

Digital Governance

- Enhances transparency, efficiency, and accessibility of government services.

Human Development

- Improves health, education, sanitation, and living standards.

Economic Empowerment

- Strengthens livelihoods through financial inclusion and social protection.

CHALLENGES

- Regional disparities in infrastructure.
- Digital divide.
- Urbanization pressures.
- Implementation gaps.

- Need for continuous improvement in public service delivery.

WAY FORWARD

- Strengthen last-mile service delivery.
- Expand digital connectivity.
- Improve urban planning and sustainable infrastructure.
- Enhance convergence among welfare schemes.
- Promote citizen participation in governance.

KEY HIGHLIGHTS

- **Focus:** Ease of Living through inclusive development.
- **Priority Areas:** Housing, healthcare, sanitation, drinking water, digital governance, and financial inclusion.
- **Vision:** Viksit Bharat @ 2047.
- **Approach:** Citizen-centric governance and improved quality of life.

PRELIMS BOOSTER BOX

I. Ease of Living

- Refers to improving citizens' quality of life through better governance, infrastructure, and access to public services.

II. Jal Jeevan Mission

- Launched in **2019**.
- Objective: Provide **Functional Household Tap Connections (FHTCs)** to every rural household.

III. Ayushman Bharat

- Launched in **2018**.
- Comprises:
 - Pradhan Mantri Jan Arogya Yojana (PM-JAY).**
 - Health and Wellness Centres (HWCs).**

IV. Pradhan Mantri Jan Dhan Yojana (PMJDY)

- Launched in **2014**.
- National Mission for Financial Inclusion providing universal access to banking services.

V. Digital Public Infrastructure (DPI)

- Refers to interoperable digital systems that enable delivery of public and private services.

B. India's DPI ecosystem includes:

- Aadhaar
- Unified Payments Interface (UPI)
- DigiLocker

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

- Jal Jeevan Mission aims to provide Functional Household Tap Connections (FHTCs) to rural households.
- Ayushman Bharat comprises Pradhan Mantri Jan Arogya Yojana (PM-JAY) and Health & Wellness Centres.
- Digital Public Infrastructure (DPI) in India includes Aadhaar, UPI, and DigiLocker.

Which of the statements given above is/are correct?

- 1 and 2 only
- 2 and 3 only
- 1 and 3 only
- 1, 2 and 3

Answer: (d)

2. UNION GOVERNMENT CONSTITUTES

SEARCH-CUM-SELECTION

COMMITTEE FOR NATIONAL SPORTS BOARD UNDER NSG ACT, 2025



Key Highlights

- I. Constitution of a **Search-cum-Selection Committee** under the NSG Act, 2025.
- II. The Committee will recommend appointments to the **National Sports Board (NSB)**.
- III. Objective:
 - A. Ensure merit-based selection.
 - B. Strengthen transparency and accountability.
 - C. Promote good governance in sports administration.
- IV. Supports institutional reforms in India's sports ecosystem.

ABOUT THE NATIONAL SPORTS GOVERNANCE ACT, 2025

National Sports Governance Act, 2025

Objectives

- Improve governance of sports bodies.
- Enhance transparency and accountability.
- Professionalize sports administration.
- Strengthen athlete welfare.
- Ensure ethical functioning of National Sports Federations (NSFs).

Key Features

- Establishment of the **National Sports Board (NSB)**.
- Governance reforms for National Sports Federations.
- Merit-based appointments.
- Greater institutional oversight.
- Promotion of athlete-centric decision-making.

ABOUT THE NATIONAL SPORTS BOARD (NSB)

National Sports Board

Role

- Promote good governance in sports administration.
- Oversee compliance with governance standards.
- Strengthen institutional accountability.
- Encourage transparency in the functioning of sports bodies.
- Support athlete welfare and fair sporting practices.

SEARCH-CUM-SELECTION COMMITTEE

Functions

- Identify suitable candidates for the National Sports Board.
- Evaluate candidates based on merit, integrity, and experience.
- Recommend appointments to the Central Government.
- Ensure an independent and transparent selection process.

SIGNIFICANCE

Governance Reforms

- Introduces greater transparency and professionalism in sports administration.

Athlete-Centric Approach

- Ensures governance structures prioritize athletes' interests.

Institutional Accountability

- Improves oversight of sports organizations.

Global Best Practices

- Aligns India's sports governance framework with international standards.

Sports Development

- Strengthens the institutional ecosystem supporting elite sports and grassroots development.

CHALLENGES

- Ensuring effective implementation of governance reforms.
- Capacity building within sports federations.
- Balancing autonomy of sports bodies with regulatory oversight.
- Maintaining transparency and independence in appointments.

WAY FORWARD

- Ensure timely operationalization of the National Sports Board.
- Build institutional capacity in sports governance.
- Promote ethics, transparency, and accountability across sports federations.
- Strengthen athlete representation in decision-making processes.
- Periodically review governance standards to align with evolving international practices.

KEY HIGHLIGHTS

- **Act:** National Sports Governance Act, 2025.
- **Development:** Constitution of Search-cum-Selection Committee.
- **Purpose:** Appointment of the National Sports Board.
- **Focus:** Transparent, merit-based, and accountable sports governance.

PRELIMS BOOSTER BOX

- I. **National Sports Governance Act, 2025**
 - A. Provides a statutory framework for governance reforms in India's sports sector.
 - B. Focuses on transparency, accountability, athlete welfare, and institutional professionalism.
- II. **National Sports Board (NSB)**
 - A. Established under the NSG Act, 2025.
 - B. Intended to promote good governance and oversee compliance by sports bodies.
- III. **National Sports Federations (NSFs)**
 - A. Recognized bodies responsible for regulating and promoting specific sports disciplines at the national level.
 - B. Represent India in the respective international federations.
- IV. **Sports Authority of India (SAI)**
 - A. Established in **1984**.
 - B. Functions under the **Ministry of Youth Affairs and Sports**.
 - C. Responsible for sports infrastructure development, athlete training, talent identification, and implementation of sports promotion schemes.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The National Sports Board is established under the National Sports Governance Act, 2025.
2. The Search-cum-Selection Committee has been constituted to recommend appointments to the National Sports Board.
3. The Sports Authority of India functions under the Ministry of Youth Affairs and Sports.

Which of the statements given above is/are correct?

(a) 1 and 2 only

(b) 2 and 3 only

(c) 1 and 3 only

(d) 1, 2 and 3

Answer: (d)

3. ASI AND NATIONAL MUSEUM OF DENMARK SIGN MoU FOR UNDERWATER ARCHAEOLOGICAL INVESTIGATION OF HISTORIC DANISH SHIP ORESUND



Key Highlights

- I. ASI and the National Museum of Denmark signed an MoU.
- II. Objective:
 - A. Investigate the historic Danish ship *Oresund*.
 - B. Promote underwater archaeological research.
 - C. Conserve underwater cultural heritage.
 - D. Facilitate exchange of expertise and technology.
- III. Strengthens bilateral cooperation in archaeology and heritage conservation.

ABOUT THE MoU

Objectives

- Conduct scientific underwater archaeological investigations.
- Document and preserve submerged cultural heritage.
- Promote joint research and knowledge exchange.
- Build capacity in underwater archaeology through collaboration.

Areas of Cooperation

- Underwater archaeological surveys.
- Excavation and documentation.
- Conservation of underwater artefacts.
- Training and capacity building.
- Research collaboration.

UNDERWATER ARCHAEOLOGY

What is Underwater Archaeology?

- A branch of archaeology that studies **submerged archaeological sites**, including:
 - A. Shipwrecks.
 - B. Sunken ports.
 - C. Ancient settlements.
 - D. Maritime trade routes.
 - E. Underwater artefacts.

Importance

- Reconstructs maritime history.
- Preserves underwater cultural heritage.
- Enhances understanding of ancient trade and navigation.
- Supports heritage tourism and academic research.

ABOUT THE ARCHAEOLOGICAL SURVEY OF INDIA (ASI)

Archaeological Survey of India

Established

- 1861

Ministry

- **Ministry of Culture**

Functions

- Archaeological exploration and excavation.
- Conservation of protected monuments.
- Preservation of antiquities.
- Underwater archaeological research.
- Heritage management.

SIGNIFICANCE

Heritage Conservation

- Protects submerged archaeological and cultural assets.

Maritime History

- Enhances understanding of historical maritime trade and navigation.

International Collaboration

- Strengthens India–Denmark cooperation in archaeology and museum studies.

Scientific Research

- Encourages the use of advanced underwater exploration technologies.

Capacity Building

- Facilitates training and exchange of expertise in underwater archaeology.

CHALLENGES

- High cost of underwater archaeological investigations.
- Technical complexity of deep-sea exploration.
- Conservation of recovered artefacts.
- Environmental and weather-related constraints.
- Risk of illegal salvage and looting.

WAY FORWARD

- Expand international cooperation in maritime archaeology.
- Strengthen underwater heritage conservation infrastructure.
- Adopt advanced marine survey technologies.
- Develop skilled human resources in underwater archaeology.
- Promote public awareness of underwater cultural heritage.

KEY HIGHLIGHTS

- **Indian Partner:** Archaeological Survey of India (ASI).
- **International Partner:** National Museum of Denmark.
- **Purpose:** Investigation of the historic Danish ship *Oresund*.
- **Focus:** Underwater archaeology, heritage conservation, and research collaboration.

PRELIMS BOOSTER BOX

- Archaeological Survey of India (ASI)**
 - A. Established in **1861** by **Alexander Cunningham**.
 - B. Functions under the **Ministry of Culture**.
 - C. Responsible for archaeological research, excavation, and conservation of protected monuments.
- Underwater Archaeology**

- A. Studies archaeological remains located beneath water bodies.
 - B. Includes shipwrecks, submerged ports, settlements, and maritime artefacts.
- III. **United Nations Educational, Scientific and Cultural Organization Convention on the Protection of the Underwater Cultural Heritage (2001)**
- A. Aims to protect and preserve underwater cultural heritage from exploitation and destruction.
 - B. Promotes international cooperation and scientific research.
- IV. **Maritime Archaeology**
- A. Focuses on the study of human interaction with seas, rivers, and oceans through archaeological evidence such as ships, ports, cargo, and navigation systems.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Archaeological Survey of India (ASI) functions under the Ministry of Culture.
2. Underwater archaeology includes the study of shipwrecks, submerged settlements, and maritime artefacts.
3. The UNESCO Convention on the Protection of the Underwater Cultural Heritage was adopted in 2001.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

4. MINISTRY OF DEFENCE ESTABLISHES TWO NEW NCC STATE DIRECTORATES IN ANDHRA PRADESH AND JHARKHAND, EXPANDING ACCESS AND OPPORTUNITIES FOR YOUTH



Key Highlights

- I. Two new NCC State Directorates established:
 - A. Andhra Pradesh.
 - B. Jharkhand.
- II. Objective:
 - A. Expand NCC reach.
 - B. Improve administration and coordination.
 - C. Increase youth participation.
 - D. Strengthen leadership and character-building initiatives.

ABOUT THE NATIONAL CADET CORPS (NCC)

National Cadet Corps

Established

- 1948

Legal Basis

- National Cadet Corps Act, 1948

Administrative Ministry

- Ministry of Defence

Motto

- "Unity and Discipline"

Headquarters

- New Delhi

Eligibility

- School and college students can voluntarily enroll as NCC cadets.

OBJECTIVES OF NCC

- Develop character, discipline, and leadership.
- Foster patriotism and national integration.
- Promote adventure, community service, and social responsibility.
- Motivate youth to pursue careers in the Armed Forces.
- Build responsible and disciplined citizens.

ORGANIZATIONAL STRUCTURE

Wings

- Senior Division/Senior Wing (College level).
- Junior Division/Junior Wing (School level).

Training Activities

- Drill and ceremonial training.
- Adventure activities.
- Community development programmes.
- Disaster management.
- Environmental awareness.
- National Integration Camps.
- Youth exchange programmes.

SIGNIFICANCE OF THE NEW DIRECTORATES

Greater Accessibility

- Enables more schools and colleges to join NCC.

Administrative Efficiency

- Improves coordination and management of NCC activities at the state level.

Youth Empowerment

- Expands opportunities for leadership, personality development, and skill-building.

National Integration

- Encourages unity, discipline, and civic responsibility among young citizens.

Defence Awareness

- Inspires youth to contribute to national security and consider careers in the Armed Forces.

CHALLENGES

- Expanding infrastructure and training facilities.

- Availability of trained instructors.
- Ensuring uniform standards across NCC units.
- Increasing participation in remote and rural areas.

WAY FORWARD

- Strengthen NCC infrastructure in educational institutions.
- Increase enrollment, particularly among girls and rural youth.
- Integrate emerging skills such as cybersecurity, disaster preparedness, and environmental stewardship into training.
- Enhance collaboration with educational institutions and state governments.

KEY HIGHLIGHTS

- **Organization:** National Cadet Corps (NCC).
- **Administrative Ministry:** Ministry of Defence.
- **New Directorates:** Andhra Pradesh and Jharkhand.
- **Motto:** *Unity and Discipline.*
- **Objective:** Expand youth participation, leadership development, and nation-building.

PRELIMS BOOSTER BOX

- I. **National Cadet Corps (NCC)**
 - A. Established under the **National Cadet Corps Act, 1948.**
 - B. Functions under the **Ministry of Defence.**
 - C. Motto: "**Unity and Discipline.**"
- II. **NCC Flag**
 - A. Consists of **three vertical colours:**
 1. **Red** – Army.
 2. **Dark Blue** – Navy.
 3. **Light Blue** – Air Force.
- III. **NCC Certificate Examination**
 - A. **'A' Certificate** – Junior Division/Junior Wing.
 - B. **'B' Certificate** – Senior Division/Senior Wing (intermediate level).
 - C. **'C' Certificate** – Highest NCC certification; provides advantages in recruitment to the Armed Forces and certain public sector opportunities.
- IV. **Youth Exchange Programme (YEP)**
 - A. An NCC initiative that enables cadets to interact with youth from other

countries, promoting cultural exchange and international understanding.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The National Cadet Corps (NCC) was established under the National Cadet Corps Act, 1948.
2. The NCC functions under the Ministry of Defence.
3. The motto of the NCC is **"Unity and Discipline."**

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

5. BHARAT INNOVATES 2026 BEGINS IN NICE, FORGING NEW INDIA-EUROPE DEEP-TECH PARTNERSHIPS



Key Highlights

- I. Bharat Innovates 2026 inaugurated in Nice, France.
- II. Focus on strengthening India-Europe cooperation in:
 - A. Deep-tech innovation.
 - B. Startup collaboration.
 - C. Research and development.
 - D. Venture capital and investments.

E. Technology commercialization.

- III. Brings together startups, academia, government, investors, and industry.

WHAT IS BHARAT INNOVATES 2026?

Objective

- Promote India's innovation ecosystem globally.
- Foster partnerships between Indian and European innovators.
- Facilitate technology transfer and commercialization.
- Encourage investments in emerging technologies.

Major Focus Areas

- Artificial Intelligence (AI).
- Quantum technologies.
- Semiconductors.
- Biotechnology.
- Space technologies.
- Clean energy.
- Climate technologies.
- Advanced manufacturing.

WHAT IS DEEP-TECH?

Deep Technology

Definition

- **Deep-tech** refers to technologies based on **advanced scientific discoveries and engineering innovations** that address complex real-world challenges.

Characteristics

- High research intensity.
- Strong intellectual property (IP) component.
- Long development cycles.
- High potential for transformative impact.

Examples

- Artificial Intelligence.
- Quantum Computing.
- Biotechnology.
- Robotics.
- Advanced Materials.
- Space Technologies.

INDIA'S DEEP-TECH ECOSYSTEM

Key Drivers

- Expanding startup ecosystem.

- Strong digital public infrastructure.
- Government support for innovation.
- Increasing R&D investments.
- Growing venture capital participation.

Major Institutions

- NITI Aayog
- Department for Promotion of Industry and Internal Trade (DPIIT)
- Atal Innovation Mission
- Startup India

SIGNIFICANCE

Innovation Leadership

- Strengthens India's position as a global innovation hub.

Technology Partnerships

- Deepens India–Europe cooperation in frontier technologies.

Startup Growth

- Expands opportunities for Indian startups to access global markets and investors.

Economic Development

- Supports high-value industries and knowledge-based employment.

Strategic Cooperation

- Enhances collaboration in critical and emerging technologies.

CHALLENGES

- Limited availability of risk capital for deep-tech startups.
- Long commercialization timelines.
- Need for stronger industry-academia collaboration.
- Global competition for advanced technologies and talent.
- Regulatory and intellectual property challenges.

WAY FORWARD

- Increase investment in R&D and deep-tech innovation.
- Strengthen India–Europe research partnerships.
- Improve access to venture capital for startups.
- Promote commercialization of research outcomes.

- Develop skilled talent in frontier technologies.

KEY HIGHLIGHTS

- **Event:** Bharat Innovates 2026.
- **Venue:** Nice, France.
- **Focus:** India–Europe deep-tech partnerships.
- **Priority Areas:** AI, quantum technologies, semiconductors, biotechnology, space, and clean energy.
- **Objective:** Strengthen innovation, investment, and technology collaboration.

PRELIMS BOOSTER BOX

I. Deep-Tech

- A. Refers to innovation based on advanced scientific research and engineering.
- B. Common sectors include **AI, quantum computing, biotechnology, semiconductors, robotics, and space technologies.**

II. Startup India

- A. Launched in **2016**.
- B. Flagship initiative to promote entrepreneurship, innovation, and startup growth.

III. Atal Innovation Mission (AIM)

- A. Established under **NITI Aayog** in **2016**.
- B. Promotes innovation through initiatives such as **Atal Tinkering Labs (ATLs)** and **Atal Incubation Centres (AICs)**.

IV. Department for Promotion of Industry and Internal Trade (DPIIT)

- A. Functions under the **Ministry of Commerce and Industry**.
- B. Responsible for recognition of startups and formulation of startup-related policies.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Deep-tech innovations are typically based on advanced scientific research and engineering.
2. Startup India was launched in 2016 to promote entrepreneurship and innovation.
3. The Department for Promotion of Industry and Internal Trade (DPIIT) functions under the Ministry of Commerce and Industry.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

1. GLOBAL WIND DAY 2026



Key Highlights

- I. Observed every year on **15 June**.
- II. Promotes awareness about:
 - A. Wind energy.
 - B. Renewable energy transition.
 - C. Climate action.
 - D. Sustainable development.
- III. Encourages governments, industry, and citizens to support clean energy adoption.

ABOUT GLOBAL WIND DAY

Global Wind Day

Observed On

- **15 June**

Organized By

- **Global Wind Energy Council (GWEC)**
- **WindEurope**

Objectives

- Promote awareness about wind energy.
- Encourage investment in renewable energy.
- Support the global transition to low-carbon energy systems.
- Highlight the environmental and economic benefits of wind power.

WIND ENERGY

What is Wind Energy?

- Wind energy is the **conversion of the kinetic energy of moving air into electricity** using wind turbines.

Types

- **Onshore Wind Energy** – Wind farms located on land.
- **Offshore Wind Energy** – Wind farms installed in seas or oceans.

Advantages

- Renewable and inexhaustible.
- No direct greenhouse gas emissions during electricity generation.
- Low operating costs after installation.
- Reduces dependence on fossil fuels.

INDIA'S WIND ENERGY SECTOR

Nodal Ministry

- **Ministry of New and Renewable Energy (MNRE)**

Major Wind Power States

- Tamil Nadu
- Gujarat
- Karnataka
- Maharashtra
- Rajasthan

Key Initiatives

- National Offshore Wind Energy Policy, 2015.
- Wind-Solar Hybrid Policy, 2018.
- Competitive bidding for wind energy projects.
- Promotion of offshore wind development.

SIGNIFICANCE

Climate Change Mitigation

- Helps reduce greenhouse gas emissions.

Energy Security

- Diversifies India's energy mix and reduces dependence on imported fossil fuels.

Economic Growth

- Generates employment in manufacturing, installation, and maintenance.

Sustainable Development

- Supports clean energy targets and environmental protection.

CHALLENGES

- Intermittent nature of wind energy.
- Grid integration issues.
- Land acquisition challenges.
- High initial capital costs.
- Need for improved energy storage technologies.

WAY FORWARD

- Expand offshore wind projects.
- Strengthen transmission infrastructure.

- Promote hybrid renewable energy systems.
- Invest in energy storage and smart grids.
- Encourage domestic manufacturing under clean energy initiatives.

KEY HIGHLIGHTS

- **Observance:** Global Wind Day.
- **Date:** 15 June.
- **Objective:** Promote awareness of wind energy and renewable power.
- **Organizers:** GWEC and WindEurope.
- **India's Nodal Ministry:** Ministry of New and Renewable Energy (MNRE).

PRELIMS BOOSTER BOX

- I. **Global Wind Day**
 - A. Observed annually on **15 June**.
 - B. Organized by the **Global Wind Energy Council (GWEC)** and **WindEurope**.
- II. **Wind Energy**
 - A. Converts the kinetic energy of wind into electricity using wind turbines.
 - B. Classified as a renewable and non-conventional source of energy.
- III. **National Offshore Wind Energy Policy, 2015**
 - A. Promotes the development of offshore wind energy along India's coastline.
 - B. **MNRE** is the nodal ministry for implementation.
- IV. **Wind-Solar Hybrid Policy, 2018**
 - A. Encourages integration of wind and solar power to improve grid stability and optimize land use.
- V. **National Institute of Wind Energy (NIWE)**
 - A. Autonomous R&D institution under the **Ministry of New and Renewable Energy**.
 - B. Headquarters: **Chennai**.
 - C. Functions as the national agency for wind resource assessment and wind energy research.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

- Global Wind Day is observed annually on 15 June.
- The Ministry of New and Renewable Energy (MNRE) is the nodal ministry for wind energy development in India.

- The National Offshore Wind Energy Policy was launched in 2015 to promote offshore wind projects in India.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

2. INDIA-FRANCE ATL BRIDGE TO STRENGTHEN BILATERAL INNOVATION COOPERATION THROUGH SCHOOL INNOVATION LABS



Key Highlights

- I. Launch of the **India-France ATL Bridge**.
- II. Connects **Atal Tinkering Labs (ATLs)** in India with innovation labs in France.
- III. Promotes:
 - A. STEM education.
 - B. Design thinking.
 - C. Innovation and problem-solving.
 - D. Entrepreneurship.
 - E. International collaboration among students and teachers.
- IV. Supports the India-France Strategic Partnership in science, technology, and innovation.

ABOUT THE INDIA–FRANCE ATL BRIDGE

Objective

- Foster innovation partnerships between schools in India and France.
- Enable collaborative projects among students.
- Encourage exchange of ideas, best practices, and emerging technologies.
- Develop future-ready skills through experiential learning.

Focus Areas

- Artificial Intelligence (AI).
- Robotics.
- Internet of Things (IoT).
- Sustainability.
- Climate solutions.
- Digital technologies.

ABOUT ATAL TINKERING LABS (ATLs)

Atal Tinkering Labs

Launched By

- Atal Innovation Mission (AIM)

Parent Organization

- NITI Aayog

Launched

- 2016

Objectives

- Foster curiosity and creativity among school students.
- Promote innovation and problem-solving.
- Develop design thinking and computational skills.
- Encourage entrepreneurship from an early age.

Facilities

- Robotics kits.
- 3D printers.
- Electronics development tools.
- IoT kits.
- Sensors and rapid prototyping equipment.

ABOUT ATAL INNOVATION MISSION (AIM)

Atal Innovation Mission

Established

- 2016

Implemented By

- NITI Aayog.

Objectives

- Build a culture of innovation and entrepreneurship.
- Support startups.
- Promote innovation in schools, universities, and industries.
- Strengthen India's innovation ecosystem.

SIGNIFICANCE

Innovation Ecosystem

- Encourages creativity and innovation among school students.

International Collaboration

- Strengthens educational and technological cooperation between India and France.

Future Skills

- Promotes STEM learning, digital literacy, and emerging technologies.

Entrepreneurship

- Encourages young innovators to develop practical solutions to real-world problems.

Strategic Partnership

- Deepens India–France cooperation in education, research, and technology.

CHALLENGES

- Uneven access to innovation infrastructure across schools.
- Need for continuous teacher training.
- Sustaining international collaborations.
- Bridging the urban-rural innovation gap.

WAY FORWARD

- Expand ATL coverage to more schools.
- Strengthen international innovation exchanges.
- Enhance teacher capacity in STEM education.
- Promote collaborative innovation challenges and hackathons.
- Encourage industry participation and mentorship.

KEY HIGHLIGHTS

- **Initiative:** India–France ATL Bridge.
- **Purpose:** Bilateral innovation cooperation through school innovation labs.

- **Indian Partner:** Atal Innovation Mission (AIM), NITI Aayog.
- **Focus:** STEM, innovation, entrepreneurship, AI, robotics, and design thinking.
- **Outcome:** Stronger educational and technological partnership between India and France.

PRELIMS BOOSTER BOX

- I. **Atal Innovation Mission (AIM)**
 - A. Established in **2016** under **NITI Aayog**.
 - B. National flagship initiative to promote innovation and entrepreneurship.
- II. **Atal Tinkering Labs (ATLs)**
 - A. Launched in **2016**.
 - B. Established in schools to promote **STEM education**, innovation, and design thinking.
 - C. Equipped with tools such as **3D printers, robotics kits, IoT devices, and electronics equipment**.
- III. **STEM Education**
 - A. Refers to education in **Science, Technology, Engineering, and Mathematics**.
 - B. Emphasizes experiential learning and problem-solving.
- IV. **India–France Strategic Partnership**
 - A. Established in **1998**.
 - B. Covers cooperation in defence, civil nuclear energy, space, education, innovation, climate action, and the Indo-Pacific.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

- Atal Tinkering Labs (ATLs) are an initiative of the Atal Innovation Mission under NITI Aayog.
- The India–France ATL Bridge aims to strengthen innovation cooperation between schools in India and France.
- Atal Tinkering Labs promote STEM education, design thinking, and innovation among school students.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

3. 12 YEARS OF MODI GOVERNANCE: TRANSFORMING INDIA INTO AN ATMANIRBHAR FERTILIZER HUB AMID GLOBAL UNCERTAINTIES



Key Highlights

- Focus on achieving **Atmanirbharta** in the fertilizer sector.
- Revival of closed urea manufacturing plants.
- Increase in indigenous fertilizer production.
- Promotion of **Nano Urea** and balanced nutrient use.
- Timely fertilizer availability despite global geopolitical and supply chain challenges.
- Reduction in import dependence over the long term.

INDIA'S FERTILIZER SECTOR

Nodal Ministry

- I. Ministry of Chemicals and Fertilizers
 - A. **Department of Fertilizers**

Importance

- Ensures nutrient supply for agriculture.
- Supports food security.
- Enhances crop productivity.
- Contributes to farmers' income.

Major Fertilizers

- Nitrogenous fertilizers (Urea).
- Phosphatic fertilizers (DAP).
- Potassic fertilizers (MOP).
- Complex fertilizers (NPK).

MAJOR GOVERNMENT INITIATIVES

Revival of Urea Plants

- Revival of previously closed fertilizer plants to boost domestic urea production.

Nano Urea

- Developed by **Indian Farmers Fertiliser Cooperative Limited**.
- Improves nitrogen use efficiency.
- Reduces excessive consumption of conventional urea.
- Environment-friendly alternative.

Neem-Coated Urea

- Mandatory neem coating of domestically produced and imported urea.
- Prevents diversion for non-agricultural use.
- Improves nitrogen-use efficiency.

PM Programme for Restoration, Awareness, Nourishment and Amelioration of Mother Earth (PM-PRANAM)

- Encourages States and Union Territories to reduce the use of chemical fertilizers and promote balanced nutrient application.

Nutrient-Based Subsidy (NBS) Scheme

- Applicable to phosphatic and potassic (P&K) fertilizers.
- Subsidy linked to nutrient content rather than product price.

SIGNIFICANCE

Food Security

- Ensures timely availability of fertilizers for agricultural production.

Atmanirbhar Bharat

- Reduces dependence on fertilizer imports.

Farmer Welfare

- Supports affordable fertilizer availability through subsidies.

Environmental Sustainability

- Encourages balanced fertilizer use and adoption of nano fertilizers.

Supply Chain Resilience

- Strengthens domestic production amid global disruptions.

CHALLENGES

- Dependence on imported raw materials such as natural gas and phosphatic inputs.
- High fertilizer subsidy burden.
- Imbalanced nutrient consumption.
- Environmental impacts of excessive fertilizer use.
- Volatility in global fertilizer markets.

WAY FORWARD

- Expand domestic fertilizer manufacturing capacity.
- Promote balanced and efficient nutrient management.
- Encourage adoption of nano and bio-fertilizers.
- Strengthen soil health management through scientific fertilizer application.
- Enhance research in sustainable fertilizers and precision agriculture.

KEY HIGHLIGHTS

- **Focus:** Atmanirbhar fertilizer sector.
- **Major Initiatives:** Revival of urea plants, Nano Urea, Neem-Coated Urea, PM-PRANAM.
- **Objective:** Ensure fertilizer security and support sustainable agriculture.
- **Nodal Department:** Department of Fertilizers, Ministry of Chemicals and Fertilizers.

PRELIMS BOOSTER BOX

I. Department of Fertilizers

- A. Functions under the **Ministry of Chemicals and Fertilizers**.
- B. Responsible for fertilizer policy, production, movement, and distribution.

II. Neem-Coated Urea

- A. Mandatory in India since **2015**.
- B. Reduces nitrogen losses and prevents diversion for industrial use.

III. Nano Urea

- A. Developed by **IFFCO**.
- B. Liquid fertilizer designed to improve nitrogen-use efficiency and reduce conventional urea consumption.

IV. Nutrient-Based Subsidy (NBS) Scheme

- A. Introduced in **2010**.

- B. Covers **phosphatic and potassic (P&K)** fertilizers.
- C. **Urea is not covered** under the NBS Scheme.

V. **PM-PRANAM**

- A. **PM Programme for Restoration, Awareness, Nourishment and Amelioration of Mother Earth.**
- B. Incentivizes States to reduce chemical fertilizer consumption and promote sustainable nutrient management.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Nutrient-Based Subsidy (NBS) Scheme applies to phosphatic and potassic fertilizers but not to urea.
2. Neem-Coated Urea is intended to improve nitrogen-use efficiency and reduce diversion for non-agricultural purposes.
3. PM-PRANAM incentivizes States and Union Territories to promote balanced fertilizer use and reduce dependence on chemical fertilizers.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

4. INDIA'S SPACE ECONOMY POISED TO REACH USD 45 BILLION IN THE NEXT DECADE; OVER 400 SPACE STARTUPS DRIVING THE NEXT PHASE OF GROWTH



Key Highlights

- I. India's space economy is expected to grow to **USD 45 billion** over the next decade.
- II. More than **400 space startups** are contributing to innovation and commercialization.
- III. Growth is being driven by:
 - A. Private sector participation.
 - B. Satellite manufacturing.
 - C. Launch services.
 - D. Space applications.
 - E. Policy reforms.
- IV. Reflects India's transition towards a globally competitive commercial space sector.

INDIA'S SPACE SECTOR REFORMS

Opening of the Space Sector

- Since **2020**, India has opened its space sector to private participation.

Objectives

- Encourage innovation.
- Promote commercialization of space technologies.
- Increase private investment.
- Enhance India's share in the global space economy.

KEY INSTITUTIONS

Indian Space Research Organisation (ISRO)

Established

- **1969**

Parent Department

- **Department of Space**

Functions

- Space research.
- Satellite development.
- Launch vehicle development.
- Space applications.
- Planetary exploration.

Indian National Space Promotion and Authorization Center (IN-SPACe)

Established

- **2020**

Functions

- Promotes and authorizes private participation in the space sector.

- Acts as a single-window agency for non-government entities.
- Facilitates access to ISRO facilities and infrastructure.

NewSpace India Limited (NSIL)

Established

- 2019

Functions

- Commercial arm of ISRO.
- Commercialization of space technologies.
- Launch services.
- Satellite production and marketing.

ROLE OF SPACE STARTUPS

- Development of small satellites.
- Launch vehicle technologies.
- Earth observation services.
- Satellite communication.
- Geospatial and downstream applications.
- Space-based analytics and AI solutions.

SIGNIFICANCE

Economic Growth

- Expands India's contribution to the global space economy.

Innovation

- Encourages indigenous technology development.

Employment

- Generates high-skilled jobs in advanced technology sectors.

Strategic Capability

- Strengthens national security and technological self-reliance.

Global Competitiveness

- Positions India as a major commercial space destination.

CHALLENGES

- Limited private investment compared to leading space economies.
- Need for greater venture capital support.
- Regulatory and insurance challenges.
- Requirement for advanced manufacturing capabilities.

- Global competition in commercial launch services.

WAY FORWARD

- Strengthen public-private partnerships.
- Expand access to financing for space startups.
- Promote indigenous satellite manufacturing.
- Develop advanced launch infrastructure.
- Encourage international collaborations and commercial missions.

KEY HIGHLIGHTS

- **Projected Space Economy:** USD 45 billion.
- **Space Startups:** Over 400.
- **Major Reform:** Opening of the space sector to private participation (2020).
- **Key Institutions:** ISRO, IN-SPACe, NSIL.
- **Focus:** Innovation, commercialization, and global competitiveness.

PRELIMS BOOSTER BOX

- I. **Indian Space Research Organisation (ISRO)**
 - A. Established in **1969**.
 - B. Functions under the **Department of Space**.
- II. **IN-SPACe**
 - A. Full Form: **Indian National Space Promotion and Authorization Center**.
 - B. Established in **2020**.
 - C. Facilitates and authorizes private participation in India's space sector.
- III. **NewSpace India Limited (NSIL)**
 - A. Established in **2019**.
 - B. Commercial arm of ISRO responsible for commercialization of space technologies and services.
- IV. **Indian Space Policy, 2023**
 - A. Provides a comprehensive framework for private sector participation.
 - B. Clearly defines the roles of **ISRO**, **IN-SPACe**, and **NSIL**.
 - C. Encourages commercialization, innovation, and international collaboration.
- V. **Space Economy**
 - A. Includes upstream activities (launch vehicles, satellites, manufacturing) and downstream services (communication,

navigation, remote sensing, geospatial applications, and analytics).

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. IN-SPACe was established to promote and authorize private participation in India's space sector.
2. NewSpace India Limited (NSIL) is the commercial arm of ISRO.
3. The Indian Space Policy, 2023 provides a framework for increased private sector participation in the space sector.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Answer: (d)

5. INS SHARDA CONCLUDES SUCCESSFUL VISIT TO COLOMBO, SRI LANKA



Key Highlights

- I. INS Sharda completed a successful visit to Colombo.
- II. The visit included:
 - A. Professional interactions between the two navies.
 - B. Maritime cooperation activities.
 - C. Strengthening naval interoperability.
 - D. Cultural and goodwill engagements.
- III. Reinforced the India–Sri Lanka maritime partnership in the **Indian Ocean Region (IOR)**.

ABOUT INS SHARDA

INS Sharda

Type

- Offshore Patrol Vessel (OPV).

Role

- Coastal surveillance.
- Maritime patrol.
- Search and Rescue (SAR).
- Humanitarian Assistance and Disaster Relief (HADR).
- Maritime law enforcement.
- Exclusive Economic Zone (EEZ) surveillance.

INDIA–SRI LANKA MARITIME COOPERATION

Areas of Cooperation

- Maritime security.
- Joint naval exercises.
- Search and Rescue (SAR).
- Humanitarian Assistance and Disaster Relief (HADR).
- Anti-piracy cooperation.
- Capacity building and training.
- Maritime domain awareness.

SIGNIFICANCE

Regional Maritime Security

- Enhances peace, stability, and security in the Indian Ocean Region.

Defence Diplomacy

- Strengthens military-to-military cooperation and mutual trust.

Neighbourhood First Policy

- Reflects India's commitment to deepening ties with neighbouring countries.

SAGAR Vision

- Supports India's vision of **Security and Growth for All in the Region (SAGAR)** through cooperative maritime engagement.

Humanitarian Cooperation

- Improves preparedness for disaster response and maritime emergencies.

CHALLENGES

- Maritime piracy and illegal activities.
- Illegal, Unreported and Unregulated (IUU) fishing.

- Natural disasters in the Indian Ocean Region.
- Growing strategic competition in the region.

WAY FORWARD

- Expand bilateral naval exercises.
- Enhance maritime domain awareness through information sharing.
- Strengthen HADR cooperation.
- Promote capacity building and training.
- Deepen cooperation under regional maritime security frameworks.

KEY HIGHLIGHTS

- **Ship:** INS Sharda.
- **Destination:** Colombo, Sri Lanka.
- **Purpose:** Maritime cooperation and goodwill visit.
- **Focus:** Defence diplomacy, interoperability, and regional maritime security.
- **Strategic Framework:** SAGAR and Neighbourhood First Policy.

PRELIMS BOOSTER BOX

I. **INS Sharda**

- A. An **Offshore Patrol Vessel (OPV)** of the Indian Navy.
- B. Primarily deployed for **coastal surveillance, EEZ patrol, search and rescue, and maritime security operations.**

II. **SAGAR**

- A. **Security and Growth for All in the Region.**
- B. India's maritime vision announced in **2015.**
- C. Focuses on maritime security, regional cooperation, capacity building, and sustainable development in the Indian Ocean Region.

III. **Exclusive Economic Zone (EEZ)**

- A. Defined under the **United Nations Convention on the Law of the Sea.**
- B. Extends up to **200 nautical miles** from a coastal state's baseline.
- C. The coastal state has **sovereign rights for exploring, exploiting, conserving, and managing natural resources** within its EEZ.

IV. **Humanitarian Assistance and Disaster Relief (HADR)**

- A. Military-supported humanitarian operations undertaken during natural disasters, emergencies, and humanitarian crises.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. INS Sharda is an Offshore Patrol Vessel (OPV) of the Indian Navy.
2. The Exclusive Economic Zone (EEZ) extends up to 200 nautical miles from a coastal state's baseline under UNCLOS.
3. SAGAR stands for "Security and Growth for All in the Region" and guides India's maritime cooperation in the Indian Ocean Region.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

1. EMPOWERED YOUTH, STRONGER NATION: INDIA'S VISION FOR VIKSIT BHARAT @ 2047



Skill India

कौशल भारत - कुशल भारत

Key Highlights

- I. Youth are central to achieving the vision of **Viksit Bharat @ 2047**.
- II. Focus on:
 - A. Quality education.
 - B. Skill development.
 - C. Innovation and research.
 - D. Entrepreneurship and startups.
 - E. Digital empowerment.
 - F. Employment generation.
 - G. Leadership and nation-building.
- III. Emphasizes demographic dividend as India's greatest strength.

WHAT IS VIKSIT BHARAT @ 2047?

Viksit Bharat @ 2047

Objective

- Transform India into a **developed nation by 2047**, the centenary year of Independence.

Key Pillars

- Inclusive economic growth.
- Human capital development.
- World-class infrastructure.
- Technological innovation.
- Good governance.
- Sustainability.

- Social empowerment.

KEY AREAS OF YOUTH EMPOWERMENT

Education

- Strengthening foundational learning.
- Promoting multidisciplinary and digital education.

Skill Development

- Industry-oriented vocational training.
- Future-ready skills in emerging technologies.

Innovation & Research

- Encouraging scientific research and startup culture.

Entrepreneurship

- Supporting startups and self-employment opportunities.

Digital Inclusion

- Expanding digital literacy and access to technology.

Employment

- Enhancing employability through market-driven skills.

MAJOR GOVERNMENT INITIATIVES

Skill India Mission

- Enhances employability through vocational skill training.

PM Internship Scheme

- Provides internship opportunities to improve industry exposure and employability.

Startup India

- Promotes innovation and entrepreneurship.

Digital India

- Expands digital infrastructure and digital literacy.

National Education Policy 2020

- Promotes holistic, multidisciplinary, and flexible education.

MY Bharat

- Encourages youth participation in nation-building and community development.

SIGNIFICANCE

Demographic Dividend

- India has one of the world's largest youth populations, offering immense growth potential.

Economic Growth

- Skilled youth contribute to productivity, innovation, and entrepreneurship.

Innovation Ecosystem

- Young innovators drive technological advancement and startup growth.

Social Development

- Educated and empowered youth strengthen democratic participation and social cohesion.

Global Competitiveness

- A skilled workforce enhances India's position in the global economy.

CHALLENGES

- Skill mismatch with industry requirements.
- Youth unemployment and underemployment.
- Unequal access to quality education.
- Digital divide between regions.
- Need for stronger industry-academia collaboration.

WAY FORWARD

- Improve quality of education and vocational training.
- Strengthen links between academia and industry.
- Promote entrepreneurship and innovation ecosystems.
- Expand digital infrastructure and digital literacy.
- Encourage greater youth participation in governance and public policy.

KEY HIGHLIGHTS

- Vision:** Viksit Bharat @ 2047.
- Core Focus:** Youth empowerment.
- Priority Areas:** Education, skills, innovation, entrepreneurship, employment, and digital inclusion.
- Goal:** Build a developed, inclusive, and globally competitive India by 2047.

PRELIMS BOOSTER BOX

I. Viksit Bharat @ 2047

- A. National vision to transform India into a developed country by **2047**.

II. Skill India Mission

- A. Launched in **2015**.
- B. Aims to provide market-relevant skills and improve employability.

III. National Education Policy (NEP) 2020

- A. Replaces the **National Policy on Education, 1986**.
- B. Promotes multidisciplinary education, flexibility, and experiential learning.

IV. Startup India

- A. Launched in **2016**.
- B. Supports startups through funding, regulatory simplification, and innovation.

V. MY Bharat (Mera Yuva Bharat)

- A. Launched in **2023**.
- B. Serves as a platform for youth engagement, volunteerism, leadership, and nation-building.

VI. Demographic Dividend

- A. Refers to the economic growth potential arising from a **large working-age population** relative to dependents.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

- Viksit Bharat @ 2047 aims to transform India into a developed nation by the centenary of its Independence.
- The National Education Policy (NEP) 2020 replaced the National Policy on Education, 1986.
- Demographic dividend refers to the economic growth potential arising from a large working-age population.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

2. BETI BACHAO BETI PADHAO: ADVANCING DIGNITY AT BIRTH AND EARLY CHILDHOOD CARE



Key Highlights

- I. Focus on ensuring dignity and equal opportunities for the girl child from birth.
- II. Promotes:
 - A. Prevention of gender-biased sex selection.
 - B. Survival and protection of the girl child.
 - C. Education and empowerment of girls.
 - D. Early Childhood Care and Education (ECCE).
- III. Emphasizes convergence among multiple ministries and community participation.

ABOUT BETI BACHAO BETI PADHAO (BBBP)

Beti Bachao Beti Padhao

Launched

- 22 January 2015

Launched At

- Panipat

Implemented By

- Ministry of Women and Child Development
- Ministry of Health and Family Welfare
- Ministry of Education

Objectives

- Prevent gender-biased sex selection.
- Ensure survival and protection of the girl child.
- Promote education and participation of girls.
- Change societal attitudes towards the girl child.

EARLY CHILDHOOD CARE AND EDUCATION (ECCE)

Early Childhood Care and Education

Age Group

- 0–6 years

Focus Areas

- Nutrition.
- Health.
- Early learning.
- Cognitive development.
- Emotional and social development.

Delivery Platform

- Saksham Anganwadi and POSHAN 2.0 through Anganwadi Centres.

RELATED INITIATIVES

Saksham Anganwadi and POSHAN 2.0

- Strengthens nutrition and early childhood care.

Mission Shakti

- Umbrella scheme for women's safety, security, and empowerment.

Pradhan Mantri Matru Vandana Yojana

- Provides maternity benefits to eligible pregnant and lactating women.

National Education Policy 2020

- Integrates ECCE into the formal education framework and recommends the **5+3+3+4** curricular structure.

SIGNIFICANCE

Gender Equality

- Promotes equal rights and opportunities for girls.

Improved Child Sex Ratio

- Helps address gender imbalance caused by sex-selective practices.

Human Capital Development

- Early childhood care improves lifelong learning and productivity.

Women's Empowerment

- Encourages girls' education and greater participation in society and the economy.

Achievement of SDGs

- I. Contributes to:
 - A. **SDG 3** – Good Health and Well-being.
 - B. **SDG 4** – Quality Education.
 - C. **SDG 5** – Gender Equality.

CHALLENGES

- Persistent gender stereotypes.
- Child malnutrition and anaemia.
- Unequal access to quality early childhood education.
- Regional disparities in child sex ratio.
- Need for greater community awareness.

WAY FORWARD

- Strengthen awareness campaigns on gender equality.
- Improve quality of Anganwadi services.
- Enhance nutrition and healthcare for mothers and children.
- Promote universal access to ECCE.
- Encourage greater community participation in protecting and educating the girl child.

KEY HIGHLIGHTS

- **Scheme:** Beti Bachao Beti Padhao.
- **Launched:** 22 January 2015.
- **Launch Venue:** Panipat, Haryana.
- **Focus:** Girl child survival, protection, education, and empowerment.
- **ECCE Age Group:** 0–6 years.
- **Delivery Platform:** Saksham Anganwadi and POSHAN 2.0.

PRELIMS BOOSTER BOX

- I. **Beti Bachao Beti Padhao (BBBP)**
 - A. Launched on **22 January 2015**.
 - B. A tri-ministerial initiative of the:
 1. Ministry of Women and Child Development.
 2. Ministry of Health and Family Welfare.
 3. Ministry of Education.
- II. **Early Childhood Care and Education (ECCE)**

- A. Covers children in the **0–6 years** age group.
- B. Included as a foundational component under the **National Education Policy (NEP) 2020**.

III. **Saksham Anganwadi and POSHAN 2.0**

- A. Integrated nutrition scheme launched in **2021**.
- B. Focuses on maternal nutrition, child nutrition, and strengthening Anganwadi services.

IV. **Child Sex Ratio (CSR)**

- A. Defined as the **number of girls per 1,000 boys in the 0–6 years age group**.

V. **Pre-Conception and Pre-Natal Diagnostic Techniques (PCPNDT) Act, 1994**

- A. Prohibits **sex selection** before or after conception.
- B. Regulates the use of prenatal diagnostic techniques to prevent sex-selective abortions.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Beti Bachao Beti Padhao was launched in 2015 as a tri-ministerial initiative.
2. Early Childhood Care and Education (ECCE) under the National Education Policy 2020 covers children in the 0–6 years age group.
3. The PCPNDT Act, 1994 prohibits sex selection before and after conception.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Answer: (d)

3. INDORE DECLARATION MARKS NEW CHAPTER IN GLOBAL AGRICULTURE, PLACES FARMERS AT THE HEART OF BRICS AGENDA



Key Highlights

- I. Adoption of the **Indore Declaration** by BRICS member countries.
- II. Emphasis on:
 - A. Farmer-centric agricultural development.
 - B. Food and nutrition security.
 - C. Sustainable agriculture.
 - D. Climate-resilient farming.
 - E. Agricultural research and innovation.
 - F. Digital agriculture and precision farming.
 - G. Cooperation in trade and value chains.
- III. Reinforces South-South cooperation in agriculture.

ABOUT BRICS

BRICS

Members (2026)

- Brazil
- Russia
- India
- China
- South Africa
- Egypt
- Ethiopia
- Iran
- United Arab Emirates
- Indonesia

Objective

- I. Promote cooperation in:
 - A. Economic development.
 - B. Trade and investment.
 - C. Agriculture.
 - D. Finance.
 - E. Science and technology.
 - F. Sustainable development.

MAJOR THEMES OF THE INDORE DECLARATION

Farmer-Centric Development

- Improve farmers' incomes and livelihoods.
- Promote inclusive agricultural growth.

Food Security

- Strengthen resilient food systems.
- Ensure availability, accessibility, and affordability of food.

Climate-Resilient Agriculture

- Promote sustainable farming practices.
- Encourage efficient water and natural resource management.

Agricultural Innovation

- Enhance research collaboration.
- Promote digital agriculture and precision farming.

International Cooperation

- Strengthen agricultural trade, technology transfer, and knowledge sharing among BRICS countries.

SIGNIFICANCE

Global Food Security

- Enhances cooperation to tackle food insecurity and supply chain disruptions.

Farmer Welfare

- Places farmers at the centre of agricultural policymaking.

Climate Action

- Supports adaptation to climate change through resilient agriculture.

Technology Adoption

- Encourages digital agriculture, AI, and smart farming solutions.

South-South Cooperation

- Promotes collaboration among emerging economies in agriculture.

CHALLENGES

- Climate change affecting agricultural productivity.
- Land degradation and water scarcity.
- Rising food demand.
- Supply chain disruptions.
- Technology gaps among developing countries.

WAY FORWARD

- Increase investment in agricultural research and innovation.
- Promote climate-smart agriculture.
- Expand digital and precision farming.
- Strengthen farmer producer organizations (FPOs).
- Deepen BRICS cooperation on food systems and agricultural trade.

KEY HIGHLIGHTS

- **Declaration:** Indore Declaration.
- **Forum:** BRICS Agriculture Ministers' Meeting.
- **Venue:** Indore, Madhya Pradesh.
- **Core Focus:** Farmers, food security, sustainable agriculture, climate resilience, and innovation.
- **Approach:** Collaborative and farmer-centric agricultural development.

PRELIMS BOOSTER BOX

I. BRICS

- Originally formed by **Brazil, Russia, India, China, and South Africa**.
- Expanded membership now includes **Egypt, Ethiopia, Iran, United Arab Emirates, and Indonesia**.
- Promotes cooperation among emerging economies.

II. Food Security

- Defined by the **Food and Agriculture Organization (FAO)** as a condition where **all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food**.

III. Climate-Smart Agriculture (CSA)

- An approach that aims to:

1. Sustainably increase agricultural productivity.
2. Enhance resilience to climate change.
3. Reduce greenhouse gas emissions where possible.

IV. Farmer Producer Organization (FPO)

- Collective of farmers formed to improve bargaining power, market access, value addition, and incomes.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Indore Declaration was adopted at the BRICS Agriculture Ministers' Meeting.
2. Climate-resilient agriculture and farmer-centric development are among the major themes of the Indore Declaration.
3. The Food and Agriculture Organization (FAO) is a specialized agency of the United Nations.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

4. DRDO DEMONSTRATES THE NATION'S NEXT-GEN DEFENCE CAPABILITIES



Key Highlights

- DRDO demonstrated cutting-edge indigenous defence technologies.
- Focus areas included:
 - Advanced missile systems.

- B. Unmanned aerial and ground platforms.
 - C. Artificial Intelligence (AI).
 - D. Electronic Warfare (EW).
 - E. Radar and surveillance systems.
 - F. Cyber and communication technologies.
- III. Reinforces India's capability to develop advanced defence systems domestically.

ABOUT DRDO

Defence Research and Development Organisation

Established

- 1958

Ministry

- Ministry of Defence

Headquarters

- New Delhi

Mandate

- Develop indigenous defence technologies.
- Strengthen self-reliance in defence production.
- Support the Armed Forces with advanced military systems.
- Promote defence research and innovation.

KEY TECHNOLOGY AREAS

Missile Systems

- Surface-to-air missiles.
- Air-to-surface missiles.
- Ballistic and cruise missile technologies.

Unmanned Systems

- Unmanned Aerial Vehicles (UAVs).
- Unmanned Ground Vehicles (UGVs).
- Autonomous defence platforms.

Artificial Intelligence

- Decision-support systems.
- Autonomous surveillance.
- Target recognition and battlefield analytics.

Electronic Warfare

- Electronic intelligence.
- Electronic support and countermeasures.
- Protection against hostile electronic attacks.

Radar & Sensors

- Air surveillance radars.
- Battlefield surveillance systems.
- Advanced sensor technologies.

SIGNIFICANCE

Aatmanirbhar Bharat

- Reduces dependence on imported defence equipment.

National Security

- Strengthens India's defence preparedness and technological edge.

Defence Exports

- Enhances opportunities for indigenous defence exports.

Innovation Ecosystem

- Encourages collaboration among DRDO, industry, startups, and academia.

Strategic Capability

- Supports future warfare requirements through advanced technologies.

CHALLENGES

- Rapid technological advancements globally.
- Need for faster technology induction into the armed forces.
- High research and development costs.
- Integration of emerging technologies into operational platforms.

WAY FORWARD

- Increase investment in defence R&D.
- Strengthen public-private partnerships.
- Promote defence startups through the innovation ecosystem.
- Accelerate indigenous production under defence modernization initiatives.
- Expand defence exports to friendly countries.

KEY HIGHLIGHTS

- **Organization:** DRDO.
- **Established:** 1958.
- **Ministry:** Ministry of Defence.
- **Focus:** Indigenous next-generation defence technologies.
- **Major Areas:** Missiles, AI, unmanned systems, electronic warfare, radar, and cyber technologies.

- **Objective:** Strengthen self-reliance and national security.

PRELIMS BOOSTER BOX

- I. **Defence Research and Development Organisation (DRDO)**
 - A. Established in **1958**.
 - B. Functions under the **Ministry of Defence**.
 - C. India's premier defence research organization.
- II. **Electronic Warfare (EW)**
 - A. Involves the use of the electromagnetic spectrum to detect, disrupt, deceive, or protect military systems.
- III. **Artificial Intelligence (AI) in Defence**
 - A. Applications include autonomous systems, surveillance, logistics, target recognition, and decision support.
- IV. **Aatmanirbhar Bharat in Defence**
 - A. Focuses on indigenous design, development, manufacturing, and export of defence equipment.
- V. **Innovations for Defence Excellence (iDEX)**
 - A. Launched in **2018**.
 - B. Encourages startups, MSMEs, and innovators to develop advanced defence technologies for the Armed Forces.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Defence Research and Development Organisation (DRDO) was established in 1958 under the Ministry of Defence.
2. Electronic Warfare involves the use of the electromagnetic spectrum for military operations.
3. Innovations for Defence Excellence (iDEX) aims to promote innovation by startups and MSMEs in the defence sector.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Answer: (d)

5. CSIR-NIScPR ORGANIZED SKILL TRAINING PROGRAMME ON BASICS OF KOHA SOFTWARE



Key Highlights

- I. CSIR-NIScPR conducted a training programme on **Koha Software**.
- II. Target participants included:
 - A. Librarians.
 - B. Information professionals.
 - C. Researchers.
 - D. Students in Library and Information Science.
- III. Focus areas:
 - A. Library automation.
 - B. Cataloguing.
 - C. Circulation management.
 - D. Patron management.
 - E. Online Public Access Catalogue (OPAC).
 - F. Digital library services.

ABOUT CSIR-NIScPR

CSIR-National Institute of Science Communication and Policy Research

Parent Organization

- **Council of Scientific and Industrial Research (CSIR)**

Headquarters

- New Delhi

Formation

- I. Established in **2021** through the merger of:

- A. **CSIR–National Institute of Science Communication and Information Resources (NISCAIR).**
- B. **CSIR–National Institute of Science, Technology and Development Studies (NISTADS).**

Functions

- Science communication.
- Science policy research.
- Scholarly publishing.
- Research information services.
- Capacity building and training.

WHAT IS KOHA SOFTWARE?

Koha

Overview

- **Koha** is an **open-source Integrated Library Management System (ILMS)** used worldwide for automating library operations.

Major Features

- Cataloguing.
- Circulation management.
- Acquisition management.
- Serials management.
- Patron management.
- OPAC (Online Public Access Catalogue).
- Report generation.

Advantages

- Free and open-source.
- Web-based.
- Customizable.
- Supports international library standards.
- Facilitates efficient library management.

SIGNIFICANCE

Digital Library Management

- Improves efficiency in library operations through automation.

Capacity Building

- Enhances technical skills of library professionals.

Knowledge Access

- Facilitates better organization and retrieval of information resources.

Open-Source Adoption

- Encourages cost-effective and interoperable library management solutions.

CHALLENGES

- Limited digital skills among library personnel.
- Infrastructure constraints in smaller institutions.
- Data migration from legacy systems.
- Need for continuous technical support and training.

WAY FORWARD

- Expand training programmes on library automation.
- Promote adoption of open-source digital library platforms.
- Strengthen ICT infrastructure in educational institutions.
- Encourage integration of digital repositories with library systems.

KEY HIGHLIGHTS

- **Organizer:** CSIR-NIScPR.
- **Programme:** Skill Training on Basics of Koha Software.
- **Focus:** Library automation and digital information management.
- **Software:** Koha (Open-source ILMS).
- **Beneficiaries:** Librarians, researchers, and information professionals.

PRELIMS BOOSTER BOX

- I. **CSIR (Council of Scientific and Industrial Research)**
 - A. Established in **1942**.
 - B. Autonomous body under the **Ministry of Science and Technology**.
 - C. One of the world's largest publicly funded R&D organizations.
- II. **CSIR-NIScPR**
 - A. Formed in **2021** through the merger of **NISCAIR** and **NISTADS**.
 - B. Focuses on science communication, policy research, and research information services.
- III. **Koha**
 - A. Open-source **Integrated Library Management System (ILMS)**.
 - B. First released in **2000**.

- C. Used globally for automating library functions.

IV. **OPAC (Online Public Access Catalogue)**

- A. An online searchable catalogue that enables users to locate library resources electronically

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Koha is an open-source Integrated Library Management System (ILMS).
2. CSIR-NIScPR was formed through the merger of NISCAIR and NISTADS.
3. OPAC enables users to search and access library catalogues electronically.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

1. NITI AAYOG HOLDS INTERACTION WITH CHIEF MINISTERS OF NORTH-EASTERN STATES



Key Highlights

- I. NITI Aayog interacted with Chief Ministers of the North-Eastern States.
- II. Discussions focused on:
 - A. Infrastructure development.
 - B. Multi-modal connectivity.
 - C. Tourism promotion.
 - D. Skill development.
 - E. Agriculture and allied sectors.
 - F. Investment and industrial growth.
 - G. Digital governance.
- III. Reaffirmed the Government's commitment to the holistic development of the North-East.

ABOUT NITI AAYOG

NITI Aayog

Established

- 1 January 2015

Replaced

- Planning Commission

Full Form

- National Institution for Transforming India.

Chairperson

- Prime Minister of India.

Vice-Chairperson

- Appointed by the Prime Minister.

Headquarters

- New Delhi.

OBJECTIVES OF NITI AAYOG

- Foster cooperative and competitive federalism.

- Promote sustainable and inclusive development.
- Serve as the Government's premier public policy think tank.
- Encourage innovation and evidence-based policymaking.
- Facilitate Centre-State collaboration.

NORTH-EASTERN REGION (NER)

Constituent States

- Arunachal Pradesh
- Assam
- Manipur
- Meghalaya
- Mizoram
- Nagaland
- Sikkim
- Tripura

Importance

- Gateway to Southeast Asia under the **Act East Policy**.
- Rich biodiversity and natural resources.
- Significant hydropower potential.
- Strategic international borders with several neighbouring countries.

SIGNIFICANCE

Cooperative Federalism

- Strengthens collaboration between the Centre and States.

Regional Development

- Addresses the unique developmental needs of the North-East.

Connectivity

- Promotes road, rail, air, and digital connectivity.

Economic Growth

- Encourages investment, tourism, entrepreneurship, and job creation.

National Integration

- Enhances socio-economic integration of the North-Eastern Region with the rest of India.

CHALLENGES

- Difficult terrain affecting connectivity.
- Infrastructure gaps.
- Disaster vulnerability.

- Limited industrialization.
- Logistics and market access constraints.

WAY FORWARD

- Accelerate infrastructure and multimodal connectivity projects.
- Promote sustainable tourism and eco-tourism.
- Strengthen digital infrastructure and governance.
- Encourage private investment and startup ecosystems.
- Improve skill development and livelihood opportunities.

KEY HIGHLIGHTS

- **Organization:** NITI Aayog.
- **Focus:** Development of North-Eastern States.
- **Major Themes:** Connectivity, infrastructure, investment, tourism, digital governance, and skill development.
- **Approach:** Cooperative federalism and region-specific policy planning.

PRELIMS BOOSTER BOX

- I. **NITI Aayog**
 - A. Established: **1 January 2015**.
 - B. Replaced the **Planning Commission**.
 - C. Functions as India's premier public policy think tank.
 - D. Chairperson: **Prime Minister of India**.
- II. **Planning Commission**
 - A. Established in **1950**.
 - B. Replaced by NITI Aayog in **2015**.
- III. **Act East Policy**
 - A. Launched in **2014** as an upgrade to the Look East Policy.
 - B. Aims to strengthen economic, strategic, and cultural ties with Southeast Asia.
 - C. The North-East serves as India's gateway to this policy.
- IV. **North Eastern Council (NEC)**
 - A. Established under the **North Eastern Council Act, 1971**.
 - B. Statutory advisory body for the economic and social development of the North-Eastern Region.
 - C. Functions under the **Ministry of Development of North Eastern Region**.

PaadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. NITI Aayog replaced the Planning Commission in 2015.
2. The Prime Minister of India is the Chairperson of NITI Aayog.
3. The North Eastern Council is a statutory body established under the North Eastern Council Act, 1971.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

2. AAIB ISSUES INTERIM STATEMENT ON THE PROGRESS OF INVESTIGATION INTO THE ACCIDENT INVOLVING AIR INDIA FLIGHT AI-171



Key Highlights

- Investigation is progressing and has reached the **final analysis stage**.
- Examination of flight data, engine components, maintenance records, and other technical evidence is continuing.
- The final report will be released only after completion of all technical analyses and international review processes.
- AAIB emphasized that accident investigations are conducted to enhance **aviation safety**, not to assign civil or criminal responsibility.

ABOUT THE AIRCRAFT ACCIDENT INVESTIGATION BUREAU (AAIB)

Aircraft Accident Investigation Bureau

Ministry

- Ministry of Civil Aviation.

Established

- 2012

Legal Framework

- Functions under the **Aircraft (Investigation of Accidents and Incidents) Rules, 2017**, framed under the **Aircraft Act, 1934**.

Mandate

- Investigate civil aviation accidents and serious incidents.
- Identify causes and contributing factors.
- Recommend measures to prevent recurrence.
- Improve aviation safety in accordance with international standards.

INTERNATIONAL FRAMEWORK

International Civil Aviation Organization

- The AAIB conducts investigations in accordance with **Annex 13** to the **Convention on International Civil Aviation**.

Key Principle

- The **sole objective** of an accident investigation is:
 - Prevention of future accidents and incidents.**
 - Not the apportionment of blame or liability.**

INVESTIGATION PROCESS

Major components examined include:

- Flight Data Recorder (FDR) and Cockpit Voice Recorder (CVR).
- Aircraft systems and engines.
- Maintenance history.
- Air traffic control records.
- Meteorological conditions.
- Human factors and operational procedures.

SIGNIFICANCE

Aviation Safety

- Helps identify safety deficiencies and prevent similar accidents.

Regulatory Improvements

- Leads to safety recommendations for airlines, manufacturers, and regulators.

International Cooperation

- Investigations often involve aircraft manufacturers, engine manufacturers, and foreign accident investigation agencies.

Public Confidence

- Transparent investigations strengthen trust in civil aviation safety.

CHALLENGES

- Highly complex technical investigations.
- Coordination among multiple national and international agencies.
- Extensive forensic examination of aircraft components.
- Managing misinformation and premature conclusions during ongoing investigations.

WAY FORWARD

- Complete technical analysis based on evidence.
- Publish the final investigation report with safety recommendations.
- Strengthen implementation of safety recommendations by stakeholders.
- Continue improving India's aviation safety oversight and accident investigation capabilities.

KEY HIGHLIGHTS

- **Investigating Agency:** Aircraft Accident Investigation Bureau (AAIB).
- **Accident:** Air India Flight AI-171.
- **Status:** Final analysis stage.
- **Objective:** Improve aviation safety and prevent future accidents.
- **International Standard:** ICAO Annex 13.
- **AAIB Appeal:** Avoid speculation until the final report is released.

PRELIMS BOOSTER BOX

- Aircraft Accident Investigation Bureau (AAIB)**
 - Established in **2012**.
 - Functions under the **Ministry of Civil Aviation**.
 - Investigates civil aircraft accidents and serious incidents.

II. ICAO Annex 13

- A. Prescribes international standards for aircraft accident and incident investigations.
- B. States that investigations are conducted **to prevent future accidents, not to assign blame or liability.**

III. Flight Data Recorder (FDR)

- A. Records aircraft performance and flight parameters.

IV. Cockpit Voice Recorder (CVR)

- A. Records cockpit audio, crew communications, and warning sounds.

V. Final Investigation Report

- A. Includes factual findings, analysis, conclusions, probable causes, contributing factors, and safety recommendations.

PaadhAI-GENERATED UPSC MCQ

Consider the following statements regarding aircraft accident investigations:

1. The Aircraft Accident Investigation Bureau (AAIB) functions under the Ministry of Civil Aviation.
2. Under ICAO Annex 13, the primary objective of an aircraft accident investigation is to prevent future accidents rather than assign blame.
3. The Flight Data Recorder (FDR) records cockpit conversations between the pilots.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (a)

3. QCI AND FDDI SIGN MoU TO STRENGTHEN QUALITY AND SKILLING ECOSYSTEM IN LEATHER AND FOOTWEAR SECTOR



STARTUP INDIA

Key Highlights

- I. MoU signed between QCI and FDDI.
- II. Focus areas include:
 - A. Quality assurance.
 - B. Standardization.
 - C. Certification.
 - D. Skill development.
 - E. Capacity building.
 - F. Research and innovation.
- III. Seeks to improve the international competitiveness of India's leather and footwear sector.

ABOUT QUALITY COUNCIL OF INDIA (QCI)

Quality Council of India

Established

- 1997

Nature

- Autonomous organization.

Set Up By

- Government of India and Indian industry.

Nodal Ministry

- **Department for Promotion of Industry and Internal Trade (DPIIT)**, Ministry of Commerce and Industry.

Objectives

- Promote quality standards.
- Encourage accreditation and certification.
- Improve quality across products and services.
- Enhance global competitiveness of Indian industry.

ABOUT FOOTWEAR DESIGN AND DEVELOPMENT INSTITUTE (FDDI)

Footwear Design and Development Institute

Established

- 1986

Ministry

- Ministry of Commerce and Industry.

Status

- Declared an **Institution of National Importance** under the **Footwear Design and Development Institute Act, 2017.**

Functions

- Education in footwear, fashion, leather goods, and retail.
- Skill development.
- Product design and innovation.
- Testing and certification.
- Industry consultancy.

SIGNIFICANCE OF THE MoU

Quality Enhancement

- Promotes adoption of internationally accepted quality standards.

Skill Development

- Strengthens workforce capabilities for the leather and footwear industry.

Export Competitiveness

- Supports production of globally competitive products.

Industry–Academia Collaboration

- Encourages research, innovation, and technology adoption.

Employment Generation

- Enhances employability and creates opportunities in labour-intensive sectors.

CHALLENGES IN THE LEATHER & FOOTWEAR SECTOR

- Need for higher quality standards.
- Skill gaps in manufacturing.
- Global competition.
- Sustainability and environmental compliance.
- Technology upgradation.

WAY FORWARD

- Promote industry-oriented skill development.
- Strengthen testing and certification infrastructure.
- Encourage innovation and sustainable manufacturing.
- Expand international market access through quality compliance.
- Foster collaboration among industry, academia, and government.

KEY HIGHLIGHTS

- **Organizations:** QCI and FDDI.

- **Objective:** Strengthen quality and skilling ecosystem.
- **Focus Areas:** Quality assurance, certification, standardization, and capacity building.
- **Sector:** Leather and footwear.
- **Expected Outcome:** Enhanced global competitiveness and employment generation.

PRELIMS BOOSTER BOX

I. Quality Council of India (QCI)

- A. Established: **1997**.
- B. Autonomous body jointly set up by the Government of India and Indian industry.
- C. Promotes quality through accreditation and certification.

II. Footwear Design and Development Institute (FDDI)

- A. Established: **1986**.
- B. Declared an **Institution of National Importance** under the **FDDI Act, 2017**.

III. Leather and Footwear Industry

- A. One of India's major labour-intensive manufacturing sectors.
- B. Significant contributor to exports and employment.

IV. Institution of National Importance (INI)

- A. Status granted by an Act of Parliament to institutions that play a pivotal role in developing highly skilled professionals and advancing strategic sectors.

PaadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Quality Council of India (QCI) was established in 1997 as an autonomous organization.
2. The Footwear Design and Development Institute (FDDI) was declared an Institution of National Importance through the FDDI Act, 2017.
3. The primary objective of the MoU between QCI and FDDI is to strengthen quality assurance and skill development in the leather and footwear sector.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

4. GLOBAL COALITION FOR SOCIAL JUSTICE COORDINATION GROUP MEETING HELD ON THE SIDELINES OF THE 114TH INTERNATIONAL LABOUR CONFERENCE, GENEVA



Key Highlights

- I. Coordination Group meeting held during the **114th International Labour Conference (ILC)**.
- II. Discussions focused on:
 - A. Advancing social justice.
 - B. Promoting decent work.
 - C. Strengthening social protection systems.
 - D. Enhancing international partnerships.
 - E. Accelerating implementation of the Coalition's objectives.
- III. Reaffirmed the importance of multilateral cooperation in addressing labour market challenges.

ABOUT THE GLOBAL COALITION FOR SOCIAL JUSTICE

Global Coalition for Social Justice

Launched By

- International Labour Organization (ILO)

Launched

- 2023

Objective

- Promote social justice as a foundation for sustainable development.
- Foster inclusive economic growth.
- Expand decent work opportunities.
- Strengthen social protection.

- Reduce inequalities through global partnerships.

Members

- Governments.
- Employers' organizations.
- Workers' organizations.
- International organizations.
- Development partners.
- Academic institutions and civil society.

ABOUT THE INTERNATIONAL LABOUR CONFERENCE (ILC)

International Labour Conference

Organized By

- International Labour Organization (ILO).

Frequency

- Held **annually**.

Significance

- Known as the **"World Parliament of Labour."**
- Brings together representatives of governments, employers, and workers from ILO member States.
- Adopts international labour standards and discusses global labour issues.

ABOUT THE INTERNATIONAL LABOUR ORGANIZATION (ILO)

International Labour Organization

Established

- 1919

Became a UN Specialized Agency

- 1946

Headquarters

- Geneva

Unique Feature

- I. **Tripartite structure** comprising:
 - A. Governments.
 - B. Employers.
 - C. Workers.

Objectives

- Promote decent work.
- Protect labour rights.
- Enhance social protection.
- Encourage social dialogue.

SIGNIFICANCE

Promotes Social Justice

- Supports equitable and inclusive economic development.

Decent Work Agenda

- Encourages productive employment with dignity, rights, and fair wages.

Global Cooperation

- Strengthens partnerships among governments, employers, workers, and international organizations.

Supports Sustainable Development Goals (SDGs)

- Contributes particularly to:
 - SDG 1** – No Poverty.
 - SDG 8** – Decent Work and Economic Growth.
 - SDG 10** – Reduced Inequalities.

CHALLENGES

- Persistent unemployment and underemployment.
- Informal employment.
- Social protection gaps.
- Rising inequalities.
- Impact of technological change and climate transition on labour markets.

WAY FORWARD

- Expand universal social protection systems.
- Promote quality employment and skill development.
- Strengthen labour rights and workplace safety.
- Enhance international cooperation for inclusive growth.
- Foster evidence-based labour policies.

KEY HIGHLIGHTS

- **Event:** Coordination Group Meeting of the Global Coalition for Social Justice.
- **Venue:** Geneva, Switzerland.
- **Occasion:** 114th International Labour Conference.
- **Lead Organization:** International Labour Organization (ILO).
- **Focus:** Social justice, decent work, social protection, and inclusive growth.

PRELIMS BOOSTER BOX

- International Labour Organization (ILO)**
 - Established in **1919** under the **Treaty of Versailles**.
 - Became the **first specialized agency of the United Nations** in **1946**.
 - Headquarters: **Geneva, Switzerland**.
 - Unique for its **tripartite structure** involving governments, employers, and workers.
- International Labour Conference (ILC)**
 - Annual conference of the ILO.
 - Known as the "**World Parliament of Labour**."
 - Adopts international labour standards and discusses global labour issues.
- Global Coalition for Social Justice**
 - Launched by the ILO in **2023**.
 - Promotes social justice, decent work, social protection, and inclusive development through voluntary global partnerships.
- Decent Work Agenda**
 - Core ILO framework based on:
 - Employment creation.
 - Rights at work.
 - Social protection.
 - Social dialogue.

PaadhAI-GENERATED UPSC MCQ

Consider the following statements:

- The International Labour Organization (ILO) has a tripartite structure comprising governments, employers, and workers.
- The International Labour Conference is held annually and is often referred to as the "World Parliament of Labour."
- The Global Coalition for Social Justice was launched by the ILO to promote social justice, decent work, and social protection.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Answer: (d)

5. GOVERNMENT NOTIFIES CONTROL ORDER TO CURB BLACK MARKETING AND HOARDING OF DIESEL BY UNSCRUPULOUS ELEMENTS



Key Highlights

- I. Control Order notified to:
 - A. Prevent black marketing of diesel.
 - B. Curb hoarding and unauthorized storage.
 - C. Ensure uninterrupted supply for legitimate consumers.
 - D. Strengthen monitoring of diesel distribution.
- II. Empowers authorities to regulate storage, transportation, distribution, and sale of diesel.

LEGAL FRAMEWORK

Essential Commodities Act, 1955

The Act empowers the Central Government to:

- Regulate production, supply, and distribution of essential commodities.
- Prevent hoarding and black marketing.
- Ensure equitable availability of essential goods.
- Stabilize prices in the public interest.

WHAT IS A CONTROL ORDER?

- A **Control Order** is a legal instrument issued by the Government under enabling legislation (such as the Essential Commodities Act) to regulate the production, storage, transport, distribution, or sale of specified commodities.

Objectives

- Prevent artificial shortages.
- Discourage profiteering.

- Protect consumers.
- Ensure smooth supply chains.

IMPORTANCE OF DIESEL

- I. Diesel is a critical fuel for:
 - A. Agriculture (tractors, irrigation pumps, harvesters).
 - B. Freight transportation.
 - C. Public transport.
 - D. Mining and construction.
 - E. Industrial operations.
 - F. Backup power generation.

SIGNIFICANCE

Energy Security

- Ensures uninterrupted availability of diesel across sectors.

Consumer Protection

- Prevents artificial shortages and price manipulation.

Agricultural Support

- Ensures timely fuel availability during sowing and harvesting seasons.

Supply Chain Stability

- Strengthens monitoring and accountability in fuel distribution.

CHALLENGES

- Illegal diversion of subsidized or regulated fuel.
- Hoarding during periods of supply uncertainty.
- Monitoring storage and transportation across regions.
- Enforcement against organized black-market networks.

WAY FORWARD

- Strengthen digital tracking of fuel movement.
- Enhance coordination among enforcement agencies.
- Increase inspections of storage facilities and distribution channels.
- Promote transparency through technology-enabled monitoring systems.
- Create public awareness to report illegal fuel trading.

KEY HIGHLIGHTS

- **Objective:** Prevent black marketing and hoarding of diesel.

- **Legal Basis:** Essential Commodities Act, 1955.
- **Focus:** Regulated storage, transport, and distribution.
- **Benefit:** Ensures adequate diesel availability for genuine users.
- **Outcome:** Improved energy security and supply chain integrity.

(b) 2 and 3 only

(c) 1 and 3 only

(d) 1, 2 and 3

Answer: (d)

PRELIMS BOOSTER BOX

I. **Essential Commodities Act, 1955**

- A. Enables the Government to regulate production, supply, distribution, and trade of essential commodities.
- B. Aims to prevent hoarding, black marketing, and profiteering.

II. **Control Order**

- A. Issued under powers conferred by an enabling law.
- B. Can regulate storage, movement, distribution, pricing, or sale of specified commodities.

III. **Diesel**

- A. A major petroleum fuel used in agriculture, transport, industry, and power generation.
- B. Plays a critical role in India's logistics and food supply chains.

IV. **Oil Marketing Companies (OMCs)**

- A. Major public sector OMCs include:
 - 1. Indian Oil Corporation Limited (IOCL)
 - 2. Bharat Petroleum Corporation Limited (BPCL)
 - 3. Hindustan Petroleum Corporation Limited (HPCL)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Essential Commodities Act, 1955 empowers the Government to regulate the production, supply, and distribution of essential commodities.
2. A Control Order may be issued to regulate the storage and distribution of specified commodities.
3. Diesel is widely used in agriculture, transportation, and industrial activities.

Which of the statements given above is/are correct?

(a) 1 and 2 only

1. BIOPHARMACEUTICALS ARE SHAPING THE FUTURE OF MODERN HEALTHCARE; INDIA WELL-POSITIONED TO EMERGE AS A GLOBAL LEADER: SMT. ANUPRIYA PATEL



Key Highlights

- I. Biopharmaceuticals are driving innovation in healthcare.
- II. India possesses significant strengths in:
 - A. Biotechnology research.
 - B. Vaccine manufacturing.
 - C. Biosimilars production.
 - D. Skilled human resources.
- III. The sector is expected to contribute to affordable and advanced healthcare globally.

WHAT ARE BIOPHARMACEUTICALS?

Biopharmaceuticals

- Biopharmaceuticals are **medicines produced using living organisms or biotechnology techniques**, unlike conventional drugs synthesized through chemical processes.

Examples

- Vaccines.
- Monoclonal antibodies.
- Recombinant proteins.
- Gene therapies.
- Cell therapies.

- Insulin produced using recombinant DNA technology.

APPLICATIONS OF BIOPHARMACEUTICALS

- Treatment of cancer.
- Diabetes management.
- Autoimmune diseases.
- Rare genetic disorders.
- Infectious diseases.
- Personalized medicine.

INDIA'S STRENGTHS IN THE BIOPHARMACEUTICAL SECTOR

Strong Biotechnology Ecosystem

- Large network of biotechnology companies and research institutions.

Global Vaccine Hub

- India is among the world's largest producers of vaccines.

Leadership in Biosimilars

- India is a major producer and exporter of biosimilar medicines.

Skilled Workforce

- Availability of highly trained scientists, researchers, and healthcare professionals.

Cost Competitiveness

- High-quality manufacturing at comparatively lower costs.

GOVERNMENT INITIATIVES

Department of Biotechnology (DBT)

- Promotes biotechnology research and innovation.

BioE3 Policy

- I. Focuses on:
 - A. **Biotechnology for Economy, Environment and Employment.**
 - B. Promoting high-performance biomanufacturing.
 - C. Advancing sustainable biotechnology.

Biotechnology Industry Research Assistance Council (BIRAC)

- Supports biotechnology startups, innovation, and commercialization.

SIGNIFICANCE

Healthcare Innovation

- Enables development of advanced therapies for complex diseases.

Affordable Medicines

- Supports access to cost-effective biologics and biosimilars.

Economic Growth

- Boosts biotechnology exports and investment.

Global Health Security

- Strengthens vaccine and therapeutic manufacturing capacity.

Atmanirbhar Bharat

- Promotes self-reliance in high-end pharmaceutical manufacturing.

CHALLENGES

- High research and development costs.
- Complex regulatory approval processes.
- Need for advanced manufacturing infrastructure.
- Intellectual property and technology transfer issues.

WAY FORWARD

- Increase investment in biotechnology research.
- Strengthen industry-academia collaboration.
- Expand biomanufacturing infrastructure.
- Simplify regulatory pathways while ensuring safety and quality.
- Promote global partnerships in biotechnology.

KEY HIGHLIGHTS

- **Focus Sector:** Biopharmaceuticals.
- **Key Technologies:** Biotechnology and recombinant DNA.
- **Major Products:** Vaccines, monoclonal antibodies, biosimilars, gene therapies.
- **Lead Department:** Department of Biotechnology.
- **Innovation Agency:** BIRAC.
- **Flagship Policy:** BioE3 Policy.
- **Goal:** Position India as a global biotechnology leader.

PRELIMS BOOSTER BOX

- Biopharmaceuticals**
 - Medicines produced using living cells or biotechnology.

- Include vaccines, recombinant proteins, monoclonal antibodies, and gene therapies.

II. Biosimilars

- Biologic medicines that are highly similar to an already approved reference biologic, with no clinically meaningful differences in safety, purity, or efficacy.

III. Department of Biotechnology (DBT)

- Established in **1986**.
- Functions under the **Ministry of Science and Technology**.

IV. BIRAC

- Biotechnology Industry Research Assistance Council.**
- A Public Sector Enterprise under DBT.
- Supports biotech innovation, startups, and commercialization.

V. BioE3 Policy

- Stands for **Biotechnology for Economy, Environment and Employment**.
- Promotes sustainable biomanufacturing and biotechnology-led economic growth.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

- Biopharmaceuticals are medicines produced using biotechnology and living organisms.
- Biosimilars are biologic medicines that are highly similar to an approved reference biologic.
- The Department of Biotechnology functions under the Ministry of Science and Technology.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Answer: (d)

2. DEPARTMENT OF AGRICULTURE & FARMERS WELFARE RELEASES SECOND ADVANCE ESTIMATES OF HORTICULTURAL CROP AREA AND

PRODUCTION FOR 2025–26



Key Highlights

- I. Second Advance Estimates cover:
 - A. Area under horticultural crops.
 - B. Expected production during **2025–26**.
- II. Includes major horticultural crops such as:
 - A. Fruits.
 - B. Vegetables.
 - C. Spices.
 - D. Plantation crops.
 - E. Flowers.
 - F. Aromatic and medicinal plants.
- III. Estimates help in production planning, price stabilization, and export strategies.

WHAT ARE ADVANCE ESTIMATES?

- Advance Estimates are **preliminary forecasts** of crop area and production prepared before the final harvest data is available.

Purpose

- I. Assist policymakers in:
 - A. Agricultural planning.
 - B. Food management.
 - C. Export-import decisions.
 - D. Market interventions.

Stages

- First Advance Estimates.
- Second Advance Estimates.
- Third Advance Estimates.
- Final Estimates.

WHAT IS HORTICULTURE?

Horticulture

- Horticulture is the branch of agriculture dealing with the cultivation of:
 - Fruits.
 - Vegetables.
 - Flowers.
 - Plantation crops.
 - Spices.
 - Medicinal and aromatic plants.

MAJOR HORTICULTURAL CROPS IN INDIA

Fruits

- Mango.
- Banana.
- Apple.
- Citrus.
- Grapes.

Vegetables

- Potato.
- Onion.
- Tomato.
- Brinjal.
- Cabbage.

Plantation Crops

- Coconut.
- Arecanut.
- Cashew.

Spices

- Black pepper.
- Cardamom.
- Turmeric.
- Ginger.

SIGNIFICANCE

Food and Nutritional Security

- Horticultural crops provide essential vitamins, minerals, and dietary diversity.

Farmer Income

- High-value crops generate better returns than many cereal crops.

Export Growth

- India is a major exporter of fruits, vegetables, spices, and plantation products.

Employment Generation

- Horticulture creates substantial employment across cultivation, processing, and marketing.

CHALLENGES

- Post-harvest losses.
- Inadequate cold-chain infrastructure.
- Climate variability.
- Pest and disease outbreaks.
- Price fluctuations.

WAY FORWARD

- Strengthen cold storage and supply chains.
- Promote value addition and food processing.
- Encourage climate-resilient horticulture.
- Expand export-oriented production.
- Improve market intelligence and digital agriculture.

KEY HIGHLIGHTS

- **Released By:** Department of Agriculture and Farmers Welfare.
- **Report:** Second Advance Estimates of Horticultural Crops (2025–26).
- **Coverage:** Area and production estimates.
- **Major Crops:** Fruits, vegetables, spices, plantation crops, flowers, medicinal and aromatic plants.
- **Purpose:** Agricultural planning, food security, and export promotion.

PRELIMS BOOSTER BOX

I. Horticulture

- Branch of agriculture dealing with fruits, vegetables, flowers, spices, plantation, medicinal, and aromatic crops.

II. Advance Estimates

- Preliminary estimates of crop area and production.
- Released in stages before the final estimates.

III. Department of Agriculture and Farmers Welfare

- Functions under the **Ministry of Agriculture and Farmers Welfare**.

IV. Mission for Integrated Development of Horticulture (MIDH)

- A Centrally Sponsored Scheme launched in **2014–15**.
- Promotes holistic development of the horticulture sector, including production, post-harvest management, and marketing.

V. India's Position

- India is the **second-largest producer of fruits and vegetables** in the world, after **China**.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding horticulture in India:

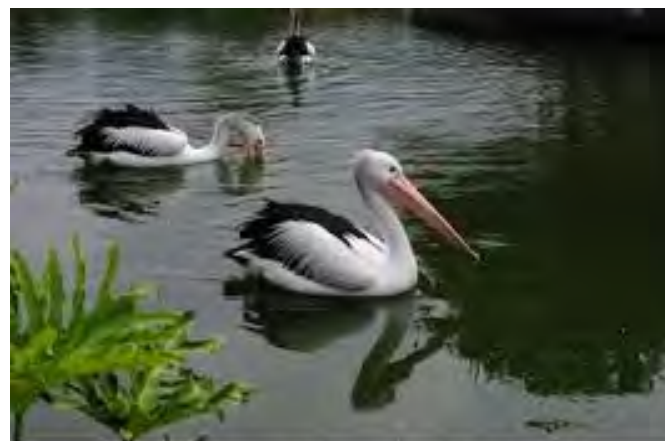
- Horticulture includes the cultivation of fruits, vegetables, spices, and plantation crops.
- Advance Estimates of crop production are released only after the completion of harvesting.
- The Mission for Integrated Development of Horticulture (MIDH) is a Centrally Sponsored Scheme.

Which of the statements given above is/are correct?

- 1 and 3 only
- 2 and 3 only
- 1 and 2 only
- 1, 2 and 3

Answer: (a)

3. FROM ROOFTOPS AND PONDS TO AQUIFERS: ODISHA'S GROUNDWATER REVIVAL UNDER 'JAL SANCHAY, JAN BHAGIDARI'



Key Highlights

- Focus on **groundwater recharge** through:
 - Rooftop rainwater harvesting.
 - Revival of ponds and traditional water bodies.
 - Recharge structures for aquifers.
- Emphasizes **Jan Bhagidari (People's Participation)** in water conservation.

- III. Supports sustainable agriculture, drinking water security, and climate resilience.

ABOUT 'JAL SANCHAY, JAN BHAGIDARI'

Jal Sanchay, Jan Bhagidari

Objective

- Promote water conservation through community participation.
- Enhance groundwater recharge.
- Encourage rainwater harvesting.
- Improve long-term water security.

Key Activities

- Rooftop rainwater harvesting.
- Renovation of ponds, tanks, and traditional water bodies.
- Construction of recharge pits and check dams.
- Public awareness and community mobilization.

WHAT IS GROUNDWATER RECHARGE?

Groundwater Recharge

- Groundwater recharge is the process by which **rainwater or surface water infiltrates the soil and replenishes underground aquifers.**

Sources

- Rainfall.
- Rivers and lakes.
- Ponds and tanks.
- Artificial recharge structures.

WHAT ARE AQUIFERS?

Aquifer

- An aquifer is an **underground layer of permeable rock, sand, or gravel that stores and transmits groundwater.**

Importance

- Supplies drinking water.
- Supports irrigation.
- Maintains river flows during dry periods.
- Enhances drought resilience.

SIGNIFICANCE

Water Security

- Improves groundwater availability for domestic and agricultural use.

Climate Resilience

- Enhances resilience against droughts and erratic rainfall.

Sustainable Agriculture

- Ensures reliable irrigation and supports crop productivity.

Community Participation

- Encourages local ownership and long-term maintenance of water conservation structures.

Environmental Benefits

- Restores groundwater levels and improves ecosystem health.

CHALLENGES

- Over-extraction of groundwater.
- Urbanization reducing natural recharge areas.
- Climate variability affecting rainfall patterns.
- Maintenance of water conservation structures.

WAY FORWARD

- Scale up rainwater harvesting in urban and rural areas.
- Strengthen community participation in water management.
- Promote scientific groundwater monitoring.
- Integrate watershed development with groundwater recharge initiatives.
- Encourage efficient water use through micro-irrigation.

KEY HIGHLIGHTS

- **State:** Odisha.
- **Campaign:** Jal Sanchay, Jan Bhagidari.
- **Focus:** Groundwater recharge and community participation.
- **Major Interventions:** Rooftop rainwater harvesting, pond rejuvenation, aquifer recharge.
- **Outcome:** Improved groundwater levels and sustainable water management.

PRELIMS BOOSTER BOX

- I. **Groundwater Recharge**
 - A. Process of replenishing underground aquifers through infiltration of rainwater or surface water.
- II. **Aquifer**
 - A. Underground layer of permeable rock or sediment that stores and transmits groundwater.
- III. **Rainwater Harvesting**

- A. Collection and storage of rainwater for future use or groundwater recharge.

IV. **Atal Bhujal Yojana (Atal Jal)**

- A. Central Sector Scheme launched in **2019**.
- B. Focuses on sustainable groundwater management through community participation in water-stressed areas.

V. **Jal Shakti Abhiyan**

- A. National campaign promoting water conservation, rainwater harvesting, and rejuvenation of water bodies.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. An aquifer is an underground layer capable of storing and transmitting groundwater.
2. Groundwater recharge refers to the replenishment of aquifers through infiltration of water.
3. Atal Bhujal Yojana is a Centrally Sponsored Scheme.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (a)

Explanation: Statements 1 and 2 are correct. **Atal Bhujal Yojana (Atal Jal)** is a **Central Sector Scheme**, not a Centrally Sponsored Scheme.

4. INDIA AND NEPAL LAUNCH CROSS-BORDER REMITTANCE MECHANISM TO STRENGTHEN BILATERAL FINANCIAL CONNECTIVITY



Key Highlights

- Launch of a cross-border remittance mechanism between India and Nepal.
- Enables secure, real-time, and cost-effective remittances.
- Strengthens digital financial connectivity between the two countries.
- Supports financial inclusion and enhances ease of cross-border transactions.

WHAT ARE CROSS-BORDER REMITTANCES?

- Cross-border remittances refer to the **transfer of money by individuals or businesses from one country to another**.

Major Uses

- Family support.
- Education expenses.
- Healthcare payments.
- Business transactions.
- Tourism-related payments.

BENEFITS OF THE NEW MECHANISM

Faster Transactions

- Enables near real-time transfer of funds.

Lower Transaction Costs

- Reduces remittance charges compared to traditional channels.

Enhanced Financial Inclusion

- Expands access to formal digital financial services.

Secure Digital Payments

- Improves transparency and minimizes dependence on informal channels.

Strengthened Bilateral Cooperation

- Deepens economic and financial ties between India and Nepal.

ROLE OF DIGITAL PAYMENT INFRASTRUCTURE

India has developed robust digital payment systems that support:

- Instant fund transfers.
- Interoperable payment platforms.
- Secure authentication.

- Financial inclusion through digital public infrastructure.

SIGNIFICANCE

For Migrant Workers

- Easier and more affordable transfer of earnings to families.

Economic Integration

- Enhances trade and financial cooperation.

Financial Inclusion

- Encourages use of formal banking and digital payment systems.

Digital Economy

- Promotes cross-border digital financial services.

CHALLENGES

- Cybersecurity risks.
- Regulatory harmonization between countries.
- Consumer awareness and digital literacy.
- Data privacy and fraud prevention.

WAY FORWARD

- Expand cross-border digital payment partnerships with neighbouring countries.
- Strengthen cybersecurity and consumer protection.
- Enhance interoperability of payment systems.
- Promote digital financial literacy among users.

KEY HIGHLIGHTS

- **Countries:** India and Nepal.
- **Initiative:** Cross-border remittance mechanism.
- **Objective:** Fast, secure, and affordable money transfers.
- **Benefits:** Financial inclusion, lower costs, stronger bilateral connectivity.
- **Focus:** Digital financial integration.

PRELIMS BOOSTER BOX

I. Remittance

- A. Transfer of money by individuals or businesses from one country to another.

II. Cross-Border Digital Payments

- A. Facilitate international money transfers using interoperable digital payment systems.

III. National Payments Corporation of India (NPCI)

- A. Umbrella organization for retail payment systems in India.
- B. Established in **2008**.
- C. Operates:
 1. **Unified Payments Interface (UPI)**
 2. IMPS.
 3. RuPay.

IV. Unified Payments Interface (UPI)

- A. Real-time payment system developed by NPCI.
- B. Enables instant bank-to-bank transfers using mobile devices.

V. Importance of Cross-Border Remittances

- A. Promote financial inclusion.
- B. Reduce transaction costs.
- C. Support migrant workers.
- D. Strengthen regional economic integration.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The National Payments Corporation of India (NPCI) operates the Unified Payments Interface (UPI).
2. Cross-border remittances facilitate the transfer of money between individuals or entities located in different countries.
3. Lower transaction costs and enhanced financial inclusion are among the benefits of digital cross-border remittance systems.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

5. INDIAN NAVY SAFELY RECOVERS UNEXPLODED MISSILE WARHEAD FROM MERCHANT TANKER OFF KOCHI



Key Highlights

- Indian Navy recovered an unexploded missile warhead from a merchant tanker.
- The incident occurred off the coast of Kochi.
- Specialized naval experts safely neutralized the threat.
- Demonstrates the Navy's expertise in maritime security and explosive ordnance disposal.

ABOUT EXPLOSIVE ORDNANCE DISPOSAL (EOD)

Explosive Ordnance Disposal

- Explosive Ordnance Disposal (EOD) involves the **identification, recovery, rendering safe, and disposal of explosive devices**, including:
 - Missiles.
 - Bombs.
 - Mines.
 - Torpedoes.
 - Unexploded ordnance (UXO).

Objectives

- Protect human life.
- Ensure maritime safety.
- Prevent accidental explosions.
- Secure critical infrastructure.

ROLE OF THE INDIAN NAVY

Indian Navy

Primary Responsibilities

- Safeguard India's maritime interests.
- Protect Sea Lines of Communication (SLOCs).

- Conduct maritime security operations.
- Humanitarian Assistance and Disaster Relief (HADR).
- Search and Rescue (SAR).
- Mine countermeasure and EOD operations.

WHAT IS UNEXPLODED ORDNANCE (UXO)?

Unexploded Ordnance

- UXO refers to **explosive weapons that were fired, launched, or dropped but failed to explode as intended**, posing continuing risks to people and infrastructure.

SIGNIFICANCE

Maritime Safety

- Prevents accidents involving commercial shipping.

Protection of Human Life

- Ensures the safety of merchant crews and nearby vessels.

National Security

- Demonstrates India's capability to respond to maritime threats.

Trade Security

- Supports uninterrupted maritime commerce through safe sea lanes.

CHALLENGES

- Safe handling of unexploded military ordnance.
- Complex underwater recovery operations.
- Coordination between naval and civilian maritime authorities.
- Risks posed by increasing maritime security incidents.

WAY FORWARD

- Strengthen maritime surveillance and domain awareness.
- Enhance EOD capabilities and specialized training.
- Improve coordination with merchant shipping agencies.
- Expand regional maritime security cooperation.

KEY HIGHLIGHTS

- **Agency:** Indian Navy.
- **Location:** Off Kochi, Kerala.
- **Operation:** Recovery of unexploded missile warhead.

- **Special Capability:** Explosive Ordnance Disposal (EOD).
- **Objective:** Maritime safety and protection of life.

Answer: (d)

PRELIMS BOOSTER BOX

I. Indian Navy

- A. Maritime arm of the Indian Armed Forces.
- B. Operates under the **Ministry of Defence**.
- C. Responsible for safeguarding India's maritime interests.

II. Explosive Ordnance Disposal (EOD)

- A. Specialized military capability for safely handling and disposing of explosive devices.

III. Unexploded Ordnance (UXO)

- A. Explosive munitions that failed to detonate after being deployed.
- B. Pose long-term safety and security risks.

IV. Sea Lines of Communication (SLOCs)

- A. Major maritime routes used for global trade, energy transportation, and naval movement.
- B. Their security is critical for India's economic and strategic interests.

V. Humanitarian Assistance and Disaster Relief (HADR)

- A. Non-combat operations undertaken by the armed forces during disasters and emergencies.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Explosive Ordnance Disposal (EOD) involves the safe recovery and disposal of explosive devices.
2. Unexploded Ordnance (UXO) refers to explosive weapons that failed to detonate as intended.
3. One of the responsibilities of the Indian Navy is safeguarding India's Sea Lines of Communication (SLOCs).

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

1. CCI APPROVES ACQUISITION OF CERTAIN SHAREHOLDING IN SHRIRAM LIFE INSURANCE COMPANY BY SANLAM EMERGING MARKETS (MAURITIUS) LTD



Fair Competition
For Greater Good

Key Highlights

- CCI approved the proposed acquisition of additional shareholding in Shriram Life Insurance Company.
- The acquisition is by Sanlam Emerging Markets (Mauritius) Ltd.
- The approval was granted after assessing that the transaction is not likely to cause an appreciable adverse effect on competition in India.
- The transaction is subject to applicable sectoral and regulatory approvals.

ABOUT THE COMPETITION COMMISSION OF INDIA (CCI)

Competition Commission of India

Established

- 2003

Operational Since

- 2009

Established Under

- Competition Act, 2002

Ministry

- Ministry of Corporate Affairs.

Composition

- One Chairperson.
- Up to six Members appointed by the Central Government.

Objectives

- Prevent anti-competitive practices.
- Promote and sustain competition.
- Protect consumer interests.
- Ensure freedom of trade.

FUNCTIONS OF CCI

- Prevent abuse of dominant position.
- Regulate combinations (mergers, acquisitions, and amalgamations).
- Prohibit anti-competitive agreements.
- Promote competition advocacy.
- Conduct market studies and inquiries.

WHAT ARE COMBINATIONS?

Under the **Competition Act, 2002**, a **Combination** refers to:

- Acquisition of shares, voting rights, or assets.
- Acquisition of control over an enterprise.
- Mergers and amalgamations.

Such transactions exceeding prescribed thresholds require CCI approval to ensure they do not substantially reduce competition.

ABOUT SHRIRAM LIFE INSURANCE COMPANY

Shriram Life Insurance Company Limited

- I. A private sector life insurance company in India.
- II. Provides:
 - A. Life insurance policies.
 - B. Savings and protection products.
 - C. Pension and retirement solutions.

ABOUT SANLAM EMERGING MARKETS (MAURITIUS) LTD

Sanlam Emerging Markets (Mauritius) Ltd

- A subsidiary of Sanlam **Limited**.
- Focuses on investments in financial services across emerging markets.

SIGNIFICANCE

Promotes Healthy Competition

- Ensures market competition is not adversely affected by mergers and acquisitions.

Consumer Protection

- Prevents monopolistic practices and promotes fair pricing.

Investment Facilitation

- Encourages domestic and foreign investment while maintaining competitive markets.

Regulatory Oversight

- Strengthens transparency and accountability in corporate restructuring.

CHALLENGES

- Balancing investment promotion with competition safeguards.
- Monitoring complex cross-border acquisitions.
- Addressing competition concerns in rapidly evolving markets.

WAY FORWARD

- Strengthen competition assessment mechanisms.
- Enhance coordination with sectoral regulators.
- Promote awareness regarding competition law compliance.
- Ensure timely disposal of combination approval cases.

KEY HIGHLIGHTS

- Regulator:** Competition Commission of India (CCI).
- Law:** Competition Act, 2002.
- Transaction:** Acquisition of shareholding in Shriram Life Insurance Company.
- Acquirer:** Sanlam Emerging Markets (Mauritius) Ltd.
- Objective of CCI:** Promote fair competition and protect consumer interests.

PRELIMS BOOSTER BOX

- Competition Commission of India (CCI)**
 - Established: **2003**.
 - Operational: **2009**.
 - Statutory body under the **Competition Act, 2002**.

- Functions under the **Ministry of Corporate Affairs**.

II. Competition Act, 2002

- Replaced the **Monopolies and Restrictive Trade Practices (MRTP) Act, 1969**.
- Deals with:
 - Anti-competitive agreements.
 - Abuse of dominant position.
 - Regulation of combinations.

III. Combination

- Includes mergers, acquisitions, and amalgamations exceeding prescribed thresholds.
- Requires CCI approval before implementation.

IV. Objective of CCI

- Promote competition.
- Protect consumer interests.
- Ensure freedom of trade in Indian markets.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding the Competition Commission of India (CCI):

- The Competition Commission of India was established under the Competition Act, 2002.
- CCI regulates mergers, acquisitions, and amalgamations that qualify as combinations under the Act.
- The Competition Act, 2002 replaced the Monopolies and Restrictive Trade Practices (MRTP) Act, 1969.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Answer: (d)

2. UNION MINISTER SHRI JAYANT CHAUDHARY SENDS OFF 14 INDIAN WORKERS TO MAURITIUS UNDER INDIA–MAURITIUS GOVERNMENT-TO-GOVERNMENT

MOBILITY PARTNERSHIP



Key Highlights

- First batch of **14 Indian workers** sent to Mauritius.
- Implemented under the **India–Mauritius G2G Mobility Partnership**.
- Facilitated through institutional cooperation between the two governments.
- Focuses on ethical recruitment and skill-based overseas employment.

OBJECTIVES OF THE MOBILITY PARTNERSHIP

- Promote safe and legal migration.
- Create overseas employment opportunities for skilled Indians.
- Ensure transparent and ethical recruitment.
- Protect the rights and welfare of migrant workers.
- Strengthen bilateral cooperation between India and Mauritius.

ABOUT THE GOVERNMENT-TO-GOVERNMENT (G2G) MOBILITY MODEL

The G2G Mobility Partnership provides a structured framework for:

- Skill matching between employers and workers.
- Transparent recruitment processes.
- Pre-departure orientation and training.
- Protection of workers' rights.
- Institutional monitoring and grievance redressal.

ROLE OF THE MINISTRY OF SKILL DEVELOPMENT AND ENTREPRENEURSHIP (MSDE)

Ministry of Skill Development and Entrepreneurship

Functions

- Promote skill development and vocational training.
- Enhance employability of Indian youth.
- Facilitate international workforce mobility.
- Align Indian skills with global labour market requirements.

SIGNIFICANCE

Employment Generation

- Expands overseas job opportunities for skilled workers.

Safe Migration

- Reduces risks associated with illegal recruitment and exploitation.

Economic Benefits

- Increases remittance inflows and supports livelihoods.

Skill Recognition

- Enhances global acceptance of India's skilled workforce.

Strengthened Bilateral Relations

- Deepens India–Mauritius cooperation in labour mobility and human resource development.

CHALLENGES

- Ensuring continuous protection of migrant workers abroad.
- Recognition of Indian qualifications in foreign markets.
- Adapting skills to changing international labour demands.
- Preventing illegal recruitment practices.

WAY FORWARD

- Expand G2G mobility partnerships with more countries.
- Strengthen pre-departure skill and language training.
- Enhance digital monitoring of overseas employment.

- Promote international recognition of Indian skill certifications.

KEY HIGHLIGHTS

- **Initiative:** India–Mauritius Government-to-Government Mobility Partnership.
- **First Batch:** 14 Indian workers.
- **Destination:** Mauritius.
- **Lead Ministry:** Ministry of Skill Development and Entrepreneurship.
- **Objective:** Safe, legal, and ethical overseas employment.
- **Benefit:** Enhanced global mobility for India's skilled workforce.

PRELIMS BOOSTER BOX

- Ministry of Skill Development and Entrepreneurship (MSDE)**
 - Established in **2014**.
 - Nodal ministry for skill development and vocational training.
- Government-to-Government (G2G) Mobility Partnership**
 - Facilitates regulated and transparent international labour mobility.
 - Protects migrant workers through institutional cooperation.
- Benefits of G2G Labour Mobility**
 - Safe migration.
 - Ethical recruitment.
 - Better employment conditions.
 - Enhanced bilateral cooperation.
- Mauritius**
 - Island nation in the **Indian Ocean**.
 - Strong historical, cultural, and diaspora ties with India.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

- The India–Mauritius Government-to-Government Mobility Partnership aims to promote safe and legal migration of workers.
- The Ministry of Skill Development and Entrepreneurship is the nodal ministry for promoting skill development in India.

- One objective of the G2G mobility model is to ensure ethical recruitment and protection of migrant workers.

Which of the statements given above is/are correct?

- 1 and 2 only
- 2 and 3 only
- 1 and 3 only
- 1, 2 and 3

Answer: (d)

3. NATIONAL COMMISSION FOR HOMOEOPATHY ADVISES RESPONSIBLE PUBLIC DISCOURSE ON HOMOEOPATHY; CALLS FOR RELIANCE ON VERIFIED INFORMATION



Key Highlights

- NCH emphasized the importance of:
 - Responsible communication regarding Homoeopathy.
 - Dissemination of scientifically verified information.
 - Preventing misinformation related to healthcare practices.
- Called upon stakeholders to maintain ethical standards while discussing Homoeopathy in the public domain.

ABOUT THE NATIONAL COMMISSION FOR HOMOEOPATHY (NCH)

National Commission for Homoeopathy

Established

- 2021

Established Under

- National Commission for Homoeopathy Act, 2020

Ministry

- Ministry of AYUSH.

Headquarters

- New Delhi

Replaced

- Central Council of Homoeopathy (CCH).

OBJECTIVES OF NCH

- Regulate Homoeopathy education and profession.
- Maintain high standards of medical education.
- Ensure transparency and accountability.
- Promote quality healthcare services.
- Encourage ethical professional practices.

ABOUT HOMOEOPATHY

Homoeopathy

Origin

- Developed by **Samuel Hahnemann** in Germany.

Fundamental Principles

- **Like cures like** (*Similia Similibus Curentur*).
- Use of highly diluted substances.
- Individualized treatment approach.

Recognition in India

- Homoeopathy is one of the recognized systems under the **AYUSH** framework.

ROLE OF THE MINISTRY OF AYUSH

The **Ministry of AYUSH** promotes:

- Ayurveda.
- Yoga & Naturopathy.
- Unani.
- Siddha.
- Sowa-Rigpa.
- Homoeopathy.

The Ministry supports education, research, regulation, and integration of traditional systems of medicine.

SIGNIFICANCE

Evidence-Based Healthcare

- Encourages dissemination of verified medical information.

Public Awareness

- Helps prevent misinformation related to healthcare.

Professional Ethics

- Promotes responsible communication by healthcare professionals and institutions.

Regulatory Oversight

- Strengthens public confidence in regulated systems of medicine.

CHALLENGES

- Spread of misinformation through digital platforms.
- Public confusion due to conflicting medical claims.
- Need for greater awareness regarding regulatory standards.
- Ensuring scientific research and quality assurance.

WAY FORWARD

- Promote evidence-based communication.
- Strengthen research in AYUSH systems.
- Enhance public awareness through authentic sources.
- Encourage ethical healthcare communication by professionals and institutions.

KEY HIGHLIGHTS

- **Regulator:** National Commission for Homoeopathy (NCH).
- **Established:** 2021.
- **Law:** National Commission for Homoeopathy Act, 2020.
- **Ministry:** Ministry of AYUSH.
- **Replaced:** Central Council of Homoeopathy (CCH).
- **Focus:** Responsible public discourse and verified information.

PRELIMS BOOSTER BOX

- I. **National Commission for Homoeopathy (NCH)**

- A. Established under the **National Commission for Homoeopathy Act, 2020**.
 - B. Came into effect in **2021**.
 - C. Functions under the **Ministry of AYUSH**.
- II. **Central Council of Homoeopathy (CCH)**
- A. Replaced by the National Commission for Homoeopathy.
- III. **Homoeopathy**
- A. Developed by **Samuel Hahnemann**.
 - B. Based on the principle of "**Like cures like**" (**Similia Similibus Curentur**).
- IV. **AYUSH**
- A. Stands for **Ayurveda, Yoga & Naturopathy, Unani, Siddha, Sowa-Rigpa, and Homoeopathy**.
- V. **National Commission for Indian System of Medicine (NCISM)**
- A. Established under the **National Commission for Indian System of Medicine Act, 2020**.
 - B. Regulates Ayurveda, Siddha, Unani, and Sowa-Rigpa education and practice.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The National Commission for Homoeopathy was established under the National Commission for Homoeopathy Act, 2020.
2. The National Commission for Homoeopathy replaced the Central Council of Homoeopathy.
3. Homoeopathy is one of the systems of medicine promoted under the Ministry of AYUSH.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

4. NO BAN ON IMPORT OF INDIAN MANGOES BY NEPAL



Key Highlights

- No official nationwide ban has been imposed by Nepal on Indian mango imports.
- Import consignments are subject to **quarantine inspection** and **pesticide residue testing**.
- The issue relates to compliance with **Sanitary and Phytosanitary (SPS) measures** rather than a blanket trade prohibition.
- India and Nepal continue to engage through established trade and regulatory mechanisms.

BACKGROUND

What are Sanitary and Phytosanitary (SPS) Measures?

- I. SPS measures are regulations adopted by countries to:
 - A. Protect human, animal, and plant health.
 - B. Prevent the spread of pests and diseases.

- C. Ensure food safety in international trade.
- II. These measures may include:
 - A. Quarantine inspections.
 - B. Pest-risk analysis.
 - C. Pesticide residue testing.
 - D. Phytosanitary certification.

ROLE OF APEDA

Agricultural and Processed Food Products Export Development Authority

Established

- 1986

Established Under

- **APEDA Act, 1985**

Ministry

- Ministry of Commerce and Industry.

Functions

- Promote agricultural exports.
- Facilitate compliance with international quality standards.
- Assist exporters in meeting SPS and phytosanitary requirements.
- Develop export infrastructure and market access.

WHY QUALITY COMPLIANCE MATTERS

- Ensures acceptance of Indian agricultural products in global markets.
- Protects consumer health.
- Reduces the risk of export rejections.
- Enhances India's credibility as a reliable exporter.

SIGNIFICANCE

Agricultural Exports

- Maintains uninterrupted export of high-value horticultural products.

Farmer Welfare

- Supports better market access and higher incomes for mango growers.

India–Nepal Trade

- Reinforces strong bilateral agricultural trade relations.

Food Safety

- Encourages adherence to international quality and safety standards.

CHALLENGES

- Meeting stringent pesticide residue limits.
- Strengthening testing and certification infrastructure.
- Addressing misinformation regarding export restrictions.
- Ensuring uniform compliance across the supply chain.

WAY FORWARD

- Enhance residue monitoring and quality control.
- Strengthen export inspection and certification systems.
- Improve awareness among farmers regarding Good Agricultural Practices (GAP).
- Continue bilateral coordination on SPS issues.

KEY HIGHLIGHTS

- **Clarification:** No nationwide ban on Indian mango imports by Nepal.
- **Issue:** Quality inspection and SPS compliance.
- **Facilitating Agency:** APEDA.
- **Focus:** Safe agricultural trade and export quality.
- **Importance:** Protects exports while ensuring food safety.

PRELIMS BOOSTER BOX

I. **APEDA**

- A. Established: **1986**.
- B. Statutory body under the **APEDA Act, 1985**.
- C. Functions under the **Ministry of Commerce and Industry**.

II. **SPS Measures**

- A. Governed internationally under the **World Trade Organization Agreement on the Application of Sanitary and Phytosanitary Measures**.
- B. Aim to protect human, animal, and plant life or health.

III. **Phytosanitary Certificate**

- A. Issued to certify that exported plants and plant products meet the importing country's plant health requirements.

IV. Good Agricultural Practices (GAP)

- A. Minimize pesticide residues and improve the quality and safety of agricultural produce.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. APEDA functions under the Ministry of Commerce and Industry.
2. Sanitary and Phytosanitary (SPS) measures are intended to protect human, animal, and plant health in international trade.
3. Phytosanitary certificates are issued to ensure compliance with the importing country's plant health requirements.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

5. GOVERNMENT OF INDIA ENSURES ROBUST UREA AVAILABILITY FOR PUNJAB'S KHARIF 2026 SEASON



Key Highlights

- Urea supplied to Punjab: **Over 10.71 LMT**.
- Pro-rata requirement: **9 LMT**.
- Supply exceeds requirement by around **1.71 LMT**.
- Ensures timely availability of fertilizers for Kharif crops.
- Supports agricultural productivity and food security.

ABOUT UREA

Urea

- Urea is the **most widely used nitrogenous fertilizer** in India.
- Chemical Formula: **$\text{CO}(\text{NH}_2)_2$** .
- Contains about **46% nitrogen**, the highest nitrogen content among solid nitrogen fertilizers.

Importance

- I. Promotes vegetative growth.
- II. Essential for crops such as:
 - A. Paddy.
 - B. Wheat.
 - C. Maize.
 - D. Sugarcane.

KHARIF SEASON

Characteristics

- Sowing: **June–July** (with the onset of the southwest monsoon).
- Harvesting: **September–October**.

Major Kharif Crops

- Rice (Paddy).
- Maize.
- Cotton.
- Soybean.
- Bajra.
- Groundnut.

GOVERNMENT INITIATIVES FOR FERTILIZER MANAGEMENT

Nutrient-Based Subsidy (NBS) Scheme

- Applicable to **Phosphatic and Potassic (P&K) fertilizers**.
- Subsidy is linked to nutrient content.

Urea Subsidy

- Urea is **not covered under the NBS Scheme**.
- It is sold to farmers at a **statutorily notified Maximum Retail Price (MRP)**, while the Government bears the difference between production/import cost and MRP.

Neem-Coated Urea

- Reduces nitrogen loss.
- Improves nutrient-use efficiency.

- Minimizes diversion of urea for non-agricultural purposes.

SIGNIFICANCE

Food Security

- Ensures timely fertilizer availability for crop production.

Farmer Welfare

- Prevents shortages during peak agricultural seasons.

Agricultural Productivity

- Supports higher crop yields through adequate nutrient supply.

Balanced Supply Chain

- Strengthens fertilizer distribution and logistics.

CHALLENGES

- Excessive use of urea leading to soil nutrient imbalance.
- Declining soil health due to imbalanced fertilizer application.
- Dependence on imported raw materials.
- Need for balanced nutrient management.

WAY FORWARD

- Promote balanced fertilization based on Soil Health Cards.
- Encourage integrated nutrient management.
- Increase awareness regarding judicious fertilizer use.
- Expand nano-fertilizers and alternative nutrient sources.

KEY HIGHLIGHTS

- **State:** Punjab.
- **Season:** Kharif 2026.
- **Urea Supplied:** Over 10.71 LMT.
- **Requirement:** 9 LMT.
- **Major Fertilizer:** Urea (46% Nitrogen).
- **Objective:** Ensure uninterrupted fertilizer availability.

PRELIMS BOOSTER BOX

I. Urea

- A. Nitrogen content: **46%**.
- B. Chemical formula: **$\text{CO}(\text{NH}_2)_2$** .
- C. Most widely used nitrogenous fertilizer in India.

II. Neem-Coated Urea

- A. Mandatory in India since **2015**.
- B. Reduces nitrogen losses.
- C. Improves fertilizer-use efficiency.
- D. Prevents diversion for industrial purposes.

III. Nutrient-Based Subsidy (NBS) Scheme

- A. Covers **Phosphatic and Potassic (P&K) fertilizers**.
- B. **Urea is excluded** from the NBS Scheme.

IV. Kharif Crops

- A. Sown with the onset of the southwest monsoon.
- B. Major crops: Rice, Maize, Cotton, Soybean, Groundnut, Bajra.

V. Soil Health Card Scheme

- A. Provides farmers with soil nutrient status and fertilizer recommendations for balanced nutrient management.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Urea contains about 46% nitrogen by weight.
2. Urea is covered under the Nutrient-Based Subsidy (NBS) Scheme.
3. Neem-coated urea helps improve nitrogen-use efficiency and reduces diversion for non-agricultural purposes.

Which of the statements given above is/are correct?

- (a) 1 and 3 only
- (b) 2 and 3 only
- (c) 1 and 2 only
- (d) 1, 2 and 3

Answer: (a)

1. NHRC, INDIA ORGANISES AN OPEN HOUSE DISCUSSION ON 'SAFEGUARDING HUMAN RIGHTS AGAINST DIGITAL ARREST SCAMS'



Key Highlights

- I. Organized by the **National Human Rights Commission (NHRC), India.**
- II. Theme:
 - A. **"Safeguarding Human Rights Against Digital Arrest Scams."**
- III. Conducted in **hybrid mode** with participation from government officials, law enforcement agencies, cyber experts, legal professionals, academia, and civil society.
- IV. Focused on strengthening public awareness, cyber safety, and protection of citizens from emerging digital crimes.

BACKGROUND

What is a Digital Arrest Scam?

A **Digital Arrest Scam** is a type of **cyber fraud** in which fraudsters impersonate officials from agencies such as:

- Police
- Central investigative agencies
- Customs

- Telecom authorities

They falsely claim that the victim is involved in illegal activities and threaten them with **"digital arrest"**, compelling them to transfer money or disclose sensitive personal and financial information.

Note: There is **no legal concept of a "digital arrest"** under Indian law.

ABOUT NHRC

National Human Rights Commission

Established

- **12 October 1993**

Established Under

- Protection of Human Rights Act, 1993

Nature

- Statutory body.

Headquarters

- New Delhi

Functions

- Protect and promote human rights.
- Inquire into human rights violations.
- Review constitutional and legal safeguards.
- Promote human rights awareness and research.

IMPACT OF DIGITAL ARREST SCAMS

Human Rights Concerns

- Violation of the right to privacy.
- Financial exploitation.
- Psychological trauma.
- Identity theft.
- Loss of dignity and security.

Vulnerable Groups

- Senior citizens.
- Students.
- Women.
- Individuals with limited digital literacy.

GOVERNMENT INITIATIVES AGAINST CYBER FRAUD

Indian Cyber Crime Coordination Centre (I4C)

- Functions under the Ministry of Home Affairs.
- Coordinates efforts to combat cybercrime.

National Cyber Crime Reporting Portal

- Enables citizens to report cybercrime complaints online.

Cyber Crime Helpline

- **1930** for immediate reporting of financial cyber frauds.

SIGNIFICANCE

Protection of Human Rights

- Safeguards citizens from digital exploitation and fraud.

Cyber Awareness

- Promotes responsible and safe use of digital technologies.

Digital Trust

- Strengthens public confidence in digital governance.

Inter-Agency Coordination

- Encourages collaboration among government agencies, law enforcement, and civil society.

CHALLENGES

- Increasing sophistication of cyber fraud.
- Low levels of cyber awareness.
- Cross-border nature of cybercrime.
- Rapid technological advancements.

WAY FORWARD

- Strengthen digital literacy campaigns.
- Improve cybercrime investigation capabilities.
- Promote timely reporting of cyber fraud.
- Enhance coordination among regulatory and law enforcement agencies.
- Encourage responsible digital behaviour among citizens.

KEY HIGHLIGHTS

- **Organiser:** National Human Rights Commission.
- **Theme:** Safeguarding Human Rights Against Digital Arrest Scams.
- **Established:** 1993.
- **Legal Basis:** Protection of Human Rights Act, 1993.
- **Nature:** Statutory body.
- **Cyber Helpline:** 1930.
- **Key Agency:** Indian Cyber Crime Coordination Centre (I4C).

PRELIMS BOOSTER BOX

I. NHRC

- A. Established: **12 October 1993**.
- B. Statutory body under the **Protection of Human Rights Act, 1993**.
- C. Headquarters: **New Delhi**.

II. Human Rights

- A. Defined under the Protection of Human Rights Act, 1993, as rights relating to life, liberty, equality, and dignity guaranteed by the Constitution or embodied in international covenants enforceable by Indian courts.

III. Digital Arrest Scam

- A. A cyber fraud where criminals impersonate government officials to extort money.
- B. **No provision for "digital arrest" exists under Indian law.**

IV. Cyber Crime Helpline: 1930.

V. National Cyber Crime Reporting Portal

- A. Operated under the **Indian Cyber Crime Coordination Centre (I4C)**, Ministry of Home Affairs.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The National Human Rights Commission (NHRC) is a statutory body established under the Protection of Human Rights Act, 1993.
2. A "digital arrest" has legal recognition under the Code of Criminal Procedure in India.
3. The Indian Cyber Crime Coordination Centre (I4C) functions under the Ministry of Home Affairs.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 3 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Answer: (b)

2. INFRASTRUCTURE AT THE CORE OF INDIA'S DEVELOPMENT



What is Infrastructure?

- Infrastructure refers to the **physical and organizational facilities** that support economic activity and improve the quality of life.

Major Components

- Transport (Roads, Railways, Airports, Ports)
- Energy Infrastructure
- Urban Infrastructure
- Digital Infrastructure
- Water and Sanitation
- Logistics Infrastructure

MAJOR INFRASTRUCTURE INITIATIVES

PM Gati Shakti National Master Plan

- Launched in **2021**.
- A GIS-based digital platform integrating infrastructure planning across ministries.
- Aims to:
 - Improve multimodal connectivity.
 - Reduce logistics costs.
 - Eliminate project delays through coordinated planning.

National Infrastructure Pipeline (NIP)

- Launched in **2019**.
- Long-term infrastructure investment programme.
- Covers sectors such as:
 - Roads
 - Railways
 - Energy
 - Urban Development
 - Water Resources

F. Digital Infrastructure

National Monetisation Pipeline (NMP)

- Facilitates monetisation of existing public infrastructure assets.
- Mobilizes private sector investment for new infrastructure creation.

Bharatmala Pariyojana

- Flagship highway development programme.
- Focuses on:
 - Economic corridors.
 - Border roads.
 - Coastal connectivity.
 - Expressways.

Sagarmala Programme

- Port-led development initiative.
- Aims to:
 - Modernize ports.
 - Improve coastal connectivity.
 - Reduce logistics costs.

UDAN (Ude Desh ka Aam Nagrik)

- Regional Connectivity Scheme.
- Enhances affordable air travel and regional airport connectivity.

Smart Cities Mission

- Promotes sustainable urban development.
- Focuses on:
 - Smart mobility.
 - Efficient public services.
 - Digital governance.
 - Citizen-centric urban planning.

SIGNIFICANCE

Economic Growth

- Infrastructure investment generates employment and stimulates economic activity.

Logistics Efficiency

- Reduces transportation costs and improves supply chains.

Investment Promotion

- Attracts domestic and foreign investment.

Regional Development

- Improves connectivity in remote and underdeveloped regions.

Ease of Doing Business

- Enhances industrial competitiveness through better infrastructure.

CHALLENGES

- Land acquisition delays.
- Financing constraints.
- Environmental and social concerns.
- Inter-agency coordination.
- Maintenance of infrastructure assets.

WAY FORWARD

- Accelerate project implementation.
- Strengthen Public-Private Partnerships (PPP).
- Promote green and climate-resilient infrastructure.
- Enhance digital monitoring through GIS and technology platforms.
- Improve long-term infrastructure financing mechanisms.

KEY HIGHLIGHTS

- Flagship Planning Platform:** PM Gati Shakti National Master Plan.
- Investment Programme:** National Infrastructure Pipeline (NIP).
- Asset Monetisation:** National Monetisation Pipeline (NMP).
- Road Connectivity:** Bharatmala Pariyojana.
- Port-led Development:** Sagarmala Programme.
- Regional Aviation:** UDAN Scheme.
- Urban Development:** Smart Cities Mission.

PRELIMS BOOSTER BOX

- I. **PM Gati Shakti**
 - A. Launched: **2021**.
 - B. GIS-based integrated infrastructure planning platform.
- II. **National Infrastructure Pipeline (NIP)**
 - A. Launched: **2019**.
 - B. Long-term infrastructure investment programme.
- III. **National Monetisation Pipeline (NMP)**
 - A. Monetises brownfield public infrastructure assets to fund new projects.
- IV. **Bharatmala Pariyojana**

- A. Focuses on economic corridors, border roads, and expressways.

V. **Sagarmala Programme**

- A. Promotes port-led development and coastal economic growth.

VI. **UDAN**

- A. Regional Connectivity Scheme to improve affordable air travel.

VII. **Smart Cities Mission**

- A. Launched in **2015** for sustainable and technology-driven urban development.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

- PM Gati Shakti is a GIS-based platform for integrated infrastructure planning.
- The National Monetisation Pipeline focuses on monetising existing public infrastructure assets.
- Sagarmala Programme is aimed at promoting port-led development.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

3. SOUND WAVES CAN BE USED IN REDUCING ENERGY CONSUMPTION IN NEXT-GENERATION COMPUTING



Key Highlights

- Sound waves can be used as carriers of information.
- The technology relies on **phonons** instead of only electrons.
- Potential to significantly reduce energy consumption in computing devices.

- May enable faster, more efficient, and sustainable computing architectures.

BACKGROUND

What are Phonons?

Phonon

- A **phonon** is the quantum (smallest unit) of mechanical vibrations or sound waves propagating through a solid material.
- Similar to how:
 - Photons** carry light.
 - Electrons** carry electric charge.
 - Phonons** carry vibrational energy.

HOW DOES PHONONIC COMPUTING WORK?

- Traditional computers use the movement of **electrons** through semiconductor circuits.
- Phononic computing uses **acoustic (sound) waves** to:
 - Transmit information.
 - Perform logical operations.
 - Control signal propagation.

Advantages

- Lower energy loss.
- Reduced heat generation.
- Improved energy efficiency.
- Potential integration with quantum and nanoelectronic devices.

APPLICATIONS

Energy-Efficient Computing

- Development of ultra-low-power processors.

Artificial Intelligence (AI)

- Supports energy-efficient AI hardware.

Quantum Technologies

- Can assist in quantum information processing.

Nanoelectronics

- Enables miniaturized computing components.

Communication Systems

- High-frequency signal processing and sensing.

SIGNIFICANCE

Reduced Energy Consumption

- Addresses the growing power requirements of data centres and computing devices.

Sustainable Computing

- Contributes to environmentally sustainable digital technologies.

Improved Device Performance

- Reduces heat generation, improving reliability and lifespan.

Future Technologies

- Supports advancements in quantum computing and neuromorphic computing.

CHALLENGES

- Complex fabrication of phononic devices.
- Efficient control and manipulation of sound waves at the nanoscale.
- Integration with existing semiconductor technologies.
- Commercial scalability.

WAY FORWARD

- Increase investment in phononics research.
- Develop hybrid electronic-phononic devices.
- Strengthen collaboration between academia and industry.
- Promote indigenous semiconductor and advanced materials research.

KEY HIGHLIGHTS

- **Carrier of Information:** Phonons (sound waves).
- **Objective:** Reduce energy consumption in computing.
- **Key Benefit:** Lower heat generation than conventional electronics.
- **Potential Applications:** AI, quantum computing, nanoelectronics, and communication technologies.
- **Emerging Field:** Phononics.

PRELIMS BOOSTER BOX

- Phonon**
 - Quantum of lattice vibration or sound energy in a solid.
- Photon**
 - Quantum of electromagnetic radiation (light).
- Electron**
 - Negatively charged subatomic particles responsible for electric current.

IV. Phononics

- A. Branch of science dealing with the generation, transmission, and control of phonons for information processing and thermal management.

V. Key Advantage of Phononic Computing

- A. Lower energy consumption and reduced heat generation compared to conventional electronic computing.

VI. Potential Uses

- A. Low-power processors.
- B. Quantum computing.
- C. AI hardware.
- D. Nanoelectronics.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. A phonon is the quantum of lattice vibrations in a solid.
2. Phononic computing seeks to use sound waves for information processing.
3. One of the major advantages of phononic computing is reduced energy consumption and heat generation.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

4. 24 INDIAN SEAFARERS BROUGHT TO SAFETY THROUGH COORDINATED EFFORTS OF INDIAN COAST GUARD AND OMANI AUTHORITIES FOLLOWING ATTACK ON MERCHANT VESSEL NEAR OMAN



Key Highlights

- I. 24 Indian seafarers were safely rescued after an attack on a merchant vessel near Oman.
- II. The rescue was coordinated by:
 - A. Indian Coast Guard.
 - B. Omani maritime authorities.
- III. Demonstrates effective international maritime cooperation.
- IV. Reinforces India's role as a **net security provider** in the Indian Ocean Region (IOR).

ABOUT THE INDIAN COAST GUARD (ICG)

Indian Coast Guard

Established

- 1 February 1977

Legal Basis

- Coast Guard Act, 1978

Ministry

- Ministry of Defence.

Motto

- **"Vayam Rakshamah"** (We Protect).

Headquarters

- New Delhi.

FUNCTIONS OF THE INDIAN COAST GUARD

- Maritime search and rescue (SAR).
- Maritime law enforcement.
- Protection of India's maritime zones.
- Anti-smuggling and anti-piracy operations.
- Marine environmental protection.
- Assistance to fishermen in distress.
- Coastal security coordination.

SEARCH AND RESCUE (SAR)

What is SAR?

- Search and Rescue (SAR) refers to coordinated operations aimed at locating and assisting persons in distress at sea.

India's SAR Framework

- Coordinated by the Indian Coast Guard.
- Covers India's designated Search and Rescue Region (SRR) under international maritime agreements.

SIGNIFICANCE

Safety of Seafarers

- Ensures timely rescue of Indian citizens working in international shipping.

Maritime Security

- Strengthens surveillance and response capabilities in the Arabian Sea and Indian Ocean Region.

Regional Cooperation

- Demonstrates effective collaboration between India and Oman.

Blue Economy

- Safe sea lanes are essential for trade, fisheries, and maritime commerce.

CHALLENGES

- Rising maritime security threats.
- Piracy and armed attacks on merchant vessels.
- Vast maritime areas requiring constant surveillance.
- Need for enhanced international coordination.

WAY FORWARD

- Strengthen maritime domain awareness.
- Enhance cooperation with Indian Ocean littoral countries.
- Modernize Coast Guard assets and surveillance systems.
- Improve emergency response mechanisms for merchant shipping.

KEY HIGHLIGHTS

- Rescued:** 24 Indian seafarers.
- Location:** Near the coast of Oman.
- Lead Agency:** Indian Coast Guard.
- Partner:** Omani authorities.
- Legal Framework:** Coast Guard Act, 1978.
- Role:** Maritime security and search & rescue.
- Significance:** Regional maritime cooperation and protection of Indian nationals.

PRELIMS BOOSTER BOX

I. Indian Coast Guard (ICG)

- Established: **1 February 1977**.
- Statutory basis: **Coast Guard Act, 1978**.
- Ministry: **Ministry of Defence**.
- Motto: **"Vayam Rakshamah" (We Protect)**.

II. Search and Rescue (SAR)

- Coordinated operations to assist persons in distress at sea.
- India has a designated **Search and Rescue Region (SRR)** under the **International Maritime Organization** framework.

III. Indian Ocean Region (IOR)

- Strategically important for global trade and energy transportation.
- India plays the role of a **Net Security Provider** in the region.

IV. Blue Economy

- Sustainable use of ocean resources for economic growth, livelihoods, and marine ecosystem health.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

- The Indian Coast Guard functions under the Ministry of Defence.
- The Indian Coast Guard derives its statutory powers from the Coast Guard Act, 1978.
- One of the primary functions of the Indian Coast Guard is conducting Search and Rescue (SAR) operations.

Which of the statements given above is/are correct?

- 1 and 2 only
- 2 and 3 only
- 1 and 3 only
- 1, 2 and 3

Answer: (d)

5. APEDA FACILITATES FIRST EXPORT OF GI-TAGGED TEZPUR LITCHI FROM ASSAM TO DUBAI



Key Highlights

- First export of **GI-tagged Tezpur Litchi** from Assam to Dubai.
- Facilitated by APEDA.
- Marks a significant milestone in promoting agricultural exports from the North Eastern Region.
- Strengthens India's exports of Geographical Indication (GI) products.

ABOUT TEZPUR LITCHI

Tezpur Litchi

Region

- Cultivated mainly in the **Assam**, particularly around **Tezpur**.

Characteristics

- Distinctive aroma and sweetness.
- Juicy pulp with high quality.
- Well-suited for premium export markets.

GI Tag

- Registered as a **Geographical Indication (GI)** under the **Geographical Indications of Goods (Registration and Protection) Act, 1999**.

ABOUT APEDA

Agricultural and Processed Food Products Export Development Authority

Established

- **1986**

Established Under

- **APEDA Act, 1985**

Ministry

- Ministry of Commerce and Industry.

Functions

- Promotion of agricultural and processed food exports.
- Export infrastructure development.
- Quality certification and standards.
- Branding and market development.
- Capacity building for exporters.

WHAT IS A GEOGRAPHICAL INDICATION (GI)?

A **Geographical Indication (GI)** is an intellectual property right that identifies a product as originating from a specific geographical region where its quality,

reputation, or characteristics are essentially attributable to that location.

Benefits

- Protects traditional products.
- Prevents unauthorized use.
- Enhances export potential.
- Promotes rural livelihoods.

SIGNIFICANCE

Boost to Farmers' Income

- Provides access to premium international markets.

Promotion of GI Products

- Enhances global recognition of unique regional products.

North East Development

- Encourages export-led agricultural growth in the North Eastern Region.

Export Diversification

- Expands India's horticultural export basket.

Brand India

- Strengthens India's reputation for high-quality agricultural products.

CHALLENGES

- Maintaining export-quality standards.
- Cold-chain and logistics infrastructure.
- Compliance with international sanitary and phytosanitary (SPS) measures.
- Limited awareness among small farmers regarding export procedures.

WAY FORWARD

- Strengthen export-oriented horticulture clusters.
- Improve cold storage and logistics infrastructure.
- Promote branding of GI products in global markets.
- Enhance farmer training on quality standards and export compliance.

KEY HIGHLIGHTS

- **Product:** GI-tagged Tezpur Litchi.
- **Origin:** Assam.
- **Destination:** Dubai, UAE.
- **Facilitating Agency:** APEDA.
- **Legal Protection:** GI Act, 1999.

- **Objective:** Promote agricultural exports and improve farmer incomes.

PRELIMS BOOSTER BOX

I. APEDA

- A. Established: **1986**.
- B. Established under the **APEDA Act, 1985**.
- C. Ministry: **Ministry of Commerce and Industry**.

II. Geographical Indication (GI)

- A. Protected under the **Geographical Indications of Goods (Registration and Protection) Act, 1999**.
- B. India became compliant with GI protection under the **World Trade Organization TRIPS Agreement**.

III. Tezpur Litchi

- A. GI-tagged horticultural product of Assam.
- B. Known for its sweetness, aroma, and premium quality.

IV. Importance of GI Tags

- A. Protect traditional products.
- B. Promote exports.
- C. Support rural livelihoods.
- D. Preserve cultural heritage.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. APEDA was established under the APEDA Act, 1985.
2. Geographical Indications in India are governed by the Geographical Indications of Goods (Registration and Protection) Act, 1999.
3. Tezpur Litchi is a GI-tagged horticultural product from Assam.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

1. EMPOWERING THE POOR: A DECADE OF INCLUSIVE TRANSFORMATION



Key Themes of Inclusive Transformation

- Financial inclusion.
- Social protection.
- Healthcare access.
- Housing security.
- Clean energy access.
- Skill development and livelihoods.
- Women's empowerment.
- Digital inclusion.

MAJOR INITIATIVES FOR POVERTY ALLEVIATION

Financial Inclusion

Pradhan Mantri Jan Dhan Yojana (PMJDY)

Objectives

- Universal access to banking services.
- Financial literacy.
- Access to credit, insurance, and pension.

Significance

- I. Forms the foundation of the **JAM Trinity**:
 - A. Jan Dhan Accounts.
 - B. Aadhaar.
 - C. Mobile connectivity.

Direct Benefit Transfer (DBT)

Direct Benefit Transfer

- Transfers welfare benefits directly into beneficiaries' bank accounts.
- Reduces leakages and improves transparency.

Affordable Housing

Pradhan Mantri Awas Yojana

Objective

- "Housing for All."

Components

- PMAY-Gramin.
- PMAY-Urban.

Healthcare Access

Ayushman Bharat

Key Components:

- AB-PMJAY.
- Ayushman Arogya Mandirs.

Goal

- Universal Health Coverage.

Clean Cooking Fuel

Pradhan Mantri Ujjwala Yojana

Objective

- Provide LPG connections to poor households.
- Improved health.
- Reduced indoor air pollution.
- Women's welfare.

Sanitation Revolution

Swachh Bharat Mission

Outcomes

- Improved sanitation coverage.
- Reduction in open defecation.
- Better public health indicators.

WOMEN-LED DEVELOPMENT

Self-Help Groups (SHGs)

Deendayal Antyodaya Yojana – National Rural Livelihoods Mission

- Strengthens women-led community institutions.
- Promotes financial independence and entrepreneurship.

Women's Empowerment Measures

- Financial inclusion.
- Housing ownership.
- Clean cooking fuel access.
- Livelihood opportunities.

LIVELIHOOD AND EMPLOYMENT SUPPORT

Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)

- Provides guaranteed wage employment in rural areas.

Skill Development

Pradhan Mantri Kaushal Vikas Yojana

- Enhances employability through skill training.

DIGITAL INCLUSION

Digital Public Infrastructure (DPI)

Major Components:

- Aadhaar.
- Unified Payments Interface (UPI).
- DigiLocker.
- DBT ecosystem.

Benefits

- Efficient service delivery.
- Financial empowerment.
- Reduced exclusion errors.

SIGNIFICANCE

Poverty Reduction

- Supports multidimensional poverty alleviation.

Social Justice

- Improves access to welfare benefits.

Financial Empowerment

- Expands formal financial participation.

Human Development

- Better health, housing, and education outcomes.

Inclusive Growth

- Ensures benefits reach vulnerable sections.

CHALLENGES

- Regional disparities in development.
- Last-mile delivery issues.
- Digital literacy gaps.
- Employment generation challenges.
- Urban poverty concerns.

WAY FORWARD

- Strengthen targeted welfare delivery.
- Improve the quality of public services.
- Enhance livelihood opportunities.
- Expand digital inclusion.
- Promote sustainable and inclusive growth.

KEY HIGHLIGHTS

- **Financial Inclusion:** PM Jan Dhan Yojana.
- **Healthcare:** Ayushman Bharat.
- **Housing:** PM Awas Yojana.
- **Clean Energy:** PM Ujjwala Yojana.
- **Sanitation:** Swachh Bharat Mission.
- **Livelihoods:** DAY-NRLM and MGNREGA.
- **Digital Backbone:** JAM Trinity and DPI.

PRELIMS BOOSTER BOX

- **JAM Trinity:** Jan Dhan + Aadhaar + Mobile.
- **PMJDY:** Financial inclusion programme launched in 2014.
- **DBT:** Direct transfer of benefits to bank accounts.
- **PMAY:** Housing for All initiative.
- **Ayushman Bharat:** Universal Health Coverage initiative.
- **PMUY:** LPG access for poor households.
- **DAY-NRLM:** Promotes women-led Self-Help Groups (SHGs).

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The JAM Trinity consists of Jan Dhan accounts, Aadhaar, and mobile connectivity.
2. Pradhan Mantri Ujjwala Yojana aims to provide clean cooking fuel access to poor households.
3. Ayushman Bharat seeks to strengthen both health insurance coverage and primary healthcare services.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Answer: (d)

2. MEDIA VOICES JOIN HANDS WITH MINISTRY OF AYUSH TO INSPIRE ADOPTION OF "YOGA FOR HEALTHY AGEING"



Key Highlights

- I. Media representatives joined hands with the Ministry of Ayush to amplify awareness regarding:
 - A. Healthy ageing.
 - B. Preventive healthcare.
 - C. Yoga-based wellness practices.
- II. The campaign is linked to:
 - A. International Day of Yoga (IDY) 2026.
 - B. Promotion of holistic health and active ageing.

ABOUT INTERNATIONAL DAY OF YOGA (IDY)

International Day of Yoga

Background

- The proposal was introduced by:

Narendra Modi

at the **United Nations General Assembly** in 2014.

UN Recognition

- The UN adopted the resolution on **11 December 2014**.

First Celebration

- **21 June 2015**

Significance of 21 June

- Marks the Summer Solstice in the Northern Hemisphere.
- Symbolizes harmony between nature and human well-being.

WHAT IS HEALTHY AGEING?

According to the **World Health Organization**, healthy ageing refers to:

- Developing and maintaining functional ability that enables well-being in older age.

Key Components

- Physical health.
- Mental health.
- Social participation.
- Independence and mobility.
- Quality of life.

ROLE OF YOGA IN HEALTHY AGEING

Yoga

Physical Benefits

- Improves flexibility and balance.

- Enhances muscle strength.
- Reduces risk of falls among elderly persons.
- Supports cardiovascular health.

Mental Benefits

- Reduces stress and anxiety.
- Improves concentration and emotional well-being.
- Supports cognitive health.

Lifestyle Benefits

- Encourages healthy routines.
- Promotes holistic wellness.
- Improves overall quality of life.

MINISTRY OF AYUSH

AYUSH Stands For

- Ayurveda
- Yoga & Naturopathy
- Unani
- Siddha
- Sowa-Rigpa
- Homoeopathy

Objective

- Promote traditional systems of medicine and wellness.

SIGNIFICANCE

Preventive Healthcare

- Encourages disease prevention rather than disease treatment.

Healthy Ageing

- Supports active and productive ageing.

Public Health

- Reduces lifestyle-related health risks.

Community Participation

- Increases awareness through media outreach.

Global Recognition of Yoga

- Reinforces India's leadership in promoting yoga worldwide.

CHALLENGES

- Limited awareness among some elderly populations.
- Need for trained yoga instructors.
- Accessibility issues in remote areas.
- Ensuring evidence-based integration into healthcare systems.

WAY FORWARD

- Expand community-based yoga programmes.
- Promote yoga in elderly care initiatives.
- Integrate yoga with preventive healthcare strategies.
- Strengthen awareness campaigns through digital and traditional media.

KEY HIGHLIGHTS

- **Campaign Theme:** Yoga for Healthy Ageing.
- **Lead Ministry:** Ministry of Ayush.
- **Associated Event:** International Day of Yoga 2026.
- **Objective:** Promote healthy and active ageing.
- **Focus:** Preventive healthcare and wellness.
- **Global Day:** Celebrated annually on 21 June.

PRELIMS BOOSTER BOX

- **International Day of Yoga:** 21 June.
- **UNGA Resolution:** Adopted on 11 December 2014.
- **First Celebration:** 21 June 2015.
- **AYUSH:** Ayurveda, Yoga & Naturopathy, Unani, Siddha, Sowa-Rigpa, Homoeopathy.
- **WHO Healthy Ageing:** Functional ability enabling well-being in older age.
- **Yoga Benefits:** Physical fitness, mental well-being, and preventive healthcare.
- **Theme Highlight:** Healthy ageing through yoga-based lifestyle practices.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding the International Day of Yoga (IDY):

1. International Day of Yoga is observed annually on 21 June.
2. The proposal for International Day of Yoga was introduced by India at the United Nations General Assembly.
3. The first International Day of Yoga was celebrated in 2015.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Answer: (d)

3. PRESIDENT CONFERS 07 KIRTI CHAKRAS, 15 VIR CHAKRAS & 29 SHAURYA CHAKRAS DURING DEFENCE INVESTITURE CEREMONY 2025 (PHASE-I)



Gallantry Awards Conferred

Award	Number Awarded	Posthumous
Kirti Chakra	07	02
Vir Chakra	15	03
Shaurya Chakra	29	01

GALLANTRY AWARDS IN INDIA

Gallantry awards are broadly classified into:

Wartime Gallantry Awards

- Param Vir Chakra
- Maha Vir Chakra
- Vir Chakra

Peacetime Gallantry Awards

- Ashoka Chakra
- Kirti Chakra
- Shaurya Chakra

ABOUT KIRTI CHAKRA

Kirti Chakra

Rank

- Second-highest peacetime gallantry award after the Ashoka Chakra.

Awarded For

- Conspicuous gallantry.
- Exceptional courage.
- Self-sacrifice away from the battlefield.

Eligibility

- Armed Forces personnel.
- CAPFs.
- Police personnel.
- Civilians (in eligible circumstances).

ABOUT VIR CHAKRA

Vir Chakra

Rank

- Third-highest wartime gallantry award.

Awarded For

- Acts of gallantry in the presence of the enemy.

Eligibility

- Personnel of the Armed Forces.

ABOUT SHAURYA CHAKRA

Shaurya Chakra

Rank

- Third-highest peacetime gallantry award.

Awarded For

- Exceptional courage.
- Gallantry.
- Self-sacrifice not in the face of the enemy.

DEFENCE INVESTITURE CEREMONY

Purpose

- Confer:

- Gallantry awards.
- Distinguished service decorations.
- Military honours.

Conducted By

- The President of India as the Supreme Commander of the Armed Forces.

SIGNIFICANCE

Recognition of Bravery

- Honors extraordinary courage and sacrifice.

Military Morale

- Motivates personnel to uphold the highest standards of service.

National Security

- Acknowledges contributions to the nation's defence and internal security.

Public Inspiration

- Highlights exemplary acts of patriotism and dedication.

KEY HIGHLIGHTS

- **Ceremony:** Defence Investiture Ceremony 2025 (Phase-I).
- **Venue:** Rashtrapati Bhavan.
- **Kirti Chakras Awarded:** 07 (02 posthumous).
- **Vir Chakras Awarded:** 15 (03 posthumous).
- **Shaurya Chakras Awarded:** 29 (01 posthumous).
- **President:** Supreme Commander of the Armed Forces.
- **Purpose:** Recognition of gallantry and distinguished service.

PRELIMS BOOSTER BOX

- **Highest Wartime Gallantry Award:** Param Vir Chakra.
- **Highest Peacetime Gallantry Award:** Ashoka Chakra.
- **Second-Highest Peacetime Gallantry Award:** Kirti Chakra.
- **Third-Highest Wartime Gallantry Award:** Vir Chakra.
- **Third-Highest Peacetime Gallantry Award:** Shaurya Chakra.
- **President of India:** Supreme Commander of the Armed Forces.
- **Gallantry Awards:** Can be awarded posthumously.

PadhAI-GENERATED UPSC MCQ

Consider the following pairs:

Gallantry Award	Category
1. Ashoka Chakra	Peacetime
2. Kirti Chakra	Peacetime
3. Vir Chakra	Wartime

Which of the pairs given above are correctly matched?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

4. CSIR-CRRI SIGNS MoA WITH GOVERNMENT OF HARYANA FOR IMPLEMENTATION OF CAQM FRAMEWORK ON URBAN ROAD DUST MITIGATION AND SUSTAINABLE ROAD INFRASTRUCTURE



Key Highlights

- I. MoA signed between:
 - A. **CSIR-CRRI**
 - B. Government of Haryana
- II. Objective:

- A. Implement the **Commission for Air Quality Management (CAQM) Framework**.
- B. Reduce urban road dust emissions.
- C. Improve road infrastructure sustainability.

III. Focus Areas:

- A. Dust suppression.
- B. Scientific road maintenance.
- C. Air quality improvement.
- D. Sustainable urban transport infrastructure.

BACKGROUND

What is CSIR-CRRI?

CSIR-Central Road Research Institute

Established

- 1952

Parent Organization

Council of Scientific and Industrial Research (CSIR)

Ministry

- Ministry of Science and Technology.

Functions

- Road engineering research.
- Pavement technology.
- Highway safety.
- Sustainable transport infrastructure.
- Environmental engineering.

What is CAQM?

Commission for Air Quality Management in National Capital Region and Adjoining Areas

Established Under

Commission for Air Quality Management in National Capital Region and Adjoining Areas Act, 2021

Objective

- I. Coordinate measures for:
 - A. Air pollution control.
 - B. Air quality management.
 - C. Regional environmental governance in NCR and adjoining areas.

ROAD DUST POLLUTION

Major Sources

- Unpaved road shoulders.

- Construction activities.
- Road surface deterioration.
- Vehicular movement.
- Improper debris management.

Pollutants Generated

- PM10
- PM2.5
- Resuspended particulate matter

CAQM FRAMEWORK FOR ROAD DUST MITIGATION

Key Components

Mechanized Road Sweeping

- Regular cleaning of roads using mechanized equipment.

Dust Suppression

- Water sprinkling and other dust-control measures.

Scientific Road Maintenance

- Timely repair of potholes and damaged surfaces.

Green Infrastructure

- Development of green buffers and landscaping.

Monitoring and Evaluation

- Data-driven assessment of dust mitigation outcomes.

SIGNIFICANCE

Air Pollution Reduction

- Reduces particulate matter emissions from roads.

Public Health Benefits

- Lowers respiratory and cardiovascular health risks.

Urban Sustainability

- Promotes cleaner and more resilient cities.

Environmental Governance

- Supports implementation of CAQM directives.

Climate Co-benefits

- Contributes to sustainable urban infrastructure planning.

CHALLENGES

- High implementation costs.

- Coordination among multiple agencies.
- Continuous maintenance requirements.
- Monitoring and enforcement challenges.

WAY FORWARD

- Expand road dust mitigation frameworks to other states.
- Strengthen urban air quality monitoring systems.
- Promote innovative dust-control technologies.
- Integrate sustainable infrastructure planning with pollution control measures.

KEY HIGHLIGHTS

- **Institution:** CSIR-Central Road Research Institute (CRRI).
- **Partner:** Government of Haryana.
- **Framework:** CAQM Road Dust Mitigation Framework.
- **Objective:** Reduce urban road dust pollution.
- **Regulator:** Commission for Air Quality Management (CAQM).
- **Law:** CAQM Act, 2021.
- **Outcome:** Cleaner air and sustainable urban infrastructure.

PRELIMS BOOSTER BOX

- I. **CSIR-CRRI**
 - A. Established: 1952.
 - B. Headquarters: New Delhi.
 - C. Works under CSIR.
- II. **CSIR**
 - A. Autonomous R&D organization under the Ministry of Science and Technology.
- III. **CAQM**
 - A. Statutory body established under the CAQM Act, 2021.
 - B. Covers NCR and adjoining areas.
- IV. **Road Dust**
 - A. Major source of PM10 pollution in urban areas.
- V. **PM10**
 - A. Particulate matter with a diameter less than 10 micrometres.
- VI. **PM2.5**
 - A. Fine particulate matter with diameter less than 2.5 micrometres.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. CSIR-Central Road Research Institute (CRRRI) functions under the Council of Scientific and Industrial Research (CSIR).
2. The Commission for Air Quality Management (CAQM) was established through an Act of Parliament in 2021.
3. Urban road dust is a significant contributor to PM10 and PM2.5 pollution levels.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

5. PRADHAN MANTRI SURAKSHIT MATRITVA ABHIYAAN (PMSMA)



About PMSMA

Pradhan Mantri Surakshit Matritva Abhiyaan

- A nationwide antenatal care initiative of the **Ministry of Health and Family Welfare**.

Launched

- **9 June 2016**

Nodal Ministry

- Ministry of Health and Family Welfare (MoHFW).

Objective

- Provide assured, comprehensive, and quality antenatal care to all pregnant women free of cost.

KEY FEATURES

Fixed Day ANC Services

- Special antenatal care services are provided on the:

9th day of every month

at designated government health facilities.

Target Beneficiaries

- I. All pregnant women in:
 - A. Second trimester.
 - B. Third trimester.

Comprehensive Antenatal Care

Services include:

- Physical examination.
- Blood pressure monitoring.
- Blood tests.
- Urine tests.
- Nutritional counselling.
- Screening for high-risk pregnancies.
- Referral services where required.

High-Risk Pregnancy Identification

A major focus of PMSMA is early detection of:

- Anaemia.
- Hypertension.
- Gestational diabetes.
- Other pregnancy-related complications.

Colour Coding System

- **Green Sticker:** Normal pregnancy.
- **Red Sticker:** High-risk pregnancy.

This enables timely referral and follow-up care.

OBJECTIVES

Reduce Maternal Mortality

- Improve maternal health outcomes.

Reduce Neonatal Mortality

- Ensure safer pregnancies and childbirth.

Early Risk Detection

- Identify and manage high-risk pregnancies.

Universal Antenatal Care

- Increase coverage of quality ANC services.

RELATED INITIATIVES

Janani Suraksha Yojana (JSY)

- Promotes institutional deliveries through cash incentives.

Janani Shishu Suraksha Karyakram (JSSK)

- Provides free maternal and newborn healthcare services.

LaQshya Programme

- Improves quality of care in labour rooms and maternity operation theatres.

SIGNIFICANCE

Maternal Health

- Enhances access to quality prenatal care.

Early Intervention

- Helps identify complications before delivery.

Equity in Healthcare

- Improves healthcare access for vulnerable women.

Reduced Mortality

- Contributes to lowering Maternal Mortality Ratio (MMR) and Neonatal Mortality Rate (NMR).

Strengthened Public Health System

- Improves monitoring and referral mechanisms.

CHALLENGES

- Regional disparities in healthcare access.
- Shortage of specialists in rural areas.
- Awareness gaps among beneficiaries.
- Follow-up care for high-risk pregnancies.

WAY FORWARD

- Strengthen last-mile healthcare delivery.
- Improve awareness regarding antenatal care.
- Enhance referral and emergency obstetric services.
- Expand digital tracking of maternal health indicators.

KEY HIGHLIGHTS

- **Scheme:** Pradhan Mantri Surakshit Matritva Abhiyaan (PMSMA).
- **Launch Date:** 9 June 2016.
- **Ministry:** Ministry of Health and Family Welfare.
- **Service Day:** 9th of every month.
- **Target Group:** Pregnant women in second and third trimesters.
- **Major Focus:** High-risk pregnancy detection.
- **Goal:** Reduction of maternal and neonatal mortality.

PRELIMS BOOSTER BOX

- **PMSMA Launch:** 9 June 2016.
- **ANC:** Antenatal Care.
- **Special ANC Day:** 9th day of every month.
- **Red Sticker:** High-risk pregnancy.
- **Green Sticker:** Normal pregnancy.
- **Ministry:** Ministry of Health and Family Welfare.
- **SDG Linkage:** SDG 3 (Good Health and Well-being).

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding the Pradhan Mantri Surakshit Matritva Abhiyaan (PMSMA):

1. PMSMA was launched in 2016 by the Ministry of Health and Family Welfare.
2. Under PMSMA, special antenatal care services are provided on the 9th day of every month.
3. The scheme uses a colour-coding system to identify high-risk pregnancies.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Answer: (d)

1. APEDA FACILITATES FIRST EXPORT OF FRESH MANGOES FROM JHARKHAND TO UNITED KINGDOM



Key Highlights

- First consignment of fresh mangoes exported from Jharkhand to the United Kingdom.
- Facilitated by APEDA.
- Expands global market opportunities for Jharkhand's horticultural produce.
- Supports farmers through value realization and export diversification.

Objectives

- Promote:
 - Agricultural and horticultural exports.
- Enhance:
 - Farmer income.
- Diversify:
 - India's agri-export basket.
- Strengthen:
 - Export infrastructure and market linkages.

BACKGROUND / CONTEXT

About APEDA

Agricultural and Processed Food Products Export Development Authority

Established Under

APEDA Act, 1985

Ministry

- Functions under the Ministry of Commerce & Industry.

Functions

- Promotion of agricultural exports.

- Export infrastructure development.
- Quality certification and standards.
- Market development and branding.

MANGO CULTIVATION IN INDIA

Mango

Importance

- Known as the "King of Fruits".
- India is the world's largest producer of mangoes.

Major Producing States

- Uttar Pradesh
- Andhra Pradesh
- Karnataka
- Bihar
- Jharkhand (emerging producer)

SIGNIFICANCE OF THE EXPORT

Farmer Income Enhancement

- Provides access to premium international markets.

Export Diversification

- Expands India's fresh fruit export portfolio.

Regional Development

- Promotes horticulture-based economic growth in Jharkhand.

Global Market Access

- Enhances visibility of produce from non-traditional export regions.

Agricultural Value Chains

- Encourages better post-harvest management and quality standards.

CHALLENGES IN FRUIT EXPORTS

- Stringent sanitary and phytosanitary (SPS) standards.
- Cold-chain and logistics requirements.
- Quality certification and traceability.
- Post-harvest losses.

WAY FORWARD

- Strengthen:
 - Export-oriented horticulture clusters.
- Improve:
 - Cold storage and logistics infrastructure.
- Enhance:

- A. Farmer awareness regarding export standards.
- IV. Promote:
- A. Branding and geographical identity of regional produce.

KEY HIGHLIGHTS

- **Facilitating Agency:** APEDA.
- **Product:** Fresh Mangoes.
- **Origin:** Jharkhand.
- **Destination:** United Kingdom.
- **Sector:** Horticulture exports.
- **Significance:** Farmer income and export diversification.
- **Legal Basis of APEDA:** APEDA Act, 1985.

PRELIMS BOOSTER BOX

- **APEDA:** Agricultural and Processed Food Products Export Development Authority.
- **Established:** Under APEDA Act, 1985.
- **Ministry:** Ministry of Commerce & Industry.
- **Mango:** Known as the "King of Fruits".
- **India:** World's largest producer of mangoes.
- **Export Importance:** Market diversification and farmer income enhancement.
- **Challenge:** SPS compliance and cold-chain infrastructure.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. APEDA was established under the APEDA Act, 1985.
2. APEDA functions under the Ministry of Commerce & Industry.
3. India is the world's largest producer of mangoes.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Answer: (d)

2. EASE OF DOING BUSINESS: STRENGTHENING INDIA'S BUSINESS FRAMEWORK



What is Ease of Doing Business?

- I. Ease of Doing Business refers to the regulatory and institutional environment that affects:
 - A. Starting a business.
 - B. Obtaining permits and licenses.
 - C. Paying taxes.
 - D. Accessing credit.
 - E. Enforcing contracts.
 - F. Resolving insolvency.
- II. A favorable business environment encourages:
 - A. Investment.
 - B. Entrepreneurship.
 - C. Employment generation.
 - D. Economic growth.

MAJOR REFORMS UNDERTAKEN

Business Simplification and Deregulation

- Rationalization of outdated laws and compliances.
- Reduction in regulatory burden on businesses.
- Promotion of self-certification mechanisms.

Digital Governance

Digital India

Key Features:

- Online approvals and clearances.
- Paperless governance.
- Single-window systems.
- E-governance platforms.

Goods and Services Tax (GST)

Goods and Services Tax

Benefits:

- One Nation, One Tax.
- Reduction in cascading taxation.
- Improved logistics and market integration.

Insolvency and Bankruptcy Reforms

Insolvency and Bankruptcy Code, 2016

Objectives:

- Time-bound insolvency resolution.
- Better recovery of stressed assets.
- Improved creditor confidence.

Startup Promotion

Startup India

Focus Areas:

- Innovation.
- Entrepreneurship.
- Funding support.
- Regulatory simplification.

MSME Reforms

Udyam Registration

Benefits:

- Simplified registration.
- Access to government schemes.
- Formalization of enterprises.

KEY INSTITUTIONAL INITIATIVES

National Single Window System (NSWS)

National Single Window System

- Provides a unified digital platform for:
 - Business approvals.
 - Licenses.
 - Clearances.

PM Gati Shakti

PM Gati Shakti National Master Plan

- Enhances multimodal infrastructure planning and logistics efficiency.

SIGNIFICANCE

Investment Attraction

- Encourages domestic and foreign investment.

Entrepreneurship Growth

- Facilitates business creation and expansion.

Employment Generation

- Promotes job creation through industrial and service sector growth.

Competitiveness

- Improves India's attractiveness in global markets.

Economic Growth

- Supports higher productivity and industrial development.

CHALLENGES

- Regulatory complexity at state and local levels.
- Contract enforcement delays.
- Land acquisition issues.
- Infrastructure gaps in some regions.
- Compliance burden for small businesses.

WAY FORWARD

- Further simplify business regulations.
- Strengthen judicial and dispute resolution mechanisms.
- Expand digital governance initiatives.
- Improve logistics and infrastructure.
- Promote cooperative federalism in business reforms.

KEY HIGHLIGHTS

- **Objective:** Improve business environment and investment climate.
- **Major Reforms:** GST, IBC, Digital India, Startup India.
- **Single Window Platform:** National Single Window System.
- **Infrastructure Initiative:** PM Gati Shakti.
- **Focus:** Investment, innovation, and competitiveness.
- **Outcome:** Economic growth and employment generation.

PRELIMS BOOSTER BOX

Recent Business Climate Reforms

- Jan Vishwas (Amendment of Provisions) Act, 2023**
 - Decriminalizes minor business-related offences in several laws.
- National Single Window System (NSWS)**
 - Integrated portal for investor clearances.
- PM Gati Shakti**
 - Reduces logistics costs through integrated planning.
- Digital Compliance**

- A. Increasing use of faceless assessments and online approvals.

V. **Objective**

- A. Reduce compliance burden and improve investor confidence.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

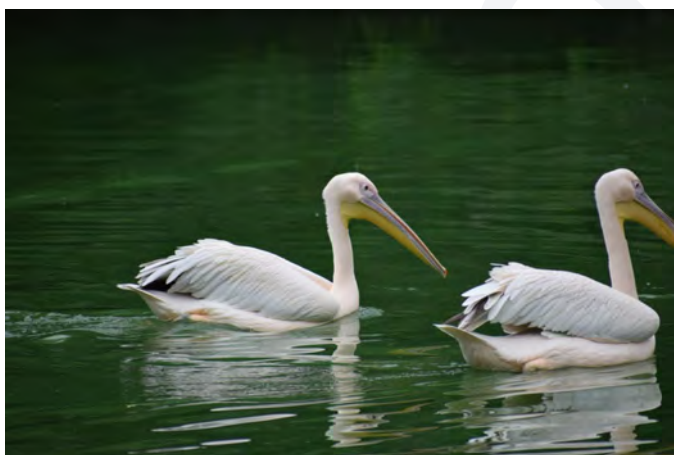
1. The Insolvency and Bankruptcy Code (IBC), 2016 provides a time-bound framework for insolvency resolution.
2. The National Single Window System (NSWS) is intended to facilitate business approvals through a unified digital platform.
3. PM Gati Shakti focuses on integrated infrastructure planning and logistics efficiency.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Answer: (d)

3. MoS ENVIRONMENT, FOREST AND CLIMATE CHANGE LAUNCHES "NRP SAATHI APP" AND INAUGURATES SELF-TICKETING KIOSKS AT NATIONAL ZOOLOGICAL PARK



Key Highlights

- I. Launch of:
 - A. **NRP Saathi App**
 - B. Self-ticketing kiosks
- II. Objective:
 - A. Digitize visitor services.

- B. Improve convenience and accessibility.
- C. Promote awareness about wildlife and conservation.

ABOUT NATIONAL ZOOLOGICAL PARK (NRP)

National Zoological Park

Established

- 1959

Location

- New Delhi

Administrative Control

- Under the **Ministry of Environment, Forest and Climate Change (MoEFCC)**.

Purpose

- Wildlife conservation.
- Education and awareness.
- Scientific management of captive animals.
- Recreation and eco-awareness.

NRP SAATHI APP

Key Features

- Digital visitor assistance.
- Zoo navigation and information.
- Animal-related educational content.
- Real-time visitor support.
- Improved accessibility and convenience.

Significance

- Promotes digital governance in public institutions.
- Enhances visitor engagement and learning.

SELF-TICKETING KIOSKS

Objectives

- Reduce waiting time.
- Facilitate quick ticket generation.
- Promote cashless and digital transactions.
- Improve crowd management.

Benefits

- Efficient visitor management.
- Better user experience.
- Reduced dependence on manual ticket counters.

RELATED CONSERVATION FRAMEWORK

Central Zoo Authority (CZA)

Central Zoo Authority

Established Under

Wild Life (Protection) Act, 1972

Functions

- Recognition and regulation of zoos.
- Animal welfare standards.
- Conservation breeding programmes.
- Capacity building and scientific management.

SIGNIFICANCE

Digital Governance

- Promotes technology-driven public service delivery.

Wildlife Awareness

- Improves public understanding of biodiversity conservation.

Visitor Experience

- Enhances accessibility and convenience.

Conservation Education

- Supports environmental education initiatives.

Smart Public Infrastructure

- Aligns with Digital India and citizen-centric governance.

CHALLENGES

- Continuous technological maintenance.
- Digital literacy among visitors.
- Cybersecurity and data protection.
- Integration of future smart services.

WAY FORWARD

- Expand digital services across zoos in India.
- Integrate multilingual information systems.
- Strengthen conservation education through digital platforms.
- Promote technology-enabled wildlife tourism.

KEY HIGHLIGHTS

- **Institution:** National Zoological Park (Delhi Zoo).
- **New Initiative:** NZP Saathi App.
- **Infrastructure:** Self-ticketing kiosks.
- **Ministry:** Ministry of Environment, Forest and Climate Change.
- **Regulatory Body:** Central Zoo Authority.
- **Legal Framework:** Wild Life (Protection) Act, 1972.
- **Objective:** Improved visitor services and conservation awareness.

PRELIMS BOOSTER BOX

I. National Zoological Park

- A. Established: 1959
- B. Location: New Delhi

II. Central Zoo Authority (CZA)

- A. Statutory body under the Wild Life (Protection) Act, 1972.

III. Functions of CZA

- A. Recognition of zoos.
- B. Animal welfare standards.
- C. Conservation breeding programmes.

IV. NZP Saathi App

- A. Digital visitor support platform.

V. Self-Ticketing Kiosks

- A. Promote digital and cashless visitor services.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The National Zoological Park is located in New Delhi.
2. The Central Zoo Authority is a statutory body established under the Wild Life (Protection) Act, 1972.
3. The NZP Saathi App has been launched to improve visitor experience and conservation awareness.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

4. e-JAGRITI WINS SILVER AWARD AT NATIONAL AWARDS FOR e-GOVERNANCE (NAeG) 2026



Key Highlights

- e-Jagriti received the **Silver Award** at NAeG 2026.
- Recognized for transforming consumer grievance redressal through digital technology.
- Integrates multiple legacy consumer dispute systems into a single platform.
- Uses AI-enabled and paperless processes for faster consumer justice delivery.

WHAT IS e-JAGRITI?

e-Jagriti

- A unified digital platform developed by the Department of Consumer Affairs.
- Designed to modernize consumer dispute resolution and grievance redressal mechanisms.

Key Features

- AI-enabled platform.
- Paperless operations.
- Virtual hearings.
- Online filing and tracking of consumer cases.
- Accessible to consumers across India and abroad.

BACKGROUND

Legacy Systems Integrated into e-Jagriti

The platform unified four major applications:

- Online Case Monitoring System (OCMS)
- e-Daakhil
- NCDRC Case Management System
- CONFONET

This integration created a single-window digital ecosystem for consumer justice delivery.

PERFORMANCE ACHIEVEMENTS

Since its launch on **1 January 2025**, e-Jagriti has:

- Facilitated filing of over **2.29 lakh consumer cases**.
- Enabled disposal of more than **2.07 lakh cases**.
- Achieved a disposal rate of approximately **90.75%**.

NATIONAL AWARDS FOR e-GOVERNANCE (NAeG)

National Awards for e-Governance

Administered By

Department of Administrative Reforms and Public Grievances

Objective

- Recognize excellence in:
 - Digital governance.
 - Citizen-centric service delivery.
 - Innovation in public administration.

NAeG 2026

- Awards distributed across **7 categories**.
- Included **10 Gold Awards, 6 Silver Awards, and 1 Jury Award**.

SIGNIFICANCE OF e-JAGRITI

Consumer Empowerment

- Simplifies access to consumer justice.

Digital Governance

- Promotes paperless and technology-driven administration.

Ease of Access

- Allows consumers to file and track cases remotely.

Efficiency

- Reduces delays in dispute resolution.

Transparency

- Improves monitoring and accountability in consumer forums.

CHALLENGES

- Digital literacy gaps among consumers.
- Infrastructure constraints in remote regions.
- Need for cybersecurity and data protection.
- Capacity building of stakeholders.

WAY FORWARD

- Expand awareness about digital consumer rights platforms.
- Strengthen AI-enabled grievance redressal mechanisms.
- Improve multilingual accessibility.
- Integrate more citizen-centric digital services.

KEY HIGHLIGHTS

- **Award:** Silver Award at NAeG 2026.
- **Platform:** e-Jagriti.
- **Department:** Department of Consumer Affairs.
- **Category:** Government Process Re-engineering by Use of Technology.
- **Launch:** 1 January 2025.
- **Cases Filed:** Over 2.29 lakh.

- **Disposal Rate:** 90.75%.

PRELIMS BOOSTER BOX

- **e-Jagriti:** Unified digital consumer grievance redressal platform.
- **Ministry:** Ministry of Consumer Affairs, Food and Public Distribution.
- **Key Integration:** OCMS, e-Daakhil, NCDRC CMS, CONFONET.
- **NAeG:** National Awards for e-Governance.
- **Administered By:** Department of Administrative Reforms and Public Grievances (DARPG).
- **Award Category:** Government Process Re-engineering by Use of Technology.
- **Objective:** Citizen-centric digital governance.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding e-Jagriti:

1. e-Jagriti is a digital consumer grievance redressal platform of the Department of Consumer Affairs.
2. It integrates legacy systems such as e-Daakhil and CONFONET into a unified platform.
3. It received the Silver Award at the National Awards for e-Governance 2026.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

5. INDIAN HOUSEHOLDS CONTINUE TO PAY AMONG THE LOWEST COOKING GAS PRICES IN THE WORLD



Key Highlights

- I. Domestic LPG cylinder price in Delhi:
 - A. Increased from ₹913 to ₹942 per 14.2 kg cylinder.
- II. Under the **PM Ujjwala Yojana (PMUY)**:
 - A. Beneficiaries effectively pay ₹642 per cylinder after receiving a subsidy of ₹300 on eligible refills.
- III. Cost of supplying a cylinder:
 - A. More than ₹1,600 due to rising international LPG prices.

BACKGROUND

What is LPG?

Liquefied Petroleum Gas

- I. A clean-burning fuel primarily consisting of:
 - A. Propane.
 - B. Butane.

Uses

- Household cooking.
- Commercial kitchens.
- Industrial applications.

PRADHAN MANTRI UJJWALA YOJANA (PMUY)

Pradhan Mantri Ujjwala Yojana

Launched

- 2016

Ministry

- Ministry of Petroleum and Natural Gas.

Objective

- Provide clean cooking fuel to poor households.
- Reduce dependence on traditional biomass fuels.

Benefits

- Improved health outcomes.
- Reduced indoor air pollution.
- Women's empowerment and convenience.

WHY LPG PRICES HAVE RISEN

Global Factors

- Sharp increase in international LPG prices.
- Supply disruptions linked to geopolitical tensions in West Asia.
- Rise in the Saudi Contract Price (Saudi CP), a key LPG benchmark.

Energy Security Concerns

- Disruptions around the **Strait of Hormuz** affected global LPG supply chains.

GOVERNMENT'S POSITION

According to the Ministry:

- Indian consumers continue to receive LPG below international market-linked costs.
- Public sector oil marketing companies absorb a significant portion of the under-recovery.
- PMUY beneficiaries receive direct subsidy support through DBT.

SIGNIFICANCE

Energy Access

- Ensures affordable cooking fuel for millions of households.

Social Welfare

- Supports vulnerable families through targeted subsidies.

Health Benefits

- Reduces reliance on firewood and biomass fuels.

Energy Security

- Highlights the importance of diversified energy supply chains.

Inclusive Development

- Strengthens clean energy access in rural and low-income households.

CHALLENGES

- Dependence on imported LPG.
- Exposure to international price volatility.
- Fiscal burden of subsidies and under-recoveries.
- Ensuring sustained LPG adoption among low-income households.

WAY FORWARD

- Diversify LPG import sources.
- Strengthen domestic energy production.
- Expand clean cooking alternatives.
- Continue targeted subsidy support for vulnerable groups.
- Improve energy security through strategic planning.

KEY HIGHLIGHTS

- **Ministry:** Ministry of Petroleum and Natural Gas.

- **Current Delhi LPG Price:** ₹942 per 14.2 kg cylinder.
- **PMUY Effective Price:** ₹642 per cylinder.
- **Supply Cost:** More than ₹1,600 per cylinder.
- **Key Scheme:** PM Ujjwala Yojana (PMUY).
- **Major Challenge:** International LPG price volatility.
- **Goal:** Affordable and clean cooking fuel access.

PRELIMS BOOSTER BOX

- **PMUY Launch Year:** 2016.
- **Ministry:** Ministry of Petroleum and Natural Gas.
- **Fuel Type:** Liquefied Petroleum Gas (LPG).
- **Major Components of LPG:** Propane and Butane.
- **DBT:** Direct Benefit Transfer mechanism used for LPG subsidies.
- **Saudi CP:** International benchmark influencing LPG prices.
- **Strait of Hormuz:** Critical global energy transit chokepoint.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Pradhan Mantri Ujjwala Yojana (PMUY) aims to provide clean cooking fuel access to poor households.
2. LPG mainly consists of propane and butane.
3. International LPG prices are influenced by benchmarks such as the Saudi Contract Price (Saudi CP).

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

1. REFORMS TO EXPAND FOREIGN PARTICIPATION IN GOVERNMENT SECURITIES (G-SECS)



Key Highlights

- I. Reforms aim to:
 - A. Increase participation of Foreign Portfolio Investors (FPIs).
 - B. Improve liquidity in the Government Securities (G-Sec) market.
 - C. Deepen India's bond market.
 - D. Facilitate efficient government borrowing.

Objectives

- I. Broaden:
 - A. Investor base for Government Securities.
- II. Promote:
 - A. Stable foreign capital inflows.
- III. Enhance:
 - A. Market efficiency and price discovery.
- IV. Strengthen:
 - A. India's global financial competitiveness

BACKGROUND / CONTEXT

What are Government Securities (G-Secs)?

Government Securities (G-Secs)

- Debt instruments issued by the Government of India to finance its fiscal requirements.

Types

- Treasury Bills (T-Bills)
- Dated Government Securities (Government Bonds)
- State Development Loans (SDLs)

Who are Foreign Portfolio Investors (FPIs)?

Foreign Portfolio Investment (FPI)

- I. Investments by foreign entities in:
 - A. Government bonds.
 - B. Corporate bonds.
 - C. Equity shares.
 - D. Other financial securities.
- II. FPIs do **not** seek management control over companies.

KEY REFORMS

Greater FPI Access

- Liberalization of investment norms to encourage higher foreign participation in G-Secs.

Fully Accessible Route (FAR)

- Specified Government Securities are available for investment by non-residents **without any investment ceiling**.
- Introduced by the:

Reserve Bank of India

Market Deepening

- I. Measures to:
 - A. Improve secondary market liquidity.
 - B. Increase trading efficiency.
 - C. Attract long-term institutional investors.

SIGNIFICANCE

Lower Borrowing Costs

- A deeper bond market can reduce the Government's cost of borrowing.

Market Liquidity

- Increased participation improves trading volumes and price discovery.

Global Integration

- Strengthens India's integration with international financial markets.

Investment Climate

- Enhances investor confidence and supports capital inflows.

Economic Growth

- Facilitates financing for infrastructure and development.

ROLE OF RBI

Reserve Bank of India

- I. Manages:
 - A. Government borrowing programme.

- B. Regulation of the Government Securities market.
- C. Debt market development.

CHALLENGES

- Volatility in global capital flows.
- Exchange rate risks.
- External financial shocks.
- Need to balance market openness with financial stability.

WAY FORWARD

- I. Continue:
 - A. Gradual liberalization of the bond market.
- II. Strengthen:
 - A. Market infrastructure and transparency.
- III. Encourage:
 - A. Participation of long-term institutional investors.
- IV. Maintain:
 - A. Robust macroeconomic and financial stability.

KEY HIGHLIGHTS

- **Instrument:** Government Securities (G-Secs).
- **Investor Category:** Foreign Portfolio Investors (FPIs).
- **Key Reform:** Expansion of foreign participation.
- **Special Mechanism:** Fully Accessible Route (FAR).
- **Regulator:** Reserve Bank of India.
- **Objective:** Deep and liquid bond market.
- **Benefit:** Lower borrowing costs and stronger capital markets.

PRELIMS BOOSTER BOX

- **G-Secs:** Sovereign debt instruments issued by the Government of India.
- **FPI:** Investment in financial securities without management control.
- **FAR (Fully Accessible Route):** Permits unrestricted FPI investment in specified Government Securities.
- **Regulator:** Reserve Bank of India (RBI).
- **Major Benefit:** Improved liquidity and efficient price discovery.
- **Risk:** Exposure to volatile global capital flows.

- **Importance:** Supports government borrowing and financial market development.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Government Securities (G-Secs) are sovereign debt instruments issued by the Government of India.
2. Under the Fully Accessible Route (FAR), specified Government Securities are open to non-resident investors without investment ceilings.
3. Foreign Portfolio Investors (FPIs) generally invest in securities without seeking management control.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

2. DEPARTMENT OF CONSUMER AFFAIRS PRESCRIBES STANDARD PACK SIZES FOR EDIBLE OILS UNDER LEGAL METROLOGY FRAMEWORK



Key Highlights

- I. Standard pack sizes have been notified for major edible oils and blended edible oils.
- II. The reform aims to:
 - A. Improve consumer awareness.
 - B. Enable easy price comparison.
 - C. Reduce market confusion caused by non-standard pack sizes.
- III. Applicable to both:
 - A. Domestically manufactured edible oils.

B. Imported edible oils.

Standard Pack Sizes Prescribed

The notified standard pack sizes are:

- 200 ml/g
- 500 ml/g
- 1 litre/kg
- 2 litre/kg
- 3 litre/kg
- 4 litre/kg
- 5 litre/kg
- 15 litre/kg
- 20 litre/kg

BACKGROUND / CONTEXT

Legal Metrology

Legal Metrology Act, 2009

- Regulates:
 - Weights and measures.
 - Packaged commodities.
 - Fair trade practices.
 - Consumer protection.

Legal Metrology (Packaged Commodities) Rules, 2011

- Govern:
 - Labelling requirements.
 - Declaration of net quantity.
 - Consumer information on packaged goods.

KEY REFORMS

1. Standardisation of Pack Sizes

Applies to major edible oils such as:

- Palm oil.
- Soybean oil.
- Sunflower oil.
- Mustard/Rapeseed oil.
- Groundnut oil.
- Sesame oil.
- Rice bran oil.
- Cottonseed oil.
- Corn oil.
- Blended edible oils.

2. Dual Declaration of Quantity

- If quantity is declared in **volume (litres/ml)**, the package must also mention the **equivalent**

weight, improving transparency under the Packaged Commodities Rules.

3. Consumer-Friendly Exemptions

The following are exempt:

- Packs below **200 ml or 200 g**.
- Minor edible oils.

This ensures continued availability of affordable small packs.

SIGNIFICANCE

Consumer Protection

- Enables consumers to compare prices more easily across brands.

Fair Trade Practices

- Discourages misleading packaging and irregular pack sizes.

Market Transparency

- Promotes uniformity in retail packaging.

Ease of Regulation

- Simplifies enforcement under Legal Metrology laws.

Industry Standardisation

- Creates a level playing field for manufacturers and retailers.

CHALLENGES

- Industry adjustment during the transition period.
- Compliance by manufacturers and importers.
- Consumer awareness regarding new pack sizes.
- Monitoring and enforcement by authorities.

WAY FORWARD

- Ensure timely implementation after the transition period.
- Strengthen market surveillance under Legal Metrology.
- Conduct consumer awareness campaigns.
- Extend standardisation where appropriate to other packaged commodities.

KEY HIGHLIGHTS

- **Ministry:** Ministry of Consumer Affairs, Food & Public Distribution.
- **Department:** Department of Consumer Affairs.
- **Framework:** Legal Metrology.
- **Law:** Legal Metrology Act, 2009.

- **Rules:** Legal Metrology (Packaged Commodities) Rules, 2011.
- **Objective:** Standard pack sizes for edible oils.
- **Benefit:** Greater price transparency and informed consumer choice.

PRELIMS BOOSTER BOX

- **Legal Metrology Act:** Enacted in 2009.
- **Packaged Commodities Rules: 2011.**
- **Standard Pack Sizes:** 200 ml/g, 500 ml/g, 1, 2, 3, 4, 5, 15 and 20 litre/kg.
- **Applies To:** Domestic and imported edible oils.
- **Exemptions:** Packs below 200 ml/g and minor edible oils.
- **New Requirement:** Declaration of equivalent weight when quantity is shown in volume.
- **Purpose:** Consumer protection, transparency and fair trade.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding the recent standardisation of edible oil pack sizes:

1. The reform has been introduced under the Legal Metrology framework.
2. Standard pack sizes apply to both domestically manufactured and imported edible oils.
3. Packages below 200 ml or 200 g are exempt from the standard pack size requirement.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

3. MoU BETWEEN DIGITAL INDIA BHASHINI AND KATHMANDU UNIVERSITY (KU) FOR CO-CREATING NATIONAL DIGITAL INFRASTRUCTURE FOR 'VOICE FIRST' LANGUAGE TRANSLATION PLATFORM FOR NEPAL



Key Highlights

- MoU signed between:
 - A. Digital India Bhashini Division (DIBD).
 - B. Kathmandu University (KU).
- Objective:
 - A. Develop Nepal's national **Voice First Language Translation Platform**.
- Focus Areas:
 - A. AI-based language translation.
 - B. Speech recognition.
 - C. Voice-enabled digital services.
 - D. Multilingual digital inclusion.

OBJECTIVES

- Promote:
 - A. Multilingual digital communication.
- Enhance:
 - A. Digital inclusion and accessibility.
- Strengthen:
 - A. India-Nepal digital cooperation.
- Support:
 - A. AI-driven public digital infrastructure.

BACKGROUND / CONTEXT

What is BHASHINI?

BHASHINI (Bhasha Interface for India)

- An AI-powered language technology platform under the **National Language Translation Mission (NLTM)**.
- Developed by the:

Ministry of Electronics and Information Technology (MeitY)

Features

- Speech-to-text.
- Text-to-speech.
- Machine translation.
- Voice-based AI services.
- Multilingual digital accessibility.

What is a 'Voice First' Platform?

A **Voice First** platform enables users to interact primarily through:

- Voice commands.
- Speech recognition.
- Real-time language translation.

Advantages

- I. Improves accessibility for:
 - A. People with low literacy.
 - B. Elderly users.
 - C. Rural populations.
 - D. Persons with disabilities.

Kathmandu University (KU)

Kathmandu University

- I. One of Nepal's leading autonomous universities.
- II. Known for research in:
 - A. Engineering.
 - B. Information Technology.
 - C. Artificial Intelligence.
 - D. Innovation.

SIGNIFICANCE

Digital Public Infrastructure (DPI)

- Expands India's expertise in Digital Public Infrastructure beyond its borders.

India–Nepal Relations

- I. Strengthens bilateral cooperation in:
 - A. Digital technology.

- B. Education.
- C. Artificial Intelligence.

Language Inclusion

- Enables citizens to access digital services in their native languages.

AI Collaboration

- Encourages joint research and innovation in language technologies.

Regional Connectivity

- Promotes digital cooperation in South Asia.

RELATED INITIATIVES

Digital India Programme

- Aims to transform India into a digitally empowered society and knowledge economy.

National Language Translation Mission

- Promotes technology-enabled multilingual communication through BHASHINI.

KEY HIGHLIGHTS

- **Indian Partner:** Digital India Bhashini Division (DIBD).
- **Nepalese Partner:** Kathmandu University.
- **Purpose:** National Voice First Language Translation Platform.
- **Technology:** Artificial Intelligence and Natural Language Processing (NLP).
- **Focus:** Multilingual digital infrastructure.
- **Significance:** Digital diplomacy and India–Nepal cooperation.
- **Outcome:** Improved digital accessibility and language inclusion.

PRELIMS BOOSTER BOX

- **BHASHINI:** Bhasha Interface for India.
- **Mission:** National Language Translation Mission (NLTM).
- **Ministry:** Ministry of Electronics and Information Technology (MeitY).
- **Technology:** AI, Natural Language Processing (NLP), Speech Recognition.
- **Partner Institution:** Kathmandu University, Nepal.
- **Objective:** Voice-based multilingual digital infrastructure.
- **Significance:** Strengthens Digital Public Infrastructure (DPI) and India–Nepal digital cooperation.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. BHASHINI is an AI-powered language platform developed under the National Language Translation Mission.
2. BHASHINI functions under the Ministry of Electronics and Information Technology (MeitY).
3. The recently signed MoU between Digital India Bhashini and Kathmandu University aims to develop a Voice First Language Translation Platform for Nepal.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Answer: (d)

4. PRESIDENT APPOINTS ADDITIONAL JUDGES AS PERMANENT JUDGES OF BOMBAY HIGH COURT



Key Highlights

The following Additional Judges have been appointed as Permanent Judges of the Bombay High Court:

- Justice Shailesh Pramod Brahme
- Justice Firdosh Phiroze Pooniwalla
- Justice Jitendra Shantilal Jain
- Justice Mahendra Arjun Nerlikar
- Justice Firdosh Framroze Daboo

BACKGROUND / CONTEXT

Appointment of High Court Judges

Article 217 of the Constitution

- Provides for the appointment and conditions of service of High Court Judges.

Appointing Authority

- **President of India.**

Appointment is made after consultation with:

- Chief Justice of India
- Governor of the concerned State.
- Chief Justice of the concerned High Court.

Additional Judges

Article 224(1)

Provides for the appointment of **Additional Judges**:

- To deal with:
 - A. Temporary increase in the workload.
 - B. Pendency of cases.

Tenure

- Appointed for a period **not exceeding two years.**
- They may subsequently be appointed as **Permanent Judges**, subject to vacancies and recommendations.

Permanent Judges

- Hold office until attaining the age of:
 - A. **62 years** (for High Court Judges).
- Enjoy the same powers, jurisdiction, and constitutional protections as other High Court Judges.

COLLEGIUM SYSTEM

Recommendation Process

The appointment of High Court Judges follows the **Collegium System**, comprising:

- Chief Justice of India
- Two senior-most judges of the Supreme Court of India (for High Court appointments).

The Collegium recommends names to the Union Government, which advises the President for appointment.

SIGNIFICANCE

Strengthening the Judiciary

- Reduces vacancies in High Courts.

Faster Justice Delivery

- Helps reduce pendency of cases.

Judicial Efficiency

- Enhances disposal of civil and criminal matters.

Access to Justice

- Improves availability of judicial resources.

KEY HIGHLIGHTS

- **Court:** Bombay High Court.
- **Appointment:** Additional Judges appointed as Permanent Judges.
- **Appointing Authority:** President of India.
- **Relevant Articles:** Article 217 and Article 224.
- **Consultation:** CJI, Governor, and Chief Justice of the High Court.
- **Retirement Age of High Court Judges: 62 years.**
- **Objective:** Reduce vacancies and improve judicial functioning.

PRELIMS BOOSTER BOX

- **Article 217:** Appointment and conditions of service of High Court Judges.
- **Article 224:** Appointment of Additional and Acting Judges.
- **Appointing Authority:** President of India.
- **Additional Judge Tenure:** Up to 2 years.
- **Retirement Age (High Court): 62 years.**
- **Collegium for HC Appointments:** CJI + two senior-most Supreme Court judges.
- **Bombay High Court Jurisdiction:** Maharashtra, Goa, and the Union Territories of Dadra and Nagar Haveli and Daman and Diu.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding the appointment of High Court Judges:

1. High Court Judges are appointed by the President of India under Article 217 of the Constitution.
2. Additional Judges are appointed under Article 224 to deal with temporary increases in the workload or backlog of cases.
3. The retirement age of High Court Judges in India is 62 years.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

5. INDIA'S HEALTH TRANSFORMATION



What is India's Health Transformation?

- India's Health Transformation refers to comprehensive reforms focused on:
 - A. Universal healthcare access.
 - B. Affordable medical services.
 - C. Digital health.
 - D. Preventive healthcare.
 - E. Strengthened health infrastructure.

KEY PILLARS OF INDIA'S HEALTH TRANSFORMATION

Universal Health Coverage

Ayushman Bharat

Two major components:

(a) Ayushman Bharat – Pradhan Mantri Jan Arogya Yojana (AB-PMJAY)

- World's largest publicly funded health assurance scheme.
- Provides health insurance coverage for eligible vulnerable families for secondary and tertiary care hospitalization.

(b) Ayushman Arogya Mandir (formerly Health and Wellness Centres)

- Strengthens comprehensive primary healthcare.

- Provides preventive, promotive, curative, rehabilitative, and palliative care.

Digital Health Revolution

Ayushman Bharat Digital Mission (ABDM)

Objectives:

- Create a digital health ecosystem.
- Enable seamless sharing of health records.
- Improve healthcare accessibility.

Key Features:

- ABHA (Ayushman Bharat Health Account).
- Digital Health Records.
- Healthcare Professional Registry.
- Health Facility Registry.

Health Infrastructure Expansion

Major initiatives include:

- New AIIMS institutions.
- Upgraded district hospitals.
- Expansion of medical colleges.
- Increased ICU and critical care facilities.

Affordable Medicines

Pradhan Mantri Bhartiya Janaushadhi Pariyojana

- Provides quality generic medicines at affordable prices through Jan Aushadhi Kendras.

Preventive Healthcare

Focus on:

- Immunization.
- Maternal and child health.
- Non-communicable disease screening.
- Nutrition.
- Sanitation and hygiene.

OTHER MAJOR INITIATIVES

Mission Indradhanush

- Expands immunization coverage for children and pregnant women.

POSHAN Abhiyaan

- Addresses malnutrition among women and children.

National Health Mission

- Strengthens healthcare delivery in rural and urban areas.

SIGNIFICANCE

Improved Healthcare Access

- Expands healthcare services to underserved populations.

Financial Protection

- Reduces out-of-pocket expenditure on healthcare.

Digital Governance

- Improves efficiency through digital health infrastructure.

Human Capital Development

- Enhances productivity through better health outcomes.

Inclusive Development

- Supports equitable access to healthcare services.

CHALLENGES

- Regional disparities in healthcare access.
- Shortage of healthcare professionals.
- High burden of non-communicable diseases.
- Urban-rural healthcare gap.
- Need for higher public health expenditure.

WAY FORWARD

- Increase investment in public healthcare.
- Strengthen primary healthcare services.
- Expand digital health infrastructure.
- Improve availability of skilled healthcare professionals.
- Promote preventive and community-based healthcare.

KEY HIGHLIGHTS

- **Flagship Scheme:** Ayushman Bharat.
- **Digital Initiative:** Ayushman Bharat Digital Mission (ABDM).
- **Affordable Medicines:** PM Bhartiya Janaushadhi Pariyojana.
- **Primary Healthcare:** Ayushman Arogya Mandirs.
- **Immunization:** Mission Indradhanush.
- **Nutrition:** POSHAN Abhiyaan.
- **Goal:** Universal Health Coverage (UHC).

PRELIMS BOOSTER BOX

- **Ayushman Bharat:** Umbrella programme for Universal Health Coverage.

- **AB-PMJAY:** Health assurance scheme for eligible vulnerable families.
- **Ayushman Arogya Mandir:** Comprehensive primary healthcare centres (formerly Health and Wellness Centres).
- **ABDM:** Ayushman Bharat Digital Mission.
- **ABHA:** Ayushman Bharat Health Account.
- **PMBJP:** Provides affordable generic medicines.
- **National Health Mission:** Strengthens public healthcare delivery.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Ayushman Bharat comprises both AB-PMJAY and Ayushman Arogya Mandirs.
2. The Ayushman Bharat Digital Mission (ABDM) aims to create a nationwide digital health ecosystem.
3. Pradhan Mantri Bhartiya Janaushadhi Pariyojana provides affordable generic medicines through Jan Aushadhi Kendras.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

1. INDIA'S BIODIVERSITY: COMMITMENTS AND ACHIEVEMENTS



What is Biodiversity?

Biodiversity

- I. Refers to the variety of:
 - A. Genes
 - B. Species
 - C. Ecosystems
- II. Biodiversity supports:
 - A. Ecological balance.
 - B. Food security.
 - C. Climate resilience.
 - D. Human well-being.

INDIA'S BIODIVERSITY PROFILE

Key Facts

- India occupies about **2.4%** of the world's land area.
- Hosts nearly **8% of recorded global species diversity**.
- Recognized as one of the world's **17 megadiverse countries**.

Biodiversity Hotspots in India

Himalaya Biodiversity Hotspot

Western Ghats

Indo-Burma Biodiversity Hotspot

Sundaland Biodiversity Hotspot (Nicobar Islands)

GLOBAL COMMITMENTS

Convention on Biological Diversity (CBD)

Convention on Biological Diversity

- Adopted at the:

Earth Summit 1992

Objectives

- Conservation of biodiversity.
- Sustainable use of biological resources.
- Fair and equitable sharing of benefits arising from genetic resources.

Kunming-Montreal Global Biodiversity Framework (GBF)

Kunming-Montreal Global Biodiversity Framework

- Adopted under CBD.

Key Target

- Protect and effectively conserve **30% of land and marine areas by 2030** ("30x30 Target").

INDIA'S BIODIVERSITY ACHIEVEMENTS

Protected Area Network

India has expanded:

- National Parks
- Wildlife Sanctuaries
- Conservation Reserves
- Community Reserves

Examples:

Kaziranga National Park

Gir National Park

Species Conservation

Project Tiger

- Launched in 1973.

Achievement

- India hosts the world's largest tiger population.

Project Elephant

- Focuses on elephant conservation and habitat protection.

Biodiversity Governance

Biological Diversity Act, 2002

- Enacted to implement CBD obligations.

Institutional Mechanism

National Biodiversity Authority

- Regulates access to biological resources and benefit-sharing.

Ecosystem Restoration

- Mangrove conservation.
- Wetland restoration.
- Afforestation programmes.

CHALLENGES

- Habitat loss and fragmentation.
- Climate change impacts.

- Invasive alien species.
- Human-wildlife conflict.
- Illegal wildlife trade.

WAY FORWARD

- Strengthen:
 - Community-based conservation.
- Enhance:
 - Ecosystem restoration initiatives.
- Improve:
 - Biodiversity monitoring and research.
- Integrate:
 - Biodiversity considerations into development planning.
- Promote:
 - Nature-based solutions for climate resilience.

SIGNIFICANCE

Ecological Security

- Maintains ecosystem services.

Climate Resilience

- Supports adaptation and mitigation efforts.

Livelihood Security

- Sustains millions dependent on natural resources.

Sustainable Development

- Contributes to long-term economic and environmental well-being.

KEY HIGHLIGHTS

- **India:** One of 17 megadiverse countries.
- **Global Treaty:** Convention on Biological Diversity (CBD).
- **National Law:** Biological Diversity Act, 2002.
- **Authority:** National Biodiversity Authority (NBA).
- **Flagship Programme:** Project Tiger.
- **Global Target:** 30x30 under Kunming-Montreal GBF.
- **Challenge:** Habitat loss and climate change.

PRELIMS BOOSTER BOX

- **CBD:** Convention on Biological Diversity.
- **Earth Summit:** Rio de Janeiro, 1992.
- **Biological Diversity Act:** 2002.
- **National Biodiversity Authority:** Statutory body under the Act.
- **Project Tiger:** Launched in 1973.

- **Megadiverse Country:** India is among 17 globally recognized megadiverse nations.
- **30x30 Target:** Protect 30% of land and marine areas by 2030.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

- The Biological Diversity Act, 2002 was enacted to implement India's commitments under the Convention on Biological Diversity.
- The National Biodiversity Authority is a statutory body established under the Biological Diversity Act, 2002.
- Project Tiger was launched before the enactment of the Biological Diversity Act.

Which of the statements given above is/are correct?

- 1 and 2 only
- 2 and 3 only
- 1 and 3 only
- 1, 2 and 3

Answer: (d)

2. NATIONAL INSTITUTE OF SOWA-RIGPA ORGANIZES PLANTATION AND CLEANLINESS DRIVE ON WORLD ENVIRONMENT DAY



Key Highlights

- Plantation drive conducted to promote:
 - Afforestation.
 - Ecological restoration.
 - Conservation of medicinal plants.
- Cleanliness campaign organized to:

- A. Encourage environmental responsibility.
- B. Promote community participation.
- III. Event observed as part of **World Environment Day** celebrations.

ABOUT SOWA-RIGPA

Sowa-Rigpa

- I. Literally means:
 - A. "Science of Healing."
- II. One of the recognized AYUSH systems in India.
- III. Practiced mainly in:
 - A. Ladakh
 - B. Himachal Pradesh
 - C. Sikkim
 - D. Arunachal Pradesh and Himalayan regions.

Features

- I. Uses:
 - A. Herbal medicines.
 - B. Mineral-based formulations.
 - C. Traditional diagnostic methods.

ABOUT NATIONAL INSTITUTE OF SOWA-RIGPA (NISR)

National Institute of Sowa-Rigpa

Ministry

- Functions under the:

Ministry of AYUSH

Functions

- Education and training.
- Research in Sowa-Rigpa medicine.
- Conservation of medicinal plants.
- Promotion of traditional healthcare systems.

WORLD ENVIRONMENT DAY

- I. Celebrated annually on:
 - A. **5 June**
- II. Led by:

United Nations Environment Programme

Objective

- I. Raise awareness about:
 - A. Environmental protection.
 - B. Climate action.
 - C. Sustainable development.

SIGNIFICANCE OF THE INITIATIVE

Environmental Conservation

- Supports afforestation and ecological sustainability.

Medicinal Plant Protection

- Conserves valuable medicinal flora used in Sowa-Rigpa.

Community Participation

- Encourages public involvement in environmental stewardship.

Sustainable Lifestyles

- Reinforces the principles of environmental responsibility.

RELATED INITIATIVES

Mission LiFE

- I. Promotes:
 - A. Lifestyle for Environment.

National Mission for Green India

- I. Focuses on:
 - A. Forest and ecosystem restoration.

KEY HIGHLIGHTS

- **Institution:** National Institute of Sowa-Rigpa (NISR).
- **Occasion:** World Environment Day.
- **Activities:** Plantation and cleanliness drive.
- **Location:** Leh, Ladakh.
- **System of Medicine:** Sowa-Rigpa.
- **Ministry:** Ministry of AYUSH.
- **Objective:** Environmental awareness and medicinal plant conservation.

PRELIMS BOOSTER BOX

- **Sowa-Rigpa:** Traditional Tibetan system of medicine.
- **Meaning:** Science of Healing.
- **NISR Location:** Leh, Ladakh.
- **Ministry:** Ministry of AYUSH.
- **World Environment Day:** 5 June.
- **Lead Agency:** UNEP.
- **Related Initiative:** Mission LiFE.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Sowa-Rigpa is a traditional system of medicine recognized under the AYUSH framework in India.

2. The National Institute of Sowa-Rigpa is located in Leh, Ladakh.
3. World Environment Day is observed annually on 5 June under the leadership of UNEP.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

3. IN A MAJOR REFORM, GOVERNMENT ANNOUNCES MEASURES TO DEEPEN G-SEC MARKET AND FACILITATE GREATER FOREIGN PORTFOLIO INVESTMENT (FPI) IN EQUITY SEGMENT



भारतीय प्रतिभूति और विनिमय बोर्ड
Securities and Exchange Board of India

Key Highlights

- I. Reforms target:
 - A. Government securities market.
 - B. Equity market participation by foreign investors.
- II. Objectives include:
 - A. Increasing market depth and liquidity.
 - B. Improving price discovery.
 - C. Enhancing foreign investor confidence.

Objectives

- I. Expand:
 - A. Investor base in Indian financial markets.
- II. Promote:
 - A. Stable capital inflows.
- III. Strengthen:
 - A. Bond market development.
- IV. Improve:

- A. Global competitiveness of India's capital markets.

BACKGROUND / CONTEXT

What are Government Securities (G-Secs)?

Government Securities (G-Secs)

- I. Debt instruments issued by:
 - A. The Government of India.
- II. Used for:
 - A. Financing fiscal requirements.

Types

- Treasury Bills (T-Bills)
- Government Bonds
- State Development Loans (SDLs)

Importance of G-Sec Market

- I. Provides:
 - A. Benchmark interest rates.
- II. Supports:
 - A. Monetary policy transmission.
- III. Facilitates:
 - A. Government borrowing.
- IV. Contributes to:
 - A. Financial market stability.

What is FPI?

Foreign Portfolio Investment (FPI)

- I. Refers to investment by foreign entities in:
 - A. Shares.
 - B. Bonds.
 - C. Other financial securities.
- II. FPIs generally do not seek managerial control.

SIGNIFICANCE OF THE REFORMS

Capital Market Development

- Enhances market liquidity and efficiency.

Foreign Investment

- Attracts global investors to Indian markets.

Lower Cost of Capital

- Greater liquidity may reduce borrowing costs.

Global Financial Integration

- Strengthens India's integration with international capital markets.

Economic Growth

- Supports investment and infrastructure financing.

ROLE OF RBI AND SEBI

Reserve Bank of India

- I. Regulates:
 - A. Government securities market.
 - B. Debt market operations.

Securities and Exchange Board of India

- I. Regulates:
 - A. Capital markets.
 - B. Foreign portfolio investments.

CHALLENGES

- Managing volatile capital flows.
- Exposure to global financial shocks.
- Currency market fluctuations.
- Maintaining financial stability.

WAY FORWARD

- I. Strengthen:
 - A. Market infrastructure.
- II. Enhance:
 - A. Transparency and investor protection.
- III. Broaden:
 - A. Domestic and international investor participation.
- IV. Balance:
 - A. Market openness with financial stability safeguards.

KEY HIGHLIGHTS

- **Reform Area:** G-Sec market and FPI participation.
- **G-Secs:** Sovereign debt instruments.
- **FPI:** Foreign investment in securities without management control.
- **Regulators:** RBI and SEBI.
- **Objective:** Market depth, liquidity, and investment inflows.
- **Benefit:** Stronger and more globally integrated capital markets.
- **Importance:** Supports economic growth and financing needs.

PRELIMS BOOSTER BOX

- **G-Sec:** Government Security issued by the Government of India.
- **Examples:** Treasury Bills, Government Bonds.
- **FPI:** Foreign Portfolio Investment.
- **Regulator of Securities Market:** SEBI.

- **Debt Market Regulator:** RBI.
- **FPI Characteristic:** No managerial control.
- **Importance:** Capital market development and liquidity enhancement.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Government Securities (G-Secs) are sovereign debt instruments issued by the Government of India.
2. Foreign Portfolio Investors (FPIs) generally invest in financial securities without seeking management control.
3. The Securities and Exchange Board of India (SEBI) regulates foreign portfolio investments in the Indian securities market.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

4. INDIA SHOWCASES CARBON CREDIT TRADING SCHEME AND RENEWABLE ENERGY STANDARDS AT WTO TRADE AND ENVIRONMENT WEEK 2026



Key Highlights

- I. India presented:
 - A. Carbon Credit Trading Scheme (CCTS).
 - B. Renewable Energy Standards and related regulatory measures.
- II. Focus areas:
 - A. Climate mitigation.
 - B. Energy transition.

- C. Sustainable development.
- D. Trade–environment linkages.

Objectives

- I. Reduce:
 - A. Greenhouse gas emissions.
- II. Promote:
 - A. Renewable energy deployment.
- III. Encourage:
 - A. Energy efficiency and low-carbon technologies.
- IV. Strengthen:
 - A. India's climate commitments under international frameworks.

BACKGROUND / CONTEXT

World Trade Organization (WTO)

World Trade Organization

- I. Established in:
 - A. 1995.
- II. Headquarters:
 - A. Geneva

Functions

- Regulates international trade.
- Facilitates trade negotiations.
- Resolves trade disputes.
- Promotes transparency in trade policies.

Trade and Environment Week

- I. Platform for discussions on:
 - A. Sustainable trade.
 - B. Climate policies.
 - C. Environmental standards.
 - D. Green transition strategies.

CARBON CREDIT TRADING SCHEME (CCTS)

Carbon Credit Trading Scheme

What is it?

- I. A market-based mechanism that:
 - A. Assigns tradable carbon credits.
 - B. Incentivizes emission reductions.

How It Works

- Entities reducing emissions beyond prescribed levels may earn credits.
- Credits can be traded in carbon markets.

Benefits

- Cost-effective emission reduction.

- Encourages innovation.
- Promotes energy efficiency.

RENEWABLE ENERGY STANDARDS

Purpose

- Increase the share of renewable energy in the energy mix.

Sources Covered

- Solar energy.
- Wind energy.
- Small hydropower.
- Biomass energy.

Significance

- Supports clean energy adoption.
- Enhances energy security.
- Reduces fossil fuel dependence.

INDIA'S CLIMATE COMMITMENTS

Panchamrit Announcements

Made at:

COP26

Key goals include:

- Expansion of non-fossil fuel energy capacity.
- Reduction in emissions intensity.
- Achievement of net-zero emissions by 2070.

SIGNIFICANCE

Climate Action

- Supports mitigation of greenhouse gas emissions.

Green Growth

- Promotes sustainable industrial development.

Energy Security

- Reduces dependence on imported fossil fuels.

International Leadership

- Demonstrates India's role in global climate governance.

Trade Competitiveness

- Helps Indian industries adapt to emerging green trade standards.

CHALLENGES

- Carbon market infrastructure development.
- Monitoring, reporting and verification (MRV).
- Financing clean technologies.
- Balancing development needs with climate goals.

WAY FORWARD

- I. Strengthen:
 - A. Domestic carbon markets.
- II. Expand:
 - A. Renewable energy capacity.
- III. Improve:
 - A. Emissions monitoring systems.
- IV. Promote:
 - A. Green finance and innovation.
- V. Enhance:
 - A. International cooperation on climate and trade.

KEY HIGHLIGHTS

- **Event:** WTO Trade and Environment Week 2026.
- **Organization:** WTO.
- **Indian Initiative:** Carbon Credit Trading Scheme (CCTS).
- **Focus:** Renewable energy standards and climate action.
- **Approach:** Market-based emission reduction.
- **Climate Goal:** Net-zero emissions by 2070.
- **Importance:** Green growth and sustainable development.

PRELIMS BOOSTER BOX

- **WTO Headquarters:** Geneva, Switzerland.
- **Carbon Credit:** Tradable certificate representing reduced emissions.
- **CCTS:** Carbon Credit Trading Scheme of India.
- **Purpose:** Market-based climate mitigation.
- **Renewable Sources:** Solar, wind, biomass, hydropower.
- **COP26:** Glasgow Climate Conference (2021).
- **India's Net-Zero Target:** 2070.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Carbon credit trading is a market-based mechanism for incentivizing emission reductions.
2. Renewable energy standards aim to increase the share of clean energy sources in the energy mix.
3. The World Trade Organization (WTO) is headquartered in Geneva, Switzerland.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

5. PANCHAYAT ADVANCEMENT INDEX (PAI) WINS GOLD RECOGNITION AT NATIONAL e-GOVERNANCE AWARDS 2026



पंचायती राज मंत्रालय

Ministry of Panchayati Raj

Key Highlights

- I. PAI received Gold Recognition at the National e-Governance Awards 2026.
- II. Supports:
 - A. Data-driven governance.
 - B. Performance assessment of Panchayats.
 - C. Localization of Sustainable Development Goals (SDGs).
- III. Facilitates informed planning and monitoring at the grassroots level.

WHAT IS THE PANCHAYAT ADVANCEMENT INDEX (PAI)?

Panchayat Advancement Index (PAI)

- A multidimensional assessment framework developed to evaluate the performance of Gram Panchayats.

Objectives

- Measure progress of Panchayats across development indicators.
- Promote evidence-based planning.
- Strengthen accountability and transparency.
- Support achievement of local development goals.

BACKGROUND / CONTEXT

Ministry Responsible

Ministry of Panchayati Raj

- I. The Ministry promotes:
 - A. Decentralized governance.
 - B. Rural development.
 - C. Panchayat empowerment.

Constitutional Basis

73rd Constitutional Amendment Act, 1992

Key Features

- Constitutional status to Panchayats.
- Establishment of a three-tier Panchayati Raj system.
- Promotion of democratic decentralization.

PAI AND LOCALIZATION OF SDGs

Localization of Sustainable Development

Goals (LSDGs)

- Adapts global SDGs to local governance priorities.

Major Themes Covered by PAI

- Poverty reduction.
- Health.
- Education.
- Water and sanitation.
- Infrastructure.
- Social justice.
- Environmental sustainability.
- Good governance.

NATIONAL e-GOVERNANCE AWARDS

Objective

- I. Recognize excellence in:
 - A. Digital governance.
 - B. Public service delivery.
 - C. Innovation in administration.

Importance

- Encourages adoption of technology for citizen-centric governance.

SIGNIFICANCE OF PAI

Evidence-Based Governance

- Enables data-driven decision-making.

Transparency and Accountability

- Improves monitoring of Panchayat performance.

Grassroots Development

- Helps identify development gaps.

Decentralized Planning

- Strengthens local self-governance.

SDG Achievement

- Supports progress towards Sustainable Development Goals.

CHALLENGES

- Data quality and timely reporting.
- Capacity constraints at local levels.
- Digital infrastructure gaps.
- Need for continuous monitoring and training.

WAY FORWARD

- I. Strengthen:
 - A. Digital capacity of Panchayats.
- II. Improve:
 - A. Data collection and verification mechanisms.
- III. Promote:
 - A. Community participation in local planning.
- IV. Integrate:
 - A. PAI findings into development planning and resource allocation.

KEY HIGHLIGHTS

- **Award:** National e-Governance Awards 2026 (Gold Recognition).
- **Initiative:** Panchayat Advancement Index (PAI).
- **Ministry:** Ministry of Panchayati Raj.
- **Objective:** Measure Panchayat performance and development outcomes.
- **Constitutional Basis:** 73rd Constitutional Amendment Act, 1992.
- **Focus:** Data-driven governance and SDG localization.
- **Importance:** Strengthening grassroots democracy.

PRELIMS BOOSTER BOX

- **PAI:** Panchayat Advancement Index.
- **Purpose:** Assessment of Panchayat performance.

- **Ministry:** Ministry of Panchayati Raj.
- **73rd Constitutional Amendment:** Constitutional status to Panchayats.
- **LSDGs:** Localization of Sustainable Development Goals.
- **National e-Governance Awards:** Recognize excellence in digital governance.
- **Significance:** Transparency, accountability, and rural development.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Panchayat Advancement Index (PAI) is used to assess the performance of Panchayati Raj Institutions.
2. The 73rd Constitutional Amendment Act provided constitutional status to Panchayats.
3. Localization of Sustainable Development Goals involves adapting SDG targets to local governance and development priorities.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

1. INDIA'S GREEN TRANSFORMATION



What is Green Transformation?

- I. Green Transformation refers to the transition towards:
 - A. Low-carbon development.
 - B. Sustainable resource use.
 - C. Clean energy systems.
 - D. Climate-resilient economic growth.
- II. It seeks to:
 - A. Reduce environmental degradation.
 - B. Improve energy security.
 - C. Promote sustainable livelihoods.

KEY PILLARS OF INDIA'S GREEN TRANSFORMATION

Renewable Energy Expansion

National Solar Mission

- Promotes large-scale solar energy deployment.

India is rapidly expanding:

- Solar energy
- Wind energy
- Hydropower
- Bioenergy

Green Hydrogen Economy

National Green Hydrogen Mission

- I. Aims to make India a global hub for:
 - A. Green hydrogen production.
 - B. Export of clean fuels.

Importance

- I. Decarbonization of:
 - A. Industry
 - B. Transport

C. Energy sectors

Electric Mobility

PM E-DRIVE Scheme

- I. Supports adoption of:
 - A. Electric vehicles (EVs)
 - B. Charging infrastructure

Benefits:

- Reduced fossil fuel dependence.
- Lower emissions.

Energy Efficiency

Bureau of Energy Efficiency

Key initiatives:

- Energy-efficient appliances.
- Industrial energy conservation.
- Building energy efficiency.

Sustainable Lifestyles

Mission LiFE

Lifestyle for Environment (LiFE) promotes:

- Sustainable consumption.
- Resource conservation.
- Environment-friendly behavioural changes.

INDIA'S CLIMATE COMMITMENTS

Panchamrit Commitments

Announced at:

COP26

Key goals include:

- Expansion of non-fossil fuel energy capacity.
- Reduction in carbon intensity.
- Progress toward net-zero emissions by 2070.

BENEFITS OF GREEN TRANSFORMATION

Environmental Benefits

- Reduced greenhouse gas emissions.
- Improved air quality.

Energy Security

- Reduced dependence on imported fossil fuels.

Economic Growth

- New industries and green jobs.

Innovation

- Boosts clean technology development.

Global Leadership

- Strengthens India's role in climate governance.

CHALLENGES

- Financing green infrastructure.
- Grid integration of renewable energy.
- Technology gaps in some sectors.
- Managing transition costs.
- Ensuring a just and inclusive transition.

WAY FORWARD

- I. Accelerate:
 - A. Renewable energy deployment.
- II. Strengthen:
 - A. Green financing mechanisms.
- III. Expand:
 - A. EV infrastructure and battery ecosystems.
- IV. Promote:
 - A. Research and innovation in clean technologies.
- V. Encourage:
 - A. Community participation and sustainable lifestyles.

KEY HIGHLIGHTS

- **Theme:** Green Transformation.
- **Objective:** Sustainable and low-carbon growth.
- **Key Drivers:** Renewable energy, EVs, green hydrogen, energy efficiency.
- **Major Mission:** National Green Hydrogen Mission.
- **Behavioural Initiative:** Mission LiFE.
- **Climate Goal:** Net-zero emissions by 2070.
- **Vision:** Viksit Bharat with environmental sustainability.

PRELIMS BOOSTER BOX

- **National Solar Mission:** Promotes solar energy deployment.
- **National Green Hydrogen Mission:** Green hydrogen production and exports.
- **Mission LiFE:** Lifestyle for Environment.
- **Bureau of Energy Efficiency (BEE):** Promotes energy conservation.
- **PM E-DRIVE:** Supports electric mobility.
- **COP26:** Glasgow Climate Conference (2021).
- **Net Zero Target:** India aims to achieve net-zero emissions by 2070.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Mission LiFE promotes sustainable lifestyles and responsible consumption.
2. The National Green Hydrogen Mission aims to support the production and use of green hydrogen.
3. India has announced a net-zero emissions target for 2070.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

2. APEDA FACILITATES FIRST-EVER SEA SHIPMENT OF BOTANICAL-INFUSED MILLET FUNCTIONAL FOODS FROM KARNATAKA TO NEW ZEALAND



Key Highlights

- I. First sea shipment of botanical-infused millet functional foods exported from Karnataka.
- II. Facilitated by APEDA.
- III. Destination: New Zealand.
- IV. Demonstrates growing international demand for:
 - A. Nutritious foods.
 - B. Functional foods.
 - C. Millet-based products.

Objectives

- I. Promote:
 - A. Millet exports.
- II. Enhance:
 - A. Value addition in agriculture.
- III. Expand:
 - A. Market access for Indian agri-products.

- IV. Support:
- A. Farmers and food processing industries.

BACKGROUND / CONTEXT

What are Functional Foods?

Functional Foods

- I. Foods that offer:
 - A. Additional health benefits beyond essential nutrition.
- II. May help improve:
 - A. Digestive health.
 - B. Immunity.
 - C. Overall well-being.

What are Botanical-Infused Foods?

- I. Food products enriched with:
 - A. Plant extracts.
 - B. Herbs.
 - C. Natural bioactive ingredients.
- II. Designed to provide:
 - A. Enhanced nutritional and wellness benefits.

Millets

Major millets include:

- Bajra (Pearl Millet)
- Jowar (Sorghum)
- Ragi (Finger Millet)

Advantages

- I. Climate-resilient crops.
- II. Low water requirement.
- III. Rich in:
 - A. Fibre
 - B. Minerals
 - C. Micronutrients

ABOUT APEDA

Agricultural and Processed Food Products Export Development Authority

Established Under

APEDA Act, 1985

Ministry

- Functions under the:

Ministry of Commerce & Industry

Functions

- Promotion of agricultural exports.

- Market development.
- Export infrastructure support.
- Quality certification and branding.

SIGNIFICANCE

Boost to Millet Exports

- Expands global markets for Indian millet products.

Value Addition

- Encourages processing and innovation in agriculture.

Farmer Income Enhancement

- Creates higher-value export opportunities.

Nutrition and Health

- Promotes healthy and sustainable food systems.

Global Millet Leadership

- Reinforces India's position as a leading millet producer.

RELATED INITIATIVES

International Year of Millets 2023

- Proposed by India and endorsed by the UN.

Millet Promotion Initiatives

- I. Focus on:
 - A. Production.
 - B. Consumption.
 - C. Export promotion.

KEY HIGHLIGHTS

- **Facilitating Agency:** APEDA.
- **Product:** Botanical-infused millet functional foods.
- **Origin:** Karnataka.
- **Destination:** New Zealand.
- **Mode:** Sea shipment.
- **Importance:** Value-added agricultural exports.
- **Sector:** Millets and functional foods.

PRELIMS BOOSTER BOX

- **APEDA:** Agricultural and Processed Food Products Export Development Authority.
- **Established Under:** APEDA Act, 1985.
- **Ministry:** Ministry of Commerce & Industry.
- **Functional Foods:** Foods with health benefits beyond basic nutrition.

- **Milletts:** Nutri-cereals rich in fibre and micronutrients.
- **International Year of Milletts:** 2023.
- **Significance:** Export diversification and value addition in agriculture.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

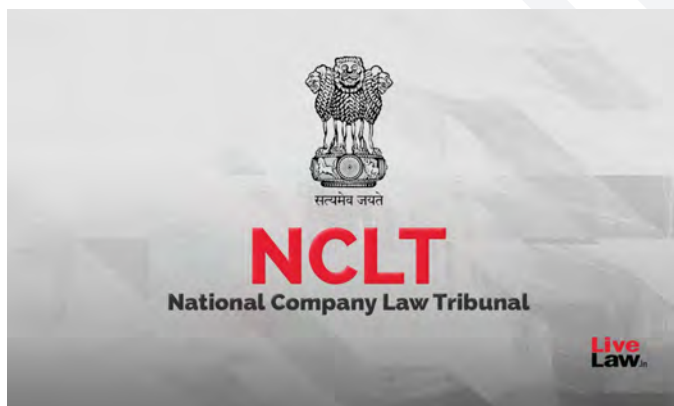
1. APEDA functions under the Ministry of Commerce & Industry.
2. Functional foods provide health benefits beyond basic nutritional value.
3. Milletts are generally climate-resilient crops with relatively low water requirements.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

3. IICA TO HOST NATIONAL CONFERENCE ON A DECADE OF INSOLVENCY REFORMS AND FUTURE OF INDIA'S RESTRUCTURING ECOSYSTEM



Key Highlights

- I. Conference organized by IICA.
- II. Focus on:
 - A. Ten years of insolvency reforms.
 - B. Evolution of the restructuring ecosystem.
 - C. Emerging challenges and opportunities.

- D. Strengthening corporate insolvency resolution.

Objectives

- I. Assess:
 - A. Impact of insolvency reforms.
- II. Improve:
 - A. Resolution processes and outcomes.
- III. Promote:
 - A. Efficient credit markets.
- IV. Strengthen:
 - A. Ease of doing business and investor confidence.

BACKGROUND / CONTEXT

Indian Institute of Corporate Affairs (IICA)

Indian Institute of Corporate Affairs

- Autonomous institution under the:

Ministry of Corporate Affairs

Functions

- Corporate governance research.
- Capacity building.
- Policy support.
- Corporate law and insolvency studies.

INSOLVENCY AND BANKRUPTCY CODE (IBC), 2016

Insolvency and Bankruptcy Code, 2016

Purpose

- I. Consolidated insolvency laws into a single framework.
- II. Provides a time-bound process for:
 - A. Insolvency resolution.
 - B. Bankruptcy proceedings.

Key Objectives of IBC

- Maximize value of assets.
- Promote entrepreneurship.
- Improve availability of credit.
- Balance the interests of stakeholders.
- Facilitate time-bound resolution.

INSTITUTIONAL FRAMEWORK UNDER IBC

Insolvency and Bankruptcy Board of India (IBBI)

- Regulatory authority overseeing implementation of IBC.

National Company Law Tribunal (NCLT)

- Adjudicating authority for corporate insolvency matters.

Insolvency Professionals (IPs)

- Manage insolvency resolution processes.

Committee of Creditors (CoC)

- Composed mainly of financial creditors.
- Plays a key role in approving resolution plans.

SIGNIFICANCE OF INSOLVENCY REFORMS

Improved Credit Culture

- Encourages timely repayment and financial discipline.

Ease of Doing Business

- Enhances investor confidence.

Asset Value Preservation

- Facilitates timely resolution of distressed assets.

Financial Sector Stability

- Supports healthier banking and credit systems.

CHALLENGES

- Delays in resolution processes.
- Capacity constraints in tribunals.
- Large caseloads before NCLTs.
- Complex litigation and appeals.
- Need for stronger cross-border insolvency mechanisms.

WAY FORWARD

- I. Strengthen:
 - A. Institutional capacity of NCLTs.
- II. Reduce:
 - A. Procedural delays.
- III. Improve:
 - A. Recovery rates and resolution efficiency.
- IV. Adopt:
 - A. Modern restructuring practices.
- V. Advance:
 - A. Cross-border insolvency frameworks.

KEY HIGHLIGHTS

- **Organizer:** IICA.
- **Theme:** Decade of Insolvency Reforms.
- **Key Law:** Insolvency and Bankruptcy Code, 2016.

- **Regulator:** IBBI.
- **Adjudicating Authority:** NCLT.
- **Focus:** Corporate restructuring and insolvency resolution.
- **Importance:** Credit discipline and economic growth.

PRELIMS BOOSTER BOX

- **IBC:** Insolvency and Bankruptcy Code, 2016.
- **Regulator:** Insolvency and Bankruptcy Board of India (IBBI).
- **Tribunal:** National Company Law Tribunal (NCLT).
- **Objective:** Time-bound insolvency resolution.
- **Key Stakeholders:** Creditors, debtors, insolvency professionals.
- **Institution:** Indian Institute of Corporate Affairs (IICA).
- **Importance:** Strengthening India's credit and business ecosystem.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding the Insolvency and Bankruptcy Code (IBC), 2016:

1. The Insolvency and Bankruptcy Board of India (IBBI) is the regulatory authority under the IBC framework.
2. The National Company Law Tribunal (NCLT) serves as the adjudicating authority for corporate insolvency cases.
3. One of the objectives of the IBC is the maximization of value of distressed assets.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Answer: (d)

4. INDIA & ZIMBABWE REAFFIRM COMMITMENT TO DEEPEN BILATERAL DEFENCE COOPERATION DURING INAUGURAL JDC MEETING



Key Highlights

- I. First-ever Joint Defence Cooperation (JDC) Meeting held between India and Zimbabwe.
- II. Both sides agreed to deepen defence engagement.
- III. Discussions covered:
 - A. Military training
 - B. Defence technology cooperation
 - C. Institutional exchanges
 - D. Peace and security cooperation

Objectives

- I. Strengthen:
 - A. Bilateral defence ties.
- II. Enhance:
 - A. Capacity building and training.
- III. Promote:
 - A. Defence-industrial cooperation.
- IV. Expand:
 - A. Strategic engagement with Africa.

BACKGROUND / CONTEXT

India–Zimbabwe Relations

- I. Relations are based on:
 - A. Historical solidarity during anti-colonial struggles.
 - B. South–South cooperation.
 - C. Development partnership.
- II. Areas of cooperation include:
 - A. Trade
 - B. Agriculture

- C. Capacity building
- D. Education
- E. Healthcare

Defence Diplomacy

- I. Includes:
 - A. Joint exercises
 - B. Military training
 - C. Defence dialogues
 - D. Technology cooperation
- II. Helps strengthen:
 - A. Strategic partnerships.
 - B. Regional stability.

INDIA'S ENGAGEMENT WITH AFRICA

Importance of Africa

Africa

- I. Strategic region for:
 - A. Trade.
 - B. Energy security.
 - C. Maritime cooperation.
 - D. Global diplomacy.

India's Approach

- Capacity building.
- Human resource development.
- Development assistance.
- Defence cooperation.

SIGNIFICANCE

Strategic Partnership

- Deepens India–Zimbabwe bilateral relations.

Capacity Building

- Supports professional military training and skill enhancement.

Defence Exports

- Creates opportunities for indigenous defence products.

Africa Outreach

- Strengthens India's engagement with African nations.

South–South Cooperation

- Reinforces cooperation among developing countries.

KEY HIGHLIGHTS

- **Countries:** India and Zimbabwe.

- **Event:** Inaugural Joint Defence Cooperation (JDC) Meeting.
- **Focus Areas:** Training, capacity building, defence cooperation.
- **Region:** Africa.
- **Strategic Importance:** Defence diplomacy and Africa outreach.
- **Potential Benefit:** Defence-industrial collaboration.
- **Theme:** Strengthening bilateral security partnership.

PRELIMS BOOSTER BOX

- **JDC:** Joint Defence Cooperation Meeting.
- **Partner Country:** Zimbabwe.
- **Focus:** Defence training and military cooperation.
- **Concept:** Defence Diplomacy.
- **India's Africa Policy:** Capacity building and development partnership.
- **Significance:** Strategic engagement with Africa.
- **Potential Area:** Defence exports and technology cooperation.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Defence diplomacy includes military training, defence dialogues, and strategic cooperation between countries.
2. Zimbabwe is located in Africa.
3. Capacity building is an important component of India's engagement with African countries.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Answer: (d)

5. MY Bharat Receives Guinness World Records Recognition for Largest Participation in an Online Quiz Within One Week



Key Highlights

- I. MY Bharat secured a Guinness World Record.
- II. Record category:
 - A. Largest participation in an online quiz within one week.
- III. Demonstrates:
 - A. Massive youth engagement.
 - B. Digital outreach capabilities.
 - C. Participation-driven governance initiatives.

Objectives Behind the Initiative

- I. Encourage:
 - A. Youth participation.
- II. Promote:
 - A. Civic awareness and knowledge.
- III. Strengthen:
 - A. Nation-building efforts through youth engagement.
- IV. Leverage:
 - A. Digital platforms for mass outreach.

ABOUT MY BHARAT

Mera Yuva Bharat (MY Bharat)

- I. Launched as a dedicated platform for:
 - A. Youth development.
 - B. Volunteerism.
 - C. Civic engagement.

Vision

- I. To create:

- A. Empowered, inspired, and engaged youth.

Focus Areas

- Leadership development.
- Community service.
- Skill enhancement.
- Nation-building activities.

SIGNIFICANCE OF THE ACHIEVEMENT

Youth Empowerment

- Encourages active participation of young citizens.

Digital Governance

- Demonstrates the effectiveness of digital platforms for public engagement.

Social Capital

- Builds a culture of volunteerism and civic responsibility.

Demographic Dividend

- Harnesses the potential of India's large youth population.

GUINNESS WORLD RECORDS

- I. International authority that:
 - A. Verifies and recognizes world records across diverse categories.
- II. Recognition requires:
 - A. Independent verification.
 - B. Compliance with predefined standards.

IMPORTANCE OF YOUTH IN NATION BUILDING

Human Capital

- I. Youth contribute to:
 - A. Innovation.
 - B. Entrepreneurship.
 - C. Economic growth.

Social Transformation

- I. Promote:
 - A. Community development.
 - B. Social awareness.

Democratic Participation

- I. Encourages:
 - A. Responsible citizenship.
 - B. Civic engagement.

KEY HIGHLIGHTS

- **Organization:** MY Bharat.
- **Full Form:** Mera Yuva Bharat.
- **Achievement:** Guinness World Record.
- **Category:** Largest participation in an online quiz within one week.
- **Focus:** Youth engagement and nation building.
- **Approach:** Digital participation platform.
- **Significance:** Harnessing India's demographic dividend.

PRELIMS BOOSTER BOX

- **MY Bharat:** Mera Yuva Bharat.
- **Target Group:** Youth of India.
- **Focus Areas:** Volunteerism, leadership, civic participation.
- **Achievement:** Guinness World Record for online quiz participation.
- **Guinness World Records:** Global record certification body.
- **Importance:** Youth empowerment and digital engagement.
- **Theme:** Participatory nation-building.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. MY Bharat stands for Mera Yuva Bharat.
2. MY Bharat focuses on youth engagement, volunteerism, and leadership development.
3. Guinness World Records is an international organization that verifies and certifies world records.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Answer: (d)

1. THE MIDDLE CLASS JOURNEY: PROGRESS POWERED BY POLICY



Who Constitutes the Middle Class?

- I. Though there is no universally accepted definition, the middle class generally includes households with:
 - A. Stable incomes
 - B. Access to education and healthcare
 - C. Rising consumption capacity
 - D. Aspirations for upward social mobility

Importance of the Middle Class

- I. Acts as:
 - A. A major consumer base.
 - B. A source of skilled workforce.
 - C. A driver of savings and investments.
 - D. A pillar of economic and social stability.

KEY POLICY DRIVERS OF MIDDLE-CLASS GROWTH

Economic Reforms

- I. Liberalization and market-oriented reforms have:
 - A. Expanded employment opportunities.
 - B. Increased income levels.
 - C. Enhanced private sector growth.

Digital Transformation

Digital India Programme

- I. Improved:
 - A. Digital access.
 - B. Online service delivery.
 - C. Financial inclusion.

Unified Payments Interface (UPI)

- I. Revolutionized:
 - A. Digital payments.
 - B. Financial transactions.

Financial Inclusion

Pradhan Mantri Jan Dhan Yojana

- I. Expanded access to:
 - A. Banking services.
 - B. Savings and credit facilities.

Housing

Pradhan Mantri Awas Yojana

- I. Supports:
 - A. Affordable housing for eligible beneficiaries.

Infrastructure Development

- I. Investments in:
 - A. Roads
 - B. Railways
 - C. Airports
 - D. Urban infrastructure
- II. Have improved:
 - A. Connectivity and economic opportunities.

Education and Skill Development

Skill India Mission

- I. Enhances:
 - A. Employability.
 - B. Workforce productivity.

MIDDLE CLASS AS AN ENGINE OF GROWTH

Consumption

- I. Drives demand for:
 - A. Goods and services.

Entrepreneurship

- I. Encourages:
 - A. Start-ups and innovation.

Tax Base

- I. Contributes significantly to:
 - A. Government revenues.

Human Capital

- I. Supports:
 - A. Knowledge-based economic growth.

CHALLENGES

- Rising cost of living.
- Urban housing affordability concerns.
- Employment quality and job security.
- Healthcare and education expenditure.
- Income inequality.

WAY FORWARD

- I. Strengthen:
 - A. Job creation and entrepreneurship.
- II. Improve:
 - A. Urban infrastructure and public services.
- III. Expand:
 - A. Social security and financial protection.
- IV. Promote:
 - A. Skill development and digital literacy.

KEY HIGHLIGHTS

- **Theme:** Progress Powered by Policy.
- **Focus Group:** India's middle class.
- **Drivers:** Economic reforms, digitalization, infrastructure, financial inclusion.
- **Key Programmes:** Digital India, PMJDY, PMAY, Skill India.
- **Importance:** Consumption, innovation, and economic growth.
- **Challenge:** Balancing aspirations with affordability.
- **Goal:** Inclusive and sustainable development.

PRELIMS BOOSTER BOX

- **Digital India:** Enhances digital governance and connectivity.
- **UPI:** Real-time digital payment system.
- **PM Jan Dhan Yojana:** Financial inclusion initiative.
- **PM Awas Yojana:** Affordable housing scheme.
- **Skill India Mission:** Skill development and employability.
- **Middle Class Role:** Consumption, investment, and entrepreneurship.
- **Importance:** Key driver of India's economic growth.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Unified Payments Interface (UPI) facilitates real-time digital financial transactions.
2. Pradhan Mantri Jan Dhan Yojana aims to promote financial inclusion.
3. Infrastructure development can contribute to the growth of the middle class by improving economic opportunities.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

2. CCI APPROVES ACQUISITION OF MACQUARIE AIRFINANCE BY DUBAI AEROSPACE ENTERPRISE (DAE) LTD THROUGH DAE EIRECAM DAC



Key Highlights

- I. CCI approved the proposed acquisition.
- II. The transaction involves:
 - A. Dubai Aerospace Enterprise (DAE) Ltd.
 - B. Macquarie AirFinance.
 - C. DAE Eirecam DAC as the acquisition vehicle.
- III. The deal strengthens DAE's position in the global aircraft leasing market.

Purpose of the Acquisition

- I. Expand:
 - A. Aircraft leasing portfolio.
- II. Increase:
 - A. Global aviation financing capabilities.
- III. Strengthen:
 - A. Presence in commercial aviation asset management.

BACKGROUND / CONTEXT

Competition Commission of India (CCI)

Competition Commission of India

- Statutory body established under:

Competition Act, 2002

- Objective:
 - Prevent anti-competitive practices.
 - Promote and sustain market competition.
 - Protect consumer interests.

Combination Regulation

Under the Competition Act, certain mergers, acquisitions, and amalgamations are termed:

Combinations

- Such transactions require CCI approval if they cross prescribed thresholds.

Dubai Aerospace Enterprise (DAE)

Dubai Aerospace Enterprise

- Global aviation services corporation.
- Operates in:
 - Aircraft leasing
 - Aviation finance
 - Asset management

Macquarie AirFinance

- Engaged in:
 - Aircraft leasing and aviation financing.
- Serves:
 - Airlines and aviation operators worldwide.

AIRCRAFT LEASING INDUSTRY

What is Aircraft Leasing?

- Airlines often lease aircraft instead of purchasing them outright.
- Benefits include:
 - Lower upfront capital requirements.
 - Greater fleet flexibility.
 - Reduced financial risk.

Importance

- Supports:
 - Growth of the aviation sector.
- Facilitates:
 - Fleet modernization and expansion.

SIGNIFICANCE OF THE APPROVAL

Competition Regulation

- Demonstrates:
 - Oversight of major corporate transactions.

Aviation Sector Growth

- Encourages:
 - Investment and consolidation in aviation finance.

Global Capital Flows

- Reflects:
 - Increasing cross-border investment activity.

Consumer Interest

- Ensures:
 - Market competition is not adversely affected.

KEY HIGHLIGHTS

- **Regulator:** Competition Commission of India (CCI).
- **Acquirer:** Dubai Aerospace Enterprise (DAE) Ltd.
- **Target:** Macquarie AirFinance.
- **Acquisition Vehicle:** DAE Eirecam DAC.
- **Sector:** Aircraft leasing and aviation finance.
- **Relevant Law:** Competition Act, 2002.
- **Importance:** Regulation of mergers and acquisitions.

PRELIMS BOOSTER BOX

- **CCI:** Competition Commission of India.
- **Governing Law:** Competition Act, 2002.
- **Key Function:** Regulates anti-competitive practices and combinations.
- **Combination:** Merger, acquisition, or amalgamation requiring approval.
- **Acquirer:** Dubai Aerospace Enterprise (DAE).
- **Target Company:** Macquarie AirFinance.
- **Sector:** Aircraft leasing and aviation finance.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

- The Competition Commission of India was established under the Competition Act, 2002.
- Certain mergers and acquisitions are categorized as "combinations" under the Competition Act.

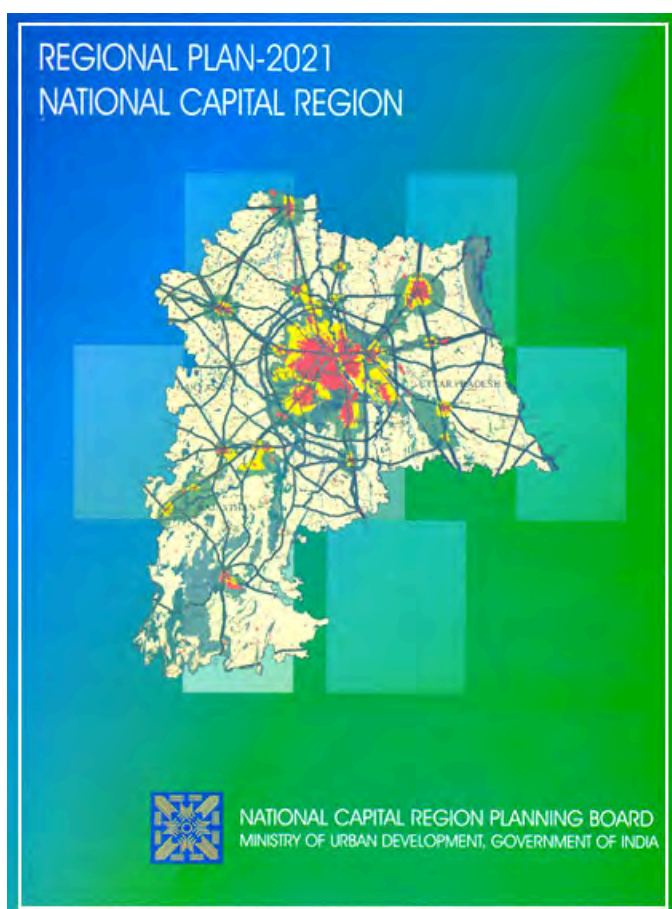
3. Aircraft leasing allows airlines to operate aircraft without necessarily purchasing them outright.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

3. CABINET APPROVES SCHEME FOR SUPPORT TO NCRPB FOR REPLACEMENT OF OLD TRUCKS AND BUSES IN DELHI-NCR AREA



Key Highlights

- I. Financial support to NCRPB for replacing ageing commercial vehicles.
- II. Focus on:
 - A. Old trucks
 - B. Old buses
- III. Part of broader efforts to combat air pollution in the National Capital Region (NCR).

Objectives

- I. Reduce:
 - A. Vehicular emissions.
- II. Improve:
 - A. Ambient air quality.
- III. Promote:
 - A. Cleaner and fuel-efficient vehicles.
- IV. Support:
 - A. Sustainable urban transport.

BACKGROUND / CONTEXT

National Capital Region Planning Board (NCRPB)

National Capital Region Planning Board

- Established under the:

National Capital Region Planning Board Act, 1985

- I. Responsible for:
 - A. Regional planning and coordinated development of the NCR.

National Capital Region (NCR)

National Capital Region

- I. Includes:
 - A. Delhi and adjoining areas of
 - B. Haryana
 - C. Uttar Pradesh
 - D. Rajasthan

Vehicular Pollution in Delhi-NCR

- I. One of the major contributors to:
 - A. Air pollution.
 - B. Particulate Matter (PM_{2.5} and PM₁₀) emissions.
 - C. Nitrogen Oxides (NOx) emissions.
- II. Older vehicles generally:
 - A. Emit more pollutants.
 - B. Have lower fuel efficiency.

RELATED INITIATIVES

Vehicle Scrapping Policy

- Encourages phasing out of old and polluting vehicles.

FAME Scheme

- Promotes adoption of electric and clean mobility solutions.

National Clean Air Programme

- Targets reduction of air pollution in major cities.

SIGNIFICANCE

Environmental Benefits

- I. Reduction in:
 - A. Air pollutants and greenhouse gas emissions.

Public Health

- I. Improved air quality can reduce:
 - A. Respiratory illnesses.
 - B. Cardiovascular diseases.

Sustainable Mobility

- I. Encourages:
 - A. Modern and cleaner transport systems.

Regional Development

- Supports coordinated environmental management in NCR.

CHALLENGES

- High replacement costs.
- Ensuring adequate adoption of cleaner technologies.
- Coordination among multiple NCR states.
- Development of supporting infrastructure.

KEY HIGHLIGHTS

- **Approved By:** Union Cabinet.
- **Implementing Agency:** NCRPB.
- **Focus:** Replacement of old trucks and buses.
- **Region:** Delhi-NCR.
- **Objective:** Reduce vehicular pollution.
- **Related Policy:** Vehicle Scrapping Policy.
- **Importance:** Cleaner air and sustainable transport.

PRELIMS BOOSTER BOX

- **NCRPB:** National Capital Region Planning Board.
- **Governing Law:** NCRPB Act, 1985.
- **Region Covered:** Delhi, Haryana, Uttar Pradesh, and Rajasthan (NCR areas).
- **Major Issue:** Vehicular pollution in Delhi-NCR.
- **Related Initiative:** Vehicle Scrapping Policy.
- **Air Pollution Programme:** National Clean Air Programme (NCAP).
- **Goal:** Cleaner transport and improved air quality.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The National Capital Region Planning Board (NCRPB) was established under the NCRPB Act, 1985.
2. Vehicular emissions are among the major contributors to air pollution in Delhi-NCR.
3. The Vehicle Scrapping Policy aims to phase out old and polluting vehicles.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

4. INDIA REMAINS ENGAGED WITH THE U.S. ON SECTION 301 PROCEEDINGS AND FOR FINALISATION OF A FRAMEWORK AGREEMENT



Key Highlights

- I. Continued engagement between India and the United States on trade matters.
- II. Focus on:
 - A. Resolution of trade concerns.
 - B. Market access issues.
 - C. Bilateral economic cooperation.
 - D. Finalization of a framework agreement.

Objectives

- I. Strengthen:
 - A. India-U.S. trade relations.
- II. Resolve:
 - A. Pending trade disputes.
- III. Promote:

- A. Stable and predictable trade environment.
- IV. Enhance:
 - A. Investment and economic cooperation.

BACKGROUND / CONTEXT

What is Section 301?

Section 301 of the U.S. Trade Act of 1974

- I. Empowers the United States Trade Representative (USTR) to investigate and respond to:
 - A. Unfair trade practices.
 - B. Trade barriers affecting U.S. commerce.
- II. Measures may include:
 - A. Tariffs.
 - B. Trade restrictions.
 - C. Negotiated settlements.

India–U.S. Trade Relations

India – United States Relations

- I. One of the world's most important bilateral economic partnerships.
- II. Key areas include:
 - A. Goods trade.
 - B. Services trade.
 - C. Technology.
 - D. Defence.
 - E. Energy.
 - F. Investment.

Framework Agreement

- I. Intended to:
 - A. Provide a structured mechanism for economic cooperation.
 - B. Address trade concerns through dialogue.
 - C. Facilitate long-term partnership.

SIGNIFICANCE

Economic Importance

- I. Supports:
 - A. Growth in bilateral trade and investment.

Strategic Importance

- I. Strengthens:
 - A. Comprehensive Global Strategic Partnership.

Trade Stability

- I. Helps:
 - A. Reduce uncertainty for businesses and investors.

Global Supply Chains

- I. Enhances:
 - A. Economic resilience and diversification.

CHALLENGES

- Market access concerns.
- Tariff and non-tariff barriers.
- Regulatory differences.
- Digital trade and technology-related issues.
- Balancing domestic policy priorities with international commitments.

WAY FORWARD

- I. Continue:
 - A. Constructive bilateral dialogue.
- II. Promote:
 - A. Rules-based trade cooperation.
- III. Expand:
 - A. Sectoral partnerships in technology, manufacturing, and services.
- IV. Strengthen:
 - A. Institutional mechanisms for dispute resolution.

KEY HIGHLIGHTS

- **Countries Involved:** India and the United States.
- **Issue:** Section 301 proceedings.
- **U.S. Law:** Trade Act of 1974.
- **Objective:** Resolve trade concerns and finalize framework agreement.
- **Focus Areas:** Trade, investment, market access, economic cooperation.
- **Importance:** Strengthening bilateral economic partnership.
- **Approach:** Dialogue and negotiated solutions.

PRELIMS BOOSTER BOX

- **Section 301:** Provision under the U.S. Trade Act of 1974.
- **Authority:** U.S. Trade Representative (USTR).
- **Purpose:** Investigate and address perceived unfair trade practices.

- **India–U.S. Relations:** Comprehensive Global Strategic Partnership.
- **Key Areas:** Trade, technology, defence, energy, investment.
- **Framework Agreement:** Mechanism for structured economic cooperation.
- **Significance:** Trade stability and stronger bilateral ties.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Section 301 is a provision under the U.S. Trade Act of 1974.
2. The U.S. Trade Representative (USTR) is responsible for conducting Section 301 investigations.
3. Section 301 proceedings may lead to tariffs or negotiated trade settlements.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Answer: (d)

5. NPCI INTERNATIONAL AND ACLEDA BANK LAUNCH CROSS-BORDER UPI PAYMENTS IN CAMBODIA VIA KHQR, CAMBODIA'S NATIONAL QR CODE



Key Highlights

- UPI payments are now interoperable with Cambodia's KHQR system.
- Indian users can pay directly through UPI applications.

- Strengthens digital payment connectivity between India and Cambodia.
- Promotes fast, secure, and low-cost cross-border transactions.

Objectives

- I. Facilitate:
 - A. Seamless cross-border retail payments.
- II. Promote:
 - A. Financial connectivity and digital inclusion.
- III. Enhance:
 - A. Convenience for tourists, businesses, and travelers.
- IV. Expand:
 - A. Global acceptance of India's UPI ecosystem.

BACKGROUND / CONTEXT

What is UPI?

Unified Payments Interface (UPI)

- I. Developed by:
National Payments Corporation of India
- II. Real-time payment system enabling:
 - A. Instant fund transfers.
 - B. Mobile-based digital payments.
 - C. Interoperable banking transactions.

NPCI International Payments Limited (NIPL)

NPCI International Payments Limited

- I. International arm of NPCI.
- II. Responsible for:
 - A. Expanding UPI globally.
 - B. Facilitating international payment partnerships.

What is KHQR?

KHQR

- I. Cambodia's national QR code payment framework.
- II. Developed to:
 - A. Standardize QR-based digital payments.
 - B. Improve interoperability across payment providers.

ACLEDA Bank

ACLEDA Bank Plc

- One of Cambodia's leading commercial banks.

- Plays a major role in the country's digital payment ecosystem.

SIGNIFICANCE

Internationalization of UPI

- Expands India's digital public infrastructure globally.

Ease of Travel

- Enables Indian travelers to make payments without currency exchange hassles.

Financial Connectivity

- Strengthens India–Cambodia economic and technological cooperation.

Digital Economy Growth

- Promotes cashless transactions and fintech innovation.

Soft Power and Digital Diplomacy

- Enhances India's leadership in digital payment systems.

UPI'S GLOBAL EXPANSION

Countries/regions where UPI-linked payment arrangements have been introduced include:

- Singapore
- United Arab Emirates
- France
- Sri Lanka
- Mauritius
- Nepal
- Bhutan
- Now expanding further into Cambodia.

KEY HIGHLIGHTS

- **Indian Entity:** NPCI International Payments Limited (NIPL).
- **Cambodian Partner:** ACLEDA Bank.
- **Payment System:** UPI.
- **QR Standard:** KHQR.
- **Purpose:** Cross-border digital payments.
- **Benefit:** Seamless payments for Indian users in Cambodia.
- **Significance:** Global expansion of India's Digital Public Infrastructure.

PRELIMS BOOSTER BOX

- **UPI:** Unified Payments Interface.
- **Developer:** National Payments Corporation of India (NPCI).

- **International Arm:** NPCI International Payments Limited (NIPL).
- **KHQR:** Cambodia's National QR Code Standard.
- **Partner Bank:** ACLEDA Bank Plc.
- **Key Benefit:** Cross-border interoperable QR payments.
- **Importance:** Internationalization of India's Digital Public Infrastructure (DPI).

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Unified Payments Interface (UPI) was developed by the National Payments Corporation of India (NPCI).
2. NPCI International Payments Limited (NIPL) is responsible for promoting UPI internationally.
3. KHQR is Cambodia's national QR code payment standard.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Answer: (d)

1. INDIA HAS IMMENSE POTENTIAL TO EMERGE AS A GLOBAL LEADER IN BIO-ECONOMY AND BIO-BASED AGRI-INPUT SECTOR: SHRI TEJVEER SINGH



Key Highlights

- Bio-based agricultural inputs are gaining importance as sustainable alternatives to chemical-intensive agriculture.
- India's biotechnology ecosystem is expanding rapidly.
- Focus on innovation, research, and commercialization of bio-based products.

Objectives

- I. Promote:
 - A. Sustainable agriculture
- II. Reduce:
 - A. Dependence on chemical fertilizers and pesticides
- III. Encourage:
 - A. Indigenous biotechnology solutions
- IV. Support:
 - A. Climate-resilient and environmentally friendly farming

BACKGROUND / CONTEXT

What is Bio-Economy?

Bioeconomy

- I. Refers to economic activities derived from:
 - A. Biological resources
 - B. Biotechnology
 - C. Life sciences innovation
- II. Covers sectors such as:
 - A. Agriculture
 - B. Healthcare

- C. Food processing
- D. Bioenergy
- E. Industrial biotechnology

Bio-Based Agri-Inputs

These are agricultural inputs derived from biological sources.

Examples include:

Biofertilizers

- Enhance soil fertility through beneficial microorganisms.

Biopesticides

- Control pests using natural organisms and substances.

Biostimulants

- Improve crop productivity and stress tolerance.

IMPORTANCE FOR INDIA

Agricultural Sustainability

- I. Reduces:
 - A. Soil degradation
 - B. Chemical contamination
- II. Promotes:
 - A. Long-term soil health

Climate Resilience

- I. Supports:
 - A. Environment-friendly farming practices
- II. Helps reduce:
 - A. Greenhouse gas emissions from agriculture

Economic Growth

- I. Creates:
 - A. New industries and employment opportunities
- II. Enhances:
 - A. Value addition through biotechnology

Export Potential

- I. Opens opportunities for:
 - A. Global markets in bio-based agricultural products

GOVERNMENT INITIATIVES

National Mission on Sustainable Agriculture

- Promotes sustainable farming practices.

National Biopharma Mission

- Strengthens biotechnology innovation and commercialization.

Department of Biotechnology

- Supports research and development in biotechnology sectors.

CHALLENGES

- I. Need for:
 - A. Greater farmer awareness
- II. Scaling up:
 - A. Production and commercialization
- III. Strengthening:
 - A. Regulatory frameworks and quality standards
- IV. Enhancing:
 - A. Research-industry linkages

KEY HIGHLIGHTS

- **Theme:** Bio-Economy and Bio-Based Agri-Inputs.
- **Focus:** Sustainable agriculture and biotechnology.
- **Key Products:** Biofertilizers, biopesticides, biostimulants.
- **Benefits:** Soil health, climate resilience, reduced chemical use.
- **Potential:** Global leadership in bio-based solutions.
- **Supporting Sector:** Biotechnology.
- **Goal:** Green growth and sustainable agriculture.

PRELIMS BOOSTER BOX

- **Bioeconomy:** Economy based on biological resources and biotechnology.
- **Biofertilizers:** Microbial products that improve soil fertility.
- **Biopesticides:** Biological agents used for pest control.
- **Biostimulants:** Products that enhance plant growth and resilience.
- **Key Benefit:** Sustainable and environmentally friendly agriculture.
- **Supporting Institution:** Department of Biotechnology (DBT).
- **Importance:** Climate-resilient agriculture and green economic growth.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Biofertilizers improve soil fertility through biological processes.
2. Biopesticides are derived from biological sources and can be used for pest management.
3. The bioeconomy encompasses sectors such as agriculture, healthcare, and industrial biotechnology.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

2. FROM WELFARE TO WOMEN-LED DEVELOPMENT



What is Women-Led Development?

- I. Women-Led Development goes beyond:
 - A. Welfare
 - B. Protection
 - C. Reservation
- II. It emphasizes:
 - A. Leadership roles for women
 - B. Economic participation
 - C. Entrepreneurship
 - D. Decision-making power
 - E. Equal participation in nation-building

Evolution of the Approach

Phase I: Welfare Approach

- I. Focus on:
 - A. Health

- B. Nutrition
- C. Basic welfare measures

Phase II: Women Development

- I. Focus on:
 - A. Education
 - B. Skill development
 - C. Employment opportunities

Phase III: Women-Led Development

- I. Focus on:
 - A. Leadership
 - B. Entrepreneurship
 - C. Innovation
 - D. Governance participation

KEY PILLARS OF WOMEN-LED DEVELOPMENT

Economic Empowerment

- I. Promoting:
 - A. Entrepreneurship
 - B. Financial inclusion
 - C. Livelihood generation

Relevant Initiatives

- Deendayal Antyodaya Yojana–National Rural Livelihoods Mission (DAY-NRLM)
- PM MUDRA Yojana
- Stand Up India Scheme

Political Participation

- I. Increased representation in:
 - A. Panchayati Raj Institutions
 - B. Local governance
 - C. Legislative bodies

Constitutional Basis

- I. **73rd and 74th Constitutional Amendments**
 - A. Reservation for women in local self-government institutions.

Education and Skill Development

- I. Improving:
 - A. Literacy
 - B. Digital skills
 - C. Technical education

Initiative

- Beti Bachao Beti Padhao

Financial Inclusion

- I. Enhancing access to:

- A. Banking services
- B. Credit
- C. Insurance

Initiative

- Pradhan Mantri Jan Dhan Yojana

Health and Nutrition

- I. Improving:
 - A. Maternal health
 - B. Reproductive healthcare
 - C. Nutritional outcomes

Initiative

- Pradhan Mantri Matru Vandana Yojana

ROLE OF SELF-HELP GROUPS (SHGs)

SHGs as Catalysts

- I. Women's SHGs have emerged as:
 - A. Economic institutions
 - B. Social support networks
 - C. Grassroots leadership platforms

Important Programme

- Lakhpati Didi Initiative
- Aims to enable women members of SHGs to achieve sustainable annual incomes

SIGNIFICANCE

Inclusive Growth

- I. Ensures:
 - A. Broader participation in economic development.

Poverty Reduction

- I. Enhances:
 - A. Household incomes and financial resilience.

Social Transformation

- I. Promotes:
 - A. Gender equality and social inclusion.

Demographic Dividend

- I. Utilizes:
 - A. The productive potential of half the population.

CHALLENGES

- Gender wage gap.
- Low female labour force participation in some sectors.
- Limited access to assets and property.

- Digital divide.
- Social and cultural barriers.

WAY FORWARD

- I. Strengthen:
 - A. Women's entrepreneurship ecosystems.
- II. Improve:
 - A. Access to finance and markets.
- III. Expand:
 - A. Digital and technical skills training.
- IV. Enhance:
 - A. Representation in leadership and governance.
- V. Promote:
 - A. Gender-responsive policymaking.

KEY HIGHLIGHTS

- **Concept:** Women-Led Development.
- **Shift:** From welfare beneficiaries to development leaders.
- **Focus Areas:** Leadership, entrepreneurship, financial inclusion, governance.
- **Key Vehicle:** Self-Help Groups (SHGs).
- **Objective:** Inclusive and sustainable development.
- **Importance:** Gender equality and economic growth.
- **Vision:** Viksit Bharat 2047.

PRELIMS BOOSTER BOX

- **Women-Led Development:** Women as leaders and drivers of development.
- **73rd & 74th Amendments:** Reservation for women in local governance.
- **DAY-NRLM:** Promotes women-led Self-Help Groups.
- **PM MUDRA Yojana:** Credit support for micro-enterprises.
- **Stand Up India:** Entrepreneurship support for women and marginalized groups.
- **Lakshpati Didi Initiative:** Enhancing incomes of SHG women.
- **Significance:** Inclusive growth, gender equality, and economic empowerment.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Women-Led Development emphasizes women as active participants and leaders in the development process.
2. The 73rd and 74th Constitutional Amendments provided reservation for women in local self-government institutions.
3. Self-Help Groups (SHGs) play an important role in promoting women's economic empowerment.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

3. DRDO & IAF CONDUCT SUCCESSFUL FLIGHT-TESTS OF RUDRAM-II AIR-TO-SURFACE MISSILE



Key Highlights

- I. Successful flight-test of the **RudraM-II** missile.
- II. Conducted jointly by DRDO and the Indian Air Force.
- III. Demonstrated:
 - A. Precision strike capability
 - B. Long-range engagement capability
 - C. Indigenous missile technology development

Objective

- I. Strengthen:
 - A. Air-launched precision strike capability
- II. Enhance:

- A. Suppression of enemy air defence systems
- III. Improve:
 - A. Operational flexibility of the Indian Air Force

ABOUT RUDRAM-II MISSILE

RudraM-II

- I. An indigenously developed **air-to-surface missile**.
- II. Designed to:
 - A. Engage a variety of enemy targets from stand-off ranges.
- III. Can be launched from:
 - A. Fighter aircraft of the Indian Air Force.

Key Features

- Precision-guided weapon.
- Long-range strike capability.
- High accuracy against strategic targets.
- Enhances suppression of enemy air defence (SEAD) operations.
- Supports beyond-visual-range engagement of ground-based threats.

BACKGROUND / CONTEXT

DRDO

Defence Research and Development Organisation

- I. Established in:
 - A. 1958
- II. Functions:
 - A. Defence research
 - B. Indigenous weapon systems development
 - C. Military technology innovation

Indian Air Force (IAF)

Indian Air Force

- I. Responsible for:
 - A. Air defence of India
 - B. Strategic and tactical air operations
 - C. Air superiority missions

Suppression of Enemy Air Defences (SEAD)

Suppression of Enemy Air Defences

- I. Military operations aimed at:
 - A. Neutralizing enemy radar systems
 - B. Destroying air defence assets

- C. Creating safe operational space for friendly aircraft

SIGNIFICANCE

Defence Preparedness

- Strengthens India's air combat capabilities.

Atmanirbhar Bharat

- Promotes indigenous defence manufacturing and technology.

Strategic Deterrence

- Enhances precision strike options against hostile targets.

Operational Flexibility

- Allows engagement of targets from safer stand-off distances.

KEY HIGHLIGHTS

- **Missile:** RudraM-II.
- **Type:** Air-to-Surface Missile.
- **Developed By:** DRDO.
- **Tested With:** Indian Air Force.
- **Capability:** Precision long-range strike.
- **Role:** Suppression of Enemy Air Defences (SEAD).
- **Importance:** Indigenous advanced missile capability.

PRELIMS BOOSTER BOX

- **RudraM-II:** Indigenous Air-to-Surface Missile.
- **Developed By:** DRDO.
- **User:** Indian Air Force.
- **Role:** Precision strike against ground-based targets.
- **SEAD:** Suppression of Enemy Air Defences.
- **Significance:** Enhances stand-off attack capability.
- **Policy Link:** Atmanirbhar Bharat in defence manufacturing.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding RudraM-II:

1. RudraM-II is an indigenously developed air-to-surface missile.
2. It is designed to enhance the Indian Air Force's precision strike capability.
3. SEAD operations involve neutralizing enemy air defence systems.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

4. DEPUTY PRESIDENT OF SOUTH AFRICA CALLS ON THE PRESIDENT OF INDIA



Key Highlights

- I. High-level diplomatic engagement between India and South Africa.
- II. Discussions focused on:
 - A. Bilateral relations
 - B. Economic cooperation
 - C. Capacity building
 - D. Global governance reforms
- III. Reaffirmation of cooperation in multilateral forums.

Objectives

- I. Strengthen:
 - A. Political and diplomatic relations.
- II. Expand:
 - A. Trade and investment partnerships.
- III. Enhance:
 - A. Cooperation in education, healthcare, technology, and skill development.
- IV. Promote:
 - A. Collaboration on global issues affecting developing countries.

BACKGROUND / CONTEXT

India – South Africa Relations

- I. India and South Africa share:
 - A. Historical links through anti-colonial struggles.
 - B. Democratic values.
 - C. Strong people-to-people contacts.
- II. Relations were elevated to a:
 - A. Strategic Partnership.

Multilateral Cooperation

Both countries cooperate in:

BRICS

G20

IBSA Dialogue Forum

Trade Relations

- I. South Africa is among India's important trading partners in Africa.
- II. Areas of cooperation include:
 - A. Mining
 - B. Pharmaceuticals
 - C. Information Technology
 - D. Agriculture
 - E. Manufacturing

SIGNIFICANCE

Strategic Importance

- Strengthens India's engagement with Africa.

South-South Cooperation

- Promotes collaboration among developing countries.

Economic Opportunities

- Encourages greater trade and investment flows.

Global Governance

- Supports reform of international institutions and a more representative global order.

KEY HIGHLIGHTS

- **Countries:** India and South Africa.
- **Event:** Deputy President of South Africa calls on the President of India.
- **Focus:** Bilateral and multilateral cooperation.
- **Key Forums:** BRICS, G20, IBSA.
- **Areas of Cooperation:** Trade, technology, education, healthcare.
- **Significance:** Strengthening India-Africa engagement.

- **Theme:** Strategic partnership and South-South cooperation.

PRELIMS BOOSTER BOX

- **Country:** South Africa.
- **Major Forum:** BRICS.
- **Trilateral Grouping:** IBSA (India-Brazil-South Africa).
- **Global Forum:** G20.
- **Nature of Ties:** Strategic Partnership.
- **Key Areas:** Trade, investment, technology, education.
- **Importance:** India's gateway to deeper engagement with Africa.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. South Africa is a member of BRICS.
2. IBSA is a trilateral forum comprising India, Brazil, and South Africa.
3. India and South Africa cooperate in multilateral platforms such as BRICS and G20.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

5. PRESIDENT APPOINTS JUSTICE MEENAKSHI MADAN RAI AS CHIEF JUSTICE OF PATNA HIGH COURT



Key Highlights

- I. Justice Meenakshi Madan Rai has been appointed as:
 - A. Chief Justice of the Patna High Court.

- II. The appointment strengthens:
 - A. Judicial administration.
 - B. Efficient functioning of the High Court.

Objective of the Appointment

- Fill the position of Chief Justice.
- Ensure effective judicial leadership.
- Improve case management and judicial efficiency.

BACKGROUND / CONTEXT

Patna High Court

- I. Located in:
 - A. Patna
- II. Exercises jurisdiction over:
 - A. The State of Bihar.
- III. One of the important constitutional courts in India.

Appointment of High Court Judges

Constitutional Provision

Article 217

- I. Provides for:
 - A. Appointment of High Court judges by the President of India.
- II. Appointments are made after consultation with:
 - A. Chief Justice of India
 - B. Governor of the concerned State
 - C. Chief Justice of the concerned High Court (where applicable)

Transfer of High Court Judges

Article 222

- Empowers the President to transfer judges from one High Court to another after consultation with the Chief Justice of India.

Supreme Court Collegium

Supreme Court Collegium

- I. Headed by:
 - A. Chief Justice of India.
- II. Recommends:
 - A. Appointments and transfers in the higher judiciary.

SIGNIFICANCE

Judicial Administration

- Provides leadership for effective court functioning.

Access to Justice

- Helps improve disposal of cases and judicial efficiency.

Rule of Law

- Strengthens confidence in constitutional institutions.

Representation in Judiciary

- Contributes to greater diversity and inclusion within the higher judiciary.

KEY HIGHLIGHTS

- **Appointee:** Justice Meenakshi Madan Rai.
- **Position:** Chief Justice.
- **Court:** Patna High Court.
- **State:** Bihar.
- **Relevant Article:** Article 217.
- **Recommendation Mechanism:** Supreme Court Collegium.
- **Importance:** Strengthening judicial leadership and administration.

PRELIMS BOOSTER BOX

- **High Court Appointment:** Article 217.
- **Transfer of High Court Judges:** Article 222.
- **Appointing Authority:** President of India.
- **Recommendation Body:** Supreme Court Collegium.
- **Court:** Patna High Court.
- **Jurisdiction:** State of Bihar.
- **Role of Chief Justice:** Administrative and judicial head of the High Court.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Article 217 of the Constitution deals with the appointment of High Court judges.
2. The President of India appoints the Chief Justice of a High Court.
3. Article 222 relates to the transfer of judges from one High Court to another.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

1. INDIA AND OMAN ENERGIZE A NEW TRADE GATEWAY THROUGH A LANDMARK COMPREHENSIVE ECONOMIC PARTNERSHIP AGREEMENT (CEPA)



What is CEPA?

Comprehensive Economic Partnership Agreement (CEPA)

- I. A CEPA is a broad-based trade agreement covering:
 - A. Trade in goods
 - B. Trade in services
 - C. Investment cooperation
 - D. Economic and technological collaboration
 - E. Regulatory facilitation
- II. It goes beyond a traditional Free Trade Agreement (FTA).

Objectives of the India–Oman CEPA

- Increase bilateral trade.
- Promote investment flows.
- Improve market access.
- Strengthen supply-chain integration.
- Enhance economic cooperation in emerging sectors.

KEY AREAS OF COOPERATION

Trade in Goods

- Reduction of tariff and non-tariff barriers.
- Improved access to each other's markets.

Trade in Services

- I. Opportunities in:
 - A. Information Technology

- B. Healthcare
- C. Education
- D. Financial services

Investment

- I. Encourages:
 - A. Cross-border investments
 - B. Industrial partnerships
 - C. Infrastructure development

Energy Cooperation

- I. Strengthens ties in:
 - A. Oil and gas
 - B. Petrochemicals
 - C. Renewable energy

Logistics and Connectivity

- I. Enhances:
 - A. Maritime trade routes
 - B. Port connectivity
 - C. Regional supply chains

BACKGROUND: INDIA–OMAN RELATIONS

Oman

- I. Located at the strategic entrance to the:
 - A. Arabian Sea
 - B. Gulf of Oman
- II. Important partner in:
 - A. Energy security
 - B. Maritime cooperation
 - C. Trade and investment

Strategic Importance

- I. Oman occupies a crucial location near:
 - A. The Strait of Hormuz

Strait of Hormuz

- A significant share of global energy trade passes through this chokepoint.

Port Cooperation

Port of Duqm

- Emerging as an important logistics and industrial hub.
- Holds strategic significance for India's maritime and economic interests.

SIGNIFICANCE FOR INDIA

Economic Benefits

- Expands export opportunities.
- Diversifies trade destinations.

- Attracts foreign investment.

Strategic Benefits

- Strengthens India's engagement with the Gulf region.
- Supports maritime and energy security objectives.

Employment and Services

- Creates opportunities for:
 - Indian professionals
 - Service providers
 - Skilled workers

Supply Chain Resilience

- Promotes:
 - Diversified and reliable trade networks
 - Reduced dependence on limited markets

KEY HIGHLIGHTS

- **Partner Countries:** India and Oman.
- **Agreement:** Comprehensive Economic Partnership Agreement (CEPA).
- **Focus:** Trade, investment, services, and connectivity.
- **Strategic Sector:** Energy and logistics.
- **Important Location:** Strait of Hormuz.
- **Key Port:** Port of Duqm.
- **Goal:** Stronger economic integration and regional cooperation.

PRELIMS BOOSTER BOX

- **CEPA:** Comprehensive Economic Partnership Agreement
- **Partner Country:** Oman
- **Strategic Waterway:** Strait of Hormuz
- **Important Port:** Port of Duqm
- **Focus Areas:** Trade, services, investment
- **Significance:** Gulf connectivity and energy security
- **Goal:** Stronger economic integration and regional cooperation

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. A Comprehensive Economic Partnership Agreement (CEPA) generally covers trade in goods, services, and investment cooperation.
2. Oman is strategically located near the Strait of Hormuz.

3. The Port of Duqm has emerged as an important logistics hub in Oman.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

2. SPECIAL INTERACTIVE MEETING OF HON'BLE PRESIDENT OF INDIA WITH TRIBAL SCHOLARSHIP BENEFICIARIES TO BE HELD UNDER "BIRSA LIVES IN NEW BHARAT WEEK"



Key Highlights

- Direct interaction between the President of India and tribal students benefiting from scholarship schemes.
- Focus on educational empowerment and inclusive development.
- Recognition of achievements of tribal youth across the country.

Objectives

- I. Promote:
 - A. Educational opportunities for Scheduled Tribes (STs).
- II. Encourage:
 - A. Higher education and skill development.
- III. Raise awareness about:
 - A. Government welfare and scholarship schemes.
- IV. Strengthen:
 - A. Social inclusion and tribal empowerment.

BACKGROUND / CONTEXT

Who was Birsa Munda?

Birsa Munda

- I. Born in:
 - A. 1875 in present-day Jharkhand.
- II. Revered tribal leader and freedom fighter.
- III. Led the:
 - A. **Ulgulan (The Great Tumult)** movement against British rule and exploitative systems.
- IV. Advocated:
 - A. Tribal rights
 - B. Social reform
 - C. Protection of indigenous identity

Janjatiya Gaurav

- I. Birsa Munda is regarded as a symbol of:
 - A. Tribal pride
 - B. Resistance against colonial oppression
 - C. Indigenous empowerment

Scholarship Schemes for Scheduled Tribes

Key initiatives include:

Post-Matric Scholarship for Scheduled Tribe Students

- Supports higher education of ST students.

National Fellowship and Scholarship for Higher Education of ST Students

- Promotes advanced education and research.

Eklavya Model Residential Schools

- Provides quality education to tribal students.

SIGNIFICANCE

Educational Empowerment

- I. Encourages:
 - A. Academic excellence among tribal youth.

Social Inclusion

- I. Strengthens:
 - A. Participation of tribal communities in national development.

Recognition of Tribal Contributions

- I. Highlights:
 - A. Tribal heritage and leadership.

Nation Building

- I. Supports:
 - A. Inclusive and equitable development.

KEY HIGHLIGHTS

- **Event:** Special Interactive Meeting with Tribal Scholarship Beneficiaries.
- **Occasion:** Birsa Lives in New Bharat Week.
- **Focus:** Tribal education and empowerment.
- **Inspirational Figure:** Birsa Munda.
- **Target Group:** Scheduled Tribe students.
- **Objective:** Promote educational inclusion and awareness.
- **Importance:** Strengthening tribal participation in nation-building.

PRELIMS BOOSTER BOX

- **Birsa Munda:** Tribal freedom fighter and social reformer.
- **Associated Movement:** Ulgulan (The Great Tumult).
- **State Associated:** Jharkhand.
- **Community Focus:** Scheduled Tribes (STs).
- **Key Schemes:** Post-Matric Scholarship, National Fellowship for ST Students.
- **Educational Initiative:** Eklavya Model Residential Schools (EMRS).
- **Theme:** Tribal empowerment through education.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding Birsa Munda:

1. Birsa Munda was a tribal freedom fighter who led the Ulgulan movement.

2. He is associated with the tribal regions of present-day Jharkhand.
3. Birsa Munda is remembered for advocating tribal rights and social reform.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

3. AIR MARSHAL TARUN CHAUDHRY ASSUMES THE APPOINTMENT OF AIR OFFICER COMMANDING-IN-CHIEF, CENTRAL AIR COMMAND



Key Appointment

- I. Air Marshal Tarun Chaudhry has taken over as:
 - A. Air Officer Commanding-in-Chief (AOC-in-C)
 - B. Central Air Command (CAC)

Role of AOC-in-C

- I. Responsible for:
 - A. Operational preparedness
 - B. Air defence operations
 - C. Strategic planning
 - D. Administration of the Command
- II. Oversees:

- A. Air Force stations and operational units under Central Air Command

Importance

- I. Ensures:
 - A. High operational readiness of the Indian Air Force
- II. Strengthens:
 - A. National air defence and strategic capabilities

BACKGROUND / CONTEXT

Central Air Command (CAC)

Central Air Command

- I. One of the operational commands of the Indian Air Force.
- II. Headquarters:
 - A. Prayagraj
- III. Responsible for:
 - A. Air operations across central India and adjoining strategic sectors.

Indian Air Force (IAF)

Indian Air Force

- I. Established on:
 - A. 8 October 1932
- II. Functions:
 - A. Air defence of India
 - B. Protection of airspace
 - C. Strategic and tactical air operations
 - D. Humanitarian Assistance and Disaster Relief (HADR)

Command Structure of the IAF

- I. The Indian Air Force has multiple operational and functional commands, including:
 - A. Western Air Command
 - B. Eastern Air Command
 - C. Central Air Command
 - D. Southern Air Command
 - E. South Western Air Command
 - F. Training Command
 - G. Maintenance Command

SIGNIFICANCE OF CENTRAL AIR COMMAND

Air Defence

- Maintains surveillance and readiness against aerial threats.

Strategic Operations

- Supports deployment of air assets across multiple sectors.

Force Projection

- Facilitates rapid response during emergencies and contingencies.

Disaster Relief

- Plays a major role in humanitarian and relief operations.

KEY HIGHLIGHTS

- **Officer:** Air Marshal Tarun Chaudhry.
- **Appointment:** Air Officer Commanding-in-Chief.
- **Command:** Central Air Command.
- **Headquarters:** Prayagraj, Uttar Pradesh.
- **Service:** Indian Air Force.
- **Role:** Air defence and operational preparedness.
- **Importance:** Strengthening national security and air power.

PRELIMS BOOSTER BOX

- **AOC-in-C:** Air Officer Commanding-in-Chief
- **Command:** Central Air Command (CAC)
- **Headquarters:** Prayagraj, Uttar Pradesh
- **Service:** Indian Air Force
- **IAF Established:** 8 October 1932
- **Role of CAC:** Air defence and operational readiness
- **Importance:** Strategic air operations and national security

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Central Air Command is headquartered at Prayagraj.
2. The Air Officer Commanding-in-Chief (AOC-in-C) is responsible for operational and administrative control of an Air Force Command.
3. The Indian Air Force was established in 1932.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

4. ESIC LAUNCHES CENTRALIZED ONLINE PATIENT FEEDBACK SYSTEM ACROSS HOSPITALS AND DISPENSARIES TO ENSURE PATIENT-CENTRIC HEALTHCARE



Key Highlights

- Introduction of a unified digital platform for collecting patient feedback.
- Coverage of ESIC hospitals and dispensaries across the country.
- Focus on improving healthcare services through continuous monitoring and evaluation.

Objectives

- I. Capture:
 - A. Patient experiences and satisfaction levels.
- II. Improve:
 - A. Quality of healthcare services.
- III. Enable:
 - A. Timely grievance redressal and corrective action.
- IV. Strengthen:
 - A. Accountability of healthcare institutions.

BACKGROUND / CONTEXT

Employees' State Insurance Corporation (ESIC)

Employees' State Insurance Corporation

- I. A statutory body under the: **Ministry of Labour and Employment**
- II. Administers the: **Employees' State Insurance Act, 1948**

- III. Provides:
- A. Social security and health insurance benefits to workers and their dependents.

ESI Scheme

Employees' State Insurance Scheme

Provides benefits such as:

- Medical care
- Sickness benefit
- Maternity benefit
- Disability benefit
- Dependant benefit

Patient-Centric Healthcare

- I. Focuses on:
- A. Patients' needs, preferences, and experiences.
- II. Encourages:
- A. Better healthcare outcomes.
- B. Improved service delivery.

SIGNIFICANCE OF THE FEEDBACK SYSTEM

Improved Healthcare Quality

- I. Enables identification of:
- A. Service gaps and operational issues.

Real-Time Monitoring

- I. Helps administrators:
- A. Track patient satisfaction and institutional performance.

Transparency and Accountability

- I. Encourages:
- A. Responsive governance in healthcare institutions.

Digital Governance

- I. Supports:
- A. Technology-driven public service delivery.

CHALLENGES

- I. Ensuring:
- A. High participation by patients.
- II. Addressing:
- A. Digital literacy barriers.
- III. Need for:
- A. Timely action on feedback received.

KEY HIGHLIGHTS

- **Organisation:** Employees' State Insurance Corporation (ESIC).
- **Initiative:** Centralized Online Patient Feedback System.
- **Coverage:** ESIC hospitals and dispensaries nationwide.
- **Objective:** Patient-centric healthcare delivery.
- **Focus:** Service quality, transparency, and accountability.
- **Legal Basis:** Employees' State Insurance Act, 1948.
- **Importance:** Strengthening healthcare governance through digital feedback.

PRELIMS BOOSTER BOX

- **ESIC:** Employees' State Insurance Corporation.
- **Ministry:** Ministry of Labour and Employment.
- **Governing Law:** Employees' State Insurance Act, 1948.
- **ESI Scheme Benefits:** Medical, sickness, maternity, disability, and dependent benefits.
- **New Initiative:** Centralized Online Patient Feedback System.
- **Objective:** Improve healthcare quality and patient satisfaction.
- **Theme:** Patient-centric and technology-enabled healthcare governance.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding ESIC:

1. ESIC is a statutory body under the Ministry of Labour and Employment.
2. It administers the Employees' State Insurance Act, 1948.
3. The ESI Scheme provides medical and social security benefits to eligible workers and their dependents.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

5. SUPREME COURT GETS FIVE NEW JUDGES AS PRESIDENT APPROVES APPOINTMENTS



Key Highlights

- I. Five judges have been elevated to the Supreme Court.
- II. The appointments increase the Court's working strength.
- III. The move is expected to:
 - A. Reduce pendency of cases.
 - B. Improve judicial efficiency.
 - C. Strengthen access to justice.

Objectives

- Fill existing vacancies in the Supreme Court.
- Enhance judicial capacity.
- Ensure timely delivery of justice.
- Strengthen the functioning of the constitutional court.

BACKGROUND / CONTEXT

Supreme Court of India

Supreme Court of India

- I. Established under:
 - A. **Part V, Chapter IV** of the Constitution.
- II. It is the:
 - A. Highest judicial authority in India.

- B. Final court of appeal.

III. Functions include:

- A. Constitutional interpretation.
- B. Protection of Fundamental Rights.
- C. Adjudication of disputes between the Centre and States.

Appointment of Supreme Court Judges

Constitutional Provision

- I. **Article 124** of the Constitution provides for:
 - A. Establishment and composition of the Supreme Court.
 - B. Appointment of judges by the President.

Collegium System

Supreme Court Collegium

- I. Consists of:
 - A. Chief Justice of India (CJI)
 - B. Four senior-most Supreme Court judges
- II. Recommends:
 - A. Appointments and transfers of judges to higher judiciary.

Judges Strength

- I. The sanctioned strength of the Supreme Court is:
 - A. **34 judges** (including the Chief Justice of India).

SIGNIFICANCE

Reduction in Pendency

- I. Additional judges help:
 - A. Dispose of cases faster.

Access to Justice

- I. Improves:
 - A. Efficiency of judicial administration.

Strengthening Rule of Law

- I. Enhances:
 - A. Public confidence in the judiciary.

Constitutional Governance

- I. Supports:
 - A. Effective functioning of the apex constitutional court.

KEY HIGHLIGHTS

- **Institution:** Supreme Court of India.
- **Development:** Appointment of five new judges.

- **Appointing Authority:** President of India.
- **Relevant Article:** Article 124.
- **Recommendation Body:** Supreme Court Collegium.
- **Purpose:** Fill vacancies and improve judicial functioning.
- **Importance:** Strengthening justice delivery.

PRELIMS BOOSTER BOX

- **Apex Court:** Supreme Court of India.
- **Relevant Article:** Article 124.
- **Appointment Authority:** President of India.
- **Recommendation Mechanism:** Supreme Court Collegium.
- **Collegium Composition:** CJI + four senior-most SC judges.
- **Sanctioned Strength:** 34 judges (including CJI).
- **Function:** Constitutional interpretation and final appellate jurisdiction.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding the Supreme Court of India:

1. Article 124 of the Constitution deals with the establishment and composition of the Supreme Court.
2. The Supreme Court Collegium consists of the Chief Justice of India and four senior-most judges of the Supreme Court.
3. The President appoints Supreme Court judges.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)