PadhAI

PRESS INFORMATION BUREAU

Monthly PIB Summary

February 2026

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- Concise Monthly Magazines
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Welcome to a smarter way of preparing.
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1. HIGHLIGHTS OF UNION BUDGET 2026–27

- Union Budget 2026–27 reinforces India's medium-term growth strategy through higher capital expenditure, technology-led development, MSME support, agricultural modernization, and fiscal consolidation.
- The Budget balances welfare commitments with investment-driven expansion while aligning policies with the long-term vision of a developed India.

BACKGROUND / CONTEXT

- The Union Budget is the annual financial statement of the Government of India, detailing receipts and expenditures for the upcoming financial year.
- Budget 2026–27 comes amid global economic uncertainty, domestic consumption recovery, and India's transition toward manufacturing-led growth.
- It builds upon earlier reforms such as GST stabilization, infrastructure push, and digital public infrastructure

expansion, while continuing the glide path toward fiscal discipline.

KEY HIGHLIGHTS

- **Capital Expenditure Push:** Continued increase in public capex to drive infrastructure, logistics efficiency, and job creation.

- **Fiscal Consolidation:** Commitment to reducing fiscal deficit while protecting growth-supportive spending.

- **Infrastructure Expansion:** Major allocations for roads, railways, urban transport, and housing.

- **Agriculture Modernisation:** Focus on high-value crops, agri-logistics, storage infrastructure, and farmer income diversification.

- **Manufacturing Support:** Incentives for MSMEs, domestic manufacturing, and strategic sectors such as electronics and green energy.

- **Technology & Innovation:** Boost to AI, semiconductor ecosystem, digital infrastructure, and startup financing.

- **Employment Orientation:** Skill development, apprenticeship expansion, and labour-intensive sector support.

- **Urban Development:** Emphasis on waste management, sanitation, and city infrastructure upgrades.

- **Social Sector Continuity:** Sustained funding for health, education, nutrition, and women-centric schemes.

PRELIMS BOOSTER BOX

• Union Budget is presented under **Article 112** of the Constitution (Annual Financial Statement).
• Capital Expenditure creates long-term assets like highways, railways, and digital infrastructure.
• Fiscal Deficit = Total Expenditure – Total Receipts (excluding borrowings).
• Revenue Deficit reflects shortfall in revenue receipts against revenue expenditure.
• MSMEs are defined under revised turnover and investment criteria.
• Agriculture, infrastructure, and manufacturing are classified as key growth engines.
• Budget proposals require parliamentary approval through Finance Bill and Appropriation Bill.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding Union Budget 2026–27:

1. It prioritises capital expenditure to stimulate economic growth.
2. It includes measures for MSME support and employment generation.
3. It abandons fiscal consolidation in favour of welfare spending alone.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

2.Ministry of Culture Presents the Pavilion of India at the 61st International Art Exhibition – La Biennale di Venezia

- India's Pavilion at the 61st International Art Exhibition highlights contemporary Indian artistic expression on a global stage.
- Curated under the aegis of the Ministry of Culture, the pavilion aims to project India's evolving creative landscape while strengthening cultural engagement with the international community.

BACKGROUND / CONTEXT

- The Venice Biennale is among the world's oldest and most prestigious international art exhibitions, held biennially in Italy.
- Countries participate through national pavilions to present curated artistic narratives reflecting their cultural identity and contemporary concerns.
- India's participation aligns with its broader strategy of **soft power projection**, using art and culture to deepen people-to-people ties, enhance global visibility of Indian

creativity, and promote intercultural dialogue.

KEY HIGHLIGHTS

• **Global Cultural Outreach:** India presents curated contemporary artworks to an international audience.

• **Creative Diplomacy:** Pavilion acts as a soft-power instrument strengthening India's cultural footprint abroad.

• **Contemporary Focus:** Showcases modern Indian artistic practices alongside traditional inspirations.

• **Government-Led Initiative:** Organised under the Ministry of Culture to institutionalise India's presence at major global art platforms.

• **Cross-Cultural Dialogue:** Encourages exchange between Indian artists and global creative communities.

• **Nation Branding:** Positions India as a vibrant, pluralistic, and evolving cultural civilisation.

PRELIMS BOOSTER BOX

• Venice Biennale is held **once every two years** (biennial format).
• National Pavilions are official country representations at the exhibition.
• Cultural diplomacy is part of India's **soft power strategy**.
• Ministry of Culture promotes heritage, arts, museums, and international cultural cooperation.
• Such global exhibitions contribute to **creative economy visibility**.

• Art diplomacy complements traditional foreign policy tools.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding India's Pavilion at the Venice Biennale:

1. It is organised under the Ministry of Culture.
2. It serves as a platform for showcasing contemporary Indian art globally.
3. Its primary objective is commercial export promotion of handicrafts.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

3.Raksha Mantri Approves Grant of 'Miniratna' Category-I Status to Yantra India Limited

- Yantra India Limited (YIL) has been accorded Miniratna Category-I status,

empowering it with enhanced financial and operational autonomy.

- The decision reflects YIL's improved financial performance and strategic role in indigenous defence manufacturing, strengthening India's self-reliance in critical military equipment.

BACKGROUND / CONTEXT

- Yantra India Limited emerged in 2021 following the corporatisation of the Ordnance Factory Board, aimed at improving efficiency, accountability, and competitiveness in defence production.
- The Miniratna framework is designed to provide select Central Public Sector Enterprises greater managerial freedom while maintaining government ownership.
- Granting Miniratna Category-I status indicates consistent profitability and sound financial health, enabling faster decision-making and investment capacity.
- This move aligns with India's broader defence reforms under *Atmanirbhar Bharat*, focusing on domestic manufacturing and reduced import dependence.

KEY HIGHLIGHTS

• **Miniratna Category-I Recognition:** Confers higher financial autonomy for investments and joint ventures.

• **Enhanced Capital Powers:** YIL can now make investments up to ₹500 crore or its net worth limits without prior government approval.

• **Defence Manufacturing Role:** Produces artillery, small arms, ammunition, and defence components.

• **Post-OFB Reform Success:** Recognition validates the corporatisation model of former ordnance factories.

• **Atmanirbhar Bharat Alignment:** Strengthens indigenous defence production ecosystem.

• **Operational Flexibility:** Enables quicker procurement, R&D spending, and technology partnerships.

• **Export Potential:** Improves YIL's ability to compete in global defence markets.

PRELIMS BOOSTER BOX

• Miniratna status is granted by the Government of India to financially sound CPSEs.
• Category-I Miniratna allows investment up to ₹500 crore or 15% of net worth (subject to ceilings).
• Yantra India Limited was formed in 2021 after Ordnance Factory Board corporatisation.
• Defence PSUs fall under the Ministry of Defence.
• Corporatisation aims at improving efficiency, transparency, and competitiveness.
• Indigenous defence manufacturing is a core pillar of *Atmanirbhar Bharat*.

Consider the following statements regarding Yantra India Limited's Miniratna Category-I status:

1. It allows greater financial autonomy for capital investments.
2. Yantra India Limited emerged after corporatisation of the Ordnance Factory Board.
3. Miniratna status converts the PSU into a privately owned company.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

4.Rapid Survey on Functional Cooperatives (RSFC)

- RSFC is a nationwide rapid assessment exercise aimed at identifying **active, inactive, and non-functional cooperatives**.
- The survey supports policy planning by mapping grassroots cooperative institutions, evaluating service delivery, and strengthening India's cooperative ecosystem through data-driven interventions.

BACKGROUND / CONTEXT

- India has over eight lakh registered cooperatives, but a significant number remain dormant or poorly functional due to governance gaps, financial stress, and lack of digitisation.
- After creation of the Ministry of Cooperation in 2021, the government initiated structural reforms to revitalise Primary Agricultural Credit Societies (PACS), dairy, fisheries, and urban cooperatives. RSFC forms a foundational step in this reform agenda by providing **real-time operational diagnostics**.
- The exercise aligns with the vision of **"Sahkar se Samriddhi"**, emphasising cooperative-led inclusive development.

KEY HIGHLIGHTS

• **Nationwide Mapping:** Covers PACS, dairy, fisheries, housing, and other cooperative societies.

• **Functional Classification:** Segregates cooperatives into active, weak, and defunct categories.

• **Digital Data Collection:** Uses mobile-based tools for rapid verification and geo-tagging.

• **Policy Input:** Findings guide revival packages, capacity building, and merger strategies.

• **Grassroots Focus:** Special emphasis on rural and farmer-linked cooperatives.

• **Governance Reform:** Helps identify compliance gaps and leadership issues.

• **Financial Inclusion Link:** Supports integration of PACS with banking, insurance, and Common Service Centres.

PRELIMS BOOSTER BOX

• Cooperation is a **State Subject** under Entry 32, State List.
• Ministry of Cooperation was created in **2021**.
• PACS are village-level institutions providing short-term agricultural credit.
• RSFC is a **rapid assessment**, not a full census.
• Cooperative principles include democratic control and member ownership.
• "Sahkar se Samriddhi" promotes cooperatives as engines of rural growth.
• PACS are being linked with **CSC, fertiliser distribution, and storage services**.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding RSFC:

1. It aims to identify functional and non-functional cooperatives across India.
2. It is conducted to support cooperative sector reforms through real-time data.
3. It replaces the Economic Census for cooperative mapping.

Which of the above statements is/are correct?

A. 1 only
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Correct Answer: B

5. Transforming India into a Global Biopharma Hub

- India is accelerating efforts to emerge as a global biopharmaceutical powerhouse by strengthening R&D ecosystems, expanding manufacturing capacity, promoting biosimilars, and improving regulatory frameworks.
- The strategy aims to move India up the value chain—from generic medicines to high-end biologics—while ensuring affordable healthcare and export competitiveness.

BACKGROUND / CONTEXT

- India is already known as the "pharmacy of the world" due to its dominance in generic drugs and vaccines.
- However, the global pharmaceutical market is increasingly shifting toward **biologics, cell and gene therapies, and precision medicine**.
- To capture this high-value segment, the government is promoting biotech

parks, production-linked incentives, academia–industry collaboration, and regulatory harmonisation.
- The push also aligns with national missions on innovation and healthcare resilience post-COVID.
- Biopharma development is being supported by agencies like Department of Biotechnology, with focus on indigenous capability creation and startup participation.

KEY HIGHLIGHTS

• **Shift to Biologics:** Strategic move from generics to vaccines, biosimilars, and advanced therapies.

• **PLI Support:** Production Linked Incentive schemes encourage domestic biopharma manufacturing.

• **R&D Ecosystem:** Expansion of biotech clusters, incubation centres, and translational research platforms.

• **Export Orientation:** Strengthening India's position in regulated global markets.

• **Startup Enablement:** Support for biotech startups through funding and infrastructure.

• **Regulatory Reforms:** Streamlining approvals to match international standards.

• **Healthcare Security:** Builds domestic capacity for critical drugs and vaccines.

• **Employment Generation:** High-skill job creation in life sciences and allied sectors.

PRELIMS BOOSTER BOX

• Biopharma includes **vaccines, biosimilars, biologics, and therapeutic proteins**.
• Biosimilars are near-identical versions of biologic drugs whose patents have expired.
• India is among the **largest global suppliers of vaccines**.
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Consider the following statements regarding India's biopharma push:

1. It focuses on vaccines, biosimilars, and advanced biologics.
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BACKGROUND / CONTEXT

- India is already known as the "pharmacy of the world" due to its dominance in generic drugs and vaccines.
- However, the global pharmaceutical market is increasingly shifting toward **biologics, cell and gene therapies, and precision medicine**.
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Which of the above statements is/are correct?

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B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

1.Lok Sabha Speaker Expresses Anguish Over Decline in Dignity and Decorum in Legislatures

- The Lok Sabha Speaker highlighted the erosion of decorum in legislative proceedings, marked by frequent disruptions, sloganeering, and disregard for parliamentary conventions.
- He underlined that such trends weaken democratic functioning, reduce legislative productivity, and erode public trust in representative institutions.

BACKGROUND / CONTEXT

- Parliamentary democracy rests on **deliberation, dissent, and dialogue** conducted within established rules and conventions.
- Over the years, legislatures in India have witnessed increasing disruptions, adjournments, and confrontational politics, affecting law-making and accountability functions.
- The Speaker, as the constitutional authority presiding over the Lok Sabha, is entrusted with maintaining order, interpreting rules, and safeguarding the dignity of the House.
- His remarks reflect a broader institutional concern about preserving the **sanctity of parliamentary processes** in a vibrant but disciplined democracy.

KEY HIGHLIGHTS

- **Concern Over Disruptions:** Repeated adjournments and unruly conduct undermine legislative work.

- **Role of Members:** Emphasis on responsibility of MPs to uphold democratic values and traditions.

- **Institutional Dignity:** Legislatures must function as forums for reasoned debate, not confrontation.

- **Public Trust:** Declining decorum damages citizens' faith in democratic institutions.

- **Rule-Based Functioning:** Importance of adherence to parliamentary rules and conventions.

- **Constructive Opposition:** Dissent should be expressed through debate and discussion, not disorder.

- **Democratic Maturity:** Healthy democracy requires discipline alongside freedom of expression.

PRELIMS BOOSTER BOX

- Lok Sabha Speaker derives authority from **Article 93** of the Constitution.
- Speaker is the final authority on interpretation of House rules.
- Parliamentary privileges aim to ensure free and fair functioning of legislatures.
- Disruptions reduce effective sitting days of Parliament.
- Presiding officers are custodians of House dignity.
- Parliamentary conventions supplement written rules.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding the role of the Lok Sabha Speaker:

1. The Speaker is responsible for maintaining order and decorum in the House.

2. The Speaker's decisions on House proceedings are final and binding within Parliament.
3. The Speaker functions as a representative of the ruling party during debates.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

2.Indian Coast Guard Busts International Oil Smuggling Racket Through Coordinated Sea–Air Operation

- The Indian Coast Guard carried out a precision operation involving patrol vessels and maritime surveillance aircraft to intercept vessels engaged in illegal oil smuggling.
- The operation led to seizure of smuggled fuel, detention of crew members, and disruption of transnational criminal networks operating in Indian maritime zones.

BACKGROUND / CONTEXT

- Oil and fuel smuggling poses serious threats to **economic security, maritime safety, and environmental protection**.
- Such rackets often exploit porous sea routes, operate under flags of

convenience, and use mid-sea trans-shipment techniques.
- The Indian Coast Guard is mandated to enforce maritime law within India's territorial waters and Exclusive Economic Zone (EEZ), working closely with customs, intelligence agencies, and coastal states.
- Enhanced use of **airborne surveillance, radar networks, and real-time intelligence** has significantly improved India's ability to counter maritime crimes.
- This operation reflects India's broader focus on **maritime domain awareness (MDA)** and safeguarding the Blue Economy.

KEY HIGHLIGHTS

• **Coordinated Sea–Air Operation:** Integration of patrol ships and surveillance aircraft ensured rapid interception.

• **International Smuggling Nexus:** Indicates involvement of cross-border maritime criminal networks.

• **Fuel Seizure:** Illegal petroleum products confiscated, preventing revenue loss and market distortion.

• **Crew Detention:** Suspects apprehended for investigation under maritime and customs laws.

• **Maritime Domain Awareness:** Effective use of intelligence, radar, and aerial reconnaissance.

• **Economic Security:** Action curbs tax evasion and illegal trade.

• **Environmental Protection:** Prevents unsafe fuel handling and marine pollution.

• **Operational Readiness:** Demonstrates Coast Guard's rapid response and deterrence capability.

PRELIMS BOOSTER BOX

• Indian Coast Guard operates under the **Ministry of Defence**.
• EEZ extends up to **200 nautical miles** from baseline.
• Oil smuggling affects revenue, energy security, and marine ecology.
• Coast Guard conducts **law enforcement, search & rescue, and anti-smuggling** operations.
• Maritime Domain Awareness integrates satellite, air, and sea-based sensors.
• Smuggling at sea often uses **mid-sea transfer techniques**.
• Coastal security is a **multi-agency responsibility**.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding the Indian Coast Guard's anti-smuggling operations:

1. The Coast Guard conducts maritime law enforcement within India's territorial waters and EEZ.
2. Sea–air coordination enhances detection and interception of maritime crimes.
3. Oil smuggling has no impact on economic security.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

3.List of Outcomes: Official Visit of the Prime Minister to Malaysia

- The Prime Minister's visit to Malaysia reinforced India–Malaysia relations through agreements and understandings across trade, digital cooperation, defence, education, culture, and regional security.
- The visit underscored India's Act East Policy and commitment to deeper engagement with ASEAN partners.

BACKGROUND / CONTEXT

- India and Malaysia share long-standing civilisational, economic, and diaspora links. Malaysia is a key partner in India's Act East Policy and an important stakeholder in the Indo-Pacific region.
- The visit took place amid growing emphasis on resilient supply chains, digital economy collaboration, and maritime security in the Indo-Pacific.
- High-level visits serve as platforms to upgrade bilateral cooperation and align positions on regional and global issues.

KEY HIGHLIGHTS (OUTCOMES)

• **Strategic Partnership Strengthening:** Reaffirmation of commitment to deepen comprehensive strategic ties.

• **Trade & Investment Boost:** Agreements to enhance bilateral trade, ease market access, and promote investment flows.

- **Digital & FinTech Cooperation:** Collaboration on digital public infrastructure, fintech, and emerging technologies.

- **Defence & Security Engagement:** Enhanced cooperation in maritime security, defence training, and capacity building.

- **Education & Skill Development:** Partnerships between higher education institutions and skill development frameworks.

- **Diaspora Engagement:** Initiatives to strengthen welfare, mobility, and engagement of Indian diaspora in Malaysia.

- **Cultural Exchange:** Promotion of cultural, tourism, and people-to-people exchanges.

- **Regional & Global Issues:** Convergence on Indo-Pacific stability, ASEAN centrality, and multilateral cooperation.

- **Sustainable Development:** Cooperation in green technologies, renewable energy, and climate action.

PRELIMS BOOSTER BOX

- Malaysia is a key partner under India's **Act East Policy**.
- India–Malaysia relations are elevated to a **strategic partnership**.
- ASEAN centrality is a core principle of India's Indo-Pacific approach.
- Indian diaspora forms a significant community in Malaysia.
- Bilateral visits often result in MoUs and institutional mechanisms.
- Maritime cooperation is crucial in the Indo-Pacific region.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding the Prime Minister's visit to Malaysia:

1. It aimed at strengthening India–Malaysia strategic and economic cooperation.

2. It reinforced India's Act East Policy and Indo-Pacific vision.

3. It focused solely on cultural exchanges without economic engagement.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

4.Ministry of Tourism Sanctions Six Projects in Jammu & Kashmir Under Himalayan Circuit (₹519.58 Crore)

Under the Swadesh Darshan Scheme's Himalayan Circuit, the Ministry of Tourism approved six projects in Jammu & Kashmir to develop tourism infrastructure, improve visitor facilities, and promote sustainable tourism in the Himalayan region. The projects aim to boost regional connectivity, local livelihoods, and tourist inflow.

BACKGROUND / CONTEXT

- The **Swadesh Darshan Scheme** was launched to develop theme-based tourist circuits across India with integrated infrastructure development.
- The Himalayan Circuit focuses on states and regions located in the Himalayan belt, promoting eco-tourism, pilgrimage tourism, adventure tourism, and cultural heritage.

- Jammu & Kashmir, endowed with natural landscapes, pilgrimage sites, and cultural heritage, was identified as a key beneficiary.
- Investments under the circuit are designed to enhance tourist amenities while ensuring environmental sustainability in fragile mountain ecosystems.

KEY HIGHLIGHTS

• **Project Sanctioning:** Six tourism projects approved during 2016–17.

• **Financial Outlay:** Total investment of **₹519.58 crore**.

• **Circuit-Based Approach:** Development undertaken under the Himalayan Circuit of Swadesh Darshan.

• **Infrastructure Focus:** Creation of tourist amenities, access roads, interpretation centres, and public facilities.

• **Regional Development:** Aims to generate employment and support local economies.

• **Tourism Diversification:** Promotes pilgrimage, nature-based, and cultural tourism.

• **Sustainable Tourism:** Emphasis on environmentally sensitive development in Himalayan regions.

PRELIMS BOOSTER BOX

• Swadesh Darshan is a **Central Sector Scheme**.
• Himalayan Circuit covers **Himalayan and sub-Himalayan regions**.
• Focus is on **integrated tourism infrastructure**, not individual monuments.
• Tourism is a **State subject**, with central financial assistance.
• Jammu & Kashmir has high potential for pilgrimage and eco-tourism.
• Circuit-based tourism promotes regional clustering of destinations.

5.Seven Chakras of the India–AI Impact Summit 2026

The Seven Chakras framework represents India's integrated approach to AI development—balancing innovation with responsibility. It covers the entire AI lifecycle, from talent and data to governance and societal impact, positioning AI as a public good while safeguarding national interests and democratic values.

BACKGROUND / CONTEXT

- As AI becomes a general-purpose technology influencing economies, governance, and security, countries are evolving comprehensive national strategies.

- India's approach emphasises **scale, inclusion, and trust**, leveraging its digital public infrastructure and large talent base.
- The India–AI Impact Summit 2026 builds upon earlier initiatives on digital public goods, responsible AI, and innovation ecosystems, aligning with India's vision of becoming a **global AI hub with human-centric governance**.

KEY HIGHLIGHTS (SEVEN CHAKRAS)

• **Talent Chakra:** Building a large, skilled AI workforce through education, reskilling, and research excellence.

• **Data Chakra:** Ensuring access to high-quality, diverse, and interoperable datasets while protecting privacy.

• **Compute Chakra:** Expanding affordable access to high-performance computing and AI infrastructure.

• **Innovation Chakra:** Supporting startups, industry–academia collaboration, and indigenous AI solutions.

• **Adoption Chakra:** Mainstreaming AI use in healthcare, agriculture, governance, education, and industry.

• **Trust & Ethics Chakra:** Embedding fairness, transparency, accountability, and explainability in AI systems.

• **Global Cooperation Chakra:** Promoting international collaboration, standards-setting, and AI for global good.

PRELIMS BOOSTER BOX

• AI is a **general-purpose technology** with cross-sectoral impact.
• Responsible AI focuses on ethics, safety, and human-centric design.
• Data quality is critical for unbiased AI outcomes.
• Compute access is a key bottleneck for AI development.
• AI governance balances innovation with regulation.
• India promotes **Digital Public Infrastructure** as a foundation for AI adoption.
• Global AI norms are still evolving.

PadhAI-GENERATED UPSC MCQ

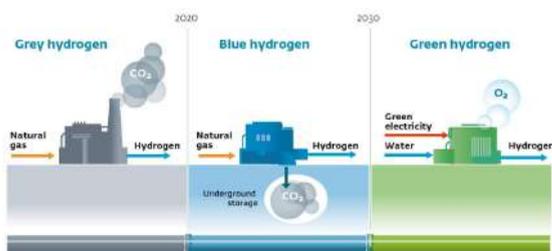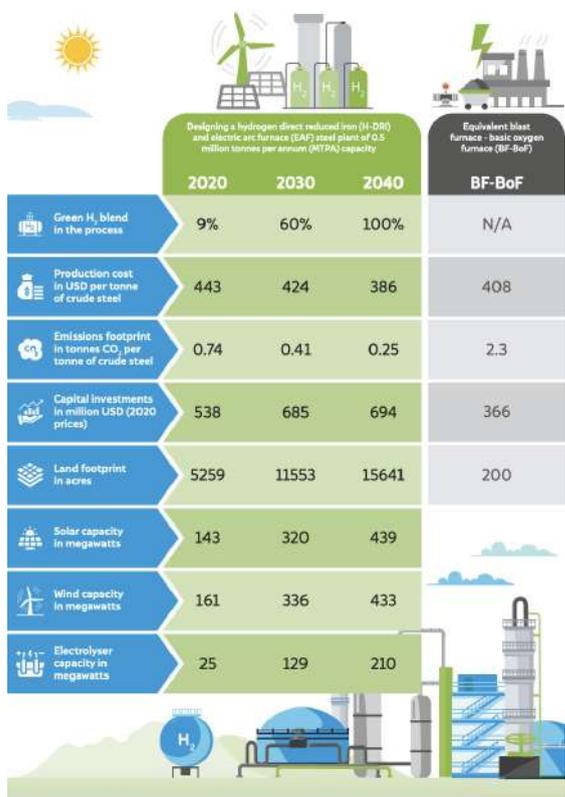**Consider the following statements regarding the Seven Chakras of the India–AI Impact Summit 2026:**

1. They cover the entire AI ecosystem from talent and data to ethics and global cooperation.
2. They emphasise responsible and inclusive use of AI technologies.
3. They focus exclusively on military applications of AI.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

1.Prime Minister Shares an Article on How Carbon Capture Can Power India's Next Steel Revolution

	Designing a hydrogen direct reduced iron (H-DRI) and electric arc furnace (EAF) steel plant of 0.5 million tonnes per annum (MTPA) capacity			Equivalent blast furnace - basic oxygen furnace (BF-BoF)
	2020	2030	2040	BF-BoF
Green H$_2$ blend in the process	9%	60%	100%	N/A
Production cost in USD per tonne of crude steel	443	424	386	408
Emissions footprint in tonnes CO$_2$ per tonne of crude steel	0.74	0.41	0.25	2.3
Capital investments in million USD (2020 prices)	538	685	694	366
Land footprint in acres	5259	11553	15641	200
Solar capacity in megawatts	143	320	439	
Wind capacity in megawatts	161	336	433	
Electrolyser capacity in megawatts	25	129	210	

- The article emphasises the role of carbon capture technologies in reducing emissions from India's steel industry—one of the most carbon-intensive sectors.
- By integrating CCUS with innovation in green hydrogen and energy efficiency, India can simultaneously expand steel production and meet its climate goals.

BACKGROUND / CONTEXT

- India is the world's second-largest steel producer, and steel manufacturing contributes significantly to industrial emissions due to coal-based blast furnace operations.
- As India pursues rapid infrastructure expansion, steel demand is expected to rise. To reconcile growth with sustainability, policy focus is shifting toward **green steel**, CCUS technologies, and cleaner energy transitions.
- CCUS captures carbon dioxide emissions from industrial processes and either stores them underground or utilises them in other applications, reducing net emissions without halting production.
- This approach supports India's commitment to **net-zero by 2070** while maintaining industrial competitiveness.

KEY HIGHLIGHTS

• **Carbon Capture Integration:** Adoption of CCUS in steel plants to reduce industrial emissions.

• **Green Steel Transition:** Movement toward hydrogen-based and low-carbon steelmaking processes.

• **Industrial Decarbonisation:** Aligns heavy industry growth with climate targets.

• **Innovation & R&D Push:** Encouragement for domestic research in carbon management technologies.

• **Energy Efficiency Measures:** Upgrading blast furnaces and adopting cleaner inputs.

• **Global Competitiveness:** Prepares Indian steel for carbon-border regulations in export markets.

• **Climate Commitment Alignment:** Supports India's Nationally Determined Contributions (NDCs).

• **Investment Opportunity:** Opens pathways for green finance and technology partnerships.

PRELIMS BOOSTER BOX

• Steel sector is a **hard-to-abate industry**.
• CCUS captures CO_2 before it enters the atmosphere.
• India targets **net-zero emissions by 2070**.
• Green steel involves reduced coal dependence and cleaner energy use.
• Hydrogen-based Direct Reduced Iron (DRI) reduces carbon intensity.
• Carbon border measures affect export competitiveness.
• Industrial decarbonisation is key to climate strategy.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding carbon capture in the steel sector:

1. CCUS reduces industrial carbon emissions without halting production.
2. Steel manufacturing is considered a hard-to-abate sector.
3. Carbon capture eliminates the need for renewable energy transition.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

2.World's Largest Grain Storage Plan in Cooperative Sector

- The plan seeks to establish grain storage facilities at the grassroots cooperative level across India, enabling farmers to store produce locally, access pledge financing, and reduce distress sales.
- It integrates storage, processing, and value-addition facilities to modernise agricultural supply chains while empowering cooperatives.

BACKGROUND / CONTEXT

- India produces large quantities of food grains, but inadequate local storage leads to post-harvest losses and forced sales at low prices.
- Storage infrastructure has traditionally been concentrated in select regions.
- To address this imbalance, the government launched a cooperative-led decentralised storage model, aligning with the vision of strengthening PACS as multipurpose rural institutions.

- The initiative supports food security, improves farmer income realisation, and enhances buffer stock management efficiency.
- The plan converges multiple schemes and financing mechanisms to create an integrated grain management ecosystem at the village level.

KEY HIGHLIGHTS

• **PACS-Centric Model:** Grain storage facilities to be developed at Primary Agricultural Credit Societies.

• **Decentralised Infrastructure:** Reduces transport costs and post-harvest losses.

• **Integrated Facilities:** Storage, processing, custom hiring centres, and input distribution under one roof.

• **Financial Inclusion:** Enables pledge financing and warehouse receipt systems.

• **Food Security Support:** Strengthens buffer stock and local procurement mechanisms.

• **Employment Generation:** Creates rural infrastructure and logistics jobs.

• **Scheme Convergence:** Utilises existing agriculture and cooperative schemes for funding.

• **Supply Chain Modernisation:** Moves toward scientific storage and value-chain integration.

PRELIMS BOOSTER BOX

• PACS operate at village level under cooperative framework.
• Grain storage reduces post-harvest losses.
• Warehouse receipt system allows farmers to obtain credit against stored produce.
• Cooperatives are regulated by States (Entry 32, State List).
• Decentralised procurement improves efficiency.
• Buffer stock management is handled through food security mechanisms.
• Modern silos reduce spoilage compared to traditional storage.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding the Grain Storage Plan in the Cooperative Sector:

1. It focuses on developing storage infrastructure at PACS level.
2. It enables farmers to access credit through warehouse receipt systems.
3. It centralises all grain storage exclusively under urban warehouses.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

3.Digitisation of Post Office Savings Schemes

- The digitisation initiative enables online transactions, interoperability across post offices, real-time account updates, and improved customer service for Post Office Savings Schemes.
- It strengthens financial inclusion by modernising one of India's largest grassroots banking networks.

BACKGROUND / CONTEXT

- Post Office Savings Schemes are a major channel for small savings mobilisation, particularly in rural and semi-urban areas.
- Traditionally operated through manual processes, the system faced challenges in portability, service delays, and data management.
- With the introduction of **Core Banking Solutions (CBS)** and digital platforms, India Post has transitioned toward real-time processing, ATM access, mobile banking, and Aadhaar-based services.
- This transformation aligns with India's broader digital governance and financial inclusion strategy.
- The initiative enhances trust in small savings instruments and supports seamless integration with the formal banking ecosystem.

KEY HIGHLIGHTS

• **Core Banking Integration:** All post office savings accounts linked to CBS for nationwide interoperability.

• **Anywhere Banking:** Customers can transact from any CBS-enabled post office.

• **Digital Transactions:** Online deposits, withdrawals, and account monitoring.

• **Financial Inclusion Boost:** Strengthens access in rural and remote regions.

• **Transparency & Efficiency:** Real-time updates reduce errors and processing delays.

• **Interoperability:** ATM and digital payment services integrated with broader banking network.

• **Customer Convenience:** SMS alerts, passbook updates, and electronic record-keeping.

• **Data Security:** Enhanced monitoring and digital safeguards.

PRELIMS BOOSTER BOX

• Post Office Savings Schemes include PPF, NSC, MIS, RD, and Sukanya Samriddhi.
• CBS enables real-time banking operations.
• India Post operates one of the largest postal networks globally.
• Digitisation improves portability and service efficiency.
• Small savings contribute to government borrowing.
• Financial inclusion targets rural and unbanked populations.
• Aadhaar and mobile linkage support digital transactions.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding digitisation of Post Office Savings Schemes:

1. Core Banking Solutions enable nationwide interoperability of accounts.
2. Digitisation supports financial inclusion in rural areas.

3. Post Office Savings Schemes operate independently of digital platforms.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

4.Advancing India's Mental Healthcare and Well-Being

- India is adopting a multi-pronged strategy to improve mental health outcomes through expansion of institutional capacity, digital mental health services, community awareness, and integration of mental healthcare into primary health systems.
- The approach seeks to reduce the treatment gap, combat stigma, and ensure affordable and accessible services nationwide.

BACKGROUND / CONTEXT

- India faces a significant mental health treatment gap due to limited specialists, social stigma, and uneven service distribution.
- The **Mental Healthcare Act, 2017** recognised mental health as a right and mandated access to affordable services.
- Programmes such as the District Mental Health Programme (DMHP) and national tele-mental health platforms are being strengthened to decentralise services.
- The focus is shifting from hospital-based care to **community-oriented, preventive, and technology-enabled mental healthcare**.
- The strategy aligns with broader public health goals and emphasises well-being as integral to human development.

KEY HIGHLIGHTS

• **Legal Backing:** Mental Healthcare Act, 2017 guarantees right to mental healthcare.

• **District-Level Services:** Expansion of DMHP for decentralised care delivery.

• **Tele-Mental Health:** 24×7 digital platforms for counselling and referral services.

• **Workforce Expansion:** Training of psychiatrists, psychologists, and counsellors.

• **Primary Care Integration:** Inclusion of mental health screening at Health & Wellness Centres.

• **Awareness Campaigns:** Efforts to reduce stigma and promote early help-seeking behaviour.

• **Crisis Intervention:** Strengthened suicide prevention and helpline services.

• **Holistic Well-Being:** Emphasis on preventive care and community engagement.

PRELIMS BOOSTER BOX

• Mental Healthcare Act, 2017 recognises mental healthcare as a legal right.
• District Mental Health Programme provides community-based services.
• Tele-mental health bridges rural–urban access gaps.
• Mental health disorders contribute significantly to disease burden.
• Integration into primary healthcare improves early detection.
• Stigma remains a barrier to care-seeking.
• Public health is a **State subject**, with central support schemes.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding India's mental healthcare initiatives:

1. The Mental Healthcare Act, 2017 provides legal recognition to the right to mental healthcare.
2. Tele-mental health services help expand access in underserved areas.
3. Mental healthcare delivery in India is exclusively managed by the Central Government.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

1. World Cancer Day 2026 at All India Institute of Ayurveda, New Delhi: Awareness and Academic Activities

- World Cancer Day 2026 was marked at AIIA through expert lectures, public awareness sessions, and academic discussions focusing on prevention, lifestyle modification, early diagnosis, and complementary approaches to cancer care.
- The initiative aimed to sensitise both professionals and the public while promoting evidence-based integration of Ayurveda with modern oncology.

BACKGROUND / CONTEXT

- World Cancer Day is observed annually on 4 February under the global leadership of Union for International Cancer Control (UICC) to raise awareness, improve education, and mobilise action against cancer.
- India faces a rising cancer burden driven by ageing population, lifestyle factors, and environmental risks. Alongside conventional treatment systems, the government is strengthening integrative healthcare through institutions like AIIA under Ministry of Ayush, emphasising prevention, wellness, and patient-centric care.

KEY HIGHLIGHTS

- **Awareness Outreach:** Public sessions on cancer risk factors, early warning signs, and preventive lifestyles.

- **Academic Engagement:** Expert talks on integrative oncology and supportive Ayurvedic care.

- **Preventive Focus:** Emphasis on diet, exercise, tobacco cessation, and stress management.

- **Integrative Approach:** Highlighted complementary role of Ayurveda in symptom management and quality of life.

- **Capacity Building:** Participation of doctors, students, and researchers in knowledge-sharing forums.

- **Community Sensitisation:** Encouraged timely screening and medical consultation.

PRELIMS BOOSTER BOX

- World Cancer Day is observed on **4 February** every year.
- UICC coordinates global World Cancer Day campaigns.
- AIIA is an autonomous institute under the Ministry of Ayush.
- Cancer prevention includes lifestyle modification and early screening.
- Integrative healthcare combines conventional medicine with traditional systems.
- India's National Programme for Prevention and Control of Cancer is part of NPCDCS.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding World Cancer Day 2026 observance at AIIA:

1. It focused on cancer awareness and academic discussions.
2. It promoted integrative healthcare approaches alongside conventional medicine.

3. It replaced standard oncology treatment protocols with Ayurveda.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

2.India Joins BRICS Centre for Industrial Competencies to Support Manufacturing and MSMEs

- By joining BCIC, India aims to enhance industrial skills, promote technology sharing, and support MSME competitiveness through BRICS collaboration.
- The move aligns with India's manufacturing ambitions by linking workforce development with global best practices and industry-driven competencies.

BACKGROUND / CONTEXT

- BRICS cooperation increasingly focuses on **practical economic collaboration**, including skills, innovation, and industrial ecosystems.
- The BRICS Centre for Industrial Competencies was conceived to address skill gaps in emerging technologies and advanced manufacturing.
- India's participation complements domestic initiatives such as *Make in India*,

Skill India, and MSME reforms, while opening channels for joint training programmes, certification frameworks, and knowledge exchange across BRICS nations.
- The initiative also supports India's transition from labour-intensive manufacturing toward **high-skill, technology-enabled production systems**.

KEY HIGHLIGHTS

- **Skill Development Platform:** BCIC promotes industry-aligned training and certification standards across BRICS.

- **MSME Enablement:** Focus on improving productivity, quality compliance, and global market readiness of MSMEs.

- **Technology Exchange:** Facilitates sharing of best practices in smart manufacturing and industrial automation.

- **Workforce Modernisation:** Supports upskilling in emerging areas such as advanced materials, digital manufacturing, and robotics.

- **Global Integration:** Connects Indian enterprises with BRICS industrial value chains.

- **Manufacturing Push:** Reinforces India's goal of becoming a competitive global manufacturing hub.

- **South–South Cooperation:** Strengthens collaboration among developing economies in industrial capacity building.

PRELIMS BOOSTER BOX

- BRICS consists of Brazil, Russia, India, China, and South Africa.
- BCIC focuses on **industrial skills and competencies**, not financial lending.
- MSMEs contribute nearly **30% to India's GDP**.
- Skill development is a key pillar of India's manufacturing strategy.
- Industrial competency frameworks link education with industry requirements.

• BRICS cooperation extends to trade, technology, health, and capacity building.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding India joining the BRICS Centre for Industrial Competencies:

1. It aims to strengthen industrial skills and workforce capabilities.
2. It supports MSME competitiveness through knowledge and technology exchange.
3. It functions primarily as a financial lending institution.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

3.Future Warfare Course 3.0 Emphasizes Cognitive and Cyber Domains at Manekshaw Centre

- Future Warfare Course 3.0 is a capacity-building initiative aimed at sensitising senior military officers to the changing character of warfare.
- The course highlighted how modern conflicts are increasingly shaped by cyber operations, information influence, and cognitive dominance, alongside conventional military power.

BACKGROUND / CONTEXT

- Contemporary warfare has expanded beyond land, sea, air, space, and cyber into the **cognitive domain**, where perception management, misinformation, and psychological operations play decisive roles.
- India's armed forces are adapting to this shift by integrating **technology, strategic communication, artificial intelligence, and cyber capabilities** into doctrine and training.
- The Future Warfare Course series reflects this transition toward **multi-domain operations**, recognising that future conflicts will be hybrid, data-driven, and narrative-intensive.
- Such initiatives support India's broader defence modernisation efforts under *Atmanirbhar Bharat* and emphasis on indigenised, tech-enabled armed forces.

KEY HIGHLIGHTS

• **Cognitive Warfare Focus:** Emphasis on shaping perceptions, decision-making, and morale in conflict environments.

• **Cyber Domain Integration:** Training on cyber threats, digital resilience, and offensive–defensive cyber operations.

• **Multi-Domain Perspective:** Combines conventional, cyber, information, and psychological dimensions of warfare.

• **Leadership Orientation:** Designed for senior officers to enhance strategic foresight and adaptive command.

• **Technology Interface:** Discussions on AI, data analytics, and emerging military technologies.

• **Hybrid Threat Awareness:** Addresses grey-zone conflicts, disinformation campaigns, and proxy warfare.

• **Future-Ready Forces:** Aims to build intellectually agile and technologically aware military leadership.

PRELIMS BOOSTER BOX

• Cognitive warfare targets **human perception and decision-making**.
• Cyber domain includes networks, data systems, and digital infrastructure.
• Modern conflicts are increasingly **hybrid**, blending kinetic and non-kinetic tools.
• Multi-domain operations integrate land, sea, air, space, cyber, and information domains.
• Strategic communication is a key component of contemporary military doctrine.
• Defence training increasingly incorporates AI and digital technologies.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding Future Warfare Course 3.0:

1. It highlighted the role of cognitive and cyber domains in modern warfare.
2. It aimed at enhancing strategic preparedness of senior military leadership.
3. It focused exclusively on conventional battlefield tactics.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

4.National Action for Mechanised Sanitation Ecosystem (NAMASTE)

- NAMASTE aims to create a safe, dignified, and mechanised sanitation ecosystem by replacing manual sewer/septic tank cleaning with machines, providing livelihood support to sanitation workers, and ensuring zero fatalities in sanitation operations.
- The scheme integrates technology, skill development, and social security to permanently end manual scavenging.

BACKGROUND / CONTEXT

- Despite legal prohibition, hazardous sanitation work persisted due to lack of mechanisation and alternative livelihoods.
- To address this structural issue, NAMASTE was launched as a central sector scheme to operationalise the objectives of the Prohibition of Employment as Manual Scavengers Act and strengthen urban sanitation systems.
- NAMASTE complements Swachh Bharat Mission–Urban by focusing specifically on **worker safety and mechanised operations**, while enabling sanitation workers to transition into entrepreneurs and skilled machine operators.
- The programme is implemented with support from National Safai Karamcharis Finance and Development Corporation.

KEY HIGHLIGHTS

• **End of Manual Cleaning:** Complete shift to mechanised sewer and septic tank operations.

• **Worker Safety First:** Mandatory PPE, safety training, and standard operating procedures.

• **Livelihood Transition:** Financial assistance and skill training for sanitation workers to become machine owners/operators.

• **Zero Fatality Goal:** Strict protocols to prevent deaths during sanitation work.

• **Technology Adoption:** Deployment of robotic cleaners, jetting machines, and desludging vehicles.

• **Urban Coverage:** Implemented across statutory towns and cities.

• **Social Security Linkage:** Insurance, health coverage, and alternative employment pathways.

• **Dignity & Inclusion:** Focus on rehabilitation and mainstreaming of affected communities.

PRELIMS BOOSTER BOX

• NAMASTE is a **Central Sector Scheme**.
• Implemented by MoHUA and MoSJE.
• NSKFDC provides financial and livelihood support.
• Targets **sewer and septic tank workers**.
• Emphasises mechanisation + rehabilitation.
• Aligns with Swachh Bharat Mission–Urban.
• Manual scavenging is prohibited under law.
• Scheme promotes sanitation entrepreneurship.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding NAMASTE:

1. It aims to replace manual sanitation work with mechanised systems.
2. It provides livelihood and skill support to sanitation workers.
3. It is implemented exclusively by State Governments without Central involvement.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

5.Indian Railways' AI-Enabled Intrusion Detection System (IDS) to Prevent Elephant Deaths on Railway Tracks

- The AI-based IDS system detects ground vibrations and movement patterns along railway tracks to identify elephant presence in advance.
- Automated alerts are transmitted to railway personnel, enabling speed regulation or train stoppage.
- The initiative integrates wildlife conservation with rail safety through advanced sensor and analytics technology.

BACKGROUND / CONTEXT

- Train–elephant collisions have been a persistent concern in forested rail stretches, particularly in eastern and southern India where tracks pass through traditional elephant corridors.
- To address this, Indian Railways is adopting **non-intrusive, fibre-optic-based Distributed Acoustic Sensors**, which convert existing optical fibre cables into continuous monitoring

systems. Artificial intelligence algorithms analyse vibration signatures to distinguish elephants from humans, vehicles, or environmental noise.

- This technological intervention supports India's broader wildlife protection efforts in coordination with Ministry of Environment, Forest and Climate Change and State Forest Departments, reflecting a shift toward **tech-enabled conservation infrastructure**.

KEY HIGHLIGHTS

• **AI + DAS Integration:** Uses fibre-optic cables to detect vibrations and movement near tracks in real time.

• **Early Warning Alerts:** Automated messages sent to loco pilots, station masters, and control rooms.

• **Wildlife Protection:** Specifically designed to prevent elephant–train collisions in sensitive corridors.

• **Continuous Monitoring:** Provides round-the-clock surveillance across identified vulnerable stretches.

• **Non-Invasive Technology:** No physical barriers; leverages existing railway optical fibre network.

• **Operational Safety:** Enables speed restriction or train halting when elephants are detected.

• **Conservation-Tech Model:** Demonstrates convergence of transport infrastructure with ecological safeguards.

• **Scalable Solution:** Can be extended to other wildlife corridors and high-risk zones.

PRELIMS BOOSTER BOX

• Distributed Acoustic Sensing (DAS) converts fibre-optic cables into vibration detectors.
• Elephant corridors are traditional migration routes used by elephant herds.
• Human–wildlife conflict mitigation increasingly uses AI and sensor technologies.
• Indian Railways operates one of the world's largest fibre-optic networks.
• Wildlife protection is a **Concurrent subject** (Centre + States).
• Tech-based early warning systems are part of India's conservation strategy.
• Elephant is a **Schedule I species** under Wildlife Protection Act, 1972.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding Indian Railways' AI-enabled IDS:

1. It uses Distributed Acoustic Sensing to detect elephant movement near tracks.
2. It generates real-time alerts for railway staff to prevent collisions.
3. It relies on physical fencing of railway corridors.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

1.Prime Minister Condoles Loss of Lives in a Mishap in East Jaintia Hills, Meghalaya

- Following a fatal incident in East Jaintia Hills district, the Prime Minister conveyed sympathies to the affected families and directed authorities to ensure prompt relief and assistance.
- The response highlights India's standard protocol of immediate compensation and coordinated rescue and relief operations during disasters and accidents.

BACKGROUND / CONTEXT

- Meghalaya's hilly terrain and dispersed rural settlements make emergency response challenging during accidents and natural calamities.
- In such situations, the Government of India provides financial assistance through the National Disaster Response framework, while State authorities undertake rescue, medical aid, and rehabilitation.
- Prime Ministerial condolences are typically accompanied by **ex-gratia payments from PMNRF** and coordination with state disaster management agencies.
- The incident underscores the importance of **local disaster preparedness, rapid response systems, and infrastructure resilience** in vulnerable regions.

KEY HIGHLIGHTS

• **Prime Ministerial Condolence:** Expression of grief and solidarity with affected families.

• **Ex-Gratia Assistance:** Financial support announced for next of kin of deceased and injured.

• **Relief Coordination:** Centre and State agencies engaged in rescue and relief operations.

• **Emergency Response:** Deployment of medical teams and local administration.

• **Disaster Management Mechanism:** Assistance routed through established national and state frameworks.

• **Focus on Preparedness:** Incident highlights need for improved safety and response capacity in remote areas.

PRELIMS BOOSTER BOX

• Meghalaya lies in **India's North-Eastern Region**.
• Disaster management is a **Concurrent subject**.
• PMNRF provides financial assistance during accidents and disasters.
• District administration leads first-response operations.
• NDMA frames national disaster management guidelines.
• Hilly regions require specialised rescue and communication infrastructure.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding disaster response in India:

1. Ex-gratia assistance during major mishaps is often provided through PMNRF.
2. District administration plays a key role in immediate rescue operations.
3. Disaster management is solely the responsibility of the Central Government.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

Last-mile Digital Connectivity

DETAILS OF THE BHARATNET PROJECT

- Over **5.6 lakh kms** of Optical fibre cable (OFC) laid in the country
- Total **1,72,361 GPs** (1,68,010 GPs on OFC and 4,351 GPs on satellite) have been made service ready in the country
- **₹27,582.7 crore** has been disbursed/ utilised under the BharatNet project
- Wi-Fi hotspots have been installed in **1,04,288 GPs**
- **2,13,834 Fibre** to the Home broadband connections are provided
- **36,333 km** dark fibre and **4,038 Gbps** bandwidth has been leased

Source: Department of Telecommunications, Ministry of Communications

WHY IN NEWS?

The Ministry of Communications highlighted renewed efforts to strengthen **last-mile digital connectivity**, focusing on rural broadband, public Wi-Fi, and fibre-to-village infrastructure to bridge India's digital divide.

SUMMARY

Last-mile digital connectivity refers to delivering internet access from main networks directly to end users—especially in rural and remote areas. India is accelerating fibre rollout, public Wi-Fi deployment, and digital service centres to ensure inclusive access to e-governance, education, healthcare, and financial services.

BACKGROUND / CONTEXT

While India has rapidly expanded its core telecom infrastructure, the final stretch connecting households and villages remains a key bottleneck.

To address this, flagship programmes such as BharatNet and public Wi-Fi initiatives aim to connect Gram Panchayats and underserved habitations with high-speed broadband.

Last-mile connectivity is foundational for Digital India—enabling telemedicine, online education, DBT delivery, and digital entrepreneurship—particularly in aspirational districts and border regions.

KEY HIGHLIGHTS

• **Village Fibre Backbone:** Optical fibre extended to Gram Panchayats under BharatNet.

• **Public Wi-Fi Access:** Deployment of affordable hotspots in rural and semi-urban areas.

• **Service Delivery Enablement:** Supports e-governance, online education, telemedicine, and banking.

- **Digital Inclusion:** Targets underserved populations and geographically difficult regions.

- **Private Sector Participation:** Encourages ISPs and startups to deliver last-mile solutions.

- **5G Readiness:** Creates groundwork for advanced digital applications and smart services.

- **Economic Impact:** Boosts MSMEs, remote work, and rural digital entrepreneurship.

- **Resilience Building:** Improves disaster communication and real-time service access.

PRELIMS BOOSTER BOX

- Last-mile connectivity = final link between backbone network and user.
- BharatNet aims to connect all Gram Panchayats with broadband.
- Digital connectivity supports **Direct Benefit Transfer (DBT)**.
- Rural broadband is critical for telemedicine and online learning.
- Telecom is a **Union subject**.
- Public Wi-Fi expands access without individual subscriptions.
- Digital infrastructure is a pillar of *Digital India*.

PYQ BOOSTER SECTION

Prelims (2020):
With reference to Digital India, consider the following statements:

1. Broadband highways are one of its components.
2. It aims at universal digital literacy.

Which of the statements given above is/are correct?

Mains (GS III – 2021):
Discuss the role of digital infrastructure in promoting inclusive growth in India.

MAINS PRACTICE QUESTION

Last-mile digital connectivity is crucial for inclusive development. Analyse its role in bridging rural–urban disparities and strengthening service delivery in India. (150 words)

AI-GENERATED UPSC MCQ

Consider the following statements regarding last-mile digital connectivity:

1. It focuses on connecting end users to the core telecom network.
2. BharatNet plays a key role in rural broadband expansion.
3. It is relevant only for entertainment and social media access.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

1.President of India Graces Black Swan Summit, India at Bhubaneswar

- The Black Swan Summit, India brought together policymakers, industry leaders, startups, and academics to deliberate on managing high-impact, low-probability events popularly termed "black swan" events.
- The President emphasised adaptive leadership, technology-driven solutions, and institutional resilience to navigate uncertainty in an interconnected world.

BACKGROUND / CONTEXT

- "Black Swan" events refer to unpredictable occurrences with massive societal and economic consequences such as pandemics, financial crises, and climate shocks.
- India is increasingly focusing on **anticipatory governance**, digital public infrastructure, disaster resilience, and innovation ecosystems to better absorb such shocks.
- Hosting the summit in Bhubaneswar reflects Odisha's growing profile in disaster management and digital governance.
- The summit aligns with India's broader agenda of **future-ready**

policymaking, integrating risk assessment, technology adoption, and collaborative problem-solving.

KEY HIGHLIGHTS

- **Presidential Address:** Emphasis on resilience, innovation, and preparedness for systemic shocks.

- **Risk & Resilience Dialogue:** Discussions on climate risks, cyber threats, health emergencies, and economic disruptions.

- **Innovation Ecosystem:** Engagement with startups and technology leaders on adaptive solutions.

- **Policy–Industry Interface:** Platform for collaboration between government and private sector.

- **Future Governance Focus:** Stress on data-driven decision-making and institutional agility.

- **Regional Significance:** Showcases Bhubaneswar as an emerging hub for knowledge events.

- **Strategic Awareness:** Encourages scenario planning and early-warning mechanisms.

PRELIMS BOOSTER BOX

- Black Swan events are **rare, high-impact, and unpredictable**.
- Bhubaneswar is the capital of Odisha.
- Presidential participation reflects the importance of resilience-led development.
- Disaster preparedness is a **Concurrent subject**.
- Anticipatory governance focuses on future risk management.
- India promotes innovation through startups

and digital infrastructure.
• Climate change increases the frequency of extreme risk events.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding the Black Swan Summit, India:

1. It focused on managing high-impact, low-probability global risks.
2. The President highlighted innovation and resilience as key national priorities.
3. The summit dealt exclusively with financial markets.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

2.Intermediate Range Ballistic Missile 'Agni-3' Successfully Test-Fired

- The successful test of Agni-3 demonstrates India's reliable long-range strike capability and advances its indigenous missile programme.
- The launch validated range, accuracy, and system performance parameters, strengthening India's credible minimum deterrence posture.

BACKGROUND / CONTEXT

- Agni-3 is part of India's Agni series of ballistic missiles developed under the Integrated Guided Missile Development Programme.
- Designed for strategic deterrence, it is capable of carrying nuclear and conventional warheads.
- The missile uses a two-stage solid-propellant system and provides India with extended reach, enhancing second-strike capability.
- Regular testing ensures system reliability, crew preparedness, and technological upgrades.
- The programme aligns with India's defence indigenisation goals and strategic autonomy under *Atmanirbhar Bharat*.

KEY HIGHLIGHTS

• **Intermediate Range Capability:** Designed for long-distance strategic strike missions.

• **Two-Stage Solid Propulsion:** Enables high reliability and rapid launch readiness.

• **High Accuracy:** Advanced guidance and navigation systems ensure precise targeting.

• **Operational Validation:** Test confirmed performance of propulsion, control, and re-entry systems.

• **Strategic Deterrence:** Strengthens India's credible minimum deterrence doctrine.

• **Indigenous Development:** Entire system developed by DRDO with Indian industry support.

- **Force Readiness:** Enhances preparedness of Strategic Forces Command.

PRELIMS BOOSTER BOX

- Agni-3 is an **Intermediate Range Ballistic Missile (IRBM)**.
- Uses **solid fuel**, enabling quicker deployment.
- Part of India's **nuclear triad land-based leg**.
- Ballistic missiles follow a **parabolic trajectory**.
- Developed by DRDO.
- Provides **second-strike capability**.
- Tested from Integrated Test Range, Odisha.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding Agni-3 missile:

1. It is an Intermediate Range Ballistic Missile developed indigenously.
2. It uses solid fuel propulsion.
3. It is primarily designed for air-to-air combat missions.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

3.Update on Tele-MANAS

- Tele-MANAS (Tele Mental Health Assistance and Networking Across States) is India's 24×7 mental health helpline offering free psychological support, counselling, and specialist referrals.
- The programme has scaled up nationwide, improving access to mental healthcare, especially for underserved and remote populations.

BACKGROUND / CONTEXT

- Tele-MANAS was launched as part of the National Tele Mental Health Programme to address India's large treatment gap in mental health.
- With limited psychiatrists and uneven distribution of services, digital platforms are being leveraged to provide first-contact care, crisis intervention, and continuity support.
- Tele-MANAS integrates trained counsellors with district mental health services and tertiary institutions, ensuring stepped care.

- The initiative complements India's broader digital health ecosystem and aligns with preventive and community-based mental healthcare delivery.

KEY HIGHLIGHTS

• **24×7 Toll-Free Access:** Nationwide mental health helpline available in multiple languages.

• **Two-Tier Support System:** Initial counselling by trained professionals followed by specialist referral when required.

• **Pan-India Coverage:** Integrated with State mental health services and medical colleges.

• **Crisis Intervention:** Immediate assistance for anxiety, depression, substance use, and suicidal ideation.

• **Digital Health Integration:** Linked with national health platforms for continuity of care.

• **Capacity Building:** Ongoing training of counsellors and clinicians.

• **Reducing Treatment Gap:** Improves early detection and access to care.

• **Community Outreach:** Awareness drives to normalise mental health conversations.

PRELIMS BOOSTER BOX

• Tele-MANAS is part of the **National Tele Mental Health Programme**.
• Provides **free 24×7 counselling** via phone.
• Operates through a **hub-and-spoke model**.
• Mental healthcare is covered under the **Mental Healthcare Act, 2017**.
• India faces a significant mental health treatment gap.

• Tele-mental health supports rural and remote populations.
• Programme aligns with Digital Health Mission objectives.

PadhAI-GENERATED UPSC MCQ

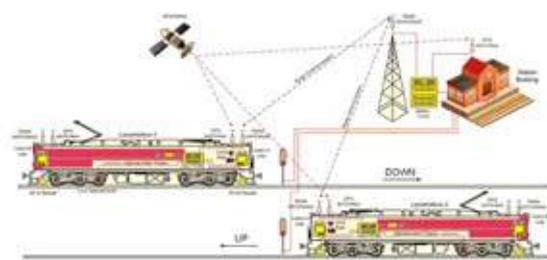**Consider the following statements regarding Tele-MANAS:**

1. It provides round-the-clock mental health support across India.
2. It follows a tiered system of counselling and specialist referral.
3. It is limited only to urban populations.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

4.On Safer Tracks: How Kavach and AI Are Strengthening Railway Safety in India

- Indian Railways is integrating **Kavach (indigenous Automatic Train Protection system)** with Artificial Intelligence tools such as video analytics and intrusion detection to reduce human error, avoid signal-passing-at-danger incidents, and improve situational awareness.

- Together, these technologies mark a shift toward **predictive, automated, and intelligence-led railway safety**.

BACKGROUND / CONTEXT

- Railway safety traditionally relied heavily on human vigilance and signalling systems.
- With rising traffic density and speed, technology-driven safeguards have become essential.
- Kavach was developed as an indigenous ATP solution to automatically apply brakes when a loco pilot overshoots signals or exceeds prescribed speed limits.
- Parallelly, AI systems are being deployed for track monitoring, obstacle detection, crowd management, and wildlife intrusion alerts.
- This transition aligns with India's broader push for **digital infrastructure, automation, and zero-accident goals** in critical transport networks.

KEY HIGHLIGHTS

• **Kavach Deployment:** Indigenous Automatic Train Protection system prevents collisions by intervening during human error.

• **Automatic Braking:** Activates when trains cross red signals or exceed safe speed thresholds.

• **AI Surveillance:** Computer vision monitors platforms, tracks, and sensitive zones for anomalies.

• **Real-Time Alerts:** Control rooms and loco pilots receive instant warnings for faster response.

• **Human Error Reduction:** Technology acts as a fail-safe layer over manual operations.

• **Wildlife & Intrusion Detection:** AI systems help prevent accidents in forest corridors and vulnerable stretches.

• **High-Density Route Focus:** Prioritised rollout on busy and high-risk railway sections.

• **Towards Zero Accidents:** Supports Indian Railways' long-term safety modernisation roadmap.

PRELIMS BOOSTER BOX

• Kavach is India's **indigenous Automatic Train Protection (ATP)** system.
• ATP systems automatically intervene to prevent train collisions.
• AI in railways is used for **video analytics, obstacle detection, and predictive maintenance**.
• Railway safety is managed centrally under Indian Railways.
• Kavach works through onboard equipment + trackside devices + radio communication.
• AI-enabled monitoring supports crowd control and trespass detection.
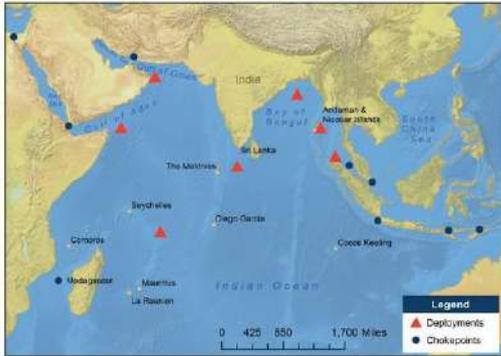• Transport infrastructure safety is critical for economic resilience.

AI–GENERATED UPSC MCQ

Consider the following statements regarding Kavach and AI in Indian Railways:

1. Kavach is an indigenous Automatic Train Protection system.
2. AI tools are used for surveillance, intrusion detection, and safety analytics.
3. Kavach operates only through manual intervention by loco pilots.

1.India–Seychelles Joint Vision for Sustainability, Economic Growth and Security through Enhanced Linkages

MAP 2
Indian Navy's Mission-Based Deployment

SOURCE: Directorate of Strategy, Concepts, and Transformation, Integrated Headquarters, "Ensuring Secure Seas: Indian Maritime Security Strategy," Naval Strategic Publication 1.2, Indian Navy, October 2015, https://www.indiannavy.nic.in/ sites/default/files/Indian_Maritime_Security_Strategy_Document_25Jan16.pdf; Press Information Bureau, "Year End Review—2019 Ministry of Defense," Government of India Ministry of Defense, December 27, 2019, http://pibarchive.nic. in/newsite/PrintRelease.aspx?relid=196160; Sujan Dutta, "Indian Navy Informs Government About the Fleet's Reoriented Mission Pattern," New Indian Express, April 1, 2018, https://www.newindianexpress.com/nation/2018/apr/01/indian-navy-informs-government-about-the-fleets-reoriented-mission-pattern-1795404.html; based on maps from Natural Earth, https://www.naturalearthdata.com/downloads/50m-raster-data/50m-natural-earth-1/.

- The Joint Vision outlines a comprehensive roadmap to expand India–Seychelles ties through green development, blue economy cooperation, capacity building, trade and investment, and enhanced maritime security.
- It reinforces India's commitment to reliable partnerships in the Indian Ocean while supporting Seychelles' sustainable development priorities.

BACKGROUND / CONTEXT

- India and Seychelles share close historical, cultural, and strategic ties. Seychelles' location in the western Indian Ocean makes it pivotal for **sea lane security, disaster resilience, and the blue economy**.
- The Joint Vision aligns with India's **SAGAR** (Security and Growth for All in the Region) approach and its wider Indo-Pacific engagement, focusing on people-centric development and rules-based maritime order.

KEY HIGHLIGHTS

- **Sustainability Partnership:** Cooperation in renewable energy, climate resilience, and sustainable infrastructure.

- **Blue Economy Focus:** Joint initiatives in fisheries, marine conservation, and ocean-based livelihoods.

- **Economic Linkages:** Measures to boost trade, investment, tourism, and capacity building.

- **Connectivity Enhancement:** Improved air, sea, and digital connectivity for commerce and people-to-people ties.

- **Maritime Security:** Collaboration on surveillance, training, and maritime domain awareness.

- **Development Assistance:** India's support for health, education, and skill development projects.

- **People-to-People Bonds:** Cultural exchanges, training, and diaspora engagement.

- **Regional Stability:** Shared commitment to a free, open, and secure Indian Ocean.

PRELIMS BOOSTER BOX

- Seychelles is a **Small Island Developing State (SIDS)**.
- India's **SAGAR** doctrine guides Indian Ocean engagement.
- The blue economy integrates ocean resources with sustainable growth.
- Maritime security includes MDA, SAR, and anti-piracy cooperation.
- Climate adaptation is critical for island

nations.
• India prioritises capacity building and development partnerships in the Indian Ocean.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding the India–Seychelles Joint Vision:

1. It focuses on sustainability, economic cooperation, and maritime security.
2. It aligns with India's SAGAR approach in the Indian Ocean.
3. It is limited only to defence cooperation.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

2.Preservation of Tangible and Intangible Cultural Heritage

- India's approach to cultural heritage preservation integrates protection of physical assets such as monuments and artefacts with safeguarding of living traditions like languages, rituals, performing arts, and craftsmanship.
- The strategy combines legal protection, institutional support, community participation, and digital documentation to ensure inter-generational transmission of heritage.

BACKGROUND / CONTEXT

- India possesses one of the world's richest and most diverse cultural heritages.
- While tangible heritage faces threats from urbanisation, pollution, and climate change, intangible heritage is vulnerable to globalisation, loss of practitioners, and generational disconnect.
- To address these challenges, India has adopted a **holistic heritage management framework**, aligned with international conventions and national laws.
- Institutions like the Archaeological Survey of India protect monuments, while cultural academies and schemes support artists, folk traditions, and oral knowledge systems.
- Preservation efforts increasingly emphasise **community ownership, documentation, and integration of heritage with livelihoods**.

KEY HIGHLIGHTS

• **Tangible Heritage Protection:** Conservation of monuments, archaeological sites, manuscripts, and museum collections.

• **Intangible Heritage Safeguarding:** Support for folk arts, languages, rituals, oral traditions, and traditional knowledge.

• **Legal & Institutional Framework:** Protection through heritage laws, regulations, and specialised institutions.

• **Digital Documentation:** Use of digitisation and cultural mapping to record heritage assets.

• **Community Participation:** Involvement of local communities as custodians of living heritage.

• **Livelihood Linkage:** Promotion of crafts and cultural industries for sustainable income generation.

• **Education & Awareness:** Integrating heritage education to foster cultural consciousness.

• **Global Engagement:** Alignment with international heritage norms and conventions.

PRELIMS BOOSTER BOX

• Tangible heritage includes **monuments, sites, artefacts, and manuscripts**.
• Intangible heritage includes **performing arts, rituals, festivals, languages, and oral traditions**.
• India is a signatory to UNESCO conventions on cultural heritage.
• Archaeological Survey of India manages centrally protected monuments.
• Cultural preservation supports **identity, diversity, and social cohesion**.

• Digital tools aid heritage documentation and outreach.
• Culture is primarily a **State subject**, with central coordination.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding cultural heritage preservation:

1. Tangible heritage refers to physical cultural assets such as monuments and artefacts.
2. Intangible heritage includes living traditions, performing arts, and oral practices.
3. Preservation of cultural heritage is solely the responsibility of the Central Government.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

3.Water Testing Facilities and Services in the Country

DRINKING WATER TESTING

- India has developed a multi-tier system of water testing facilities comprising state, district, sub-district laboratories, mobile labs, and field testing kits.
- These services aim to regularly monitor drinking water quality, detect chemical and bacteriological contamination, and ensure compliance with national drinking water standards, especially in rural and remote areas.

BACKGROUND / CONTEXT

- Safe drinking water is a critical determinant of public health. Contaminants such as fluoride, arsenic, iron, nitrate, and microbial pathogens pose serious health risks in several regions.
- To address this, the government strengthened water quality monitoring under programmes like the Jal Jeevan Mission, focusing on **laboratory infrastructure, human resources, community participation, and digital reporting**.
- The emphasis has shifted from reactive testing to **preventive and continuous monitoring** of water sources.

KEY HIGHLIGHTS

• **Multi-Level Laboratory Network:** Water testing labs established at state, district, and block levels.

• **Field Testing Kits (FTKs):** Rapid on-site testing of basic chemical and bacteriological parameters.

• **Mobile Water Labs:** Reach remote and underserved habitations for periodic testing.

• **Standardised Protocols:** Testing aligned with Bureau of Indian Standards drinking water norms.

• **Capacity Building:** Training of local personnel and village water committees.

• **Digital Monitoring:** Online reporting and data integration for transparency and follow-up action.

• **Public Health Linkage:** Early detection of contamination to prevent water-borne diseases.

• **Community Participation:** Involvement of local institutions in sample collection and monitoring.

PRELIMS BOOSTER BOX

• Drinking water quality standards are prescribed by **BIS (IS 10500)**.
• Jal Jeevan Mission emphasises **water quality monitoring and surveillance**.
• Common contaminants include fluoride, arsenic, iron, nitrate, and bacteria.
• Field Testing Kits allow **community-level water testing**.
• Safe water access is linked to reduction in water-borne diseases.
• Water supply is a **State subject**, with central support.
• Mobile labs improve access in remote regions.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding water testing facilities in India:

1. Water testing is carried out through a network of laboratories and field testing kits.

2. Drinking water quality standards are prescribed by the Bureau of Indian Standards.
3. Water testing services are limited only to urban areas.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

4.Swavalambini Scheme

The Swavalambini Scheme is a women-centric entrepreneurship programme aimed at enabling economic independence through training, mentoring, and handholding support. It seeks to convert skills into enterprises by supporting women across the entrepreneurial lifecycle—from ideation to market linkage.

BACKGROUND / CONTEXT

- Women's labour force participation and entrepreneurship in India remain constrained by skill gaps, limited access to credit, and weak market linkages.
- To address these structural barriers, the government launched Swavalambini to provide **integrated support** rather than fragmented assistance.
- The scheme aligns with national priorities of **women-led development**, MSME promotion, and inclusive growth, complementing initiatives on skilling, startup incubation, and financial inclusion.

KEY HIGHLIGHTS

• **Entrepreneurship Training:** Structured modules on business planning, compliance, and financial literacy.

• **Mentoring & Handholding:** Continuous guidance by domain experts and industry mentors.

• **Access to Finance:** Facilitation of credit linkages, subsidies, and institutional support.

• **Market Linkages:** Support for branding, packaging, e-commerce, and buyer connections.

• **Target Beneficiaries:** Aspiring and existing women entrepreneurs, including SHG members.

• **Skill-to-Enterprise Pathway:** Converts vocational skills into viable business ventures.

• **Inclusive Coverage:** Focus on rural, semi-urban, and underserved regions.

• **Economic Empowerment:** Enhances income, autonomy, and local job creation.

PRELIMS BOOSTER BOX

• Swavalambini focuses on **women entrepreneurship**, not wage employment.
• Implemented by the Ministry of Social Justice and Empowerment.
• Emphasises training + mentoring + credit linkage.
• Complements MSME and startup ecosystems.
• Supports SHGs and first-generation entrepreneurs.
• Women-led enterprises improve household and community outcomes.
• Aligns with women-led development approach.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding the Swavalambini Scheme:

1. It promotes women entrepreneurship through training and mentoring.
2. It facilitates access to finance and market linkages for women-led enterprises.
3. It is designed exclusively for large-scale industrial projects.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

5.India Achieves Landmark Trade Victory, Unlocks $30-Trillion U.S. Market for Exports Across Key Sectors

- The trade outcome marks a strategic leap in India–U.S. economic relations, easing market entry barriers and strengthening supply-chain integration.
- It opens new export opportunities for Indian industries such as pharmaceuticals, engineering goods, electronics, textiles, and services, reinforcing India's global trade competitiveness.

BACKGROUND / CONTEXT

- India–U.S. trade relations have steadily deepened, driven by complementary economic strengths, resilient supply-chain needs, and strategic convergence.
- With global trade realignments and diversification away from concentrated supply chains, India has positioned itself as a trusted manufacturing and services partner.
- The latest breakthrough reflects sustained diplomatic engagement, regulatory alignment, and mutual recognition of standards, aligning with India's export-led growth strategy.

- This development also complements India's domestic manufacturing push under *Make in India* and its ambition to integrate with high-value global markets.

KEY HIGHLIGHTS

• **Expanded Market Access:** Indian exporters gain smoother entry into the U.S. market across priority sectors.

• **Sectoral Gains:** Boost for pharmaceuticals, medical devices, engineering goods, electronics, textiles, and IT-enabled services.

• **Supply Chain Integration:** Strengthens India's role in resilient and trusted global value chains.

• **Standards Alignment:** Improved regulatory cooperation and mutual recognition mechanisms.

• **MSME Opportunities:** Smaller exporters benefit from scale, demand, and technology exposure.

• **Employment Impact:** Export growth supports domestic job creation and manufacturing expansion.

• **Strategic Economic Partnership:** Reinforces India–U.S. trade as a pillar of bilateral relations.

• **Global Competitiveness:** Positions India as a reliable export hub for advanced and traditional sectors.

PRELIMS BOOSTER BOX

• United States is India's **largest trading partner**.
• Export-led growth supports manufacturing and employment.
• Market access depends on standards, tariffs, and regulatory norms.
• Trade diversification reduces external economic risks.
• Services exports form a major component of India–U.S. trade.
• Global value chains link production across multiple countries.
• Trade agreements increasingly focus on non-tariff barriers.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding India's expanded access to the U.S. market:

1. It improves export opportunities across multiple Indian sectors.
2. It strengthens India's integration into global value chains.
3. It restricts India's trade relations with other global markets.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

1.New Farming Techniques and Digital Services

- India is integrating advanced agricultural practices such as precision farming, natural farming, protected cultivation, and drone-based spraying with digital services including mobile advisories, satellite monitoring, and agri-market platforms.

- This transformation aims to modernise agriculture, reduce input costs, and enhance farm incomes through technology-driven interventions.

BACKGROUND / CONTEXT

- Indian agriculture faces challenges of small landholdings, climate variability, soil degradation, and market volatility.

- Traditional practices alone are insufficient to sustain productivity and profitability.

- To address this, the government is promoting **technology-enabled agriculture**, combining scientific innovation with digital platforms.

- Initiatives focus on soil health management, water-use efficiency, weather advisories, direct benefit transfers, and digital marketing

systems to create an integrated agri-ecosystem.

- The shift represents a move from subsistence farming toward **data-driven, sustainable, and market-linked agriculture**.

KEY HIGHLIGHTS

- **Precision Agriculture:** Use of drones, GPS, and sensors for targeted input application.

- **Digital Advisory Services:** Real-time weather updates, pest alerts, and crop guidance via mobile platforms.

- **Protected Cultivation:** Greenhouses and polyhouses to enhance yield and quality.

- **Soil Health Management:** Promotion of soil testing and balanced fertiliser use.

- **Smart Irrigation:** Drip and sprinkler systems to improve water efficiency.

- **e-Market Platforms:** Online marketing through digital agricultural marketplaces.

- **Climate-Resilient Practices:** Crop diversification and sustainable farming methods.

- **Financial Inclusion:** Digital payments and direct benefit transfers to farmers.

PRELIMS BOOSTER BOX

- Precision farming optimises inputs using technology.
- Drones are used for crop monitoring and spraying.
- Soil Health Card Scheme promotes scientific nutrient management.
- Drip irrigation conserves water.
- Digital platforms connect farmers to

markets and advisory services.
• Climate-resilient agriculture reduces vulnerability to weather shocks.
• Agriculture is a **State subject**, with central support schemes.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding new farming techniques in India:

1. Precision farming reduces input wastage through targeted application.

2. Digital advisory platforms provide real-time crop and weather information.

3. Protected cultivation decreases crop productivity.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

2.India Designated Country of the Year at BIOFACH 2026, Germany

- India's recognition as Country of the Year at BIOFACH 2026 highlights its growing leadership in organic farming and sustainable agriculture.

- The event offers Indian producers, exporters, and Farmer Producer Organisations (FPOs) enhanced visibility in international markets, strengthening India's position in the global organic value chain.

BACKGROUND / CONTEXT

- BIOFACH is the world's largest trade fair for certified organic products, organised annually in Nuremberg, Germany.

- India is one of the largest producers of organic commodities, supported by certification frameworks and export promotion mechanisms.

- India's organic sector has grown under initiatives promoting sustainable agriculture, cluster-based organic farming, and international certification standards.

- Participation at BIOFACH aligns with India's strategy to expand agri-exports and promote eco-friendly production systems.

KEY HIGHLIGHTS

• **Global Recognition:** India named Country of the Year at BIOFACH 2026.

• **Export Promotion:** Opportunity to expand organic exports to European and global markets.

• **Organic Leadership:** Showcases India's certified organic produce, spices, tea, coffee, and processed foods.

- **FPO Participation:** Platform for farmer collectives and startups to access global buyers.

- **Sustainability Focus:** Reinforces India's commitment to environmentally sustainable farming.

- **Market Diversification:** Strengthens trade linkages beyond traditional export destinations.

- **Brand India Boost:** Enhances India's reputation in premium organic markets.

PRELIMS BOOSTER BOX

- BIOFACH is a leading **global organic trade fair** held in Germany.
- India is among the largest producers of organic cotton and spices.
- Organic farming avoids synthetic fertilisers and pesticides.
- Certification is essential for international organic trade.
- FPOs help aggregate and market organic produce.
- Organic exports contribute to agri-export diversification.
- Sustainable agriculture reduces ecological footprint.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding India's participation in BIOFACH 2026:

1. BIOFACH is an international trade fair for organic products.

2. India's designation as Country of the Year enhances export visibility.

3. Organic farming relies heavily on synthetic fertilisers for higher productivity.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

3.Kaushal Rath Flagged Off with "Yuva AI for All" for Democratising AI Literacy Across India

- "Kaushal Rath" is a mobile outreach and awareness campaign designed to take AI literacy programmes to schools, colleges, and underserved regions.

- Through workshops, demonstrations, and digital modules, the initiative aims to familiarise young learners with the basics of AI, responsible use of technology, and career opportunities in emerging tech domains.

BACKGROUND / CONTEXT

- As AI becomes central to economic growth, governance, and innovation, digital literacy must extend beyond urban centres.

- India's approach emphasises **inclusive digital skilling**, ensuring that students across regions gain foundational understanding of AI concepts.

- The initiative complements national digital skilling efforts and aligns with the broader goal of building a **future-ready workforce**, particularly in emerging technologies.

- By using mobile training platforms, the programme ensures outreach to remote and aspirational districts.

KEY HIGHLIGHTS

• **Mobile Outreach Model:** Kaushal Rath travels to educational institutions for on-ground AI awareness.

• **AI Literacy Focus:** Introduces foundational AI concepts, ethics, and practical applications.

• **Youth-Centric Approach:** Targets school and college students across rural and urban areas.

• **Responsible AI Emphasis:** Highlights ethical and safe use of emerging technologies.

• **Digital Inclusion:** Extends AI education beyond metropolitan centres.

• **Skill Development Integration:** Links awareness to future skilling and career pathways.

• **Public Engagement:** Encourages participation through demonstrations and interactive modules.

• **Future Workforce Preparation:** Supports India's ambition to be a global AI talent hub.

PRELIMS BOOSTER BOX

• AI literacy refers to understanding basic concepts and societal impact of AI.
• Mobile outreach improves access in remote regions.
• Responsible AI includes fairness, transparency, and accountability.
• Digital skilling supports employability in emerging sectors.
• Youth-focused programmes enhance innovation capacity.
• AI education complements Digital India initiatives.
• Foundational digital skills are critical for Industry 4.0 readiness.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding "Yuva AI for All":

1. It promotes foundational AI literacy among students.

2. It uses mobile outreach through Kaushal Rath to reach underserved regions.

3. It focuses exclusively on advanced AI research training for scientists.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

4.Female LFPR Maintains Upward Momentum; Unemployment Rate Declines; Overall WPR Rises; Self-Employment Grows Modestly

- India's labour market indicators reflect improving employment conditions, particularly increased participation of women in the workforce.

- The decline in unemployment and rise in WPR signal better job absorption capacity, while moderate growth in self-employment indicates ongoing entrepreneurial and informal sector engagement.

BACKGROUND / CONTEXT

- Labour market indicators such as LFPR, WPR, and UR are measured through periodic surveys to assess workforce dynamics.

- Historically, female LFPR in India remained low due to social norms, unpaid care work, and limited opportunities.

- Recent trends suggest greater engagement of women in rural enterprises, self-employment, and wage employment.

- The broader labour market recovery aligns with economic growth, formalisation efforts, and digital expansion.

- However, qualitative aspects such as job quality, sectoral distribution, and informality remain key areas of analysis.

KEY HIGHLIGHTS

• **Rising Female LFPR:** Increased participation of women in both rural and urban labour markets.

• **Declining Unemployment Rate:** Indicates improved absorption of job seekers.

• **Higher WPR:** More proportion of population engaged in economic activity.

• **Self-Employment Growth:** Reflects expansion in micro-enterprises and informal entrepreneurship.

• **Rural Contribution:** Significant gains observed in agriculture and allied sectors.

• **Structural Transition:** Gradual shift toward services and manufacturing employment.

• **Policy Linkage:** Supported by skilling, MSME promotion, and women empowerment initiatives.

• **Quality Concerns:** Need to examine productivity and income levels within self-employment.

PRELIMS BOOSTER BOX

• **LFPR:** Percentage of the working-age population either employed or seeking work.
• **WPR:** Percentage of the working-age population employed.
• **Unemployment Rate:** Percentage of the labour force without work but seeking employment.
• Self-employment includes own-account workers and unpaid family helpers.
• Female LFPR improvement is key to demographic dividend utilisation.
• Labour data is released periodically by MoSPI through surveys.
• Higher WPR indicates stronger labour absorption.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding labour market indicators:

1. Labour Force Participation Rate includes both employed and actively job-seeking individuals.

2. The Worker Population Ratio measures only those currently employed.

3. A decline in the unemployment rate automatically guarantees high-quality employment.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

1.PM to Inaugurate Seva Teerth and Kartavya Bhavan-1 & 2 on 13th February

- Seva Teerth and Kartavya Bhavan-1 & 2 are part of the broader transformation of government office infrastructure aimed at enhancing efficiency, inter-ministerial coordination, and citizen-centric service delivery.
- The facilities are designed as modern, sustainable, and technologically integrated workspaces to improve governance outcomes.

BACKGROUND / CONTEXT

- India's central government offices were historically scattered across multiple aging buildings, leading to logistical inefficiencies and high maintenance costs.
- Under the Central Vista redevelopment plan, new administrative complexes are being developed to consolidate ministries, optimise land use, and create secure, energy-efficient work environments.
- The nomenclature—*Seva* (service) and *Kartavya* (duty)—reflects the emphasis on **citizen service, accountability, and institutional responsibility** in governance.

KEY HIGHLIGHTS

- **Administrative Consolidation:** Brings multiple ministries under integrated office complexes.

- **Modern Infrastructure:** Equipped with digital connectivity, smart security systems, and energy-efficient design.

- **Sustainability Focus:** Incorporates green building norms and resource-efficient architecture.

- **Improved Coordination:** Facilitates better inter-ministerial communication and workflow efficiency.

- **Cost Efficiency:** Reduces expenditure on rented and dispersed office spaces.

- **Citizen-Centric Governance:** Symbolises shift toward responsive and accountable administration.

- **Central Vista Integration:** Part of comprehensive redevelopment of India's administrative core.

- **Long-Term Capacity Building:** Infrastructure designed to meet future governance demands.

PRELIMS BOOSTER BOX

- Central Vista redevelopment aims to modernise administrative infrastructure.
- Consolidated office complexes improve governance efficiency.
- Green building standards enhance energy efficiency.
- Administrative reforms focus on transparency and accountability.
- Capital city infrastructure projects are centrally administered.
- Digital infrastructure strengthens governance delivery mechanisms.

• Institutional symbolism reflects governance philosophy.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding Seva Teerth and Kartavya Bhavan-1 & 2:

1. They aim to consolidate and modernise central government offices.
2. They are part of the Central Vista redevelopment initiative.
3. Their primary purpose is residential housing for Members of Parliament.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

2.AAIB Clarifies: Investigation into AI-171 Accident Ongoing; Media Reports Speculative

Black Box

A black box in aviation refers to a pair of flight recorders that capture key flight information. They are critical for investigations following an aircraft crash

NEWS18 creative
Source: News Sources

Despite the name, it's usually bright orange to make it easier to find after a crash

Power Supply

CVR
Cockpit Voice Recorder

Underwater location Beacon

Honeywell

FLIGHT RECORDER DO NOT OPEN

Insulation and thermal block

Flash memory

ICB
Interface & Controller Board

Built to survive extreme conditions, black boxes can endure forces up to **3,400 Gs**, temperatures reaching **1,100°C**, and transmit signals every second from depths of up to **19,000** feet for as long as **30 days**

- AAIB stated that the probe into the AI-171 aviation accident is being conducted as per established international and national investigation protocols.
- It urged media outlets and the public to avoid drawing premature conclusions, reaffirming that only the final investigation report will determine the cause.
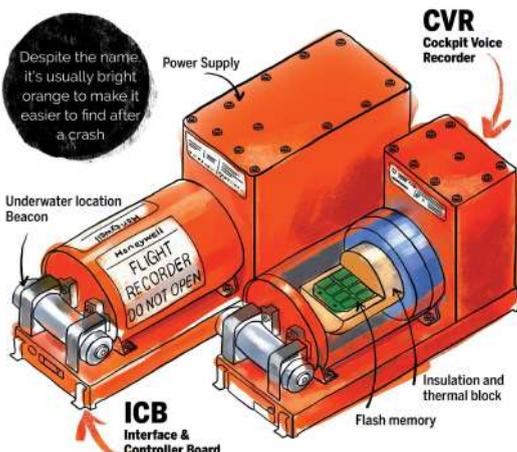
BACKGROUND / CONTEXT

- The Aircraft Accident Investigation Bureau functions under the Ministry of Civil Aviation and is responsible for investigating civil aviation accidents and serious incidents in India.
- Investigations follow international standards prescribed by the International Civil Aviation Organization (ICAO), ensuring technical objectivity and procedural transparency.
- In aviation safety, preliminary reports are released after initial data collection, while the final report—based on flight data recorders, cockpit voice recorders, and technical analysis—establishes probable cause and safety recommendations.
- Premature speculation can affect public perception and may interfere with investigative processes.

KEY HIGHLIGHTS

• **Ongoing Investigation:** AAIB confirmed that the probe is not yet concluded.

• **Speculation Warning:** Media reports claiming specific causes are premature.

• **International Protocols:** Investigation conducted as per ICAO standards.

- **Technical Evidence-Based:** Analysis includes black box data and forensic examination.

- **Transparency Commitment:** Findings will be shared through official channels.

- **Safety Priority:** Objective is to improve aviation safety, not assign blame.

- **Public Confidence:** Clarification aims to maintain trust in aviation oversight.

- **Regulatory Coordination:** Works with DGCA and relevant stakeholders.

PRELIMS BOOSTER BOX

- AAIB investigates civil aviation accidents in India.
- Investigations follow **ICAO Annex 13** guidelines.
- Flight Data Recorder (FDR) and Cockpit Voice Recorder (CVR) are key evidence sources.
- Preliminary reports differ from final investigation reports.
- Aviation safety is regulated under Ministry of Civil Aviation.
- Objective of accident investigation is **prevention**, not punishment.
- DGCA oversees aviation regulation and compliance.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding the Aircraft Accident Investigation Bureau (AAIB):

1. It investigates civil aviation accidents in India.
2. Its investigations follow ICAO-prescribed standards.
3. Its primary role is to impose criminal penalties.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

3.Kala Sanskriti Vikas Yojana (KSVY) for the Promotion of Art and Culture in India

- Kala Sanskriti Vikas Yojana (KSVY) is an umbrella scheme designed to promote, preserve, and disseminate India's tangible and intangible cultural heritage.
- It provides grants, scholarships, pensions, and infrastructure support to artists, cultural groups, and institutions across the country.

BACKGROUND / CONTEXT

India's cultural ecosystem comprises classical arts, folk traditions, crafts, literature, and heritage practices spread across regions. Many artists operate in informal settings with limited financial security.

To ensure sustained patronage and structured support, KSVY consolidates multiple cultural promotion schemes under

one framework. The initiative strengthens cultural transmission, enhances livelihood security of artists, and supports cultural diplomacy and creative industries.

KEY HIGHLIGHTS

• **Umbrella Framework:** Integrates various cultural promotion schemes under a single structure.

• **Financial Assistance:** Grants to cultural organisations, art groups, and individual artists.

• **Scholarships & Fellowships:** Support for research, training, and advanced study in arts.

• **Artist Welfare:** Pension and financial assistance for aged or distressed artists.

• **Infrastructure Support:** Aid for cultural institutions, academies, and heritage centres.

• **Intangible Heritage Promotion:** Safeguards performing arts, crafts, and oral traditions.

• **Nationwide Coverage:** Benefits artists across rural and urban regions.

• **Cultural Diplomacy:** Strengthens India's soft power through global cultural outreach.

PRELIMS BOOSTER BOX

• KSVY is implemented by the Ministry of Culture.
• Covers both **tangible and intangible heritage**.
• Provides grants, scholarships, and pensions.
• Supports classical, folk, tribal, and contemporary art forms.
• Cultural promotion enhances the creative economy.
• Culture is primarily a **State subject** with central facilitation.

• Heritage preservation contributes to national identity.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding Kala Sanskriti Vikas Yojana (KSVY):

1. It supports artists and cultural institutions through financial assistance.
2. It promotes both tangible and intangible cultural heritage.
3. It focuses exclusively on monument conservation.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

4.Shorter All-Oral Regimens for Drug-Resistant TB are Cost-Effective in India: ICMR Study

● The ICMR study demonstrates that shorter-duration, all-oral treatment regimens for DR-TB reduce overall healthcare costs, improve patient adherence, and enhance treatment

success rates compared to longer injectable-based regimens.

- The findings support scaling up oral regimens under India's TB elimination strategy.

BACKGROUND / CONTEXT

- Drug-resistant TB, particularly multidrug-resistant TB (MDR-TB), poses a major public health challenge due to prolonged treatment duration, high toxicity, and lower cure rates.
- Traditional regimens involved long courses (18–24 months) with injectable drugs causing adverse side effects.
- The shift to **shorter all-oral regimens (9–11 months)** aligns with global WHO recommendations and India's National TB Elimination Programme (NTEP) goals.
- India aims to eliminate TB by 2025, ahead of the global target of 2030. Cost-effective treatment strategies are critical to achieving this goal.

KEY HIGHLIGHTS

• **Shorter Treatment Duration:** Regimens reduced to around 9–11 months compared to longer therapies.

• **All-Oral Approach:** Eliminates need for painful injectable drugs.

• **Cost-Effective:** Lower overall healthcare expenditure and patient out-of-pocket costs.

• **Improved Adherence:** Fewer side effects enhance patient compliance.

• **Higher Success Rates:** Better treatment completion and cure outcomes.

• **Policy Implications:** Supports expansion under National TB Elimination Programme.

• **Public Health Impact:** Contributes to reducing TB transmission and mortality.

• **Global Alignment:** Consistent with WHO-recommended regimens.

PRELIMS BOOSTER BOX

• MDR-TB is resistant to at least isoniazid and rifampicin.
• ICMR is India's apex biomedical research body.
• NTEP aims to eliminate TB by 2025 in India.
• WHO recommends shorter all-oral DR-TB regimens.
• TB is caused by *Mycobacterium tuberculosis*.
• Injectable regimens had significant adverse effects.
• Cost-effectiveness improves programme scalability.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding drug-resistant TB treatment in India:
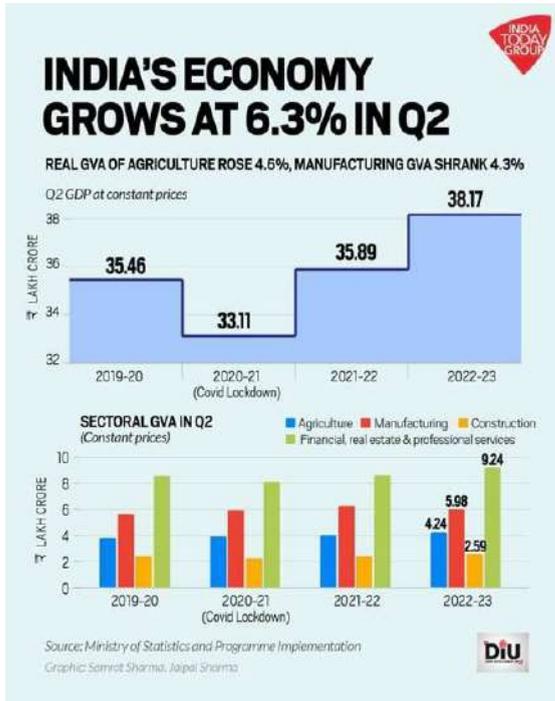
1. Shorter all-oral regimens reduce treatment duration and side effects.
2. MDR-TB is resistant to at least isoniazid and rifampicin.
3. Injectable-based regimens are considered superior in cost-effectiveness.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

5.First Press Release of Consumer Price Index (CPI) on Base 2024 = 100

INDIA'S ECONOMY GROWS AT 6.3% IN Q2

REAL GVA OF AGRICULTURE ROSE 4.5%, MANUFACTURING GVA SHRANK 4.3%

Source: Ministry of Statistics and Programme Implementation

Graphic: Samrat Sharma, Jaipal Sharma

- The rebasing of CPI to 2024 = 100 updates the reference year and revises the basket of goods and services, weights, and price collection methodology to better capture contemporary household expenditure trends.
- The change enhances statistical accuracy and policy relevance of inflation data.

BACKGROUND / CONTEXT

- The Consumer Price Index measures changes in retail prices of goods and services consumed by households and is the primary indicator for inflation targeting in India.
- Over time, consumption patterns evolve due to income changes, urbanisation, digital services, and lifestyle shifts.

- To ensure relevance, statistical agencies periodically revise the base year and update the consumption basket.

CPI data is critical for monetary policy decisions by the Reserve Bank of India, fiscal planning, and wage indexation.

KEY HIGHLIGHTS

• **New Base Year:** CPI rebased to 2024 = 100 for improved relevance.

• **Updated Consumption Basket:** Reflects latest household expenditure patterns.

• **Revised Weights:** Adjusted category-wise importance (food, fuel, housing, services).

• **Improved Methodology:** Enhanced data collection and sampling framework.

• **Policy Significance:** Key input for inflation targeting under monetary policy framework.

• **Comparability Maintained:** Historical series may be linked through statistical adjustments.

• **Transparency:** Regular press releases ensure public access to inflation data.

• **Economic Indicator:** Influences interest rates, wage negotiations, and subsidy calculations.

PRELIMS BOOSTER BOX

• CPI measures retail inflation.
• Base year revision ensures updated consumption representation.
• RBI uses CPI for inflation targeting (4% ± 2%).
• CPI categories include food, fuel, housing, clothing, and services.
• MoSPI compiles CPI through National Statistical Office (NSO).

• Base year expressed as index value = 100.
• Inflation impacts purchasing power and real income.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding CPI (Base 2024 = 100):

1. Rebasing updates the reference year and consumption basket.
2. CPI serves as the primary inflation indicator for monetary policy in India.
3. Base year revision eliminates inflation volatility entirely.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

1. Prime Minister Dedicates 'Seva Teerth' to the Nation, Guided by the Spirit of 'Nagrik Devo Bhava'

- Seva Teerth is a modern administrative infrastructure initiative aimed at improving governance efficiency, inter-departmental coordination, and citizen-centric service delivery.
- Its dedication reflects a broader shift toward responsive administration rooted in the principle that citizens are paramount in a democracy.

BACKGROUND / CONTEXT

- India's administrative reform agenda increasingly focuses on **efficient, transparent, and accountable governance**.
- Seva Teerth forms part of the broader transformation of central administrative infrastructure under the Central Vista redevelopment initiative.
- The project consolidates offices, integrates digital systems, and improves functional efficiency.
- The guiding motto *Nagrik Devo Bhava* echoes the idea that public institutions exist to serve citizens with dignity, efficiency, and respect.

KEY HIGHLIGHTS

- **Citizen-Centric Philosophy:** Governance guided by 'Nagrik Devo Bhava'.

- **Modern Infrastructure:** Equipped with digital systems and energy-efficient design.

- **Administrative Efficiency:** Consolidation of offices for better coordination.

- **Symbolic Significance:** Reinforces accountability and service-oriented governance.

- **Digital Governance Push:** Supports e-office, real-time monitoring, and seamless communication.

- **Cost Optimisation:** Reduces reliance on dispersed and rented office spaces.

- **Institutional Capacity:** Designed for long-term governance needs.

- **Part of Central Vista:** Integrated within larger administrative redevelopment.

PRELIMS BOOSTER BOX

- Central Vista redevelopment modernises India's administrative core.
- Citizen-centric governance emphasises accountability and service delivery.
- Administrative consolidation improves efficiency.
- Digital infrastructure enhances transparency.
- Public administration reforms support good governance principles.
- Capital infrastructure projects are centrally administered.
- Governance philosophy often reflects constitutional values.

Consider the following statements regarding Seva Teerth:

1. It reflects a citizen-centric governance philosophy.
2. It is part of administrative infrastructure modernisation.
3. It is primarily a religious pilgrimage centre.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

2.Distribution of Agricultural Drones under Namo Drone Didi Scheme

- The Namo Drone Didi Scheme provides drones to women-led SHGs to offer drone-based agricultural services such as crop spraying, fertiliser application, and field monitoring.
- The initiative promotes women-led rural entrepreneurship while advancing precision agriculture and reducing input costs for farmers.

BACKGROUND / CONTEXT

- Indian agriculture faces rising input costs, labour shortages, and productivity challenges. Drone technology enables targeted application of pesticides and fertilisers, reducing wastage and improving efficiency.
- To combine technology adoption with women's empowerment, the government launched the Namo Drone Didi Scheme, integrating it with the broader SHG ecosystem.
- The programme supports training, financial assistance, and operational handholding to ensure sustainability.

The initiative aligns with India's push toward **women-led development, digital agriculture, and modernisation of farm practices**.

KEY HIGHLIGHTS

• **Women-Centric Model:** Drones distributed to women SHGs for service-based entrepreneurship.

• **Precision Agriculture:** Targeted spraying reduces input wastage and improves yields.

• **Income Generation:** SHGs earn through service provision to local farmers.

• **Training & Capacity Building:** Beneficiaries trained in drone operation and maintenance.

• **Cost Efficiency:** Reduces labour dependency and improves application accuracy.

• **Digital Agriculture Push:** Supports integration of advanced technologies in farming.

• **Environmental Benefits:** Controlled spraying lowers chemical overuse.

• **Rural Empowerment:** Enhances participation of women in agri-tech sector.

PRELIMS BOOSTER BOX

• Drones enable precision spraying and crop monitoring.
• SHGs are key components of rural livelihood missions.
• Precision agriculture optimises input use.
• Drone rules regulate UAV deployment in India.
• Women-led enterprises contribute to rural income diversification.
• Digital agriculture enhances productivity and sustainability.
• Scheme supports "women-led development" approach.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding the Namo Drone Didi Scheme:

1. It distributes agricultural drones to women Self-Help Groups.
2. It promotes precision agriculture and rural entrepreneurship.
3. It restricts drone use exclusively to urban commercial farming.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

3.Bulk Drug Parks

- Bulk Drug Parks are large-scale industrial zones equipped with common infrastructure facilities to support cost-effective manufacturing of APIs, key starting materials (KSMs), and drug intermediates.
- The scheme aims to improve supply-chain resilience, reduce production costs, and enhance India's global pharmaceutical competitiveness.

BACKGROUND / CONTEXT

- India is one of the world's largest producers of generic medicines but has historically depended on imports for certain APIs and intermediates.
- To address vulnerabilities exposed by global supply disruptions, the government launched a dedicated scheme for promoting bulk drug parks.
- The parks provide shared utilities such as effluent treatment plants, power supply, testing labs, and logistics infrastructure, reducing capital and operational costs for manufacturers.

- The initiative complements the Production Linked Incentive (PLI) scheme for pharmaceuticals and aligns with India's ambition to become a global pharma hub.

KEY HIGHLIGHTS

• **API Manufacturing Focus:** Promotes domestic production of bulk drugs and intermediates.

• **Common Infrastructure:** Shared facilities reduce cost of production.

• **Import Substitution:** Decreases dependence on foreign API suppliers.

• **Supply Chain Resilience:** Strengthens drug security and availability.

• **Environmental Compliance:** Integrated waste treatment and pollution control systems.

• **Investment Attraction:** Encourages private investment in pharma manufacturing.

• **Export Competitiveness:** Enhances India's position in global generic markets.

• **Policy Synergy:** Complements PLI scheme for pharmaceuticals.

PRELIMS BOOSTER BOX

• APIs (Active Pharmaceutical Ingredients) are key components of medicines.
• Bulk Drug Parks provide shared infrastructure facilities.
• Scheme supports Atmanirbhar Bharat in pharma sector.
• Effluent treatment plants ensure environmental compliance.
• India is a major exporter of generic medicines.
• Import dependence on certain APIs has been a policy concern.
• Pharmaceutical sector is regulated by CDSCO.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding Bulk Drug Parks:

1. They promote domestic manufacturing of APIs and intermediates.
2. They provide common infrastructure facilities to reduce production costs.
3. They focus exclusively on retail pharmacy outlets.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

4.WAVES Positions India as a Global Content Hub under 'Create in India, Create for the World' Vision

- WAVES seeks to strengthen India's creative economy by fostering global partnerships, enhancing production capabilities, supporting content creators, and promoting Indian stories on international platforms.

- The initiative aligns with India's ambition to become a leading player in the global media and entertainment value chain.

BACKGROUND / CONTEXT

- India has one of the world's largest content consumption markets, driven by digital platforms, OTT services, gaming, and animation industries.
- With a growing pool of creative talent, technological capability, and cost-effective production ecosystem, India is well-positioned to expand its global content exports.
- WAVES leverages this potential to integrate domestic creators with international markets and encourage cross-border collaboration.
- The initiative reflects India's broader strategy to harness the **creative economy as a driver of growth, employment, and soft power**.

KEY HIGHLIGHTS

• **Global Content Hub Vision:** Promotes India as a preferred destination for content production.

• **Creative Economy Boost:** Supports animation, VFX, gaming, film, and digital media sectors.

• **International Collaboration:** Encourages partnerships with global studios and platforms.

• **Technology Integration:** Leverages digital tools, AI, and immersive technologies.

• **Export Orientation:** Expands reach of Indian content to global audiences.

• **Employment Generation:** Creates opportunities in high-skill creative industries.

• **Soft Power Expansion:** Amplifies India's cultural narratives globally.

• **Startup Support:** Encourages innovation in media-tech and content platforms.

PRELIMS BOOSTER BOX

• Creative economy includes media, entertainment, gaming, and digital content.
• Content exports enhance soft power and cultural diplomacy.
• India has a rapidly growing OTT and digital media market.
• Animation and VFX sectors are emerging export industries.
• "Create in India" complements Make in India initiative.
• Digital infrastructure supports global content distribution.
• Creative industries contribute to GDP and employment.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding WAVES initiative:

1. It aims to promote India as a global content creation hub.
2. It supports sectors such as animation, gaming, and digital media.
3. It focuses exclusively on traditional print publishing.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

5. 'Tele-Law: Reaching the Unreached' Scheme

Tele-Law enables marginalised and underserved populations to access legal consultation via video conferencing and telephonic services. By connecting beneficiaries to panel lawyers through CSCs, the scheme strengthens access to justice, reduces legal costs, and bridges the urban–rural legal divide.

BACKGROUND / CONTEXT

- Access to justice is a constitutional guarantee under Article 39A, which directs the State to ensure free legal aid to the poor.
- However, geographical barriers, lack of awareness, and high legal costs often prevent vulnerable citizens from seeking legal remedies.
- Tele-Law, launched in collaboration with the CSC e-Governance framework, leverages digital infrastructure to deliver legal services at the grassroots level.
- The scheme operates under the National Legal Services Authority (NALSA) framework and complements broader digital governance and inclusion initiatives.

KEY HIGHLIGHTS

- **Free Legal Advice:** Consultation provided at no or minimal cost to eligible beneficiaries.

- **CSC-Based Access:** Services delivered through Common Service Centres in villages.

- **Video & Tele Consultation:** Remote interaction with empanelled lawyers.

- **Focus on Vulnerable Groups:** Women, SC/ST communities, senior citizens, and economically weaker sections.

- **Article 39A Alignment:** Strengthens constitutional mandate of equal justice.

- **Reduced Litigation Barriers:** Cuts travel and consultation costs.

- **Digital Justice Model:** Integrates technology with legal aid delivery.

- **Awareness & Outreach:** Legal literacy campaigns complement service provision.

PRELIMS BOOSTER BOX

- Article 39A mandates free legal aid and equal justice.
- Tele-Law operates through Common Service Centres (CSCs).
- NALSA oversees legal aid services in India.
- Legal aid supports access to justice for vulnerable sections.
- Digital platforms expand governance reach.
- Justice delivery is a **State subject**, with central coordination.
- Tele-Law strengthens rural–urban legal connectivity.

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding the Tele-Law scheme:

1. It provides legal advice through digital platforms and CSCs.
2. It aligns with Article 39A's mandate of equal access to justice.
3. It is exclusively available to corporate clients.

Which of the above statements is/are correct?

A. 1 only
B. 1 and 2 only
C. 2 and 3 only
D. 1, 2 and 3

Correct Answer: B

1.VICE-PRESIDENT RELEASES BOOK ON SREE NARAYANA GURU'S LIFE AND LEGACY

WHY IN NEWS?

The **Vice-President of India, C. P. Radhakrishnan**, released the book *"The Sage who Reimagined Hinduism: The Life, Lessons and Legacy of Sree Narayana Guru"* authored by **Shashi Tharoor**.
The event was held at the **India International Centre**, New Delhi.
The release highlighted the continuing relevance of **Sree Narayana Guru** in contemporary India.

SUMMARY

The Vice-President formally released a scholarly work examining the life and philosophical contributions of Sree Narayana Guru.
The book revisits Guru's reformist interventions against caste discrimination and his advocacy of spiritual universalism.
The event emphasized the importance of social reform movements in shaping India's democratic and constitutional ethos.
It reinforced the idea that cultural reform and social justice are deeply interconnected in India's nation-building process.

By foregrounding Guru's message of equality, the discussion aligned with constitutional values of justice, liberty and fraternity.
The release also underscores the role of intellectual discourse in preserving civilisational memory and promoting inclusive governance.

BACKGROUND / CONTEXT

Sree Narayana Guru – Social Reform Movement

Sree Narayana Guru (1856–1928), a Kerala-based philosopher and reformer, worked for the upliftment of marginalized communities, particularly the Ezhava community.
He consecrated temples open to all castes, directly challenging rigid social hierarchies.
His famous message — *"One Caste, One Religion, One God for humankind"* — symbolised spiritual unity and social equality.

Reform and Constitutional Values

Guru's teachings resonate with:

- **Article 14** – Equality before law
- **Article 15** – Prohibition of discrimination
- **Article 17** – Abolition of untouchability
- **Fraternity** – A core constitutional ideal in the Preamble

His reformist approach predated but philosophically aligned with India's constitutional morality framework.

Institutional and Cultural Significance

Literary works on reformers:

- Strengthen civic consciousness

- Bridge tradition and modernity
- Reinforce pluralism and social harmony

Such commemorations reflect the state's recognition of reformist traditions in shaping democratic governance.

KEY HIGHLIGHTS

- **Event:** Book release by the Vice-President in New Delhi.
- **Author:** Dr. Shashi Tharoor – parliamentarian and author.
- **Core Theme:** Social equality and spiritual universalism.
- **Institutional Message:** Recognition of reform movements in national discourse.
- **Governance Link:** Reinforces constitutional morality and social justice principles.
- **Strategic Significance:** Strengthens inclusive national identity rooted in reformist traditions.
- **Contemporary Relevance:** Caste equity and social cohesion remain key policy concerns.

PRELIMS BOOSTER BOX

- **Sree Narayana Guru (1856–1928):** Kerala-based social reformer.
- **Famous Slogan:** "One Caste, One Religion, One God for humankind."
- **Community Focus:** Upliftment of Ezhavas and marginalized groups.
- **Article 17:** Abolition of untouchability.
- **Temple Entry Movements:** Important precursor to later reform movements in South India.

- **Constitutional Value Link:** Fraternity and social justice.
- **Location of Event:** India International Centre, New Delhi.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Sree Narayana Guru advocated spiritual universalism and social equality.
2. Article 17 of the Indian Constitution abolishes untouchability.
3. Sree Narayana Guru's reform movement primarily supported rigid caste hierarchy.

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.ALL INDIA INSTITUTE OF AYURVEDA PARTICIPATES IN ALL INDIA OFFICIAL LANGUAGE CONFERENCE AT AGARTALA

- The All India Institute of Ayurveda took part in the national-level Official Language Conference aimed at strengthening the implementation of Hindi in government institutions.
- The institute highlighted its efforts in promoting Hindi in administrative, academic and clinical documentation processes.
- Participation reflects the integration of language policy within premier healthcare and research institutions.
- The conference serves as a platform for reviewing progress under the Official Languages framework and encouraging compliance.
- It reinforces the constitutional mandate regarding the progressive use of Hindi in official communication.
- The event also signifies coordination between health institutions and language governance structures.
- The participation strengthens cultural inclusivity while ensuring administrative efficiency.

BACKGROUND / CONTEXT

Official Language Framework in India

India follows a structured official language policy under:

- **Article 343** – Hindi in Devanagari script as the Official Language of the Union
- Provision for continued use of English for official purposes
- Parliamentary authority to regulate official language use

Official Languages Act, 1963

The Act provides:

- Continued use of English along with Hindi
- Guidelines for communication between Union and States
- Safeguards for non-Hindi speaking states

Role of Department of Official Language

Under the Ministry of Home Affairs, it:

- Reviews implementation of Hindi
- Conducts inspections and conferences
- Encourages progressive use of Hindi in administration

All India Institute of Ayurveda (AIIA)

AIIA is an apex institute under the Ministry of AYUSH dedicated to:

- Advanced education in Ayurveda
- Clinical research and healthcare delivery
- Standardisation of traditional medicine systems

Its participation reflects mainstreaming of language policy within specialized medical institutions.

KEY HIGHLIGHTS

- **Institutional Participation:** AIIA represented the Ministry of AYUSH at the conference.
- **Policy Focus:** Promotion of Hindi in official and academic functioning.
- **Constitutional Basis:** Rooted in Article 343 and related provisions.

- **Administrative Significance:** Strengthens compliance with Official Languages Act, 1963.
- **Cultural Dimension:** Promotes linguistic inclusivity in governance.
- **Healthcare Governance Link:** Integrates language policy within medical education and research institutions.
- **Challenges:** Balancing linguistic diversity with administrative uniformity.
- **Way Forward:** Technology-enabled bilingual documentation and capacity building.

PRELIMS BOOSTER BOX

- **Article 343:** Declares Hindi as Official Language of the Union.
- **Official Languages Act, 1963:** Provides for continued use of English.
- **Department of Official Language:** Functions under Ministry of Home Affairs.
- **Eighth Schedule:** Recognises 22 languages.
- **AIIA:** Apex Ayurveda institute under Ministry of AYUSH.
- **Agartala:** Capital of Tripura.
- **Hindi Day (14 September):** Marks adoption of Hindi as Official Language in 1949.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Article 343 declares Hindi in Devanagari script as the Official Language of the Union.

2. The Official Languages Act, 1963 completely discontinued the use of English for official purposes.
3. The Department of Official Language 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)

3.INDIA–NEW ZEALAND HOLD FIRST JOINT WORKING GROUP MEETING ON HORTICULTURE COOPERATION

- India and New Zealand institutionalized horticulture cooperation through the inaugural Joint Working Group meeting.
- The discussions focused on research collaboration, post-harvest management, value chain development, and market access.
- The partnership leverages New Zealand's expertise in temperate horticulture and India's large-scale
- production ecosystem.
  It enhances bilateral agricultural trade

and supports diversification of agri-exports.
- The cooperation aligns with India's goal of increasing farmers' income and promoting high-value crops.
- Strategically, it strengthens Indo-Pacific economic engagement and agricultural diplomacy.
- From a governance lens, it reflects sector-specific bilateral frameworks for technology transfer and capacity building.

BACKGROUND / CONTEXT

India–New Zealand Agricultural Engagement

India and New Zealand share cooperation in:

- Dairy sector
- Food processing
- Agricultural research
- Phytosanitary standards

New Zealand is globally recognized for:

- High productivity in apples and kiwifruit
- Advanced post-harvest technologies
- Efficient agri-value chains

India's Horticulture Sector

- India is the second-largest producer of fruits and vegetables globally.
- Major horticultural produce includes mango, banana, citrus, potato, onion, and spices.
- National Horticulture Mission supports production, infrastructure, and market linkages.

Institutional Mechanism: Joint Working Group

A Joint Working Group:

- Provides structured dialogue
- Facilitates policy coordination
- Enables research and technical cooperation
- Supports phytosanitary alignment and trade facilitation

Strategic Context

- Strengthens India's Indo-Pacific partnerships
- Diversifies agricultural export markets
- Promotes climate-resilient horticultural practices

KEY HIGHLIGHTS

- Institutional Framework: First formal JWG dedicated to horticulture cooperation.
- Technology Transfer: Focus on post-harvest management and cold-chain systems.
- Market Access: Addresses phytosanitary measures and export facilitation.
- Value Addition: Encourages processing and high-value crop cultivation.
- Strategic Significance: Enhances Indo-Pacific agricultural diplomacy.
- Economic Impact: Potential to boost farmer incomes and agri-export competitiveness.
- Way Forward: Research partnerships, capacity building, and climate-resilient horticulture innovation.

PRELIMS BOOSTER BOX

- India: 2nd largest producer of fruits and vegetables globally.
- National Horticulture Mission: Launched in 2005–06.
- Mission for Integrated Development of Horticulture (MIDH): Umbrella scheme for horticulture development.
- Phytosanitary Measures: Governed globally under WTO's SPS Agreement.
- SPS Agreement: Agreement on Sanitary and Phytosanitary Measures under WTO framework.
- New Zealand Major Exports (Agri): Dairy products, apples, kiwifruit.
- Climate Zones: NZ – Temperate; India – Tropical & Subtropical dominance.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. India is the largest producer of fruits and vegetables in the world.
2. The WTO's SPS Agreement deals with sanitary and phytosanitary measures.
3. Joint Working Groups between countries are institutional mechanisms for sector-specific cooperation.

Which of the statements given above is/are correct?

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

Answer: (b)

4.BRAINSTORMING SESSION ON 'MERI PARAMPARA–MERI VIRASAT' HELD IN NEW DELHI TO PRESERVE TRIBAL HERITAGE

- The brainstorming session focused on documenting, preserving, and promoting India's diverse tribal cultural heritage.
- Discussions included safeguarding traditional art forms, languages, rituals, and indigenous knowledge systems.
- The initiative seeks convergence between cultural preservation and livelihood generation for tribal communities.

- It aligns with constitutional mandates for protecting Scheduled Tribes and promoting their socio-cultural rights. The session emphasized digital archiving, institutional support, and youth engagement in heritage transmission.
  Strategically, it reinforces cultural identity as part of inclusive nation-building.
  From a governance perspective, it highlights participatory policy-making in tribal affairs.

BACKGROUND / CONTEXT

Constitutional Safeguards for Tribal Communities

- Article 46: Promotion of educational and economic interests of Scheduled Tribes.
- Fifth Schedule: Administration and control of Scheduled Areas and STs.
- Sixth Schedule: Autonomous District Councils in certain northeastern states.
- Article 244: Application of Fifth and Sixth Schedules.

Institutional Framework

The Ministry of Tribal Affairs is responsible for:

- Policy formulation for Scheduled Tribes
- Implementation of tribal welfare schemes
- Preservation of tribal culture and heritage

Tribal Cultural Heritage

Includes:

- Folk dances and music
- Indigenous crafts and textiles
- Oral traditions and languages
- Traditional ecological knowledge

Policy Linkages

- Tribal Sub-Plan (now part of STC – Scheduled Tribe Component)
- Eklavya Model Residential Schools
- Van Dhan Vikas Kendras
- National Tribal Festival initiatives

KEY HIGHLIGHTS

- Cultural Preservation: Focus on safeguarding tribal traditions and knowledge systems.
- Digital Documentation: Emphasis on archiving oral and intangible heritage.
- Livelihood Integration: Linking handicrafts and traditional skills with market access.
- Youth Engagement: Encouraging inter-generational knowledge transfer.
- Institutional Convergence: Coordination between cultural, educational, and tribal welfare bodies.
- Strategic Significance: Strengthens cultural pluralism within national integration framework.
- Way Forward: Policy-backed heritage mapping and community-led conservation.

PRELIMS BOOSTER BOX

- Article 46: Directive Principle promoting ST interests.
- Article 244: Deals with administration of Scheduled Areas.
- Fifth Schedule: Applies to most Scheduled Areas (except NE autonomous areas).
- Sixth Schedule: Autonomous Councils in Assam, Meghalaya, Tripura, Mizoram.
- Ministry of Tribal Affairs: Established in 1999.
- Van Dhan Vikas Kendra: Initiative under TRIFED for tribal livelihood promotion.
- TRIFED: Tribal Cooperative Marketing Development Federation of India.
- ST Population (Census 2011): ~8.6% of India's population.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Article 46 of the Constitution directs the State to promote the educational and economic interests of Scheduled Tribes.
2. The Sixth Schedule of the Constitution provides for Autonomous District Councils in certain northeastern states.
3. The Fifth Schedule applies exclusively to all northeastern states 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)

5.M.A.N.A.V. (MARGDARSHAN AND NURTURING FOR ADVANCEMENT OF YOUNG AND ASPIRING VISHWAKARMAS)

M.A.N.A.V. is designed to:

- Provide **mentorship and guidance** to young artisans
- Facilitate **skill enhancement and certification**
- Improve access to **modern tools and technology**
- Enhance **market access and branding support**

It aims to empower traditional craftspeople (Vishwakarmas) by integrating them into formal economic value chains and promoting sustainable livelihoods.

The initiative aligns with India's goals of **inclusive growth, skill development, and MSME sector strengthening.**

BACKGROUND / CONTEXT

1 PM Vishwakarma Scheme

The PM Vishwakarma Scheme was launched to support traditional artisans and craftspeople by providing:

- Financial assistance
- Skill training
- Toolkit incentives
- Digital transaction incentives
- Marketing support

It focuses on preserving traditional occupations while modernising production capacity.

2 MSME and Artisan Ecosystem

The MSME sector:

- Contributes significantly to GDP and exports
- Employs a large informal workforce

- Includes traditional craft and hand-tool sectors

Formalising and upskilling artisans enhances productivity and competitiveness.

KEY HIGHLIGHTS

• **Mentorship Model:** Structured guidance for young and aspiring artisans.
• **Skill Upgradation:** Capacity building aligned with modern standards.
• **Market Integration:** Linking artisans to digital and physical marketplaces.
• **Financial Inclusion:** Access to credit and subsidies.
• **Technology Adoption:** Modern tools without losing traditional identity.
• **Livelihood Security:** Income diversification and economic empowerment.

PRELIMS BOOSTER BOX

• **PM Vishwakarma Scheme Launch:** 2023.
• **Target Beneficiaries:** Traditional artisans and craftspeople.
• **MSME Ministry:** Nodal ministry for scheme implementation.
• **Credit Support:** Concessional loans with interest subvention.
• **Skill India Linkage:** Integrated with skill development initiatives.
• **Digital Payments Incentive:** Encourages formal financial transactions.
• **Atmanirbhar Bharat Linkage:** Promotes self-reliant artisan economy.

Static Linkage:

- MSME Development Act, 2006
- Financial Inclusion
- Skill Development Framework

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding M.A.N.A.V.:

1. It aims to provide mentorship and skill support to traditional artisans.
2. It is aligned with the PM Vishwakarma Scheme.
3. It is implemented by the Ministry of Heavy Industries.

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)

(Statement 3 is incorrect — it is under the Ministry of MSME.)

1.PRESIDENT OF ESTONIA MEETS THE PRESIDENT

The bilateral meeting focused on:

- Expanding cooperation in **digital public infrastructure (DPI)**
- Strengthening collaboration in **cybersecurity and e-governance**
- Promoting partnerships in **startups, innovation, and AI**
- Enhancing engagement within the **India–European Union framework**

Estonia is globally recognised for its advanced **digital governance architecture**, including e-residency and digital identity systems. India seeks to deepen collaboration in secure digital ecosystems and technology-led governance models.

BACKGROUND / CONTEXT

1 India–Estonia Relations

- Diplomatic relations established in 1991 after Estonia regained independence.
- Cooperation in IT, education, and trade.
- Estonia supports deeper India–EU strategic engagement.

2.Estonia's Digital Model

Estonia is known for:

- Universal digital identity system
- e-Governance infrastructure
- e-Residency programme
- Secure digital public services

India's Digital Public Infrastructure model (Aadhaar, UPI, DigiLocker) offers complementarities in digital governance collaboration.

KEY HIGHLIGHTS

• **Digital Cooperation:** Exchange of best practices in e-governance and digital identity frameworks.
• **Cybersecurity Partnership:** Strengthening resilience against cyber threats.
• **Innovation & Startups:** Collaboration in emerging technologies and fintech.
• **AI & Technology Diplomacy:** Alignment in responsible AI discussions.
• **Multilateral Coordination:** Cooperation within EU–India platforms.
• **Strategic Significance:** Deepening ties with Baltic and Nordic region.

PRELIMS BOOSTER BOX

• **Capital of Estonia:** Tallinn
• **Region:** Baltic Region (Northern Europe)
• **EU Membership:** Since 2004
• **NATO Membership:** Since 2004
• **Currency:** Euro
• **Digital Governance Model:** Advanced e-identity and e-residency system
• **India–EU Trade Talks:** Ongoing Free Trade Agreement negotiations

Static Linkage:

- India–EU Relations
- Cybersecurity Frameworks
- Digital Sovereignty

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding Estonia:

1. Estonia is a member of both the European Union and NATO.
2. Estonia is globally recognised for its advanced digital governance system.
3. Estonia is located in the Scandinavian Peninsula.

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)

(Statement 3 is incorrect — Estonia is a Baltic country, not part of the Scandinavian Peninsula.)

2.CCRAS–CARI INDUCTS AMBULANCE SPONSORED BY NBCFDC

The induction of the ambulance is aimed at:

- Improving emergency and referral services at CARI
- Enhancing access to Ayurvedic treatment
- Supporting outreach health camps
- Strengthening healthcare infrastructure for underserved communities

NBCFDC's support reflects convergence between **social justice initiatives and traditional healthcare systems**.

This collaboration integrates **AYUSH healthcare services with inclusive development objectives.**

BACKGROUND / CONTEXT

1 CCRAS & CARI

The Central Council for Research in Ayurvedic Sciences operates under the Ministry of AYUSH and focuses on research, education, and standardization in Ayurveda.

Central Ayurveda Research Institute (CARI) is one of its premier institutes providing:

- Clinical services

- Research in Ayurvedic therapeutics
- Public health outreach programmes

2 NBCFDC

The National Backward Classes Finance and Development Corporation works under the Ministry of Social Justice & Empowerment.

Its mandate includes:

- Financial assistance for economic upliftment of backward classes
- Support for skill development and infrastructure initiatives
- Promoting inclusive growth and social equity

The sponsorship of the ambulance reflects inter-ministerial collaboration for community welfare.

KEY HIGHLIGHTS

• **Healthcare Accessibility:** Improved emergency response and patient transport services.
• **AYUSH Strengthening:** Boost to Ayurvedic healthcare infrastructure.
• **Inclusive Development:** NBCFDC's support aligns with social justice objectives.
• **Outreach Expansion:** Enables mobile medical camps and rural healthcare delivery.
• **Institutional Convergence:** Collaboration between AYUSH and Social Justice ministries.
• **Public Health Impact:** Enhances service delivery efficiency.

PRELIMS BOOSTER BOX

• **CCRAS:** Autonomous body under Ministry of AYUSH.
• **Ministry of AYUSH:** Established in 2014 (separate ministry).
• **NBCFDC:** PSU under Ministry of Social

Justice & Empowerment.
• **AYUSH Systems:** Ayurveda, Yoga, Unani, Siddha, Homoeopathy.
• **Article 46:** Promotion of educational and economic interests of weaker sections.
• **Public Health:** State subject (Entry 6, State List – Seventh Schedule).

Static Linkage:

- Social Justice Schemes
- Traditional Medicine Systems
- Constitutional Directive Principles

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. CCRAS functions under the Ministry of AYUSH.
2. NBCFDC works under the Ministry of Social Justice & Empowerment.
3. Public health is listed under the Union List of the Constitution.

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)

(Statement 3 is incorrect — Public health is under the State List.)

3.DEEPFAKES AND MISINFORMATION POSE SERIOUS THREATS TO DEMOCRACY: LOK SABHA SPEAKER

- The Lok Sabha Speaker cautioned against the growing misuse of Artificial Intelligence tools such as deepfakes in spreading misinformation.
- Deepfakes can manipulate audio and video content, potentially misleading voters and distorting democratic discourse.
- The issue raises concerns about electoral integrity, institutional credibility, and public trust in governance.
- Unchecked misinformation can undermine informed decision-making and democratic accountability.
- The statement underscores the need for regulatory frameworks, digital literacy, and ethical AI deployment.
- It reflects the broader global debate on balancing technological innovation with democratic safeguards.

- From a governance perspective, it links digital regulation with constitutional values of free and fair elections.

BACKGROUND / CONTEXT

What are Deepfakes?

- AI-generated synthetic media that realistically alters audio, video, or images.
- Created using machine learning techniques such as Generative Adversarial Networks (GANs).
- Can impersonate public figures or fabricate events.

Democratic Concerns

- Threat to electoral processes through manipulated campaign content.
- Erosion of public trust in institutions and media.
- Difficulty in distinguishing authentic information from fabricated content.

Legal & Regulatory Framework in India

- **Information Technology Act, 2000** – Governs digital content and cyber offences.
- **Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021** – Due diligence obligations for intermediaries.
- **Indian Penal Code provisions** – Defamation, forgery, impersonation.
- Proposed Digital India Act (under discussion) to address emerging digital risks.

Global Context

- Countries are exploring AI regulations and platform accountability measures.
- Concerns also linked to data protection and algorithmic transparency.

KEY HIGHLIGHTS

- **Technological Risk:** Deepfakes enable realistic manipulation of digital content.
- **Democratic Impact:** Potential distortion of electoral processes and public opinion.
- **Institutional Credibility:** Risk of eroding trust in Parliament and constitutional offices.
- **Regulatory Need:** Strengthening legal frameworks for digital accountability.
- **Digital Literacy:** Importance of citizen awareness to counter misinformation.
- **Platform Responsibility:** Greater due diligence by social media intermediaries.
- **Way Forward:** Ethical AI standards, fact-checking ecosystems, and robust cyber laws.

PRELIMS BOOSTER BOX

- **Deepfake Technology:** Uses AI techniques such as GANs (Generative Adversarial Networks).
- **IT Act, 2000:** Primary law governing cyber activities in India.
- **IT Rules, 2021:** Mandate grievance redressal and due diligence for intermediaries.
- **Article 19(1)(a):** Freedom of speech and expression.
- **Article 19(2):** Reasonable restrictions on free speech.

- **Election Commission of India:** Constitutional body under Article 324.
- **Model Code of Conduct:** Regulates political campaign conduct during elections.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Deepfakes are created using Artificial Intelligence techniques to manipulate digital media.
2. Article 19(2) of the Constitution allows reasonable restrictions on freedom of speech.
3. The Information Technology Act, 2000 exclusively deals with artificial intelligence regulation.

Which of the statements given above is/are correct?

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

Answer: (a)

4.DGCIS REVISES BASE YEAR OF MERCHANDISE TRADE INDICES TO FY 2022–23

- DGCIS has updated the base year of India's Merchandise Trade Indices from the earlier base to FY 2022–23.
- Base year revision ensures that indices reflect contemporary trade baskets, commodity weights, and price movements.
- India's export-import composition has significantly evolved with growth in

electronics, petroleum products, pharmaceuticals, and engineering goods.
- The revision improves comparability, statistical robustness, and policy relevance of trade data.
- It aids better formulation of trade policy, tariff decisions, and export promotion strategies.
- The move aligns India's statistical practices with international best standards.
- From a governance perspective, it strengthens evidence-based economic policy making.

BACKGROUND / CONTEXT

What is DGCIS?

The **Directorate General of Commercial Intelligence and Statistics** functions under the **Ministry of Commerce and Industry**.

It is responsible for:

- Compilation and dissemination of India's merchandise trade statistics
- Trade data analytics
- Publication of trade indices and reports

Merchandise Trade Indices

These indices measure:

- Export and import values
- Volume changes
- Price changes
- Terms of trade

They are crucial for understanding:

- Trade competitiveness
- External sector performance
- Impact of global price fluctuations

Base Year Revision: Why Important?

A base year:

- Serves as the benchmark year for index comparison
- Updates commodity weights according to current trade structure
- Reflects structural changes in the economy

India periodically revises base years for:

- GDP
- IIP (Index of Industrial Production)
- CPI/WPI
- Trade Indices

Global Context

With shifts in global supply chains, digital trade expansion, and geopolitical disruptions, updating trade indices ensures better alignment with current realities.

KEY HIGHLIGHTS

- **Statistical Update:** Base year shifted to FY 2022–23.
- **Structural Relevance:** Reflects new trade basket and commodity weights.
- **Policy Utility:** Improves accuracy in export-import policy decisions.
- **Global Alignment:** Brings India's trade statistics in line with international best practices.
- **Data Governance:** Enhances transparency and credibility of official trade data.
- **Economic Impact:** Supports evidence-based decision-making in external sector management.
- **Way Forward:** Regular statistical revisions to maintain data reliability.

PRELIMS BOOSTER BOX

- **DGCIS:** Apex body for India's merchandise trade statistics.
- **Administrative Ministry:** Ministry of Commerce and Industry.
- **Merchandise Trade:** Refers to trade in physical goods (not services).
- **Terms of Trade (ToT):** Ratio of export prices to import prices.
- **IIP Base Year:** 2011–12 (latest official).
- **GDP Base Year:** 2011–12 (current series).
- **Balance of Trade:** Exports minus imports.
- **Current Account:** Includes trade balance, services, income, transfers.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Directorate General of Commercial Intelligence and Statistics functions under the Ministry of Commerce and Industry.
2. Revision of base year in trade indices helps reflect changes in commodity weights and trade composition.
3. Merchandise trade includes trade in both goods and services.

Which of the statements given above is/are correct?

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

Answer: (a)

5.CASH PAYMENTS AT NATIONAL HIGHWAY FEE PLAZAS LIKELY TO BE DISCONTINUED FROM 1ST APRIL 2026

The proposed discontinuation of cash payments aims to:

- Promote **100% electronic toll collection (ETC)**
- Reduce congestion and waiting time at toll plazas
- Improve revenue transparency and compliance
- Strengthen Digital Public Infrastructure in transport

Currently, toll collection is largely facilitated through **FASTag**, a prepaid RFID-based system linked to bank accounts or wallets.

The shift aligns with India's broader push toward **digital payments and cashless governance mechanisms.**

BACKGROUND / CONTEXT

1 FASTag System

FASTag is an electronic toll collection system:

- Based on **Radio Frequency Identification (RFID)** technology
- Affixed on vehicle windshields

- Enables automatic deduction of toll charges

It is managed under the National Electronic Toll Collection (NETC) programme.

2 Digital Transport Reforms

NHAI has undertaken several initiatives:

- Dedicated FASTag lanes
- Interoperability across toll plazas
- Plans for GPS-based tolling in the future

The objective is to transition toward **barrier-less and seamless highway travel.**

KEY HIGHLIGHTS

• **Cashless Tolling:** Full transition to electronic toll collection.
• **Efficiency Gains:** Reduced congestion and fuel wastage.
• **Revenue Transparency:** Minimises leakages and manual handling errors.
• **Digital Governance:** Supports fintech integration and digital payments ecosystem.
• **Environmental Impact:** Lower idling time reduces emissions.
• **Future Roadmap:** Potential shift to GPS-based tolling mechanisms.

PRELIMS BOOSTER BOX

• **NHAI:** Statutory body under National Highways Authority of India Act, 1988.
• **FASTag:** RFID-based electronic toll collection system.
• **NETC:** National Electronic Toll Collection programme.
• **RFID:** Uses radio waves to identify tagged objects.
• **Digital Payments Push:** Linked to JAM Trinity (Jan Dhan–Aadhaar–Mobile).

• **GPS-based Tolling:** Satellite-based distance toll collection (proposed).
• **Entry 23, Union List:** Highways declared as national highways.

Static Linkage:

- Digital India
- Infrastructure Governance
- E-Governance Reforms

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. FASTag is based on RFID technology for electronic toll collection.
2. NHAI functions under the Ministry of Road Transport & Highways.
3. National Highways fall under the State List of the Constitution.

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)

(Statement 3 is incorrect — National Highways fall under the Union List.)

1.IFSCA–IICA UNVEIL STRATEGIC ROADMAP TO INSTITUTIONALIZE A STANDARDIZED CORPORATE GOVERNANCE ECOSYSTEM AT GIFT-IFSC

- IFSCA and IICA have jointly developed a roadmap to standardize corporate governance practices within GIFT-IFSC.
- The initiative aims to establish structured governance norms, board practices, and compliance benchmarks for entities operating in IFSC.
- It is designed to align India's IFSC framework with global financial centre standards.
- The roadmap enhances regulatory clarity, transparency, and accountability in cross-border financial operations.
- It strengthens India's ambition to position GIFT City as a competitive global financial hub.
- From a governance perspective, it integrates corporate ethics, risk management, and institutional capacity building.
- The move reflects a proactive regulatory approach to ensure stability and credibility in international finance operations.

BACKGROUND / CONTEXT

GIFT-IFSC: India's International Financial Hub

GIFT-IFSC (Gujarat International Finance Tec-City – International Financial Services Centre) is India's first IFSC located in Gujarat.

It enables:

- Offshore banking
- Insurance and reinsurance
- Capital markets
- Aircraft leasing and fintech operations

International Financial Services Centres Authority (IFSCA)

The **International Financial Services Centres Authority** was established in 2020 under the IFSCA Act, 2019.

It is a unified regulator combining powers of:

- RBI
- SEBI
- IRDAI
- PFRDA

Within IFSC jurisdiction.

Indian Institute of Corporate Affairs (IICA)

The **Indian Institute of Corporate Affairs** functions under the Ministry of Corporate Affairs.
It focuses on:

- Corporate governance research
- Capacity building
- Policy advisory
- Director training and certification

Corporate Governance: Conceptual Basis

Corporate governance refers to:

- Systems and processes by which companies are directed and controlled
- Accountability of boards and management
- Transparency, risk management, and stakeholder protection

Strong governance frameworks are essential for:

- Investor confidence
- Financial stability
- Sustainable growth

KEY HIGHLIGHTS

- **Regulatory Convergence:** Unified governance framework tailored for IFSC entities.
- **Global Alignment:** Benchmarked with international financial centre standards.
- **Investor Confidence:** Enhances transparency and accountability mechanisms.
- **Capacity Building:** Training and certification programs for directors and compliance officers.
- **Risk Management:** Strengthens oversight in cross-border financial transactions.
- **Strategic Significance:** Positions GIFT-IFSC as a credible global financial hub.
- **Way Forward:** Continuous regulatory refinement and governance audits.

PRELIMS BOOSTER BOX

- **IFSCA Act, 2019:** Establishes unified regulator for IFSCs.
- **GIFT City Location:** Gandhinagar, Gujarat.
- **IFSC Purpose:** Conduct financial services in foreign currency for non-residents and residents (as permitted).
- **IICA:** Autonomous body under Ministry of Corporate Affairs.
- **Corporate Governance:** Ensures accountability, transparency, fairness in corporate operations.
- **Unified Regulator Model:** Consolidates RBI, SEBI, IRDAI, PFRDA powers within IFSC jurisdiction.
- **IFSC Units:** Treated as separate from domestic tariff area for regulatory purposes.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The International Financial Services Centres Authority was established under the IFSCA Act, 2019.

2. GIFT-IFSC functions as India's International Financial Services Centre.
3. The Indian Institute of Corporate Affairs functions under the Ministry of Finance.

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.CHINTAN SHIVIR IN AHMEDABAD FOCUSES ON SCALING PHARMA EXPORTS AS INDIA CROSSES $30 BILLION MARK

- India's pharmaceutical exports have surpassed $30 billion, marking a significant milestone in the country's external sector performance.
- The Chintan Shivir deliberated on enhancing export diversification, regulatory compliance, and global market penetration.
- Discussions centered on improving quality standards, innovation capacity, and supply chain resilience.

- India is a major supplier of generic medicines and vaccines globally, particularly to developing countries.
- Scaling pharma exports aligns with the goal of positioning India as the "Pharmacy of the World."
- The initiative also contributes to foreign exchange earnings and trade balance improvement.
- From a governance perspective, it underscores policy coordination between industry, regulators, and export promotion bodies.

BACKGROUND / CONTEXT

India's Pharmaceutical Sector

India is:

- Among the largest producers of generic medicines globally.
- A leading supplier of vaccines to international agencies.
- A key exporter to the US, Europe, Africa, and Latin America.

Major export categories:

- Generic formulations
- Active Pharmaceutical Ingredients (APIs)
- Vaccines and biologics

Institutional Framework

- **Ministry of Commerce and Industry** – Oversees export promotion.
- **Ministry of Health and Family Welfare** – Regulatory oversight.
- **Pharmaceuticals Export Promotion Council of India (Pharmexcil)** – Export facilitation body.

Policy Support Measures

- Production Linked Incentive (PLI) Scheme for Pharmaceuticals.
- Bulk Drug Parks initiative to reduce API import dependence.
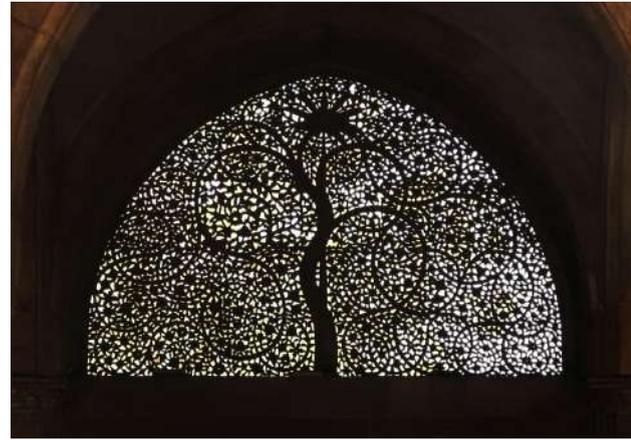- Strengthening regulatory compliance with USFDA, EMA standards.

Strategic Context

- Diversification of export markets beyond traditional destinations.
- Reducing dependency on single-country supply chains.
- Enhancing R&D and innovation for high-value drugs.

KEY HIGHLIGHTS

- **Export Milestone:** Pharma exports cross $30 billion.
- **Global Positioning:** Reinforces India's image as "Pharmacy of the World."
- **Quality Emphasis:** Strengthening regulatory and compliance standards.
- **Supply Chain Resilience:** Focus on domestic API production.
- **Innovation Push:** Encouraging R&D and high-value drug manufacturing.
- **Economic Impact:** Boosts forex reserves and improves trade balance.
- **Way Forward:** Market diversification, regulatory harmonization, and digital

trade facilitation.

PRELIMS BOOSTER BOX

- **Pharmexcil:** Established in 2004 under the Ministry of Commerce.
- **PLI Scheme (Pharma):** Incentivizes domestic manufacturing of APIs and formulations.
- **API:** Active Pharmaceutical Ingredient — key component of drug formulation.
- **Bulk Drug Parks Scheme:** Aims to create common infrastructure for API manufacturing.
- **India's Global Share:** ~20% of global generic medicine supply (approx.).
- **USFDA:** United States Food and Drug Administration (drug regulator).
- **Trade Balance:** Difference between exports and imports of goods.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. India is among the largest global suppliers of generic medicines.
2. The Pharmaceuticals Export Promotion Council of India functions under the Ministry of Commerce and Industry.

3. Active Pharmaceutical Ingredients (APIs) refer to packaging materials used in drug exports.

Which of the statements given above is/are correct?

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

Answer: (a)

3.NIELIT TO ESTABLISH INDIA'S FIRST DEDICATED QUANTUM & AI UNIVERSITY CAMPUS IN AMARAVATI

- NIELIT will set up a specialized university campus focused on Quantum Technologies and Artificial Intelligence in Amaravati.
- The institution will promote research, advanced skilling, and industry collaboration in frontier technologies.
- It supports India's National Quantum Mission and broader AI strategy.
- The campus is expected to enhance domestic talent pipelines in high-impact technological sectors.
- It also aims to foster innovation ecosystems linking academia, startups, and industry.
- Strategically, it positions India to compete in next-generation computing and digital transformation.

- From a governance lens, it strengthens institutional capacity in emerging technologies critical for national security and economic growth.

BACKGROUND / CONTEXT

NIELIT: Institutional Framework

The **National Institute of Electronics and Information Technology** functions under the **Ministry of Electronics and Information Technology (MeitY)**.

It is engaged in:

- Capacity building in electronics and IT
- Skill development programs
- Research and consultancy
- Digital literacy initiatives

Quantum Technology

Quantum computing leverages:

- Principles of superposition and entanglement
- Quantum bits (qubits) instead of classical bits
- Exponential computational capacity for complex problems

Applications:

- Cryptography
- Drug discovery
- Climate modeling
- Optimization problems

Artificial Intelligence (AI)

AI involves:

- Machine learning
- Natural language processing
- Computer vision

- Robotics and automation

AI is critical for:

- Governance digitization
- Defense applications
- Healthcare innovation
- Smart infrastructure

National Policy Context

- **National Quantum Mission (2023)** approved to develop quantum computing, communication, and sensing.
- IndiaAI initiatives for strengthening AI research and skilling.
- Emphasis on semiconductor and deep-tech ecosystem under Atmanirbhar Bharat.

KEY HIGHLIGHTS

- **Dedicated Campus:** First specialized university focusing exclusively on Quantum & AI domains.
- **Strategic Location:** Amaravati emerging as a technology and knowledge hub.
- **Skill Ecosystem:** Advanced training programs for next-generation workforce.
- **Research Focus:** Quantum computing, AI, cybersecurity, and advanced analytics.
- **National Security Angle:** Quantum communication and encryption capabilities.
- **Innovation Push:** Strengthening startup and industry collaboration.
- **Way Forward:** Global partnerships and sustained R&D investment.

PRELIMS BOOSTER BOX

- **NIELIT:** Autonomous scientific society under MeitY.
- **National Quantum Mission:** Approved in 2023 for 8 years.
- **Qubit:** Basic unit of quantum information.
- **Superposition:** Ability of a quantum system to exist in multiple states simultaneously.
- **AI Subfields:** Machine learning, deep learning, NLP, robotics.
- **MeitY:** Ministry responsible for IT, electronics, digital governance.
- **Amaravati:** Planned capital city of Andhra Pradesh.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. NIELIT functions under the Ministry of Electronics and Information Technology.
2. Quantum computers use qubits instead of classical bits for computation.
3. The National Quantum Mission focuses exclusively on artificial intelligence research.

Which of the statements given above is/are correct?

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

Answer: (a)

4.UNION HEALTH MINISTER LAUNCHES INDIGENOUS Td VACCINE AT CENTRAL RESEARCH INSTITUTE

- The indigenously developed Td vaccine has been launched to enhance India's immunization coverage.
- Manufactured at the historic Central Research Institute (CRI), the move boosts domestic vaccine self-sufficiency.
- Td vaccine replaces Tetanus Toxoid (TT) in national immunization schedules for broader protection.
- It strengthens public sector vaccine manufacturing infrastructure.
- The initiative aligns with the Universal Immunization Programme (UIP).
- Strategically, it supports Atmanirbhar Bharat in the pharmaceutical and biotech sector.
- From a governance perspective, it enhances public health security and reduces dependency on imports.

BACKGROUND / CONTEXT

1.Central Research Institute (CRI), Kasauli

- The **Central Research Institute** is one of India's oldest vaccine manufacturing institutes.

- It has historically produced vaccines for DPT, TT, and other immunization programs.

- CRI functions under the **Ministry of Health and Family Welfare**.

Tetanus & Diphtheria (Td) Vaccine

- Protects against **Tetanus** (caused by *Clostridium tetani*)
- Protects against **Diphtheria** (caused by *Corynebacterium diphtheriae*)
- Recommended for adolescents and adults

India replaced TT vaccine with Td in immunization schedules to provide dual protection.

Universal Immunization Programme (UIP)

- Launched in 1985
- One of the world's largest immunization programs
- Covers vaccines against multiple preventable diseases
- Implemented under Ministry of Health and Family Welfare

Public Health Significance

- Reduces maternal and neonatal tetanus
- Prevents diphtheria outbreaks

- Strengthens herd immunity

KEY HIGHLIGHTS

- **Indigenous Production:** Boost to domestic vaccine manufacturing capacity.
- **Public Sector Revival:** Strengthens CRI's vaccine production role.
- **Dual Protection:** Td replaces TT for broader immunological coverage.
- **Health Security:** Enhances resilience against vaccine-preventable diseases.
- **Atmanirbhar Bharat:** Reduces reliance on imports.
- **Strategic Significance:** Reinforces India's global reputation as a vaccine producer.
- **Way Forward:** Scaling production and ensuring nationwide distribution.

PRELIMS BOOSTER BOX

- **Td Vaccine:** Protects against Tetanus and Diphtheria.
- **Pathogens:**
  - *Clostridium tetani* – causes tetanus
  - *Corynebacterium diphtheriae* – causes diphtheria
- **Universal Immunization Programme (UIP):** Launched in 1985.
- **CRI Kasauli:** Established in 1905 (historical vaccine institute).
- **Herd Immunity:** Indirect protection when a large proportion of population is immunized.
- **Atmanirbhar Bharat:** Self-reliance initiative in strategic sectors including pharmaceuticals.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Td vaccine provides protection against both tetanus and diphtheria.
2. The Universal Immunization Programme was launched in 1985.
3. Diphtheria is caused by *Clostridium tetani*.

Which of the statements given above is/are correct?

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

Answer: (a)

1.INDIA AND BRAZIL SIGN MoU TO STRENGTHEN COOPERATION IN THE POSTAL SECTOR

- India and Brazil have formalized postal cooperation through a new MoU to modernize and expand bilateral postal exchanges.
- The agreement focuses on improving parcel services, e-commerce logistics, and digital financial inclusion.
- It reflects the growing importance of postal networks in facilitating cross-border trade and MSME exports.
- The partnership enhances service efficiency, technological exchange, and capacity building.
- Strategically, it strengthens South–South cooperation between two major emerging economies.
- The initiative supports digital transformation of traditional postal services.
- From a governance perspective, it integrates public service delivery with global trade facilitation.

BACKGROUND / CONTEXT

Department of Posts (India Post)

The **India Post** functions under the **Ministry of Communications**.

It provides:

- Mail and parcel services
- Postal banking services (India Post Payments Bank)
- Financial inclusion services
- Rural connectivity

India Post operates one of the world's largest postal networks.

Correios (Brazil)

Correios is Brazil's state-owned postal enterprise.
It plays a significant role in:

- Domestic and international mail
- Logistics and e-commerce services
- Financial services outreach

Global Postal Cooperation

Postal cooperation often includes:

- Exchange of best practices
- Electronic data interchange
- Customs facilitation
- E-commerce logistics integration

Both countries are members of the **Universal Postal Union (UPU)**, a UN specialized agency coordinating international postal policies.

KEY HIGHLIGHTS

- **Bilateral Cooperation:** Strengthens India–Brazil South–South collaboration.
- **E-commerce Focus:** Enhances cross-border parcel and MSME trade facilitation.
- **Digital Integration:** Promotes technological modernization of postal networks.
- **Financial Inclusion:** Supports postal banking and digital financial outreach.
- **Global Alignment:** Cooperation within UPU framework.
- **Trade Facilitation:** Improves customs processes and logistics efficiency.
- **Way Forward:** Integration with digital trade corridors and logistics reforms.

PRELIMS BOOSTER BOX

- **India Post:** World's largest postal network (over 1.5 lakh post offices).
- **Ministry of Communications:** Administrative ministry for Department of Posts.
- **Universal Postal Union (UPU):** Established in 1874; headquartered in Bern, Switzerland.
- **Brazil:** Member of BRICS and G20.
- **South–South Cooperation:** Collaboration among developing countries.
- **Postal Banking:** Financial inclusion model using postal infrastructure.
- **MoU:** Non-binding agreement outlining cooperation framework.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. India Post functions under the Ministry of Communications.
2. The Universal Postal Union is a specialized agency of the United Nations.
3. Correios is a private postal company operating in Brazil.

Which of the statements given above is/are correct?

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

Answer: (a)

2.INDIA REGISTERS LANDMARK PROGRESS IN ORGAN DONATION & TRANSPLANTATION: NOTTO AT THE HELM

- India has witnessed substantial growth in organ donation and transplantation activities in recent years.
- NOTTO has played a central role in streamlining allocation systems and ensuring transparency.
- Improved coordination among hospitals, state authorities, and transplant centers has enhanced efficiency.
- The rise in deceased organ donations marks a shift from predominantly living donor-based transplants. Initiatives like green corridors and digital registries have improved organ transport logistics.
- The progress strengthens public health outcomes and reduces waiting list mortality.
- From a governance perspective, it demonstrates institutional consolidation and regulatory oversight in a sensitive healthcare domain.

BACKGROUND / CONTEXT

NOTTO: Apex Coordinating Body

The **National Organ and Tissue Transplant Organization** functions under the **Ministry of Health and Family Welfare**.

It is responsible for:

- National organ allocation registry
- Policy coordination
- Capacity building
- Monitoring transplant activities

It operates under the framework of the Transplantation of Human Organs and Tissues Act (THOTA), 1994 (amended 2011).

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

- Regulates removal, storage, and transplantation of organs.
- Prohibits commercial dealings in human organs.
- Recognizes brain death as a legal form of death.

Institutional Structure

- **NOTTO** – National level
- **ROTTOs** – Regional level
- **SOTTOs** – State level

Public Health Significance

- Organ shortage remains a major challenge.
- Deceased donation improves organ availability.
- Awareness campaigns aim to increase voluntary pledges.

KEY HIGHLIGHTS

- **Deceased Donation Rise:** Increasing shift from living to cadaver donations.
- **Digital Registry:** Transparent and centralized organ allocation mechanism.
- **Green Corridors:** Rapid organ transport through coordinated traffic management.
- **Legal Framework:** THOTA ensures ethical transplant practices.
- **Institutional Coordination:** Integration of national, regional, and state networks.
- **Health Impact:** Reduces mortality among patients awaiting transplants.

- **Way Forward:** Public awareness drives and strengthening transplant infrastructure.

PRELIMS BOOSTER BOX

- **THOTA, 1994:** Governs organ transplantation in India.
- **Brain Death:** Legally recognized under THOTA.
- **NOTTO:** Apex body for organ allocation and policy coordination.
- **ROTTO:** Regional Organ and Tissue Transplant Organization.
- **SOTTO:** State Organ and Tissue Transplant Organization.
- **Green Corridor:** Special traffic-free route for organ transport.
- **Major Transplanted Organs:** Kidney, liver, heart, lungs, pancreas.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Transplantation of Human Organs and Tissues Act, 1994 prohibits commercial dealings in human organs.
2. Brain death is legally recognized in India for the purpose of organ transplantation.
3. NOTTO functions under the Ministry of Social Justice and Empowerment.

Which of the statements given above is/are correct?

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

Answer: (a)

3.UNION MINISTER JAYANT CHAUDHARY LAUNCHES 'BADHNA HAI TOH YAHAN JUDNA HAI' DIGITAL SKILLING CAMPAIGN THROUGH SIDH

- The campaign seeks to enhance participation in India's digital skilling ecosystem through SIDH.
- It focuses on increasing youth enrollment in technology-driven skill programs.
- SIDH acts as an integrated digital platform connecting learners, training providers, and employers.
- The initiative aligns with India's demographic dividend and workforce transformation goals.
- It promotes employability in emerging sectors such as AI, data analytics, and cybersecurity.
- Strategically, it supports the transition toward a knowledge-based and digital economy.
- From a governance perspective, it strengthens institutional convergence between skilling, industry demand, and digital infrastructure.

BACKGROUND / CONTEXT

Skill India Digital Hub (SIDH)

The **Skill India Digital Hub** is a unified digital platform under the **Ministry of Skill Development and Entrepreneurship (MSDE)**.

It provides:

- Access to skill courses
- Digital certifications
- Industry partnerships
- Employment linkages

It integrates multiple skilling schemes and stakeholders under one digital interface.

Ministry of Skill Development and Entrepreneurship (MSDE)

The **Ministry of Skill Development and Entrepreneurship** oversees:

- Skill India Mission
- Pradhan Mantri Kaushal Vikas Yojana (PMKVY)
- National Skill Development Corporation (NSDC)

Digital Skilling Imperative

- Rapid digitization of economy
- Automation and AI-driven job transformation
- Need for reskilling and upskilling workforce
- Alignment with Industry 4.0 demands

Policy Context

- Skill India Mission (launched 2015)
- Digital India initiative
- National Education Policy (NEP) 2020 – vocational integration

KEY HIGHLIGHTS

- **Nationwide Campaign:** Mobilizes youth participation in digital skill programs.
- **Platform Integration:** SIDH as a centralized digital skilling ecosystem.

- **Industry Alignment:** Courses mapped to market demand.
- **Digital Certification:** Enhances portability and transparency of credentials.
- **Economic Impact:** Supports job creation and entrepreneurship.
- **Demographic Dividend:** Harnessing India's young workforce potential.
- **Way Forward:** Strengthening rural outreach and industry co-creation models.

PRELIMS BOOSTER BOX

- **SIDH:** Unified digital skilling platform under MSDE.
- **MSDE:** Established in 2014.
- **Skill India Mission:** Launched in 2015.
- **PMKVY:** Flagship short-term skill training scheme.
- **NSDC:** Public-private partnership for skill development.
- **Industry 4.0:** Automation, AI, IoT-driven industrial transformation.
- **Demographic Dividend:** Economic growth potential from a large working-age population.

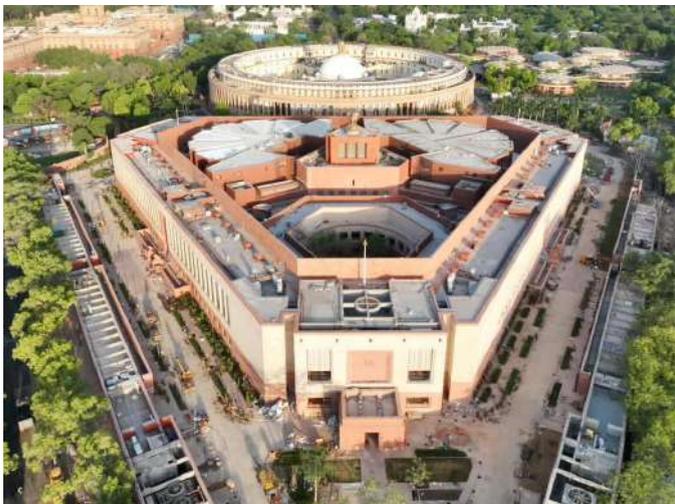## PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Skill India Digital Hub (SIDH) functions under the Ministry of Skill Development and Entrepreneurship.
2. The Skill India Mission was launched in 2015.
3. National Skill Development Corporation (NSDC) is a constitutional body.

Which of the statements given above is/are correct?

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

Answer: (a)

1.LOK SABHA SPEAKER CONSTITUTES PARLIAMENTARY FRIENDSHIP GROUPS WITH 60+ COUNTRIES TO STRENGTHEN GLOBAL DEMOCRATIC ENGAGEMENT

- Parliamentary Friendship Groups have been established to deepen legislative cooperation with over 60 countries.
- The move institutionalizes parliamentary diplomacy beyond executive-level engagement.
- PFGs will facilitate dialogue on governance practices, legislative processes, and global challenges.
- The initiative complements India's foreign policy objectives through soft power and democratic networking.
- It strengthens India's position in multilateral parliamentary forums.
- From a governance lens, it enhances legislative participation in foreign affairs discourse.
- The development reflects India's growing global role as a major democratic power.

BACKGROUND / CONTEXT

Parliamentary Diplomacy

Parliamentary diplomacy refers to engagement between legislators of different countries to:

- Promote democratic values
- Exchange best legislative practices
- Foster mutual understanding
- It supplements traditional executive diplomacy.

Institutional Framework

- The **Lok Sabha** Speaker plays a key role in constituting Parliamentary Friendship Groups.
- India participates in the **Inter-Parliamentary Union (IPU)**, a global organization of national parliaments.
- Parliamentary delegations represent India in bilateral and multilateral legislative forums.

Constitutional Position of Speaker

Under Article 93 of the Constitution:

- The Speaker presides over the Lok Sabha.
- Ensures orderly conduct of proceedings.
- Represents the House in its relations with external bodies.

Strategic Context

- Rising importance of people-centric diplomacy.
- Global democratic cooperation amid geopolitical shifts.
- Reinforcement of India's soft power.

KEY HIGHLIGHTS

- **Institutional Expansion:** PFGs constituted with over 60 countries.
- **Democratic Outreach:** Strengthens India's engagement with global legislatures.
- **Legislative Exchange:** Facilitates sharing of parliamentary best practices.
- **Soft Power Instrument:** Enhances India's democratic credentials internationally.
- **Multilateral Synergy:** Complements India's participation in IPU and global forums.
- **Strategic Significance:** Supports foreign policy through legislative channels.
- **Way Forward:** Regular interactions, thematic dialogues, and youth parliamentary exchanges.

PRELIMS BOOSTER BOX

- **Article 93:** Election of Speaker and Deputy Speaker of Lok Sabha.
- **Article 118:** Each House may make rules for regulating its procedure.
- **Speaker's Role:** Presiding authority and administrative head of Lok Sabha Secretariat.
- **Inter-Parliamentary Union (IPU):** Founded in 1889; headquarters in Geneva.
- **Parliamentary Diplomacy:** Legislative engagement complementing executive diplomacy.
- **Soft Power:** Influence through culture, values, and institutions rather than coercion.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Speaker of the Lok Sabha is empowered to represent the House in its external relations.
2. Parliamentary diplomacy supplements traditional executive diplomacy.
3. The Inter-Parliamentary Union is a specialized agency of the United Nations.

Which of the statements given above is/are correct?

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

Answer: (a)

2.SHEGAON TO HOST NATIONAL AROGYA FAIR 2026: AYUSH SYSTEMS TO CONVERGE UNDER ONE ROOF

- The National Arogya Fair 2026 aims to promote India's traditional systems of medicine through public outreach and demonstrations.
- It will provide a unified platform for practitioners, researchers, industry stakeholders and citizens.

- The event reflects the government's push toward integrative and preventive healthcare models.
- By showcasing diverse AYUSH systems, it strengthens India's medical pluralism framework.
- It supports wellness tourism and local economic activity.
- Strategically, it enhances India's global positioning in traditional medicine diplomacy.
- From a governance perspective, it deepens institutional coordination under the Ministry of AYUSH.

BACKGROUND / CONTEXT

Ministry of AYUSH

The **Ministry of AYUSH** was established in 2014 (upgraded from the Department of AYUSH).

It oversees:

- Policy formulation
- Education standards
- Research councils
- Drug regulation in traditional medicine

AYUSH Systems Explained

AYUSH represents:

- **Ayurveda:** Ancient Indian system based on Tridosha theory (Vata, Pitta, Kapha).
- **Yoga & Naturopathy:** Holistic health and lifestyle interventions.
- **Unani:** Greco-Arabic system based on four humours.
- **Siddha:** Traditional Tamil medical system.
- **Sowa-Rigpa:** Tibetan system of medicine recognized in India.

- **Homoeopathy:** Based on "like cures like" principle.

Policy Context

- National AYUSH Mission (NAM)
- Integration of AYUSH in primary healthcare
- WHO Global Centre for Traditional Medicine in India

Healthcare Significance

- Emphasis on preventive and promotive health
- Reduces burden on allopathic infrastructure
- Enhances accessibility in rural and semi-urban areas

KEY HIGHLIGHTS

- **Integrated Platform:** All AYUSH systems showcased under one roof.
- **Public Outreach:** Awareness campaigns and health consultations.
- **Research & Innovation:** Promotion of evidence-based validation.
- **Economic Impact:** Boost to wellness industry and local economy.
- **Institutional Convergence:** Coordination among research councils and practitioners.
- **Soft Power Diplomacy:** Promotes India as global hub of traditional medicine.
- **Way Forward:** Standardization, quality control and global accreditation.

PRELIMS BOOSTER BOX

- **Ministry of AYUSH:** Established as independent ministry in 2014.
- **National AYUSH Mission (NAM):** Centrally Sponsored Scheme.

- **Sowa-Rigpa:** Recognized officially in India in 2010.
- **Tridosha Theory:** Vata, Pitta, Kapha (Ayurveda).
- **Four Humours (Unani):** Blood, Phlegm, Yellow bile, Black bile.
- **WHO Global Centre for Traditional Medicine:** Located in Jamnagar, Gujarat.
- **Integrative Medicine:** Combining conventional and traditional practices.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Ministry of AYUSH was established as an independent ministry in 2014.
2. Sowa-Rigpa is officially recognized as one of the traditional systems of medicine in India.
3. The National AYUSH Mission is a Central Sector Scheme.

Which of the statements given above is/are correct?

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

Answer: (a)

3.'ZERO DEFECT, ZERO EFFECT' AT THE CORE OF INDIA'S MANUFACTURING PUSH: PIYUSH GOYAL

- The "Zero Defect, Zero Effect" (ZED) vision seeks to ensure globally competitive manufacturing with minimal environmental impact.
- "Zero Defect" refers to high-quality production standards, while "Zero Effect" emphasizes sustainability and low ecological footprint.
- The approach aligns with India's ambition to become a developed nation (Viksit Bharat) by 2047.
- Quality enhancement is positioned as central to expanding exports and attracting global value chains.
- The initiative complements Production Linked Incentive (PLI) schemes and Make in India efforts.
- Strategically, it links industrial growth with environmental responsibility.
- From a governance lens, it reflects regulatory reforms, standards certification, and industry–state coordination.

BACKGROUND / CONTEXT

Zero Defect, Zero Effect (ZED)

Launched under the **Ministry of Micro, Small and Medium Enterprises**, the ZED scheme promotes:

- Quality certification for MSMEs
- Adoption of global manufacturing standards
- Environmental compliance
- Resource efficiency

Make in India Initiative

Launched in 2014, Make in India aims to:

- Increase manufacturing share in GDP
- Attract FDI
- Promote innovation and skill development

Manufacturing & Economic Vision 2047

- Target: Transform India into a developed economy by 2047.
- Emphasis on industrialization, exports, and high-value production.
- Integration into Global Value Chains (GVCs).

Sustainability Imperative

- ESG compliance is gaining global importance.
- Carbon footprint and environmental standards influence trade access.
- Green manufacturing is increasingly linked to trade competitiveness.

KEY HIGHLIGHTS

- **Quality Focus:** "Zero Defect" ensures global-standard manufacturing.
- **Environmental Commitment:** "Zero Effect" reduces ecological impact.
- **MSME Integration:** ZED certification strengthens small enterprises.
- **Export Expansion:** Enhances competitiveness in global markets.
- **FDI Attraction:** Quality standards build investor confidence.
- **Sustainable Industrialization:** Aligns growth with environmental goals.
- **Way Forward:** Strengthening standards bodies, testing infrastructure, and green technology adoption.

PRELIMS BOOSTER BOX

- **ZED Scheme:** Implemented under the Ministry of MSME.
- **Make in India:** Launched in 2014.
- **PLI Scheme:** Incentivizes incremental production in key sectors.
- **MSME Definition:** Based on investment and turnover criteria (revised 2020).
- **Global Value Chains (GVCs):** International production networks.
- **ESG:** Environmental, Social, and Governance criteria.
- **National Manufacturing Policy (2011):** Target of 25% GDP share (indicative).

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Zero Defect, Zero Effect (ZED) scheme is implemented under the Ministry of MSME.
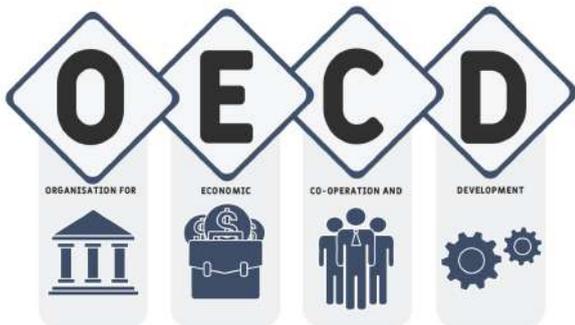
2. "Zero Effect" in the ZED framework refers to minimizing the environmental impact of manufacturing.
3. Production Linked Incentive (PLI) scheme primarily targets agricultural subsidies.

Which of the statements given above is/are correct?

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

Answer: (a)

4.INDIA–FRANCE SIGN AMENDING PROTOCOL TO UPDATE DOUBLE TAXATION AVOIDANCE CONVENTION (DTAC)

- India and France have revised their Double Taxation Avoidance Convention to modernize tax provisions.
- The Amending Protocol incorporates global anti-abuse measures and information-sharing standards.
- It seeks to prevent double taxation while curbing treaty shopping and base erosion practices.

- The update aligns the treaty with OECD-led reforms on transparency and anti-tax avoidance.
- The move enhances investor confidence and facilitates cross-border trade and investment.
- Strategically, it deepens economic ties between two major partners in Europe and Asia.
- From a governance standpoint, it strengthens tax compliance, revenue protection, and financial transparency.

BACKGROUND / CONTEXT

Double Taxation Avoidance Convention (DTAC)

A DTAC is a bilateral agreement that ensures:

- Income is not taxed twice in two countries.
- Clear rules for taxation of dividends, royalties, interest, and capital gains.
- Exchange of information to prevent tax evasion.

India has DTACs with over 90 countries.

OECD and Global Tax Standards

The **Organisation for Economic Co-operation and Development (OECD)** leads initiatives such as:

- Base Erosion and Profit Shifting (BEPS) framework
- Global Minimum Corporate Tax (Pillar Two)
- Anti-abuse provisions (Principal Purpose Test)

India–France Economic Relations

France is a major investor in India across sectors such as:

- Defence
- Infrastructure
- Renewable energy
- Technology

The updated DTAC enhances fiscal predictability in bilateral trade.

KEY HIGHLIGHTS

- **Treaty Modernization:** Alignment with global anti-tax avoidance norms.
- **Anti-Abuse Measures:** Incorporation of BEPS-related safeguards.
- **Information Exchange:** Strengthened transparency mechanisms.
- **Investor Confidence:** Reduces uncertainty in cross-border taxation.
- **Revenue Protection:** Prevents treaty shopping and profit shifting.
- **Strategic Partnership:** Reinforces India–France economic cooperation.
- **Way Forward:** Harmonization with global tax reforms and digital taxation frameworks.

PRELIMS BOOSTER BOX

- **DTAC:** Prevents double taxation of income earned in two jurisdictions.
- **BEPS:** Base Erosion and Profit Shifting initiative under OECD.
- **Principal Purpose Test (PPT):** Anti-treaty abuse provision.
- **Global Minimum Tax:** 15% minimum corporate tax under OECD Pillar Two.
- **Treaty Shopping:** Routing investments to exploit favorable tax treaties.

- **Article 265 (Indian Constitution):** No tax shall be levied or collected except by authority of law.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. A Double Taxation Avoidance Convention (DTAC) ensures that the same income is not taxed twice in two different countries.
2. The OECD's BEPS initiative aims to curb base erosion and profit shifting by multinational enterprises.
3. Treaty shopping refers to the imposition of tariffs on imported goods.

Which of the statements given above is/are correct?

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

Answer: (a)

1.SUPREME COURT CRITICIZES FREEBIES, QUESTIONS APPEASEMENT IN WELFARE POLITICS

- The Supreme Court expressed concern over the growing trend of electoral promises involving free goods and services.
- It questioned whether such measures undermine fiscal discipline and responsible governance.
- The issue brings into focus the distinction between welfare schemes and politically motivated freebies.
- The debate intersects with federal fiscal responsibility and state budget constraints.
- The Court's remarks highlight the need for institutional mechanisms to evaluate economic viability.
- It also raises constitutional questions regarding equality, public expenditure, and democratic accountability.
- The development has implications for public finance management and electoral reforms discourse.

BACKGROUND / CONTEXT

Freebies vs Welfare

- **Welfare Schemes:** Targeted interventions aimed at socio-economic upliftment (education, health, food security).
- **Freebies:** Non-merit subsidies or goods distributed without clear long-term productivity or welfare rationale.

The classification remains politically and legally contested.

Constitutional Provisions

- **Article 14:** Equality before law.
- **Article 38:** State to promote welfare of people (DPSP).
- **Article 39(b):** Distribution of material resources for common good.
- **Article 266:** Consolidated Fund of India/States (public expenditure source).

Fiscal Responsibility Framework

- Fiscal Responsibility and Budget Management (FRBM) Acts aim to ensure fiscal prudence.
- Rising subsidy burdens may affect capital expenditure and development priorities.

Electoral Context

The **Election Commission of India** has previously discussed regulating election manifestos to ensure fiscal transparency.

KEY HIGHLIGHTS

- **Judicial Concern:** Court questions sustainability of freebie culture.
- **Fiscal Discipline:** Emphasis on responsible public expenditure.
- **Governance Debate:** Distinction between welfare and appeasement.

- **Constitutional Balance:** DPSPs vs fiscal prudence.
- **Electoral Integrity:** Manifesto promises under scrutiny.
- **Economic Impact:** Potential strain on state finances.
- **Way Forward:** Independent fiscal assessment of major welfare promises and enhanced transparency norms.

PRELIMS BOOSTER BOX

- **Article 14:** Equality before law.
- **Article 38 & 39:** Directive Principles on welfare and resource distribution.
- **Article 266:** Consolidated Fund provisions.
- **FRBM Act (2003):** Framework for fiscal deficit control.
- **Subsidy vs Freebie:** Subsidy may have economic rationale; freebie may lack productivity linkage.
- **Election Commission:** Regulates conduct of elections under Article 324.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Article 38 of the Constitution directs the State to promote the welfare of the people.
2. The FRBM Act seeks to ensure fiscal discipline in public finances.
3. The Supreme Court has the power to regulate election manifestos directly under Article 324.

Which of the statements given above is/are correct?

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

Answer: (a)

2.INDIA AND ISRAEL LAUNCH FIRST ROUND OF NEGOTIATIONS FOR FREE TRADE AGREEMENT (FTA)

- India and Israel have initiated formal negotiations for a comprehensive Free Trade Agreement.
- The FTA is expected to reduce tariffs, ease market access, and streamline trade regulations.
- It will likely cover goods, services, investment protection, and digital trade provisions.
- The move builds upon strong cooperation in defence, agriculture, innovation, and technology.
- The agreement may enhance India's access to advanced technologies and high-value exports.
- Strategically, it strengthens India's West Asia engagement and diversification of trade partners.
- From a governance lens, it reflects India's proactive trade diplomacy amid global supply chain realignments.

BACKGROUND / CONTEXT

India–Israel Relations

India established full diplomatic relations with **Israel** in 1992.
Bilateral ties have expanded significantly in:

- Defence cooperation
- Agriculture (Centre of Excellence model)
- Water management
- Cybersecurity and innovation

Prime Minister **Narendra Modi**'s 2017 visit marked a major diplomatic milestone.

Free Trade Agreement (FTA)

An FTA typically includes:

- Tariff elimination or reduction
- Non-tariff barrier rationalization
- Rules of origin
- Trade facilitation measures

India has signed FTAs with UAE, Australia, and ASEAN, among others.

Strategic Economic Context

- Diversification of export markets
- Integration into Global Value Chains (GVCs)
- Strengthening technology partnerships
- Enhancing resilience in supply chains

KEY HIGHLIGHTS

- **Formal Negotiations:** First round of FTA talks initiated.
- **Tariff Rationalization:** Potential reduction of customs duties.
- **Technology Access:** Boost to innovation-driven sectors.
- **Trade Diversification:** Reduces overdependence on select markets.
- **Strategic Partnership:** Reinforces India's West Asia outreach.
- **Supply Chain Integration:** Facilitates participation in GVCs.
- **Way Forward:** Balanced negotiation ensuring domestic industry protection and export expansion.

PRELIMS BOOSTER BOX

- **FTA:** Agreement reducing or eliminating trade barriers between countries.
- **Rules of Origin:** Criteria to determine national source of a product.
- **Tariff vs Non-Tariff Barrier:** Customs duty vs regulatory restrictions.
- **Comprehensive Economic Partnership Agreement (CEPA):** Broader trade pact including services and investment.
- **West Asia:** Strategic region for energy, trade, and diaspora links.
- **Global Value Chains (GVCs):** Cross-border production networks.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. A Free Trade Agreement typically includes provisions on tariff reduction and rules of origin.
2. India established full diplomatic relations with Israel in 1992.
3. Non-tariff barriers refer exclusively to customs duties imposed on imports.

Which of the statements given above is/are correct?

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

Answer: (a)

3.MEITY LAUNCHES 'BLOCKCHAIN INDIA CHALLENGE' TO ADVANCE BLOCKCHAIN-BASED DIGITAL GOVERNANCE

इलेक्ट्रॉनिकी एवं
सूचना प्रौद्योगिकी मंत्रालय
MINISTRY OF
**ELECTRONICS AND
INFORMATION TECHNOLOGY**
सत्यमेव जयते

- The Blockchain India Challenge is designed to harness blockchain technology for public administration.
- It focuses on enhancing transparency, security, and efficiency in government processes.
- The initiative encourages participation from startups, academia, and industry innovators.
- Potential applications include land records, supply chain management, identity systems, and grievance redressal.
- The move aligns with India's broader Digital Public Infrastructure (DPI) framework.
- Strategically, it strengthens India's leadership in emerging technologies and e-governance reforms.
- From a governance perspective, blockchain can reduce fraud, ensure data integrity, and improve citizen trust.

BACKGROUND / CONTEXT

MeitY's Role

The **Ministry of Electronics and Information Technology** is responsible for:

- Digital governance policies
- Cybersecurity frameworks
- Promotion of emerging technologies
- Implementation of Digital India initiatives

Blockchain Technology

Blockchain is a:

- Distributed ledger technology
- Decentralized and immutable database
- System ensuring transparency and tamper resistance

Key features:

- Cryptographic security
- Consensus mechanisms
- Smart contracts

Digital Public Infrastructure (DPI)

India's DPI ecosystem includes:

- Aadhaar (digital identity)
- UPI (digital payments)
- DigiLocker (document storage)

Blockchain integration can enhance auditability and data security.

Governance Relevance

- Prevents record tampering (e.g., land titles).
- Enhances transparency in procurement.
- Reduces intermediary corruption.

KEY HIGHLIGHTS

- **Innovation Platform:** Nationwide challenge to promote blockchain adoption.
- **Startup Engagement:** Encourages tech-driven public solutions.
- **Transparency Tool:** Reduces data manipulation risks.
- **Digital Governance Reform:** Strengthens e-service delivery.
- **Cybersecurity Enhancement:** Improves trust and resilience.
- **Strategic Technology Push:** Positions India in global blockchain ecosystem.
- **Way Forward:** Regulatory clarity, interoperability standards, and capacity building.

PRELIMS BOOSTER BOX

- **Blockchain:** Distributed ledger technology ensuring immutable records.
- **Smart Contracts:** Self-executing digital contracts on blockchain.
- **Digital India:** Launched in 2015.
- **DPI:** Digital Public Infrastructure model of India.
- **Cryptographic Hash:** Unique digital fingerprint of data block.
- **Consensus Mechanism:** Method to validate transactions (e.g., Proof of Work, Proof of Stake).
- **Cybersecurity:** Protection of digital systems from unauthorized access.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Blockchain technology operates on a decentralized and distributed ledger system.
2. Smart contracts are self-executing agreements embedded in blockchain networks.
3. Blockchain databases can be altered easily without detection once data is recorded.

Which of the statements given above is/are correct?

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

Answer: (a)

4.MOEFCC TO ORGANIZE 'HIM-CONNECT' ON SIDELINES OF WORLD SUSTAINABLE DEVELOPMENT SUMMIT 2026

- 'Him-CONNECT' is envisioned as a dedicated platform focusing on the ecological and developmental concerns of the Indian Himalayan Region (IHR).

- It will facilitate dialogue among policymakers, scientists, and stakeholders on climate resilience and sustainable mountain development.
- The initiative aligns with India's climate commitments and disaster risk reduction strategies.
- The Himalayas are ecologically fragile and critical for water security and biodiversity.
- The event is expected to promote inter-state coordination across Himalayan states.
- Strategically, it enhances India's leadership in mountain ecosystem governance.
- From a policy perspective, it integrates environmental sustainability with regional development planning.

BACKGROUND / CONTEXT

Indian Himalayan Region (IHR)

The IHR spans 13 states/UTs and is:

- A biodiversity hotspot
- Source of major river systems (Ganga, Brahmaputra, Indus)
- Highly vulnerable to climate change impacts

Climate Vulnerability

- Glacier retreat
- Increased frequency of landslides
- Extreme rainfall events
- Seismic sensitivity

Institutional Framework

The **Ministry of Environment, Forest and Climate Change**:

- Formulates climate policy

- Implements National Action Plan on Climate Change (NAPCC)
- Oversees biodiversity conservation

TERI organizes the annual World Sustainable Development Summit (WSDS), a major global sustainability forum.

Policy Linkages

- National Mission for Sustaining the Himalayan Ecosystem (NMSHE)
- Sendai Framework for Disaster Risk Reduction
- Paris Agreement commitments

KEY HIGHLIGHTS

- **Focused Dialogue:** Dedicated platform for Himalayan sustainability.
- **Climate Resilience:** Emphasis on glacier protection and disaster mitigation.
- **Water Security:** Himalayas as "Water Towers of Asia."
- **Inter-State Coordination:** Strengthening cooperative federalism.
- **Global Platform:** Leveraging WSDS for international collaboration.
- **Biodiversity Protection:** Conservation of fragile ecosystems.
- **Way Forward:** Data-driven mountain governance and community participation.

PRELIMS BOOSTER BOX

- **Indian Himalayan Region (IHR):** Covers ~2,500 km mountain arc.
- **NMSHE:** One of the eight missions under NAPCC.
- **NAPCC (2008):** Framework for climate adaptation and mitigation.

- **Sendai Framework (2015–2030):** Global disaster risk reduction framework.
- **Paris Agreement (2015):** Global climate treaty under UNFCCC.
- **Himalayas:** Source of major perennial river systems in South Asia.
- **Biodiversity Hotspot:** Himalayas included in global biodiversity hotspot list.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The National Mission for Sustaining the Himalayan Ecosystem is part of the National Action Plan on Climate Change.
2. The Himalayas are the source of major river systems such as the Ganga and Brahmaputra.
3. The Sendai Framework is a legally binding climate treaty under the UNFCCC.

Which of the statements given above is/are correct?

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

Answer: (a)

5.ESIC COMMENCES 75TH FOUNDATION YEAR CELEBRATIONS

- ESIC has completed 75 years of providing social security protection to organized sector workers.
- The scheme offers medical care, cash benefits, maternity coverage, disability compensation, and dependent benefits.
- Over time, coverage has expanded in terms of wage ceilings and geographic outreach.
- The foundation year underscores the strengthening of labour welfare architecture in India.
- ESIC plays a critical role in formal workforce protection and industrial relations stability.
- The development aligns with broader labour reforms and universal social security goals.
- From a governance perspective, it reflects institutional continuity in welfare administration.

BACKGROUND / CONTEXT

Legal Framework

ESIC operates under the **Employees' State Insurance Act, 1948**.

The Act provides for:

- Health insurance
- Sickness benefits
- Maternity benefits
- Employment injury compensation

Institutional Structure

The **Employees' State Insurance Corporation** is an autonomous body under the **Ministry of Labour and Employment**.

It administers:

- ESIC hospitals

- Dispensaries
- Medical colleges

Coverage

- Applicable to establishments employing 10 or more persons (threshold varies by state).
- Wage ceiling periodically revised (currently ₹21,000 per month for eligibility, subject to notification updates).

Social Security Context

- Linked to Code on Social Security, 2020.
- Supports transition toward universal and portable social protection.

KEY HIGHLIGHTS

- **75-Year Milestone:** Institutional longevity in worker welfare.
- **Comprehensive Benefits:** Medical, maternity, disability, and dependent support.
- **Expanded Coverage:** Increased wage ceilings and territorial expansion.
- **Tripartite Governance:** Employer, employee, and government representation.
- **Healthcare Infrastructure:** Dedicated ESIC hospitals and dispensaries.
- **Labour Reform Linkage:** Integrated into Social Security Code framework.
- **Way Forward:** Digital integration, portability of benefits, and coverage of gig workers.

PRELIMS BOOSTER BOX

- **Employees' State Insurance Act, 1948:** Legal basis of ESIC.
- **Article 41:** Right to work, education, and public assistance (DPSP).

- **Article 42:** Provision for just and humane conditions of work and maternity relief.
- **Code on Social Security, 2020:** Consolidates nine labour laws.
- **Tripartite Body:** Representation from employers, employees, and government.
- **Wage Ceiling:** ₹21,000/month (subject to revision).
- **Social Insurance:** Contribution-based welfare system.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Employees' State Insurance Act was enacted in 1948.
2. ESIC functions under the Ministry of Labour and Employment.
3. The Employees' State Insurance Scheme is a non-contributory social assistance program.

Which of the statements given above is/are correct?

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

Answer: (a)

1. GENERAL UPENDRA DWIVEDI FLAGS IN 'BHARAT RANBHOOMI DARSHAN' EXPEDITION

- The 'Bharat Ranbhoomi Darshan' expedition was organized to retrace and commemorate significant battlefields associated with India's military history.
- The flag-in ceremony by the Army Chief marked the successful completion of the expedition.
- The initiative promotes awareness of military heritage among armed forces personnel and citizens.
- It reinforces the ethos of sacrifice, courage, and service within the Indian Army.
- The expedition also contributes to civil-military engagement and national integration.
- Strategically, it aligns with initiatives aimed at preserving war memorials and honoring veterans.
- From a governance perspective, it strengthens institutional traditions and heritage documentation within the defence establishment.

BACKGROUND / CONTEXT

Role of the Chief of the Army Staff

The Chief of the Army Staff (COAS):

- Heads the Indian Army.
- Is responsible for operational preparedness and strategic leadership.
- Reports to the Chief of Defence Staff (CDS) and the Ministry of Defence.

Military Heritage Initiatives

India has undertaken several measures to preserve military legacy, including:

- Establishment of the **National War Memorial** in New Delhi.
- Commemorative events for historic battles.
- Veteran outreach and welfare programs.

Defence Governance Framework

- Armed Forces operate under the **Ministry of Defence**.
- The President of India is the Supreme Commander of the Armed Forces (Article 53).

Strategic Significance

- Enhances morale and esprit de corps.
- Promotes historical consciousness within armed forces.
- Supports nation-building through shared remembrance.

KEY HIGHLIGHTS

- **Flag-In Ceremony:** Marked completion of the expedition.
- **Military Heritage:** Commemoration of historic battlefields.
- **Leadership Role:** Event led by the Army Chief.
- **National Integration:** Civil-military engagement strengthened.

- **Institutional Memory:** Documentation and preservation of military history.
- **Morale Boost:** Reinforces ethos of sacrifice and service.
- **Way Forward:** Integrating military heritage awareness into youth outreach and defence studies.

PRELIMS BOOSTER BOX

- **Article 53:** Executive power of the Union vested in the President.
- **Supreme Commander:** President of India.
- **Ministry of Defence:** Administrative control over armed forces.
- **Chief of Army Staff (COAS):** Professional head of the Indian Army.
- **National War Memorial:** Dedicated to soldiers who laid down their lives post-Independence.
- **Esprit de Corps:** Spirit of unity and morale within a military unit.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The President of India is the Supreme Commander of the Armed Forces under Article 53 of the Constitution.
2. The Chief of the Army Staff functions under the administrative control of the Ministry of Defence.
3. The National War Memorial commemorates soldiers who fought only during the colonial period.

Which of the statements given above is/are correct?

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

Answer: (a)

2.INDIA AND SWEDEN DEEPEN AI PARTNERSHIP UNDER SITAC FRAMEWORK

- India and Sweden are expanding collaboration in AI through the Sweden–India Technology Action Council (SITAC).
- The partnership focuses on responsible AI, innovation ecosystems, and industry-academia linkages.
- It aims to promote co-development of AI solutions in sectors like healthcare, sustainability, and mobility.
- The initiative aligns with India's push for emerging technologies and digital governance reforms.
- Sweden's advanced innovation ecosystem complements India's digital scale and talent pool.
- Strategically, the partnership strengthens India's engagement with Nordic countries.
- From a governance perspective, it highlights ethical AI development and regulatory cooperation.

BACKGROUND / CONTEXT

SITAC Framework

The **Sweden–India Technology Action Council (SITAC)** was established to:

- Promote bilateral R&D collaboration
- Facilitate innovation partnerships
- Support joint funding and pilot projects

It serves as a structured mechanism for technology cooperation.

India–Sweden Relations

India and **Sweden** share cooperation in:

- Clean energy
- Smart cities
- Digital innovation
- Sustainable industry

Sweden is known for strong R&D investments and high innovation rankings.

AI Governance Context

India's AI push includes:

- National Strategy for Artificial Intelligence (NITI Aayog)
- Emphasis on AI for All
- Development of AI compute infrastructure

Globally, responsible AI frameworks focus on transparency, fairness, and data protection.

KEY HIGHLIGHTS

- **Technology Cooperation:** Expansion under SITAC mechanism.
- **Responsible AI:** Ethical and regulatory collaboration.
- **Sectoral Focus:** Healthcare, sustainability, mobility.
- **Innovation Synergy:** Sweden's R&D strength + India's digital scale.
- **Strategic Partnership:** Deepens India–Nordic engagement.
- **Digital Governance:** AI integration into public services.
- **Way Forward:** Joint research grants, startup exchanges, and regulatory dialogue.

PRELIMS BOOSTER BOX

- **SITAC:** Sweden–India Technology Action Council for bilateral innovation.
- **AI for All:** India's inclusive AI vision.
- **Nordic Countries:** Sweden, Norway, Denmark, Finland, Iceland.
- **Responsible AI Principles:** Transparency, accountability, fairness.
- **NITI Aayog:** Policy think tank of Government of India.
- **R&D Intensity:** Sweden among top global R&D spenders (% of GDP).
- **Data Protection:** Key component of AI governance.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Sweden–India Technology Action Council (SITAC) facilitates bilateral innovation and technology cooperation.
2. Responsible AI frameworks emphasize transparency and accountability.
3. Sweden is a member of the European Union but not part of the Nordic region.

Which of the statements given above is/are correct?

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

Answer: (a)

3.NORTH EAST INSTITUTE SYNTHESISES BIOBASED COMPOUND TO SUBSTITUTE COSMETIC LUBRICANTS

- Researchers at CSIR-NEIST have developed a bio-derived compound that can function as a lubricant or emollient in cosmetic formulations.
- The compound is derived from renewable biomass, reducing reliance on petrochemical inputs.
- It offers improved biodegradability and lower environmental footprint. Such innovation supports India's transition toward a circular bioeconomy.
- The cosmetic industry, heavily dependent on mineral oil-based lubricants, may benefit from sustainable substitutes.
- Strategically, it enhances domestic innovation and reduces import dependency in specialty chemicals.
-
  From a governance lens, it advances policy goals related to green manufacturing and sustainable industrial chemistry.

BACKGROUND / CONTEXT

CSIR-NEIST

The **CSIR-North East Institute of Science and Technology** is a constituent laboratory of the **Council of Scientific and Industrial Research (CSIR)**.

It focuses on:

- Natural product chemistry
- Petrochemicals and polymers
- Biotechnology
- Sustainable resource utilization

Green Chemistry

Green chemistry emphasizes:

- Renewable feedstocks
- Reduced toxic by-products
- Energy-efficient processes
- Biodegradability

It aligns with Sustainable Development Goals (SDGs), particularly SDG 12 (Responsible Consumption and Production).

Cosmetic Industry Context

Cosmetic formulations commonly use:

- Mineral oils
- Synthetic esters
- Petroleum-based emollients

Biobased substitutes can reduce environmental persistence and carbon footprint.

Bioeconomy Push

India aims to expand its bioeconomy through:

- Biomass valorization

- Waste-to-wealth initiatives
- Biotechnology innovation

KEY HIGHLIGHTS

- **Biobased Innovation:** Renewable compound replaces petroleum lubricants.
- **Sustainability Boost:** Lower environmental impact and biodegradability.
- **Industrial Application:** Potential use in cosmetic formulations.
- **Import Substitution:** Reduces reliance on petrochemical imports.
- **Regional Research Strength:** North East's role in national innovation ecosystem.
- **Green Chemistry Alignment:** Supports eco-friendly manufacturing.
- **Way Forward:** Commercial scaling, regulatory approval, and industry partnerships.

PRELIMS BOOSTER BOX

- **CSIR:** Autonomous R&D body under Ministry of Science & Technology.
- **CSIR-NEIST:** Located in Jorhat, Assam.
- **Green Chemistry Principles:** 12 principles including waste prevention and safer solvents.
- **Biodegradable Compound:** Breaks down naturally without harmful residues.
- **Bioeconomy:** Economic activity derived from biological resources.
- **SDG 12:** Responsible Consumption and Production.
- **Emollient:** Substance that softens or smoothens skin.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. CSIR-NEIST is a constituent laboratory of the Council of Scientific and Industrial Research.
2. Green chemistry promotes the use of renewable feedstocks and reduction of toxic by-products.
3. Biobased compounds are necessarily derived from petroleum resources.

Which of the statements given above is/are correct?

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

Answer: (a)

4.NBEMS EARNS GUINNESS WORLD RECORDS™ RECOGNITION FOR AI IN HEALTHCARE LIVE STREAM

- NBEMS conducted a live-streamed educational session on Artificial Intelligence in Healthcare that set a global record for viewership.

- The recognition by Guinness World Records signifies unprecedented engagement in medical digital learning.
- The initiative promotes awareness of AI applications in diagnostics, imaging, and clinical decision support.
- It highlights the shift toward technology-enabled medical education platforms.
- The event aligns with India's digital health transformation agenda.
- Strategically, it positions India as a leader in AI-driven capacity building in healthcare.
- From a governance perspective, it strengthens institutional outreach and continuous professional development frameworks.

BACKGROUND / CONTEXT

NBEMS

The **National Board of Examinations in Medical Sciences**:

- Conducts postgraduate and super-specialty medical examinations.
- Oversees Diplomate of National Board (DNB) qualifications.
- Functions under the **Ministry of Health and Family Welfare**.

Artificial Intelligence in Healthcare

AI applications include:

- Medical imaging diagnostics
- Predictive analytics
- Robotic surgery assistance
- Electronic health record analysis

AI improves accuracy, efficiency, and patient outcomes.

Digital Health Ecosystem

India's digital health initiatives include:

- Ayushman Bharat Digital Mission (ABDM)
- Telemedicine expansion
- Electronic health record standardization

AI integration complements these digital reforms.

Capacity Building Significance

- Enhances continuous medical education (CME).
- Encourages adoption of emerging technologies.
- Bridges knowledge gaps across geographical regions.

KEY HIGHLIGHTS

- **World Record Achievement:** Official recognition by Guinness World Records.
- **AI Education Focus:** Large-scale lesson on AI in healthcare.
- **Digital Outreach:** Leveraged live streaming for nationwide participation.
- **Medical Capacity Building:** Strengthened professional training ecosystem.
- **Health-Tech Integration:** Encourages AI adoption in clinical practice.
- **Institutional Prestige:** Elevates NBEMS's global academic standing.
- **Way Forward:** Institutionalizing AI modules in medical curricula.

PRELIMS BOOSTER BOX

- **NBEMS:** Conducts DNB and DrNB examinations.
- **DNB (Diplomate of National Board):** Equivalent to MD/MS (as per NMC recognition norms).
- **AI in Healthcare:** Used in radiology, pathology, predictive modeling.
- **ABDM:** Ayushman Bharat Digital Mission for digital health ecosystem.
- **Continuing Medical Education (CME):** Ongoing professional learning for doctors.
- **Machine Learning:** Subset of AI using data-driven algorithms.
- **Telemedicine:** Remote clinical service delivery via digital platforms.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The National Board of Examinations in Medical Sciences conducts postgraduate medical examinations in India.
2. Artificial Intelligence in healthcare can assist in diagnostic imaging and predictive analytics.
3. The Ayushman Bharat Digital Mission focuses exclusively on insurance coverage for hospitalization.

Which of the statements given above is/are correct?

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

Answer: (a)

1.LIST OF OUTCOMES: VISIT OF PRIME MINISTER TO ISRAEL

The visit reaffirmed the growing India–Israel strategic partnership, focusing on:

- Defence and security cooperation
- Agricultural innovation and drip irrigation technologies
- Water conservation and desalination
- Science, technology, and startup collaboration
- Trade and investment expansion

India and Israel emphasized deepening cooperation in critical technologies and strengthening their comprehensive strategic partnership.

BACKGROUND / CONTEXT

1 India–Israel Relations

- Full diplomatic relations established in **1992**.
- Israel is a key partner in **defence technology and homeland security**.
- Strong collaboration in agriculture through Centres of Excellence across Indian states.

2 Strategic Convergence

Shared priorities include:

- Counter-terrorism cooperation
- High-technology defence systems
- Water management solutions
- Innovation-driven economic growth

Israel is considered one of India's top defence suppliers.

KEY HIGHLIGHTS

- **Defence Cooperation:** Expansion of joint production and technology transfer.
- **Agriculture Partnership:** Advanced irrigation and precision farming technologies.
- **Water Technology:** Collaboration on desalination and wastewater recycling.
- **Innovation & Startups:** Strengthening India–Israel Innovation Bridge.
- **Trade Expansion:** Focus on increasing bilateral trade and investment flows.
- **Counter-Terrorism:** Intelligence and security cooperation reaffirmed.

PRELIMS BOOSTER BOX

- **Capital of Israel:** Jerusalem (disputed status internationally).
- **Diplomatic Relations with India:** Established in 1992.
- **Major Cooperation Areas:** Defence, agriculture, water management, innovation.
- **I2U2 Group:** India, Israel, UAE, USA economic grouping.
- **West Asia Significance:** Strategic energy and geopolitical importance.
- **Drip Irrigation:** Efficient water-saving agricultural technique pioneered in Israel.
- **Desalination:** Removal of salts from seawater.

Static Linkage:

- India–West Asia Relations
- Defence Procurement
- Technology Diplomacy

PadhAI-GENERATED UPSC MCQ

Consider the following statements regarding India–Israel relations:

1. India and Israel established full diplomatic relations in 1992.
2. Israel is one of India's key defence partners.
3. Israel is a member of the I2U2 grouping along with India, UAE, and China.

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)

(Statement 3 is incorrect — I2U2 includes India, Israel, UAE, and USA.)

2.FUTURE WARFARE COURSE 3.0 CONCLUDES, STRENGTHENING STRATEGIC AND TECHNOLOGICAL READINESS

Future Warfare Course 3.0 emphasized the transformation of modern battlefields shaped by:

- Artificial Intelligence (AI)
- Cyber warfare
- Autonomous and unmanned systems
- Space and electronic warfare
- Information and psychological operations

The programme reflects India's push toward integrating advanced technologies into defence doctrine, force structuring, and operational readiness.

It strengthens the Armed Forces' capacity to respond to hybrid and grey-zone conflicts in a rapidly evolving strategic environment.

BACKGROUND / CONTEXT

1 Changing Nature of Warfare

Modern warfare is increasingly:

- Multi-domain (land, sea, air, cyber, space)
- Technology-centric
- Data-driven
- Network-enabled

Conflicts such as the Russia–Ukraine war have highlighted the importance of drones, electronic warfare, and cyber operations.

2 India's Defence Modernisation

India is focusing on:

- Defence indigenisation under Atmanirbhar Bharat
- Integration of AI and robotics in military platforms
- Strengthening cyber defence capabilities
- Space-based surveillance and communication systems

Future Warfare Course aligns with doctrinal and capability reforms.

KEY HIGHLIGHTS

• **Multi-Domain Focus:** Integration of land, air, maritime, cyber, and space operations.
• **AI Integration:** Use of artificial intelligence for decision-making and surveillance.
• **Unmanned Systems:** Emphasis on drones and autonomous platforms.
• **Cyber Preparedness:** Enhancing resilience against cyber threats.
• **Strategic Awareness:** Understanding hybrid and grey-zone warfare tactics.
• **Capacity Building:** Training senior officers for next-generation conflict scenarios.

PRELIMS BOOSTER BOX

• **Multi-Domain Warfare:** Simultaneous operations across multiple domains.
• **Cyber Warfare:** Attacks on digital networks and infrastructure.
• **Unmanned Aerial Vehicles (UAVs):** Drone-based military platforms.
• **Electronic Warfare:** Use of electromagnetic spectrum to disrupt enemy systems.
• **Atmanirbhar Bharat (Defence):** Indigenous production of defence equipment.
• **Integrated Theatre Commands:** Proposed restructuring of Indian Armed Forces.
• **Grey-Zone Conflict:** Coercive actions below threshold of conventional war.

Static Linkage:

- National Security Doctrine
- Defence Modernisation
- Emerging Technologies

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Multi-domain warfare includes operations in cyber and space domains.
2. Unmanned systems are increasingly used in modern military conflicts.
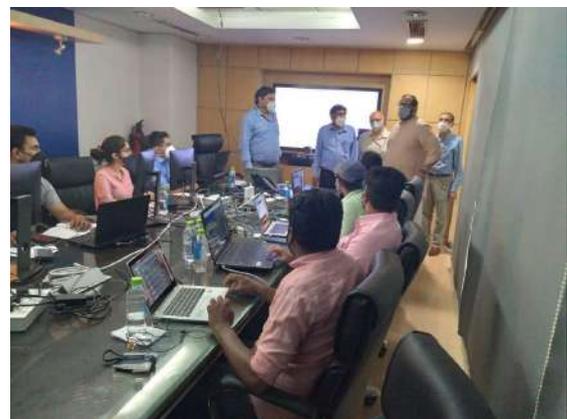3. Cyber warfare exclusively targets physical military installations.

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)

(Statement 3 is incorrect — cyber warfare primarily targets digital networks and information systems, though it can affect physical infrastructure indirectly.)

3.INDIA'S SPACE ECOSYSTEM GETS CYBER SHIELD AS SIA-INDIA, CERT–IN RELEASE JOINT GUIDELINES

The joint framework provides cybersecurity best practices for:

- Satellite operators
- Ground infrastructure managers
- Launch service providers
- Space-tech startups

With increasing private participation following space sector reforms, the guidelines aim to ensure:

- Secure satellite communication
- Protection against signal interference and hacking
- Incident reporting and response mechanisms
- Alignment with national cybersecurity protocols

This marks a critical step toward safeguarding India's strategic and commercial space assets.

BACKGROUND / CONTEXT

1 India's Expanding Space Sector

Post-2020 reforms enabled private participation in space activities under:

- IN-SPACe regulatory framework
- Increased commercial satellite launches
- Growth of space-tech startups

India's space ecosystem now includes communication, navigation, earth observation, and defence applications.

2 Cyber Threats in Space Domain

Space systems face vulnerabilities such as:

- Satellite signal spoofing and jamming
- Ground station cyber intrusions
- Supply chain cyber risks
- Data interception

Given the dual-use nature of space assets, cybersecurity is a national security imperative.

KEY HIGHLIGHTS

- **Cybersecurity Standards:** Defined best practices for space operators.
- **Incident Reporting:** Mandatory reporting protocols to CERT-In.
- **Supply Chain Security:** Emphasis on secure hardware and software components.
- **Resilience Planning:** Risk assessment and mitigation frameworks.
- **Public–Private Collaboration:** Coordinated approach between industry and government.
- **Strategic Importance:** Protects critical communication and navigation infrastructure.

PRELIMS BOOSTER BOX

- **CERT-In:** Nodal agency for cybersecurity incidents (under MeitY).
- **SIA-India:** Industry body representing private space companies.
- **IN-SPACe:** Indian National Space Promotion and Authorization Centre.
- **Space Reforms:** Announced in 2020 to enable private participation.
- **Satellite Vulnerabilities:** Jamming, spoofing, malware infiltration.
- **Outer Space Treaty (1967):** Governs international space activities.
- **Dual-Use Technology:** Civilian technology with military applications.

Static Linkage:

- National Cyber Security Policy
- Critical Information Infrastructure
- Space Security

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. CERT-In functions under the Ministry of Electronics and Information Technology.
2. Space sector reforms in India have allowed private companies to participate in satellite operations.
3. Satellite signal spoofing refers to physical destruction of satellites in orbit.

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)

(Statement 3 is incorrect — spoofing involves falsifying signals, not physical destruction.)

4.INS ANJADIP – BUILT WITH INDIGENOUS SAIL STEEL TO JOIN INDIAN NAVY FLEET

INS Anjadip represents a major step in strengthening India's naval capabilities through indigenous manufacturing.

Key aspects include:

- Use of **domestically produced warship-grade steel**
- Boost to defence shipbuilding ecosystem
- Reduced import dependence in critical materials
- Enhanced maritime security and coastal defence

The induction aligns with India's focus on indigenous defence production and strategic autonomy.

BACKGROUND / CONTEXT

1 Defence Indigenisation Push

India has prioritized:

- Indigenous production of warships and submarines
- Development of domestic defence manufacturing corridors
- Promotion of "Make in India" in defence

SAIL developed specialised steel grades for naval platforms, reducing reliance on foreign suppliers.

2 Role of Indigenous Steel

Warship-grade steel must:

- Withstand high stress and corrosion
- Be resistant to extreme marine conditions
- Meet stringent defence standards

The use of SAIL steel reflects maturation of India's metallurgical and defence-industrial capacity.

KEY HIGHLIGHTS

• **Indigenous Steel Use:** Built using SAIL-produced warship-grade steel.
• **Strategic Autonomy:** Reduces import dependence in defence sector.
• **Naval Strengthening:** Enhances coastal and maritime security.
• **Industrial Ecosystem Boost:** Strengthens domestic shipbuilding capacity.
• **Atmanirbhar Bharat:** Aligns with self-reliance objectives.
• **Defence Manufacturing Growth:** Encourages public–private participation.

PRELIMS BOOSTER BOX

• **SAIL:** Public Sector Undertaking under Ministry of Steel.
• **Indian Navy:** Maritime branch of Indian Armed Forces.
• **Warship-Grade Steel (DMR series):** Developed for defence platforms.
• **Make in India (Defence):** Policy for domestic defence production.
• **Blue Water Navy:** Navy capable of operating globally across deep waters.
• **Coastal Security:** Strengthened post-26/11 reforms.
• **Defence Corridors:** Established in Uttar Pradesh and Tamil Nadu.

Static Linkage:

- Defence Industrial Base
- Maritime Security
- Strategic Autonomy

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. SAIL is a Public Sector Undertaking under the Ministry of Steel.
2. Warship-grade steel must meet specific defence and corrosion-resistance standards.
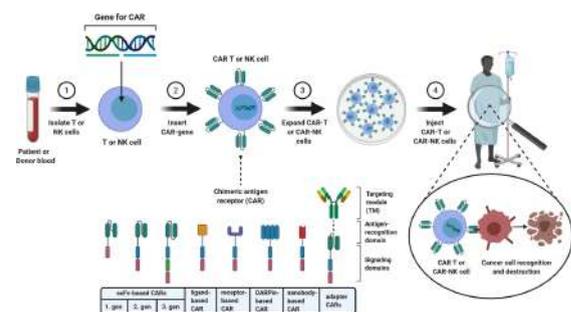3. The Indian Navy functions under the Ministry of Home Affairs.

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)

(Statement 3 is incorrect — the Indian Navy functions under the Ministry of Defence.)

5.TDB–DST SUPPORTS INDIGENOUS CAR-NK CELL THERAPY PLATFORM FOR ONCOLOGY AND LEISHMANIASIS

The supported platform focuses on developing **CAR-NK cell-based immunotherapy**, a next-generation cellular therapy that enhances the body's immune response against:

- Certain cancers
- Infectious diseases like leishmaniasis

Unlike CAR-T therapy, CAR-NK therapy offers:

- Lower risk of severe immune reactions
- Potential "off-the-shelf" availability
- Reduced treatment cost

The project aligns with India's goals of **biotech self-reliance, translational research, and affordable healthcare innovation.**

BACKGROUND / CONTEXT

1 Technology Development Board (TDB)

The Technology Development Board was established under the Technology Development Board Act, 1995.

Its mandate includes:

- Providing financial assistance for commercialisation of indigenous technologies
- Supporting innovation-driven enterprises
- Promoting industry–academia collaboration

2 CAR-NK Therapy Explained

- **CAR:** Engineered receptor added to immune cells to recognize specific disease targets.
- **NK Cells (Natural Killer Cells):** Part of innate immune system that destroys abnormal cells.
- **Application in Oncology:** Targets tumour-specific antigens.

- **Application in Leishmaniasis:** Aims to enhance immune response against parasitic infection.

Leishmaniasis is a vector-borne disease caused by *Leishmania* parasites, transmitted by sandflies.

KEY HIGHLIGHTS

• **Indigenous Platform:** Developed domestically to reduce reliance on imported cell therapies.
• **Oncology Application:** Targeted cancer immunotherapy.
• **Infectious Disease Target:** Innovative approach for treating leishmaniasis.
• **Cost Efficiency:** Potentially more affordable than CAR-T therapy.
• **Translational Research:** Bridging laboratory innovation and clinical application.
• **Biotech Ecosystem Boost:** Strengthens India's advanced cell therapy capabilities.

PRELIMS BOOSTER BOX

• **TDB:** Statutory body under DST (Act of 1995).
• **DST:** Ministry promoting science & technology innovation.
• **CAR-T vs CAR-NK:** CAR-NK has lower cytokine storm risk.
• **Leishmaniasis:** Caused by *Leishmania* parasite.
• **Vector:** Female sandfly (*Phlebotomus* species in India).
• **Kala-azar:** Visceral leishmaniasis prevalent in Bihar, Jharkhand, West Bengal, UP.
• **Immunotherapy:** Treatment that uses body's immune system to fight diseases.

Static Linkage:

- Biotechnology Policy
- Public Health & Neglected Tropical Diseases

- Translational Medical Research

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Technology Development Board functions under the Department of Science and Technology.
2. CAR-NK cell therapy involves engineering immune cells to target specific disease markers.
3. Leishmaniasis is transmitted by the Anopheles mosquito.

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)

(Statement 3 is incorrect — leishmaniasis is transmitted by sandflies, not mosquitoes.)

1.PRESIDENT OF INDIA WITNESSES 'VAYU SHAKTI–2026' EXERCISE AT POKHRAN FIRING RANGE

- Vayu Shakti–2026 is a large-scale air power demonstration exercise conducted by the Indian Air Force.
- The exercise showcased precision strike capability, air combat manoeuvres, and integrated aerial operations.
- Indigenous platforms such as fighter aircraft, helicopters, and missile systems were demonstrated.
- The event reflects India's emphasis on self-reliant defence manufacturing under Aatmanirbhar Bharat.
- Pokhran's desert terrain provides an ideal environment for live weapon firing demonstrations.
- Strategically, the exercise enhances deterrence capability and operational preparedness.
- From a governance perspective, it reinforces transparency and public confidence in defence modernization.

BACKGROUND / CONTEXT

Indian Air Force (IAF)

The **Indian Air Force** is the air arm of the Indian Armed Forces, responsible for:

- Air defence of Indian territory
- Strategic and tactical air operations
- Disaster relief and humanitarian missions

It operates under the **Ministry of Defence**.

Vayu Shakti Exercise

- Conducted periodically by the IAF.
- Demonstrates combat firepower and operational integration.
- Includes:
    - Fighter aircraft strike missions
    - Transport and helicopter operations
    - Missile and precision weapon deployment

Pokhran Firing Range Significance

- Located in Rajasthan's Thar Desert.
- Historically used for defence testing and exercises.
- Also associated with India's nuclear test history.

Defence Modernization Context

- Integration of indigenous platforms like:
    - Light Combat Aircraft (LCA) Tejas
    - Light Combat Helicopter (LCH) Prachand
    - Advanced missile systems

Supports India's strategic autonomy in defence.

KEY HIGHLIGHTS

- **Presidential Presence:** Symbolizes national strategic importance.
- **Air Power Projection:** Demonstrates IAF operational readiness.
- **Indigenous Defence Push:** Showcases domestic aerospace platforms.
- **Precision Strike Capability:** Focus on modern warfare tactics.
- **Joint Operational Vision:** Integration of air, land, and technology systems.
- **Deterrence Messaging:** Strengthens national security posture.
- **Way Forward:** Continued modernization and indigenous defence R&D.

PRELIMS BOOSTER BOX

- **Vayu Shakti:** Air power demonstration exercise of IAF.
- **Pokhran Range:** Major defence testing site in Rajasthan.
- **President of India:** Supreme Commander of Armed Forces (Article 53).
- **LCA Tejas:** Indigenous light combat aircraft.
- **Aatmanirbhar Bharat (Defence):** Indigenous defence manufacturing initiative.
- **IAF Motto:** *Nabhaḥ Sparsham Dīptam* (Touch the Sky with Glory).
- **Precision Weaponry:** Guided munitions for accurate targeting.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Vayu Shakti is a combat air power demonstration exercise conducted by the Indian Air Force.
2. Pokhran Firing Range is located in the state of Rajasthan.
3. The President of India is the Supreme Commander of the Armed Forces under Article 53 of the Constitution.

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.RAV ACHIEVERS FELICITATED WITH JEEVAN GAURAV & AYURVEDA GAURAV SAMMAN AT NATIONAL AROGYA FAIR 2026

- The RAV awards celebrate lifetime achievement and excellence in Ayurveda.
- **Jeevan Gaurav Samman** recognizes distinguished lifelong contribution to Ayurveda.
- **Ayurveda Gaurav Samman** honours outstanding professional and academic achievements.
- The recognition promotes traditional medical knowledge and research innovation.
- The event supports India's vision of strengthening classical healthcare systems.
- It encourages young researchers and practitioners to pursue excellence in Ayurveda.
- Strategically, it reinforces India's global leadership in traditional medicine.

BACKGROUND / CONTEXT

Rashtriya Ayurveda Vidyapeeth (RAV)

The **Rashtriya Ayurveda Vidyapeeth** is an autonomous institution under the Ministry of AYUSH.

RAV works towards:

- Preservation of classical Ayurveda knowledge
- Promotion of Gurukula-style traditional learning
- Recognition of eminent Ayurveda scholars
- Capacity building in traditional medicine education

National Arogya Fair 2026

The fair is organized to promote:

- AYUSH healthcare awareness
- Integrative medicine practices
- Public outreach and wellness education
- Traditional medicine innovation

Importance of Awards in Medical Heritage

Recognition mechanisms help:

- Preserve classical knowledge systems
- Encourage research and clinical excellence
- Support intergenerational knowledge transfer

KEY HIGHLIGHTS

- **Institutional Recognition:** Celebrates excellence in Ayurveda academia and practice.
- **Knowledge Preservation:** Supports classical medical heritage.
- **Youth Inspiration:** Encourages future researchers and practitioners.
- **Public Health Outreach:** Promotes preventive healthcare awareness.
- **Global Significance:** Strengthens India's traditional medicine diplomacy.
- **Policy Alignment:** Supports National AYUSH Mission objectives.
- **Way Forward:** Expand research networks and academic mentorship programs.

PRELIMS BOOSTER BOX

- **RAV:** Autonomous body promoting Ayurveda education.
- **Ministry of AYUSH:** Established as independent ministry in 2014.
- **National Arogya Fair:** Public outreach platform for AYUSH systems.
- **Jeevan Gaurav Samman:** Lifetime achievement recognition.
- **Ayurveda Gaurav Samman:** Excellence in Ayurveda practice/research.
- **Gurukula Tradition:** Ancient Indian teacher–disciple knowledge system.
- **Traditional Medicine Diplomacy:** Global promotion of AYUSH systems.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Rashtriya Ayurveda Vidyapeeth functions under the Ministry of AYUSH.
2. National Arogya Fair promotes awareness of traditional healthcare systems in India.
3. Jeevan Gaurav Samman is awarded only to foreign nationals.

Which of the statements given above is/are correct?

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

Answer: (a)

3. TRAI RELEASES CONSULTATION PAPER ON REVIEW OF DIGITAL CONNECTIVITY PROPERTY RATING REGULATIONS

- TRAI's consultation paper proposes a review of property rating mechanisms for digital connectivity readiness.
- The framework evaluates how well buildings support wireless and broadband signal distribution.
- It focuses on enhancing indoor connectivity quality in residential, commercial, and public spaces.
- The initiative supports expansion of **5G and future communication networks** in urban ecosystems.
- Better property connectivity standards can reduce network dead zones and improve user experience.
- The proposal aligns with India's digital infrastructure modernization strategy.
- From a governance perspective, it promotes evidence-based telecom regulation and infrastructure planning.

BACKGROUND / CONTEXT

TRAI and Telecom Regulation

The **Telecom Regulatory Authority of India** was established under the TRAI Act, 1997. Its functions include:

- Recommending telecom licensing policies
- Ensuring fair competition in telecom markets
- Protecting consumer interests
- Regulating tariff structures

Digital Connectivity Rating Concept

Property digital connectivity rating assesses:

- Signal strength inside buildings
- Network coverage quality
- Infrastructure readiness for high-speed communication

Key parameters may include:

- Material interference characteristics
- Internal antenna support
- Fiber backhaul availability
- Network redundancy systems

Relevance in 5G Era

- 5G networks rely on:
  - Higher frequency bands
  - Dense small-cell deployment
  - Strong indoor signal penetration

Urban infrastructure must adapt to support next-generation networks.

Policy Significance

- Supports Smart Cities Mission.
- Enhances digital governance.
- Facilitates fintech and IoT ecosystem expansion.

KEY HIGHLIGHTS

- **Infrastructure Assessment:** Standardized digital connectivity rating of properties.
- **5G Readiness:** Supports next-generation telecom deployment.
- **Indoor Connectivity:** Focus on residential and commercial buildings.
- **Consumer Experience:** Reduces call drops and network congestion.
- **Urban Planning Integration:** Telecom infrastructure in building design.
- **Regulatory Modernization:** Evidence-based spectrum and infrastructure policy.
- **Way Forward:** Stakeholder consultations and technical standard finalization.

PRELIMS BOOSTER BOX

- **TRAI Act, 1997:** Governs telecom regulation in India.
- **5G Technology:** Fifth-generation mobile communication standard.
- **Small Cells:** Low-power base stations for dense urban coverage.
- **Smart Cities Mission:** Urban digital infrastructure development initiative.
- **Digital India Programme:** Promotes digital connectivity nationwide.
- **Spectrum:** Radio frequency band used for wireless communication.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. TRAI was established under the Telecom Regulatory Authority of India Act, 1997.
2. Property digital connectivity rating aims to assess indoor communication infrastructure readiness.
3. 5G networks primarily operate using low-frequency radio bands only.

Which of the statements given above is/are correct?

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

Answer: (a)

4.MOEFCC SECRETARY ADDRESSES VALDICTORY SESSION OF TERI WORLD SUSTAINABLE DEVELOPMENT SUMMIT 2026

- The valedictory session emphasized India's leadership in global sustainability governance.
- Key themes included climate resilience, renewable energy expansion, and sustainable consumption.
- The address reiterated India's commitment to the Paris Agreement climate targets.
- The summit provided a platform for international dialogue on environmental protection.
- Policy focus was placed on balancing economic development with ecological conservation.
- The session also highlighted community participation in climate adaptation strategies.
- Strategically, the summit reinforced India's role in global climate diplomacy.

BACKGROUND / CONTEXT

World Sustainable Development Summit (WSDS)

The WSDS is an annual global sustainability conference organized by **The Energy and Resources Institute**.
It brings together policymakers, scientists, and industry leaders to discuss climate and development challenges.

Role of MoEFCC

The **Ministry of Environment, Forest and Climate Change** is responsible for:

- Climate change policy formulation
- Environmental conservation
- Forest management
- Biodiversity protection

India's Climate Commitments

India has pledged to:

- Achieve net-zero emissions by 2070.

- Increase non-fossil fuel electricity capacity.
- Enhance carbon sink through forest and tree cover.

Key programs include:

- National Action Plan on Climate Change (NAPCC)
- International Solar Alliance (ISA) promotion
- Lifestyle for Environment (LiFE) initiative.

Global Sustainability Context

- Focus on climate finance.
- Just transition for developing economies.
- Technology transfer for green energy.

KEY HIGHLIGHTS

- **Climate Leadership:** India's proactive role in global sustainability governance.
- **Renewable Energy Push:** Expansion of solar and clean energy capacity.
- **Resilience Building:** Focus on climate adaptation.
- **International Cooperation:** Multilateral climate dialogue.
- **Sustainable Growth:** Balancing ecology and development.
- **Community Participation:** Emphasis on grassroots climate action.
- **Way Forward:** Green technology innovation and climate finance mechanisms.

PRELIMS BOOSTER BOX

- **Paris Agreement:** Global climate treaty under UNFCCC.
- **Net Zero Target (India):** 2070.
- **NAPCC:** Launched in 2008.
- **International Solar Alliance:** Headquarters in Gurugram, India.
- **LiFE Initiative:** Promotes sustainable lifestyle choices.
- **TERI:** Leading Indian sustainability research institute.
- **Climate Finance:** Funding for mitigation and adaptation.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The World Sustainable Development Summit is organized by The Energy and Resources Institute.
2. India has committed to achieving net-zero carbon emissions by 2070.
3. The International Solar Alliance is headquartered in New Delhi.

Which of the statements given above is/are correct?

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

Answer: (a)

5.CGA LAUNCHES GOVERNMENT BANK DASHBOARD & GOVERNMENT BANK MANUAL TO STRENGTHEN PUBLIC FINANCIAL GOVERNANCE

- The Government Bank Dashboard is designed to provide centralized oversight of government banking activities.
- It enables proactive detection of compliance deviations and operational risks.
- The platform strengthens public financial management by integrating digital transaction tracking.
- The Government Bank Manual provides standardized operational guidelines for banks handling government business.
- The initiative improves transparency in treasury operations and fund flow monitoring.
- It supports faster reconciliation of government accounts and reduces manual errors.
- Strategically, it strengthens institutional governance in public expenditure management.

BACKGROUND / CONTEXT

Controller General of Accounts (CGA)

The **Controller General of Accounts** functions under the **Ministry of Finance**.

CGA is responsible for:

- Preparation of Union Government accounts
- Treasury and payment system oversight
- Financial reporting
- Public expenditure monitoring

Government Banking Operations

Government business handled by banks includes:

- Tax collection and remittance
- Pension payments
- Subsidy transfers
- Government salary disbursement
- Public welfare scheme payments

Digital Public Financial Management

The initiative aligns with India's broader digital governance architecture including:

- Public Financial Management System (**PFMS**)
- Direct Benefit Transfer (**DBT**)
- Real-time fiscal monitoring

These systems aim to minimize leakage and improve fiscal efficiency.

Risk Management Significance

The dashboard helps in:

- Detecting reconciliation delays
- Monitoring compliance breaches
- Identifying operational anomalies

- Ensuring secure fund transfers

KEY HIGHLIGHTS

- **Real-Time Monitoring:** Continuous oversight of government bank transactions.
- **Compliance Assurance:** Standardized banking operational guidelines.
- **Risk Reduction:** Early detection of financial irregularities.
- **Transparency Enhancement:** Strengthens public expenditure accountability.
- **Operational Standardization:** Uniform procedures for government banking.
- **Digital Governance Push:** Supports paperless financial administration.
- **Way Forward:** AI-based anomaly detection and predictive risk analytics.

PRELIMS BOOSTER BOX

- **CGA:** Apex authority for Union Government accounts.
- **PFMS:** Real-time fund tracking system.
- **DBT:** Direct transfer of welfare benefits.
- **Ministry of Finance:** Administrative ministry of CGA.
- **Government Business Banks:** Commercial banks authorized to handle treasury operations.
- **Reconciliation:** Matching government accounts with bank records.
- **Digital Treasury Governance:** Modern public finance management model.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Controller General of Accounts functions under the Ministry of Finance.

2. The Government Bank Dashboard enables real-time monitoring of government banking transactions.
3. Direct Benefit Transfer (DBT) is designed to eliminate intermediaries in welfare payments.

Which of the statements given above is/are correct?

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

Answer: (d)

1. Prime Minister Congratulates Jammu & Kashmir Team on Historic Ranji Trophy Victory

- The Jammu & Kashmir team clinched their maiden title in the prestigious **Ranji Trophy**.
  The Prime Minister praised the team's dedication, resilience, and sporting excellence.
- The win is seen as a boost to sports culture and youth aspirations in the region.
- It reflects the growing depth of cricketing talent beyond traditional strongholds.
- The achievement carries symbolic importance for national integration through sports.
- It also underscores government efforts to promote sports infrastructure and youth engagement.
- The victory is expected to inspire grassroots cricket development in the region.

BACKGROUND / CONTEXT

Ranji Trophy

The **Ranji Trophy**:

- Is India's premier domestic first-class cricket championship.
- Administered by the **Board of Control for Cricket in India (BCCI)**.
- Named after Maharaja Ranjitsinhji.
- Serves as a talent pipeline for the national team.

Jammu & Kashmir in Domestic Cricket

- Represents the Union Territory in BCCI tournaments.
- Has shown consistent improvement in recent seasons.
- Victory marks a milestone in regional sporting history.

Sports as Nation-Building

- Sports promote youth empowerment and social cohesion.
- Government initiatives like Khelo India encourage grassroots talent.
- Infrastructure expansion in remote regions supports inclusive development.

KEY HIGHLIGHTS

- **Historic Milestone:** First Ranji Trophy win for Jammu & Kashmir.
- **Prime Minister's Message:** Recognition at national level.
- **Regional Empowerment:** Boost to youth sports culture.
- **Talent Diversification:** Expanding cricket excellence across India.
- **Nation-Building Role:** Sports as a unifying force.
- **Grassroots Impact:** Encourages infrastructure and academy growth.
- **Way Forward:** Sustained investment in coaching and facilities.

PRELIMS BOOSTER BOX

- **Ranji Trophy:** India's premier domestic first-class cricket tournament.
- **Administered by:** BCCI.
- **First-class Cricket:** Multi-day format recognized at domestic level.
- **Khelo India Programme:** Promotes grassroots sports development.
- **Union Territory of J&K:** Reorganized in 2019.
- **Cricket Structure:** Domestic → IPL → National Team pathway.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Ranji Trophy is India's premier domestic first-class cricket tournament.
2. The tournament is administered by the Board of Control for Cricket in India (BCCI).
3. First-class cricket matches are typically limited to 20 overs per side.

Which of the statements given above is/are correct?

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

Answer: (a)

2.Valedictory Ceremony of Instrument Rating & Examiners' Course

Directorate General of Civil Aviation (DGCA)

- The Instrument Rating & Examiners' Course focuses on advanced flight operations under instrument meteorological conditions (IMC).
- It enhances pilot capability to operate aircraft safely without visual references.
- The program also certifies aviation professionals as examiners to assess pilot competency.
- Such courses are crucial for maintaining international civil aviation standards.
- The initiative contributes to strengthening aviation safety and regulatory compliance.
- It aligns with India's expanding civil aviation sector and rising air traffic demand.
- From a governance perspective, it reinforces quality assurance in pilot licensing and evaluation systems.

BACKGROUND / CONTEXT

Instrument Rating (IR)

Instrument Rating allows pilots to:

- Fly under low visibility conditions.
- Navigate using cockpit instruments and radio aids.
- Operate in controlled airspace safely during adverse weather.

Regulatory Framework

The **Directorate General of Civil Aviation (DGCA)** regulates pilot licensing, training, and certification in India.

DGCA ensures:

- Compliance with International Civil Aviation Organization (ICAO) norms.
- Standardized training modules.
- Periodic skill checks and examinations.

Importance of Examiners

- Examiners evaluate pilot competence.
- Conduct proficiency checks and skill tests.
- Ensure adherence to safety protocols.

Civil Aviation Growth Context

India is among the fastest-growing aviation markets globally.
Enhanced pilot training standards are vital for safety amid fleet expansion and airport development.

KEY HIGHLIGHTS

- **Advanced Training:** Focus on instrument-based flight proficiency.
- **Safety Enhancement:** Reduces risks during poor visibility operations.
- **Examiner Certification:** Strengthens assessment credibility.
- **Regulatory Alignment:** Complies with ICAO aviation standards.
- **Capacity Building:** Supports India's growing aviation sector.
- **Operational Excellence:** Improves air navigation accuracy.
- **Way Forward:** Simulator-based training expansion and digital evaluation systems.

PRELIMS BOOSTER BOX

- **DGCA:** India's aviation safety regulator.
- **Instrument Meteorological Conditions (IMC):** Weather conditions requiring instrument-based navigation.
- **ICAO:** UN specialized agency for civil aviation.
- **Instrument Rating (IR):** Qualification for flying without visual ground reference.
- **Proficiency Check:** Mandatory periodic pilot assessment.
- **Air Navigation Aids:** VOR, ILS, GPS-based systems.
- **Civil Aviation Expansion:** Driven by UDAN and airport modernization.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Instrument Rating allows pilots to operate aircraft in low-visibility conditions using cockpit instruments.
2. The Directorate General of Civil Aviation regulates pilot licensing in India.
3. ICAO is a private aviation company headquartered in India.

Which of the statements given above is/are correct?

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

Answer: (a)

3.Union Environment Minister Welcomes 9 Cheetahs from Botswana at Kuno National Park

- Nine African cheetahs were relocated to Kuno National Park to strengthen the reintroduction initiative.
- The project aims to restore the cheetah population in India after its extinction in 1952.
- The translocation enhances genetic diversity and long-term viability of the species in India.
- The initiative is part of India's broader wildlife conservation strategy.
- It supports ecological restoration of grassland ecosystems.
- The project demonstrates international cooperation in biodiversity conservation.
- Strategically, it reinforces India's commitment to wildlife protection and species revival.

BACKGROUND / CONTEXT

Cheetah Reintroduction Programme

- Cheetahs became extinct in India in 1952.
- Reintroduction approved by the Supreme Court in 2020.
- First batch of cheetahs brought from Namibia in 2022.
- Subsequent translocations from South Africa and Botswana.

Kuno National Park

Located in Madhya Pradesh, it was selected due to:

- Suitable grassland habitat.
- Prey base availability.
- Low human disturbance.

It was upgraded from a wildlife sanctuary to a national park to support large carnivore conservation.

Ecological Significance

- Cheetahs are apex predators in open grassland ecosystems.
- Help maintain prey population balance.
- Support biodiversity restoration.

International Cooperation

The relocation was conducted in collaboration with Botswana authorities and conservation experts.

KEY HIGHLIGHTS

- **Species Revival:** Restores cheetahs after seven decades of extinction in India.

- **Habitat Restoration:** Revives grassland ecosystem importance.
- **Genetic Strengthening:** Enhances population sustainability.
- **International Partnership:** Cooperation with Botswana.
- **Scientific Monitoring:** Radio-collaring and tracking mechanisms.
- **Conservation Diplomacy:** Strengthens global biodiversity ties.
- **Way Forward:** Expansion to additional protected landscapes.

PRELIMS BOOSTER BOX

- **Cheetah Status (IUCN):** Vulnerable.
- **Extinction in India:** Officially declared in 1952.
- **Kuno National Park:** Located in Madhya Pradesh.
- **Apex Predator:** Species at the top of food chain.
- **Translocation:** Movement of species from one habitat to another.
- **Supreme Court Approval:** Granted in 2020 for reintroduction.
- **Grassland Ecosystems:** Often termed 'neglected ecosystems' in India.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Cheetahs were declared extinct in India in 1952.
2. Kuno National Park is located in Madhya Pradesh.
3. Cheetahs are primarily forest-dwelling animals adapted to dense rainforest ecosystems.

Which of the statements given above is/are correct?

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

Answer: (a)

4.Cervical Cancer Vaccination Campaign Launched

- The campaign focuses on vaccinating eligible adolescent girls against HPV, the primary cause of cervical cancer.
- It strengthens India's preventive healthcare framework under the National Health Mission.
- Early vaccination significantly reduces the risk of developing cervical cancer later in life.
- The programme emphasizes awareness, screening, and immunization as a three-pronged strategy.
- It aligns with the WHO's global strategy to eliminate cervical cancer as a public health problem.
- The campaign also promotes gender-sensitive healthcare interventions.
- Strategically, it enhances women's health outcomes and long-term productivity.

BACKGROUND / CONTEXT

Cervical Cancer

- Caused primarily by persistent infection with high-risk HPV strains.
- One of the most common cancers among women in India.
- Preventable through vaccination and early screening (Pap smear, HPV test).

HPV Vaccine

- Protects against high-risk HPV types (e.g., HPV-16 and HPV-18).
- Most effective when administered before onset of sexual activity.
- Typically recommended for adolescent girls (and increasingly boys in some countries).

Public Health Framework

The campaign is implemented through:

- National Health Mission (NHM)
- Universal Immunization Programme (UIP) (in phased integration)
- School-based and community outreach vaccination drives

Global Context

WHO aims to eliminate cervical cancer through:

- 90% vaccination coverage of girls by age 15
- 70% screening coverage
- 90% treatment coverage for detected cases

KEY HIGHLIGHTS

- **Preventive Focus:** Targets HPV infection before exposure.
- **Adolescent Health Priority:** Focus on school-age girls.
- **Gender Equity:** Strengthens women-centric health policy.
- **Awareness Integration:** Combines vaccination with screening education.
- **Public Health Impact:** Reduces long-term cancer burden.
- **WHO Alignment:** Supports global elimination targets.
- **Way Forward:** Expand screening infrastructure and cold-chain capacity.

PRELIMS BOOSTER BOX

- **HPV:** Human Papillomavirus, major cause of cervical cancer.
- **High-Risk Strains:** HPV-16 and HPV-18.
- **Pap Smear Test:** Screening method for early detection.
- **NHM:** National Health Mission.
- **UIP:** Universal Immunization Programme.
- **Preventive Oncology:** Focus on early detection and vaccination.
- **WHO Elimination Strategy:** 90–70–90 targets.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Persistent infection with high-risk HPV strains is the primary cause of cervical cancer.

2. HPV vaccination is most effective when administered before exposure to the virus.
3. Cervical cancer is a communicable airborne disease.

Which of the statements given above is/are correct?

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

Answer: (a)

5.The Evolving Spectrum of Energy Sources

- The energy mix has evolved from traditional biomass to coal, oil, and gas, and now towards renewables and clean technologies.
- Fossil fuels historically powered industrialization but contribute significantly to greenhouse gas emissions.
- Renewable sources like solar, wind, hydro, and bioenergy are gaining prominence.
- Emerging technologies such as green hydrogen and battery storage are shaping future energy systems.

- Energy diversification enhances energy security and reduces import dependency.
- India aims to balance development needs with climate commitments.
- The transition is central to achieving sustainable growth and net-zero targets.

HISTORICAL EVOLUTION OF ENERGY

1 Traditional Sources

- Biomass (wood, agricultural residue)
- Animal power
- Water wheels

2 Fossil Fuel Era

- Coal → backbone of industrial revolution
- Oil → transport and petrochemicals
- Natural Gas → cleaner fossil fuel alternative

3 Nuclear Energy

- Low-carbon baseload power
- High energy density
- Requires strong safety regulation

4 Renewable Energy Revolution

- Solar Photovoltaic (PV)
- Wind Energy
- Hydropower
- Bioenergy

5 Emerging & Future Sources

- Green Hydrogen
- Energy Storage Systems
- Carbon Capture & Storage (CCS)
- Fusion research

INDIA'S ENERGY TRANSITION CONTEXT

India's strategy includes:

- Increasing non-fossil fuel electricity capacity.
- Expanding solar under the International Solar Alliance.
- Promoting green hydrogen mission.
- Enhancing energy efficiency (PAT Scheme).

Policy Frameworks

- National Action Plan on Climate Change (NAPCC)
- National Solar Mission
- National Green Hydrogen Mission
- Ujjwala & LPG expansion (clean cooking transition)

KEY CHALLENGES

- Intermittency of renewables
- Grid stability
- Energy storage costs
- Land acquisition
- Fossil fuel dependence for baseload
- Climate finance requirements

KEY HIGHLIGHTS

- **Diversification:** From coal-dominated to multi-source mix.
- **Decarbonization:** Lower carbon intensity growth.
- **Energy Security:** Reducing import dependency.
- **Technological Innovation:** Hydrogen, batteries, smart grids.
- **Just Transition:** Protecting workers in fossil fuel sectors.

- **Sustainability:** Aligning growth with environmental goals.
- **Way Forward:** Storage integration and green infrastructure investment.

PRELIMS BOOSTER BOX

- **Baseload Power:** Continuous electricity supply to meet minimum demand.
- **Green Hydrogen:** Hydrogen produced using renewable electricity.
- **Carbon Capture & Storage:** Technology to capture CO_2 emissions.
- **Net Zero (India):** Target year 2070.
- **Energy Intensity:** Energy consumption per unit of GDP.
- **Intermittency:** Variability of renewable power generation.
- **ISA:** International Solar Alliance headquartered in Gurugram.

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Green hydrogen is produced using renewable energy sources.
2. Baseload power refers to the maximum electricity demand during peak hours.
3. Renewable energy sources are completely free from intermittency issues.

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: (a)