

June, 2026 Edition



PadhAI

UPSC MONTHLY MAGAZINE

AI Powered Magazine for Smarter UPSC Prep'



From the Editor's Desk

Welcome to the May Issue of PadhAI — an AI-powered magazine designed by UPSC experts to make your preparation smarter, faster, and deeply exam-oriented.

Why This Magazine Exists

Dear Aspirant, PadhAI Magazine was created from a simple observation: most failures occur not due to lack of effort, but due to three critical gaps—delayed content, scattered resources, and weak exam linkage. We built this magazine to solve those exact problems. Most current affairs resources reach you 15–30 days late. By then, exam relevance has already faded. Relevance is everything in UPSC preparation. A topic that matters today becomes a sideshow in a month.

What Makes This Magazine Different

At PadhAI, we operate differently:
Speed & Relevance

- We publish within a week—so you learn while the topic is still relevant for exams
- You grasp concepts before they become old news, giving you a real head start
- Early understanding means better retention and confidence when these topics appear in questions

Exam-Aligned Restructuring

- We don't report news. We extract exam-aligned concepts
- Every article is built around three core questions:- What will Prelims ask?- How will Mains expect you to analyze it?- What concepts build from this topic?

Complete Integration

- Every article links to previous year questions, practice MCQs, and structured answers
- Alongside this magazine: daily PIB summaries, Current Affairs & GS topics explained, and AI tutor chat support
- One integrated system instead of scattered resources that are wasting your time

What's Inside This Edition

This June edition brings you the most relevant national and international updates, rewritten into crisp, high-retention smart notes. Each topic is restructured to focus on:

- Concept clarity — What you need to understand
- Governance relevance — Why it matters to India's systems
- Analytical value — How to think about it for both Prelims and Mains

Our Guiding Philosophy

At PadhAI, everything is built on three principles:

- Learn only what matters
- Learn it the right way
- Learn it at the right time

Let's make learning intelligent — not overwhelming.

—The PadhAI Team

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Subject

Polity



1. Five Judges Join SC After Strength Increase



WHY IN THE NEWS?

- The President of India has appointed **five new judges** to the Supreme Court of India following the government's decision to increase the sanctioned strength of the Court from **33 to 38 judges (including the Chief Justice of India)**.

BACKGROUND / CONCEPT

- The Supreme Court is the apex judicial institution established under **Part V (Chapter IV)** of the Constitution.
- It serves as:
 - Guardian of the Constitution.
 - Protector of Fundamental Rights.
 - Highest appellate court.
 - Court of Record.
 - Federal court for Centre-State disputes.

KEY CONSTITUTIONAL PROVISIONS

- Article 124**
 - Provides for the establishment and constitution of the Supreme Court.
 - Judges are appointed by the President.
 - Parliament has the power to increase the number of judges through legislation.
- Article 126**
 - Provides for the appointment of an Acting Chief Justice.
- Article 127**
 - Provides for the appointment of ad hoc judges when there is a lack of quorum.
- Article 128**

- Allows retired Supreme Court judges to sit and act as judges with their consent and the approval of the President.

V. **Article 129**

- Declares the Supreme Court as a **Court of Record** with the power to punish for contempt.

APPOINTMENT OF SUPREME COURT JUDGES

- Judges are appointed by the President under Article 124.
- Appointments are made on the recommendation of the **Collegium System**.
- The Collegium comprises:
 - Chief Justice of India.
 - Four senior-most judges of the Supreme Court.

SIGNIFICANCE

- Helps reduce the pendency of cases.
- Enables the constitution of more Division Benches and Constitution Benches.
- Improves access to timely justice.
- Strengthens the judiciary's capacity to deal with increasing litigation.
- Reinforces the constitutional mandate of speedy justice under Article 21.

CHALLENGES / CONCERNS

- High vacancy rates in High Courts continue.
- Delays in judicial appointments.
- Increasing judge strength alone cannot eliminate pendency.
- Inadequate judicial infrastructure and support staff.
- Need for comprehensive judicial reforms beyond appointments.

WAY FORWARD

- Fill vacancies in the Supreme Court and High Courts in a time-bound manner.
- Strengthen judicial infrastructure through the e-Courts Mission Mode Project.
- Improve case management and adoption of digital technologies.
- Increase the strength of the subordinate judiciary.





- Enhance transparency and efficiency in the judicial appointment process.

PRELIMS BOOSTER BOX

- **Article 124** – Establishment and constitution of the Supreme Court.
- **Article 126** – Acting Chief Justice.
- **Article 127** – Ad hoc judges.
- **Article 128** – Attendance of retired judges.
- **Article 129** – Supreme Court as a Court of Record.
- **Collegium System** – Recommends appointments and transfers of judges.
- **Current sanctioned strength of the Supreme Court – 37 judges (including the Chief Justice of India).**

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. Parliament has the power to increase the sanctioned strength of judges in the Supreme Court.
2. The Collegium System is explicitly mentioned in the Constitution.
3. The Supreme Court is declared a Court of Record under Article 129.

Which of the statements given above is/are correct?

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

Answer: A

PadhAI MAINS PRACTICE QUESTION

- Increasing the sanctioned strength of judges is necessary but not sufficient to address judicial pendency in India.
- Discuss. (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Article 124 empowers Parliament to increase the number of judges in the Supreme Court through legislation.
2. Article 129 declares the Supreme Court as a Court of Record.

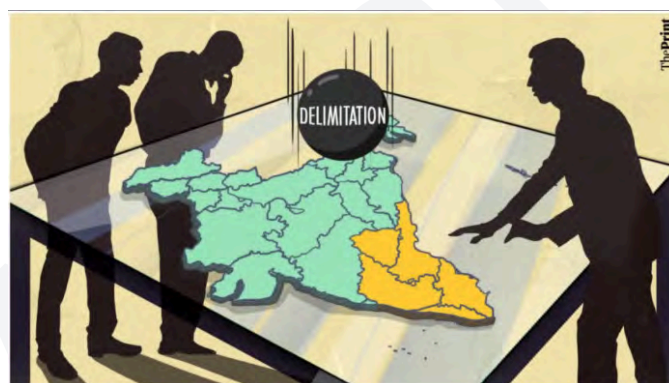
3. The Collegium System for appointment of judges is expressly provided under the Constitution.

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: A

2. Panel Suggests Seat Splitting for Delimitation



WHY IN THE NEWS?

- A Parliamentary panel has proposed a **seat-splitting model** for the upcoming delimitation exercise to address concerns that States with successful population control may lose political representation after the next delimitation.

BACKGROUND / CONCEPT

- **Delimitation** is the process of redrawing the boundaries of parliamentary and legislative assembly constituencies based on population to ensure equitable representation.
- It also includes the allocation of seats among States in the Lok Sabha.
- The objective is to uphold the democratic principle of **"One Person, One Vote, One Value."**

KEY CONSTITUTIONAL PROVISIONS

- Article 81**
 - A. Provides for the composition of the Lok Sabha and allocation of seats among States based on population.
- Article 82**





- A. Mandates Parliament to enact a Delimitation Act after every Census, following which a Delimitation Commission is constituted.

III. **Article 170**

- A. Deals with the composition and delimitation of State Legislative Assembly constituencies.

IV. **Article 327**

- A. Empowers Parliament to make laws relating to elections, including delimitation.

DELIMITATION COMMISSION

- I. Constituted by the Central Government under the Delimitation Act.
- II. An independent high-powered body whose orders have the force of law.
- III. Its decisions cannot ordinarily be challenged in court.
- IV. Generally consists of:
 - A. A retired Supreme Court judge as Chairperson.
 - B. The Chief Election Commissioner or nominee.
 - C. State Election Commissioners of the concerned States.

WHAT IS THE SEAT-SPLITTING PROPOSAL?

- I. Existing Lok Sabha seats allotted to each State would be retained.
- II. Additional seats created after delimitation would be distributed based on the latest population data.
- III. The proposal aims to:
 - A. Protect existing representation of States with lower population growth.
 - B. Reflect demographic changes through newly created seats.
 - C. Maintain a balance between population-based representation and cooperative federalism.

SIGNIFICANCE

- Protects the federal balance among States.
- Addresses concerns of southern and northeastern States regarding reduced representation.

- Ensures fairer political representation in line with population changes.
- Reduces the possibility of inter-State political tensions.
- Strengthens democratic legitimacy while recognising population stabilisation efforts.

CHALLENGES / CONCERNS

- Balancing equality of representation with federal equity.
- Achieving political consensus among States.
- Increased number of MPs may require expansion of parliamentary infrastructure.
- Possible constitutional and political debates over seat allocation.
- Delay in conducting the Census may postpone delimitation.

WAY FORWARD

- Build broad political consensus before implementing delimitation.
- Ensure transparency and fairness in the delimitation process.
- Consider demographic, developmental, and federal concerns while allocating seats.
- Strengthen cooperative federalism through consultations with States.
- Conduct the exercise using updated and reliable Census data.

PRELIMS BOOSTER BOX

- *Article 81 – Composition of the Lok Sabha.*
- *Article 82 – Delimitation after every Census through a Delimitation Act.*
- *Article 170 – Delimitation of State Legislative Assembly constituencies.*
- *Article 327 – Parliament's power to make laws relating to elections.*
- *Delimitation Commission – Independent statutory body whose orders have the force of law.*
- *42nd Constitutional Amendment Act, 1976 – Froze delimitation based on the 1971 Census until 2001.*
- *84th Constitutional Amendment Act, 2001 – Extended the freeze on the readjustment of seats until the first Census after 2026.*
- *87th Constitutional Amendment Act, 2003 – Allowed delimitation of constituencies based on the 2001 Census without altering the number of seats.*

PadhAI PYQ BOOSTER SECTION

Consider the following statements:



1. Article 82 provides for the enactment of a Delimitation Act after every Census.
2. The Delimitation Commission is an independent statutory body whose orders have the force of law.
3. The 84th Constitutional Amendment froze the readjustment of Lok Sabha seats until the first Census after 2026.

Which of the statements given above is/are correct?

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

Answer: D

PadhAI MAINS PRACTICE QUESTION

- The forthcoming delimitation exercise has important implications for India's federal structure and democratic representation.
- Discuss the challenges associated with delimitation and evaluate the seat-splitting proposal as a possible solution. (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Article 170 deals with the delimitation of State Legislative Assembly constituencies.
2. The 87th Constitutional Amendment allowed delimitation based on the 2001 Census without changing the number of seats.
3. The Delimitation Commission is a constitutional body established under Article 324.

Which of the statements given above is/are correct?

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

Answer: A

3. FCRA Bill Expands State Control



WHY IN THE NEWS?

- A proposed Bill to amend the Foreign Contribution (Regulation) Act, 2010 (FCRA) has generated debate over expanding governmental oversight of foreign funding received by civil society organisations and non-governmental organisations (NGOs).

BACKGROUND / CONCEPT

- I. The **Foreign Contribution (Regulation) Act (FCRA), 2010** regulates the acceptance and utilisation of foreign contributions and foreign hospitality by individuals, associations, and NGOs.
- II. It aims to ensure that foreign funding does not adversely affect:
 - A. Sovereignty and integrity of India.
 - B. National security.
 - C. Public interest.
 - D. Democratic institutions.

KEY FEATURES OF FCRA

- Organisations receiving foreign contributions must obtain **FCRA registration** or **prior permission** from the Central Government.
- Foreign contributions can be utilised only for the purposes for which they are received.
- Mandatory filing of periodic returns and maintenance of accounts.
- The Central Government may suspend or cancel FCRA registration for violations.
- Certain individuals and organisations, such as candidates for elections, legislators, judges, government servants, political parties, and





media persons (as specified under the Act), are prohibited from accepting foreign contributions.

KEY PROPOSED CHANGES / ISSUES

- Expands the powers of the Central Government in regulating foreign-funded organisations.
- Increases scrutiny over the utilisation of foreign funds.
- May provide wider discretion in granting, renewing, suspending, or cancelling FCRA registration.
- Could impose additional compliance requirements on NGOs.
- Raises concerns regarding increased State oversight of civil society activities.

CONSTITUTIONAL DIMENSIONS

- **Article 19(1)(a)** – Freedom of speech and expression.
- **Article 19(1)(c)** – Freedom to form associations or unions.
- **Article 19(2) & Article 19(4)** – Permit reasonable restrictions in the interests of sovereignty, integrity, public order, and security of the State.

SIGNIFICANCE

- Strengthens oversight of foreign funding.
- Aims to prevent misuse of foreign contributions for unlawful activities.
- Enhances financial transparency and accountability.
- Protects national security and public interest.
- Improves monitoring of foreign-funded entities.

CHALLENGES / CONCERNS

- Increased executive discretion may affect regulatory neutrality.
- Greater compliance burden, especially for smaller NGOs.
- Potential impact on organisations working in health, education, environment, and human rights.
- Concerns regarding shrinking civic space.
- Possibility of delays in registration, renewal, and fund utilisation.

WAY FORWARD

- Ensure transparent, objective, and non-arbitrary implementation of FCRA provisions.
- Introduce time-bound procedures for registration and renewal.
- Strengthen digital compliance systems to reduce administrative delays.
- Maintain judicial oversight over regulatory decisions.
- Balance national security concerns with constitutional freedoms and the legitimate role of civil society.

PRELIMS BOOSTER BOX

- **FCRA, 2010** – Regulates foreign contributions and foreign hospitality.
- Administered by the **Ministry of Home Affairs**.
- Registration or prior permission is mandatory to receive foreign contributions.
- Foreign contributions must be utilised only for approved purposes.
- The Central Government has the power to suspend or cancel FCRA registration.
- The Act seeks to safeguard sovereignty, integrity, national security, and public interest.
- The **Foreign Contribution (Regulation) Amendment Act, 2020** prohibited the transfer of foreign contributions to other FCRA-registered organisations, reduced the administrative expense limit from **50% to 20%**, and mandated receipt of foreign contributions in a designated **State Bank of India, New Delhi Main Branch** account.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. The Foreign Contribution (Regulation) Act, 2010 regulates the acceptance and utilisation of foreign contributions.
2. The Ministry of Home Affairs administers the FCRA.
3. Under the FCRA, every association in India can receive foreign contributions without registration or prior permission.

Which of the statements given above is/are correct?

- A. 1 and 2 only
B. 2 and 3 only



C. 1 and 3 only

D. 1, 2 and 3

Answer: A

PadhAI MAINS PRACTICE

QUESTION

- Discuss the objectives of the Foreign Contribution (Regulation) Act, 2010.
- How can India balance national security concerns with the autonomy and functioning of civil society organisations? (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Foreign Contribution (Regulation) Act, 2010 is administered by the Ministry of Home Affairs.
2. The Foreign Contribution (Regulation) Amendment Act, 2020 reduced the permissible administrative expenditure limit from 50% to 20%.
3. The FCRA permits unrestricted transfer of foreign contributions between FCRA-registered organisations.

Which of the statements given above is/are correct?

A. 1 and 2 only

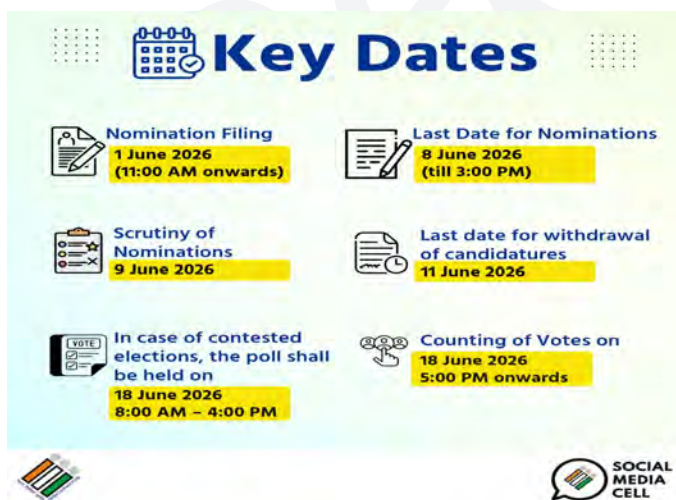
B. 1 and 3 only

C. 2 and 3 only

D. 1, 2 and 3

Answer: A

4. ECI Announces Elections to Rajya Sabha and State Legislative Council Seats



Key Dates

Nomination Filing 1 June 2026 (11:00 AM onwards)	Last Date for Nominations 8 June 2026 (till 3:00 PM)
Scrutiny of Nominations 9 June 2026	Last date for withdrawal of candidatures 11 June 2026
In case of contested elections, the poll shall be held on 18 June 2026 8:00 AM – 4:00 PM	Counting of Votes on 18 June 2026 5:00 PM onwards

 SOCIAL MEDIA CELL

WHY IN THE NEWS?

- The **Election Commission of India (ECI)** announced elections to **27 vacant seats** in the **Rajya Sabha** and **State Legislative Councils (Vidhan Parishads)** in three States.

BACKGROUND

RAJYA SABHA

- The **Rajya Sabha** is the **Upper House of Parliament**.
- Constitutional provisions:
 - A. **Articles 79–122.**
 - B. **Article 80** deals with its composition.
- Maximum strength: **250 members**.
 - A. **238** represent States and Union Territories.
 - B. **12** are nominated by the **President of India** for their expertise in:
 1. Literature.
 2. Science.
 3. Art.
 4. Social service.
- It is a **permanent House** and is **not subject to dissolution**.
- One-third of its members retire every two years.**
- Tenure of members: **6 years**.

STATE LEGISLATIVE COUNCIL (VIDHAN PARISHAD)

- A Legislative Council is the **Upper House** in the legislatures of certain States.
- Constitutional provisions:
 - A. **Article 169** – Creation or abolition.
 - B. **Article 171** – Composition.
- Maximum strength:
 - A. Cannot exceed **one-third** of the total membership of the Legislative Assembly.
 - B. Cannot have **fewer than 40 members** (except as provided by Parliament for certain States).
- It is also a **permanent House**, with **one-third of members retiring every two years**.

ELECTION PROCESS

RAJYA SABHA





- I. Members are elected by the **elected members of the State Legislative Assemblies**.
- II. Election is conducted through:
 - A. **Proportional Representation**.
 - B. **Single Transferable Vote (STV)**.
 - C. **Open ballot** system.

LEGISLATIVE COUNCIL

- I. Members are elected from different constituencies representing:
 - A. Local authorities.
 - B. Graduates.
 - C. Teachers.
 - D. Members of the Legislative Assembly.
- II. Some members are nominated by the **Governor**.

SIGNIFICANCE

- Ensures continuity in the functioning of Parliament and State Legislatures.
- Provides representation to States in the Union Parliament.
- Facilitates federal governance.
- Legislative Councils provide representation to specialised groups such as teachers and graduates.
- Enables detailed legislative scrutiny and debate.

CHALLENGES / CONCERNS

- Frequent political bargaining during indirect elections.
- Debates over the relevance and cost of Legislative Councils.
- Allegations of cross-voting and defections.
- Uneven representation due to varying State populations.

WAY FORWARD

- Ensure free, fair, and transparent indirect elections.
- Strengthen ethical standards in legislative elections.
- Periodically review the functioning and effectiveness of Legislative Councils.
- Promote informed legislative deliberation and federal cooperation.

PRELIMS BOOSTER BOX

- **Article 80** deals with the composition of the **Rajya Sabha**.
- The **Rajya Sabha** is a **permanent House**; it is **not dissolved**.
- **One-third** of Rajya Sabha members retire **every two years**.
- **Article 169** provides for the creation or abolition of a **State Legislative Council**.
- Rajya Sabha members are elected by the **elected members of State Legislative Assemblies** through **Proportional Representation by means of the Single Transferable Vote (STV)**.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. The Rajya Sabha is a permanent House and is not subject to dissolution.
2. Members of the Rajya Sabha are elected by the elected members of the State Legislative Assemblies through the Single Transferable Vote system.
3. Article 169 of the Constitution deals with the creation or abolition of State Legislative Councils.

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

PadhAI MAINS PRACTICE QUESTION

- Discuss the constitutional provisions governing the composition and election of the Rajya Sabha and State Legislative Councils.
- Evaluate their role in strengthening India's federal and parliamentary system. (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Rajya Sabha is a permanent House of Parliament.
2. Rajya Sabha elections are conducted through Proportional Representation by means of the Single Transferable Vote.



3. Article 171 of the Constitution deals with the composition of State Legislative Councils.

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

Answer: D

5. Indian Passport Is a Travel Document, Not Conclusive Proof of Citizenship: MEA

a passport or travel document for travel through or visiting such country shall cease to be valid for such travel or visit unless in any case a special endorsement in that behalf is made in the prescribed form by the prescribed authority.

20. Issue of passports and travel documents to persons who are not citizens of India

Notwithstanding anything contained in the foregoing provisions relating to issue of a passport or travel document, the Central Government may issue, or cause to be issued, a passport or travel document to a person who is not a citizen of India if that Government is of the opinion that it is necessary so to do in the public interest.

21. Power to delegate

The Central Government may, by notification in the Official Gazette, direct that any power or function which may be exercised or performed by it under this Act other than the power under clause (d) of sub-section (1) of section 6 or the power under clause (i) of sub-section (2) of that section or the power under section 24, may, in relation to such matters and subject to such conditions, if any, as it may specify in the notification, be exercised or performed-

WHY IN THE NEWS?

- The **Ministry of External Affairs (MEA)** clarified that an **Indian passport is primarily a travel document** and **does not constitute conclusive proof of Indian citizenship**, reiterating the legal distinction between proof of identity, travel entitlement, and citizenship.

BACKGROUND / CONCEPT

WHAT IS A PASSPORT?

- A passport is an official travel document issued by the Government of India.
- It enables:
 - International travel.
 - Identification of the holder abroad.
 - Access to consular protection.
- Passports are issued under the **Passports Act, 1967**.

WHAT IS CITIZENSHIP?

- Citizenship denotes the legal relationship between an individual and the State, conferring specific rights and obligations.
- Constitutional provisions relating to citizenship are contained in **Articles 5 to 11** of the Constitution.
- Parliament regulates citizenship through the **Citizenship Act, 1955**.

MODES OF ACQUIRING INDIAN CITIZENSHIP

- By birth.
- By descent.
- By registration.
- By naturalisation.
- By incorporation of territory.

LOSS OF CITIZENSHIP

- Renunciation.
- Termination.
- Deprivation by the Central Government under specified circumstances.

SIGNIFICANCE

- Clarifies the legal distinction between travel documentation and citizenship status.
- Prevents misuse of passports obtained through fraud or misrepresentation.
- Strengthens the integrity of India's passport issuance system.
- Ensures that citizenship disputes are decided under the appropriate legal framework.

CHALLENGES / CONCERNS

- Fraudulent procurement of passports using forged documents.
- Confusion between identity documents and proof of citizenship.
- Verification challenges in citizenship-related disputes.
- Need for robust document authentication mechanisms.

WAY FORWARD

- Strengthen verification procedures before passport issuance.
- Improve coordination between passport authorities and citizenship records.





- Enhance digital authentication of identity and civil registration documents.
- Increase public awareness regarding the legal distinction between passports and citizenship.

PRELIMS BOOSTER BOX

- The **Passports Act, 1967** governs the issuance of passports in India.
- Citizenship provisions are contained in **Articles 5–11** of the Constitution.
- The **Citizenship Act, 1955** regulates acquisition and termination of Indian citizenship.
- A passport is primarily a **travel document** and is **not conclusive proof of citizenship**.
- The **Ministry of External Affairs** is the nodal ministry for passport issuance through the **Passport Seva Programme**.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. Articles 5 to 11 of the Constitution deal with citizenship.
2. The Citizenship Act, 1955 provides for acquisition of citizenship by birth, descent, registration, naturalisation, and incorporation of territory.
3. Passports in India are issued under the Passports Act, 1967.

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

PadhAI MAINS PRACTICE

QUESTION

- Distinguish between citizenship and possession of a passport in the Indian legal framework.
- Discuss the constitutional and statutory provisions governing citizenship in India. (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Passports Act, 1967 governs the issuance of passports in India.

2. A passport is conclusive proof of Indian citizenship.
3. The Citizenship Act, 1955 provides for acquisition of citizenship by naturalisation.

A. 1 and 3 only

B. 2 and 3 only

C. 1 and 2 only

D. 1, 2 and 3

Answer: A

6. Walking on Footpath is a Fundamental Right: SC



WHY IN THE NEWS?

- The Supreme Court of India observed that **the right to walk safely on footpaths is an integral part of the Right to Life under Article 21** of the Constitution and directed authorities to ensure that footpaths remain accessible and free from encroachments.

BACKGROUND / CONCEPT

- Footpaths are public infrastructure intended primarily for pedestrian movement.
- Rapid urbanisation, illegal encroachments, poor maintenance, and vehicle parking on sidewalks have significantly reduced safe pedestrian spaces.
- The judgment reinforces the concept of **people-centric and inclusive urban planning**, where pedestrians are prioritised alongside motorised transport.

KEY CONSTITUTIONAL PROVISIONS

I. Article 21

- A. Guarantees the **Right to Life and Personal Liberty**.





- B. Judicial interpretation has expanded its scope to include the right to live with dignity, safe mobility, and a healthy environment.

II. **Article 14**

- A. Guarantees equality before law and equal protection of laws.
- B. Ensures equal access to public infrastructure.

III. **Article 19(1)(d)**

- A. Guarantees the freedom to move freely throughout the territory of India.

IV. **Article 243W**

- A. Empowers Municipalities to perform functions relating to urban planning, roads, bridges, and public amenities as specified in the **Twelfth Schedule**.

LEGAL FRAMEWORK

I. **Rights of Persons with Disabilities Act, 2016**

- A. Mandates accessible public infrastructure for persons with disabilities.

II. **Municipal Corporation Acts**

- A. Empower urban local bodies to maintain roads, remove encroachments, and regulate public streets.

III. **Motor Vehicles Act, 1988**

- A. Provides the legal framework for road safety and traffic regulation, including pedestrian safety.

SIGNIFICANCE

- Recognises pedestrian mobility as part of the Right to Life under Article 21.
- Promotes inclusive and sustainable urban development.
- Enhances road safety by reducing pedestrian accidents.
- Improves accessibility for senior citizens, children, and persons with disabilities.
- Encourages pedestrian-first urban planning.

CHALLENGES / CONCERNS

- Illegal encroachments on footpaths.
- Poor maintenance and damaged sidewalks.
- Vehicle parking on pedestrian pathways.

- Weak enforcement by municipal authorities.
- Inadequate accessibility for persons with disabilities.

WAY FORWARD

- Remove encroachments through regular enforcement.
- Develop universally accessible footpaths in accordance with accessibility standards.
- Integrate pedestrian infrastructure into urban planning policies.
- Strengthen coordination among municipal bodies, traffic police, and urban development authorities.
- Increase public awareness regarding pedestrian rights and road safety.

PRELIMS BOOSTER BOX

- **Article 21** – Right to Life and Personal Liberty.
- **Article 19(1)(d)** – Freedom of movement.
- **Article 243W** – Powers and responsibilities of Municipalities.
- **Twelfth Schedule** – Lists 18 functions of Municipalities, including urban planning, roads, and public amenities.
- **Rights of Persons with Disabilities Act, 2016** – Promotes accessibility in public infrastructure.
- **Universal Accessibility** – Designing public infrastructure to ensure equal access for all, including persons with disabilities.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. Article 21 has been judicially interpreted to include the right to live with dignity.
2. Article 243W relates to the powers and responsibilities of Municipalities.
3. The Twelfth Schedule of the Constitution deals with the powers of Panchayats.

Which of the statements given above is/are correct?

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

Answer: A

PadhAI MAINS PRACTICE QUESTION



- "Safe and accessible pedestrian infrastructure is essential for realizing the Right to Life under Article 21."
- Discuss the constitutional and governance dimensions of this statement. (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Supreme Court has interpreted Article 21 to include the right to safe pedestrian movement.
2. Article 243W empowers Municipalities to perform functions relating to urban planning and public amenities.
3. The Rights of Persons with Disabilities Act, 2016 seeks to promote accessibility in public infrastructure.

Which of the statements given above is/are correct?

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

Answer: A

7. CCPA Penalises PhysicsWallah and McAfee for Using Dark Patterns



WHY IN THE NEWS?

- The **Central Consumer Protection Authority (CCPA)** imposed penalties on **PhysicsWallah** and **McAfee Software India Private Limited** for adopting **dark pattern** practices that allegedly misled consumers and influenced their purchasing decisions on digital platforms.

BACKGROUND /CONCEPT

WHAT ARE DARK PATTERNS?

- I. **Dark patterns** are deceptive design techniques used in websites or mobile applications to manipulate users into making decisions they may not have otherwise made.
- II. Common examples include:
 - A. False urgency.
 - B. Basket sneaking.
 - C. Confirm shaming.
 - D. Subscription traps.
 - E. Interface interference.
 - F. Forced action.
 - G. Drip pricing.
 - H. Disguised advertisements.

LEGAL FRAMEWORK

CONSUMER PROTECTION ACT, 2019

- I. Establishes the **CCPA** to:
 - A. Protect consumer rights.
 - B. Prevent unfair trade practices.
 - C. Order recall of unsafe goods.
 - D. Impose penalties for misleading advertisements and unfair practices.

GUIDELINES FOR PREVENTION AND REGULATION OF DARK PATTERNS, 2023

- I. Issued by the **CCPA**.
- II. Prohibit specified deceptive online practices.
- III. Apply to:
 - A. E-commerce platforms.
 - B. Online service providers.
 - C. Advertisers.
 - D. Digital marketplaces.

ABOUT CCPA

- I. Established under the **Consumer Protection Act, 2019**.
- II. Functions under the **Ministry of Consumer Affairs, Food and Public Distribution**.
- III. Powers include:
 - A. Investigating consumer rights violations.
 - B. Ordering recall of unsafe goods and withdrawal of misleading advertisements.
 - C. Imposing penalties.



- D. Initiating class-action proceedings where appropriate.

SIGNIFICANCE

- Strengthens consumer protection in the digital economy.
- Promotes transparency and fair online business practices.
- Prevents manipulation of consumer choices.
- Encourages ethical digital interface design.
- Builds trust in e-commerce and digital services.

CHALLENGES / CONCERNS

- Rapid evolution of deceptive digital marketing techniques.
- Difficulty in detecting sophisticated dark patterns.
- Limited consumer awareness about manipulative online practices.
- Need for continuous regulatory oversight in digital markets.

WAY FORWARD

- Strengthen enforcement of dark pattern guidelines.
- Enhance consumer awareness regarding deceptive online practices.
- Encourage businesses to adopt transparent and ethical interface designs.
- Periodically update regulatory guidelines to address emerging digital practices.
- Promote cooperation among consumer regulators, technology platforms, and industry stakeholders.

PRELIMS BOOSTER BOX

- The **Central Consumer Protection Authority (CCPA)** was established under the **Consumer Protection Act, 2019**.
- The CCPA functions under the **Ministry of Consumer Affairs, Food and Public Distribution**.
- **Dark patterns** are deceptive user interface designs that manipulate consumer decision-making.
- The **Guidelines for Prevention and Regulation of Dark Patterns, 2023** prohibit specified deceptive online practices.

- *The CCPA can investigate unfair trade practices, order recall of unsafe goods, and impose penalties.*

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. The Central Consumer Protection Authority (CCPA) was established under the Consumer Protection Act, 2019.
2. The CCPA functions under the Ministry of Consumer Affairs, Food and Public Distribution.
3. Dark patterns are deceptive digital interface designs intended to influence consumer choices.

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

PadhAI MAINS PRACTICE

QUESTION

- The growing use of dark patterns poses new challenges to consumer protection in the digital economy.
- Discuss the role of the Central Consumer Protection Authority (CCPA) in regulating unfair digital trade practices and safeguarding consumer rights. (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Central Consumer Protection Authority was established under the Consumer Protection Act, 2019.
2. The Guidelines for Prevention and Regulation of Dark Patterns were issued in 2023.
3. Dark patterns are intended to enhance consumer awareness by improving transparency.

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

Answer: A



Subject

International Relations



1. Shaping the Next Chapter in India–Canada Relations



2.

WHY IN THE NEWS?

- India and Canada are exploring ways to reset bilateral ties after a period of diplomatic tensions, with renewed emphasis on cooperation in trade, technology, education, clean energy, and Indo-Pacific security.

BACKGROUND / CONCEPT

- India and Canada established diplomatic relations in **1947**.
- Canada is home to one of the largest Indian diaspora communities.
- The relationship encompasses cooperation in:
 - Trade and investment.
 - Education and research.
 - Science and technology.
 - Clean energy and climate action.
 - Agriculture and food security.
 - Indo-Pacific cooperation.

KEY AREAS OF COOPERATION

- Trade and Investment**
 - Canada is an important source of investment in India.
 - Both countries are negotiating the **Early Progress Trade Agreement (EPTA)** as a step towards a Comprehensive Economic Partnership Agreement (CEPA).
- Education**

- Canada is a preferred destination for Indian students pursuing higher education.
- Academic and research collaborations continue to expand.

III. Science and Technology

- Cooperation in artificial intelligence, biotechnology, quantum technologies, and clean technologies.

IV. Energy

- Collaboration in clean energy, critical minerals, and civil nuclear energy.
- Canada is a major supplier of potash, an important fertiliser input for India.

V. People-to-People Ties

- A vibrant Indian diaspora strengthens cultural and economic relations.
- Tourism, business, and educational exchanges deepen bilateral engagement.

AREAS OF CONCERN

- Diplomatic tensions over allegations related to security issues.
- Concerns regarding extremist activities and anti-India elements operating from Canadian soil.
- Slow progress in trade negotiations.
- Decline in political trust affecting bilateral engagement.
- Visa and mobility-related issues impacting students and businesses.

SIGNIFICANCE

- Strengthens India's engagement with North America.
- Enhances trade diversification and investment opportunities.
- Supports cooperation in critical minerals essential for the green transition.
- Promotes collaboration in emerging technologies and innovation.
- Reinforces a free, open, and inclusive Indo-Pacific.

CHALLENGES / CONCERNS

- Restoring mutual trust after diplomatic disputes.





- Addressing security concerns through institutional cooperation.
- Balancing domestic political considerations with bilateral interests.
- Reviving stalled economic negotiations.
- Ensuring stable people-to-people exchanges.

WAY FORWARD

- Resume high-level diplomatic dialogue.
- Strengthen cooperation on counter-terrorism and intelligence sharing.
- Expedite negotiations on the Early Progress Trade Agreement.
- Expand collaboration in critical minerals, clean energy, and emerging technologies.
- Promote academic, cultural, and business exchanges to rebuild trust.

PRELIMS BOOSTER BOX

- *Canada is a member of the **G7, NATO**, and the **Organisation for Economic Co-operation and Development**.*
- *India and Canada established diplomatic relations in **1947**.*
- *The proposed **Early Progress Trade Agreement (EPTA)** is an interim trade agreement preceding a Comprehensive Economic Partnership Agreement (CEPA).*
- *Canada is an important global producer of **critical minerals** such as nickel, cobalt, and uranium.*
- *Canada is a major supplier of **potash** to India, a key input for fertiliser production.*

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. Canada is a member of the G7.
2. The Early Progress Trade Agreement (EPTA) is envisaged as an interim step towards a Comprehensive Economic Partnership Agreement between India and Canada.
3. Canada is a major global producer of critical minerals.

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

PadhAI MAINS PRACTICE

QUESTION

- India-Canada relations have immense strategic and economic potential despite recent diplomatic challenges.
- Discuss the key areas of cooperation, major irritants, and the way forward for strengthening bilateral relations. (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Canada is a member of both the G7 and NATO.
2. The Early Progress Trade Agreement (EPTA) is intended to be a precursor to a Comprehensive Economic Partnership Agreement between India and Canada.
3. Canada is among the world's important producers of potash and critical minerals.

Which of the statements given above is/are correct?

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

Answer: C

2. France Supports 'Make in India' for Rafale Deal



WHY IN THE NEWS?

- France has reiterated its support for the 'Make in India' initiative by expressing willingness to expand local manufacturing, technology transfer, and industrial collaboration under





future Dassault Rafale defence projects with India.

BACKGROUND / CONCEPT

- India and France have a long-standing **Strategic Partnership**, established in **1998**.
- France is one of India's key defence partners, supplying advanced military platforms and supporting indigenous defence manufacturing.
- The **Make in India** initiative seeks to promote domestic manufacturing, reduce import dependence, and enhance India's defence industrial base.

KEY AREAS OF INDIA–FRANCE DEFENCE COOPERATION

- I. Procurement of **Rafale fighter aircraft** for the Indian Air Force and the Indian Navy.
- II. Joint military exercises:
 - A. **Exercise Varuna** (Navy)
 - B. **Exercise Garuda** (Air Force)
 - C. **Exercise Shakti** (Army)
- III. Cooperation in:
 - A. Defence technology.
 - B. Aerospace manufacturing.
 - C. Maritime security.
 - D. Cyber security.
 - E. Space cooperation.

SIGNIFICANCE

- Promotes indigenous defence manufacturing under **Make in India**.
- Reduces dependence on imported defence equipment.
- Encourages technology transfer and skill development.
- Generates employment and strengthens the domestic defence ecosystem.
- Deepens the India–France Strategic Partnership.
- Enhances India's defence preparedness and maritime capabilities.

CHALLENGES / CONCERNS

- High cost of advanced defence platforms.
- Complexity of technology transfer agreements.
- Need for greater participation of Indian private industry.

- Ensuring timely execution of defence contracts.
- Balancing indigenisation with operational requirements.

WAY FORWARD

- Expand joint research and development in advanced defence technologies.
- Increase localisation of defence production.
- Strengthen partnerships between foreign Original Equipment Manufacturers (OEMs) and Indian firms.
- Promote co-development and co-production of defence systems.
- Accelerate reforms to improve ease of doing business in the defence sector.

PRELIMS BOOSTER BOX

- **India–France Strategic Partnership** was established in **1998**.
- **Rafale** is a **4.5-generation, twin-engine, multirole fighter aircraft** manufactured by **Dassault Aviation**.
- **Exercise Varuna** – India–France bilateral naval exercise.
- **Exercise Garuda** – India–France bilateral air exercise.
- **Exercise Shakti** – India–France bilateral army exercise.
- **Defence Acquisition Procedure (DAP), 2020** promotes **Make in India** through higher indigenous content and domestic procurement.
- **Aatmanirbhar Bharat** in defence aims to reduce import dependence and develop a robust indigenous defence manufacturing ecosystem.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. India and France established a Strategic Partnership in 1998.
2. Exercise Varuna is a bilateral naval exercise between India and France.
3. Rafale fighter aircraft is manufactured by Dassault Aviation.

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

PadhAI MAINS PRACTICE

QUESTION

- Discuss the significance of the India–France defence partnership in promoting India's self-reliance in defence manufacturing.
- How does the 'Make in India' initiative contribute to strengthening India's strategic capabilities? (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

- Exercise Garuda is a bilateral air exercise between India and France.
- The Defence Acquisition Procedure (DAP), 2020 promotes indigenous defence manufacturing.
- Rafale is a fifth-generation stealth fighter aircraft.

Which of the statements given above is/are correct?

A. 1 and 2 only

B. 2 and 3 only

C. 1 and 3 only

D. 1, 2 and 3

Answer: A

3. MoU Lets Iran Claim in Strait of Hormuz



WHY IN THE NEWS?

- A recent **Memorandum of Understanding (MoU)** between Iran and neighbouring countries has drawn attention to Iran's maritime claims and strategic position in the

Strait of Hormuz, a critical global energy chokepoint.

BACKGROUND / CONCEPT

- The **Strait of Hormuz** is a narrow maritime passage connecting the **Persian Gulf** with the **Gulf of Oman** and the **Arabian Sea**.
- It is bordered by:
 - Iran to the north.
 - Oman and the United Arab Emirates (UAE) to the south.
- A substantial share of the world's seaborne crude oil and LNG passes through this strait, making it one of the most strategically significant maritime chokepoints.

KEY FEATURES OF THE STRAIT OF HORMUZ

- Connects the Persian Gulf to the Arabian Sea.
- Serves as a vital route for oil exports from Gulf countries.
- Important for the energy security of major importers, including India, China, Japan, and South Korea.
- Plays a crucial role in global maritime trade and regional security.

SIGNIFICANCE FOR INDIA

- India imports a significant portion of its crude oil from Gulf countries.
- Ensures uninterrupted energy supplies for the Indian economy.
- Vital for India's trade with West Asia.
- Important for the safety of Indian shipping and the Indian diaspora in the Gulf region.
- Supports India's maritime security interests under the **SAGAR (Security and Growth for All in the Region)** vision.

CHALLENGES / CONCERNS

- Geopolitical tensions involving Iran and other regional powers.
- Risk of disruption to global oil and LNG supplies.
- Increase in shipping insurance and freight costs.
- Threats to freedom of navigation.
- Potential impact on global energy prices and inflation.

WAY FORWARD





- Promote diplomatic dialogue to ensure regional stability.
- Diversify India's sources of crude oil and LNG imports.
- Strengthen the Indian Navy's maritime security capabilities.
- Enhance strategic petroleum reserves.
- Deepen cooperation with Gulf countries for energy and maritime security.

PRELIMS BOOSTER BOX

- ***Straits of Hormuz connects the Persian Gulf with the Gulf of Oman and the Arabian Sea.***
- ***It is bordered by Iran, Oman, and the United Arab Emirates (UAE).***
- ***It is one of the world's most important maritime chokepoints for oil and LNG trade.***
- ***The United Nations Convention on the Law of the Sea (UNCLOS) provides the legal framework governing navigation through international straits.***
- ***India's SAGAR (Security and Growth for All in the Region) doctrine emphasises maritime security and regional cooperation in the Indian Ocean Region.***

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. The Strait of Hormuz connects the Persian Gulf with the Gulf of Oman.
2. Iran borders the northern side of the Strait of Hormuz.
3. The Strait of Hormuz is an important maritime route for global crude oil trade.

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

PadhAI MAINS PRACTICE

QUESTION

- Discuss the strategic importance of the Strait of Hormuz for global energy security and India's national interests.

- How can India mitigate the risks arising from geopolitical instability in the region? (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Strait of Hormuz connects the Persian Gulf with the Gulf of Oman.
2. The Strait of Hormuz is bordered by Iran to the north and Oman and the United Arab Emirates to the south.
3. The Strait of Hormuz lies between the Red Sea and the Mediterranean Sea.

Which of the statements given above is/are correct?

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

Answer: A

4. A New Phase in India–Nepal Relations



WHY IN THE NEWS?

- India and Nepal are witnessing renewed diplomatic engagement aimed at strengthening bilateral cooperation in connectivity, energy, trade, and development, signalling a new phase in their relationship.

BACKGROUND / CONCEPT

- India and Nepal share a **1,751 km-long open border**, facilitating the free movement of people under the **India–Nepal Treaty of Peace and Friendship, 1950**.
- Nepal occupies a strategically important position between India and China.





- The relationship is often described as one of "**Roti-Beti**", reflecting close cultural and familial ties.

KEY AREAS OF COOPERATION

I. **Connectivity**

- A. Development of cross-border railway links.
- B. Integrated Check Posts (ICPs).
- C. Petroleum pipelines and transmission lines.

II. **Energy**

- A. Export of Nepal's hydropower to India.
- B. Cross-border electricity trade.
- C. Investment in hydropower generation and transmission infrastructure.

III. **Trade and Economy**

- A. India is Nepal's largest trading partner.
- B. Cooperation in digital payments and financial connectivity.
- C. Expansion of cross-border commerce.

IV. **Development Partnership**

- A. Assistance in education, healthcare, infrastructure, and post-disaster reconstruction.
- B. Capacity building and human resource development.

V. **People-to-People Ties**

- A. Open border enabling free movement.
- B. Shared religious and cultural heritage.
- C. Strong educational and employment linkages.

AREAS OF CONCERN

- Boundary disputes involving **Kalapani, Lipulekh Pass, and Limpiyadhura**.
- Political instability within Nepal affecting policy continuity.
- Increasing strategic competition in the Himalayan region.
- Trade and transit-related challenges.
- Concerns over cross-border security and illegal activities.

SIGNIFICANCE

- Strengthens India's **Neighbourhood First Policy**.

- Enhances regional connectivity and economic integration.
- Promotes clean energy cooperation through hydropower.
- Reinforces security and stability in the Himalayan region.
- Advances regional cooperation under **BBIN Initiative**.

CHALLENGES / CONCERNS

- Resolving pending boundary disputes through dialogue.
- Balancing strategic interests amid regional geopolitical competition.
- Improving implementation of bilateral infrastructure projects.
- Addressing trade imbalances.
- Ensuring sustainable and mutually beneficial cooperation.

WAY FORWARD

- Strengthen high-level political and diplomatic engagement.
- Expedite connectivity and hydropower projects.
- Resolve boundary issues through established bilateral mechanisms.
- Expand cooperation in digital infrastructure, renewable energy, and tourism.
- Deepen people-to-people exchanges and institutional partnerships.

PRELIMS BOOSTER BOX

- *India and Nepal share an **open border of about 1,751 km**.*
- *The **India–Nepal Treaty of Peace and Friendship, 1950** allows free movement of people and close bilateral cooperation.*
- *India is Nepal's **largest trading partner**.*
- ***Kalapani, Lipulekh, and Limpiyadhura** are major areas of the India–Nepal boundary dispute.*
- *Nepal has significant **hydropower potential**, making it an important partner in regional energy cooperation.*
- ***BBIN (Bangladesh–Bhutan–India–Nepal)** aims to strengthen regional connectivity and economic integration.*

PadhAI PYQ BOOSTER SECTION



Consider the following statements:

1. India and Nepal share an open international border.
2. The India–Nepal Treaty of Peace and Friendship was signed in 1950.
3. Kalapani is associated with the India–Nepal boundary dispute.

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

PadhAI MAINS PRACTICE QUESTION

- India and Nepal share unique civilisational, economic, and strategic ties.
- Discuss the opportunities and challenges in bilateral relations and suggest measures to strengthen the partnership. (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The India–Nepal Treaty of Peace and Friendship was signed in 1950.
2. Nepal shares an open border only with China.
3. BBIN is a sub-regional initiative involving Bangladesh, Bhutan, India, and Nepal.

Which of the statements given above is/are correct?

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

Answer: A

5. India–UK FTA to Come into Force on July 15



WHY IN THE NEWS?

- India and the United Kingdom are set to operationalise the **India–UK Free Trade Agreement (FTA)** from **July 15**, marking a significant milestone in bilateral economic relations.

BACKGROUND / CONCEPT

- A **Free Trade Agreement (FTA)** is an arrangement between two or more countries to reduce or eliminate tariffs and non-tariff barriers on trade.
- India and the UK concluded FTA negotiations after multiple rounds of discussions.
- The agreement seeks to increase bilateral trade while promoting investment, innovation, and economic growth.

KEY FEATURES

- Reduction or elimination of tariffs on a wide range of goods.
- Improved market access for services, including IT, finance, education, and professional services.
- Enhanced investment facilitation and business cooperation.
- Simplified customs procedures and trade facilitation measures.
- Provisions relating to intellectual property rights, digital trade, and regulatory cooperation.
- Greater mobility opportunities for professionals, subject to agreed provisions.

SIGNIFICANCE

- Expands India's export opportunities in the UK market.
- Strengthens India's integration into global value chains.
- Promotes foreign direct investment (FDI).
- Supports the **Make in India** initiative by improving market access.
- Generates employment in sectors such as textiles, pharmaceuticals, engineering goods, gems and jewellery, and services.
- Reinforces the India–UK Comprehensive Strategic Partnership.

CHALLENGES / CONCERNS





- Ensuring domestic industries remain competitive.
- Compliance with quality and regulatory standards.
- Addressing non-tariff barriers.
- Managing adjustment costs for sensitive sectors.
- Effective implementation of FTA commitments.

WAY FORWARD

- Facilitate industry awareness regarding FTA benefits.
- Improve export competitiveness through infrastructure and logistics reforms.
- Support MSMEs in accessing the UK market.
- Strengthen standards, certification, and quality assurance mechanisms.
- Periodically review the agreement to address implementation challenges.

PRELIMS BOOSTER BOX

- A **Free Trade Agreement (FTA)** reduces or eliminates tariffs and other trade barriers between participating countries.
- The UK is among India's major trading and investment partners.
- India and the UK share a **Comprehensive Strategic Partnership**, launched in 2021.
- The FTA is expected to benefit sectors such as **textiles, pharmaceuticals, engineering goods, gems and jewellery, automobiles, food processing, and IT services**.
- India is also negotiating FTAs with several other regions and countries to diversify trade and strengthen global economic integration.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. A Free Trade Agreement generally aims to reduce or eliminate tariffs between participating countries.
2. The India-UK Free Trade Agreement seeks to promote trade in both goods and services.
3. Free Trade Agreements prohibit foreign direct investment between member countries.

Which of the statements given above is/are correct?

- A. 1 and 2 only
B. 2 and 3 only

C. 1 and 3 only

D. 1, 2 and 3

Answer: A

PadhAI MAINS PRACTICE QUESTION

- Discuss the significance of the India-UK Free Trade Agreement for India's trade, manufacturing, and services sectors.
- What challenges need to be addressed for its effective implementation? (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

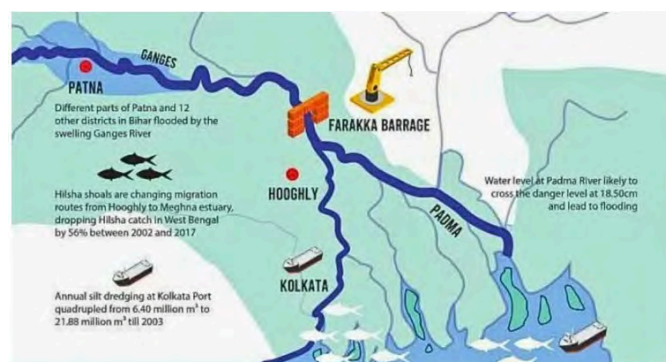
1. A Free Trade Agreement primarily seeks to reduce or eliminate trade barriers between participating countries.
2. The India-UK FTA is expected to improve market access for both goods and services.
3. Free Trade Agreements eliminate all regulatory and quality standards for traded goods.

Which of the statements given above is/are correct?

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

Answer: A

6. Bangladesh Approves Padma Barrage Ahead of Ganga Water Sharing Treaty Expiry



WHY IN THE NEWS?

- Bangladesh has approved the construction of the **Padma Barrage** ahead of the expiry of the **1996 Ganga Water Sharing Treaty** in **December**





2026, raising attention on future water-sharing negotiations between India and Bangladesh.

BACKGROUND

PADMA RIVER

- I. The **Padma River** is the name given to the **Ganga River** after it enters Bangladesh.
- II. It later joins the:
 - A. **Jamuna River**.
 - B. **Meghna River**.
- III. The combined river system drains into the **Bay of Bengal**.

GANGA WATER SHARING TREATY, 1996

- I. Signed between:
 - A. India.
 - B. Bangladesh.
- II. Signed on **12 December 1996**.
- III. Duration: **30 years** (expires in **December 2026**).
- IV. Governs the sharing of **Ganga waters at the Farakka Barrage** during the dry season.
- V. Provides a formula for water sharing based on river flows measured at **Farakka Barrage**.
- VI. Establishes a **Joint Committee** to monitor implementation and exchange hydrological data.

SIGNIFICANCE

- Supports water security and irrigation in both countries.
- Strengthens India–Bangladesh bilateral cooperation.
- Facilitates agricultural productivity and livelihoods.
- Promotes peaceful management of transboundary water resources.
- Serves as an example of cooperative river basin governance.

CHALLENGES / CONCERNS

- Seasonal reduction in river flows during the dry season.
- Climate change affecting river discharge patterns.
- Increasing water demand due to population growth.
- Need to balance upstream and downstream interests.

- Potential impact of new hydraulic infrastructure on river ecology.

WAY FORWARD

- Initiate timely negotiations for renewal or revision of the treaty.
- Strengthen data sharing and joint hydrological monitoring.
- Adopt integrated river basin management.
- Promote climate-resilient water resource planning.
- Enhance bilateral cooperation through the **Joint Rivers Commission**.

PRELIMS BOOSTER BOX

- The **Padma River** is the name of the **Ganga** in Bangladesh.
- The **1996 Ganga Water Sharing Treaty** is valid for **30 years** and expires in **December 2026**.
- The treaty governs water sharing at the **Farakka Barrage**.
- The **Joint Rivers Commission (JRC)** is the principal bilateral mechanism for water cooperation between India and Bangladesh.
- The **Ganga, Brahmaputra (Jamuna), and Meghna** together form one of the world's largest delta systems.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. The Padma River is the name given to the Ganga after it enters Bangladesh.
2. The Ganga Water Sharing Treaty between India and Bangladesh was signed in 1996.
3. The treaty governs the sharing of waters at the Farakka Barrage.

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

PadhAI MAINS PRACTICE QUESTION

- Transboundary river water sharing is an important aspect of India's neighbourhood diplomacy.





- Discuss the significance of the Ganga Water Sharing Treaty with Bangladesh and examine the challenges in ensuring sustainable and equitable management of shared river systems. (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Padma River is the main distributary of the Ganga in Bangladesh.
2. The Ganga Water Sharing Treaty was signed for a period of 30 years.
3. The Joint Rivers Commission is a bilateral mechanism between India and Nepal.

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

Answer: A

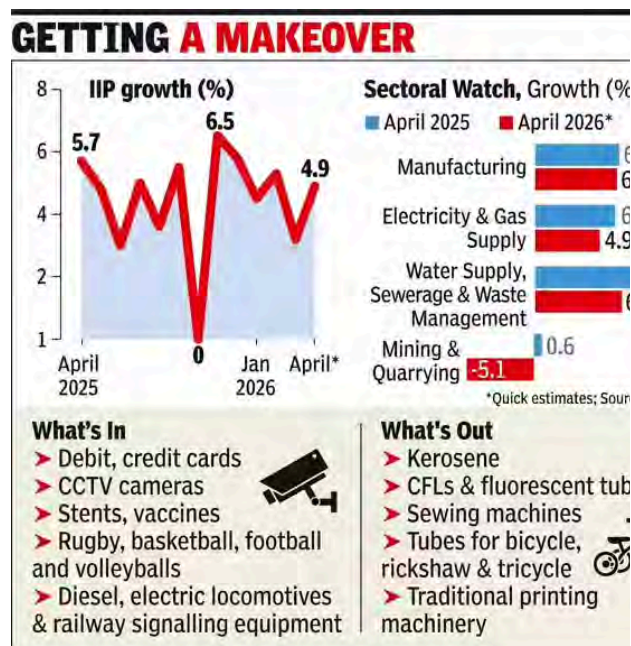


Subject

Economy



1. Industrial Output Slows to 4.9% in New Data Series



2.

WHY IN THE NEWS?

- The Ministry of Statistics and Programme Implementation released a **new series of the Index of Industrial Production (IIP)** with an updated base year, showing industrial output growth of **4.9%** for the reference period.

BACKGROUND / CONCEPT

- The **Index of Industrial Production (IIP)** measures the **short-term changes in the volume of production** in the industrial sector.
- It serves as an important indicator of economic growth and industrial performance.
- The index covers three major sectors:
 - Mining
 - Manufacturing
 - Electricity
- Periodic revision of the base year ensures that the index reflects structural changes in the economy.

KEY FEATURES OF THE NEW IIP SERIES

- Updated **base year** to reflect the contemporary industrial structure.
- Revised basket of industrial items.
- Improved sectoral representation and coverage.

- Incorporation of better administrative and statistical data sources.
- Alignment with international statistical standards.

SIGNIFICANCE

- Provides a more accurate measure of industrial production.
- Helps policymakers assess economic momentum.
- Assists the Reserve Bank of India in monetary policy formulation.
- Supports evidence-based industrial and fiscal policymaking.
- Enables investors and businesses to track industrial trends.

CHALLENGES / CONCERNS

- Manufacturing growth remains uneven across industries.
- Global economic uncertainties may affect industrial demand.
- Supply chain disruptions and input cost pressures.
- Dependence on high-frequency data quality.
- Need for sustained investment in manufacturing.

WAY FORWARD

- Promote manufacturing through initiatives such as **Make in India** and **Production Linked Incentive (PLI)** schemes.
- Improve industrial infrastructure and logistics.
- Encourage technological upgradation and innovation.
- Strengthen MSMEs through easier access to finance and markets.
- Ensure regular updating of statistical methodologies to maintain data quality.

PRELIMS BOOSTER BOX

- Index of Industrial Production (IIP)** measures short-term industrial output.
- Compiled and released by the **Ministry of Statistics and Programme Implementation (MoSPI)**.
- Covers **Mining, Manufacturing, and Electricity** sectors.





- It is a **volume-based index** and serves as a key indicator of industrial growth.
- The **Annual Survey of Industries (ASI)** is the principal source of detailed industrial statistics for the organised manufacturing sector.
- IIP is widely used in economic planning and monetary policy assessment.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. The Index of Industrial Production (IIP) measures short-term changes in industrial output.
2. The IIP is compiled by the Ministry of Statistics and Programme Implementation.
3. The IIP covers the Mining, Manufacturing, and Electricity sectors.

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

PadhAI MAINS PRACTICE

QUESTION

- What is the Index of Industrial Production (IIP)?
- Discuss its significance as a high-frequency indicator of economic activity and explain why periodic revision of its base year is necessary. (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Index of Industrial Production (IIP) is a volume-based indicator of industrial output.
2. The IIP is released by the Ministry of Statistics and Programme Implementation.
3. The IIP measures only the performance of the manufacturing sector.

Which of the statements given above is/are correct?

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

Answer: A

2. Government to Replace WPI with PPI from June 15

NEW SERIES FROM JUNE 15

Govt to replace WPI with Producer Price Index

KEY ANNOUNCEMENT: On June 15, 2022, the Government of India announced that the Wholesale Price Index (WPI) will be replaced by the Producer Price Index (PPI) from June 15, 2022. The PPI is a volume-based index that measures changes in the prices of goods and services at the producer level. It is more comprehensive than the WPI, which only measures changes in the prices of goods at the wholesale level. The PPI is also more timely, as it is released monthly, while the WPI is released quarterly. The infographic also mentions that the PPI will be used to monitor inflation and to guide monetary policy.

THE NEW PPI FRAMEWORK: The PPI will be calculated using a basket of goods and services that are produced in India. The basket will include a wide range of goods and services, from raw materials to finished goods. The PPI will be calculated using a Laspeyres formula, which is a common method for calculating price indices. The PPI will be released monthly, and it will be used to monitor inflation and to guide monetary policy.

KEY DIFFERENCES: The PPI is a volume-based index, while the WPI is a price-based index. The PPI measures changes in the prices of goods and services at the producer level, while the WPI measures changes in the prices of goods at the wholesale level. The PPI is more comprehensive than the WPI, as it includes a wider range of goods and services. The PPI is also more timely, as it is released monthly, while the WPI is released quarterly.

GLOBAL PRACTICE: The PPI is used by many countries around the world to monitor inflation and to guide monetary policy. It is a widely used indicator of inflation, and it is used by many countries to guide their monetary policy.

WHY IN THE NEWS?

- The Government has announced that the **Wholesale Price Index (WPI)** will be replaced by the **Producer Price Index (PPI)** from **June 15**, marking a major reform in India's inflation measurement framework.

BACKGROUND / CONCEPT

- Wholesale Price Index (WPI)**
 - A. Measures changes in the prices of goods traded at the wholesale level.
 - B. Covers only **goods** and excludes services.
 - C. Used to monitor wholesale inflation.
- Producer Price Index (PPI)**
 - A. Measures the average change in prices received by producers for their output before taxes and retail margins.
 - B. Can include both **goods and services**, depending on the country's methodology.
 - C. Widely used internationally as an indicator of producer-level inflation.

KEY DIFFERENCES BETWEEN WPI AND PPI

- Coverage**
 - A. WPI measures wholesale prices of goods.
 - B. PPI measures prices received by producers and may include services.
- Price Measurement**
 - A. WPI reflects transaction prices at the wholesale stage.
 - B. PPI reflects producer prices at the factory gate or point of production.



III. Scope

- A. PPI provides a broader measure of inflationary pressures across the production process.

SIGNIFICANCE

- Aligns India's statistical system with global standards.
- Provides a more accurate measure of producer inflation.
- Improves inflation analysis and forecasting.
- Assists policymakers in identifying cost-push inflation.
- Supports better industrial and economic policymaking.

CHALLENGES / CONCERNS

- Developing a comprehensive database for producer prices.
- Inclusion of the services sector poses methodological challenges.
- Ensuring high-quality and timely data collection.
- Maintaining comparability between the old and new series.
- Capacity building for statistical agencies.

WAY FORWARD

- Ensure a smooth transition from WPI to PPI through phased implementation.
- Strengthen statistical infrastructure and digital data collection.
- Regularly update the product basket and base year.
- Increase transparency in methodology and dissemination.
- Harmonise producer price statistics with national accounts and other macroeconomic indicators.

PRELIMS BOOSTER BOX

- Wholesale Price Index (WPI)** measures inflation at the wholesale level.
- Producer Price Index (PPI)** measures changes in prices received by producers.
- WPI covers **goods only**, whereas PPI may include **goods and services**.
- Office of the Economic Adviser** compiles the WPI in India.

- Consumer Price Index (CPI)** measures retail inflation and is the inflation target used by the Reserve Bank of India for monetary policy.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

- The Wholesale Price Index (WPI) measures price changes at the wholesale level.
- The Producer Price Index (PPI) measures prices received by producers for their output.
- The Consumer Price Index (CPI) is used by the Reserve Bank of India as the primary inflation target.

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

PadhAI MAINS PRACTICE QUESTION

- Why is India transitioning from the Wholesale Price Index (WPI) to the Producer Price Index (PPI)?
- Discuss the advantages of PPI over WPI and its significance for economic policymaking. (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

- The Producer Price Index (PPI) measures changes in prices received by producers for their output.
- The Wholesale Price Index (WPI) includes both goods and services.
- The Consumer Price Index (CPI) is the inflation measure targeted by the Reserve Bank of India.

Which of the statements given above is/are correct?

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

Answer: A



3. GDP Growth Estimated at 7.7% in 2025–26: Data



WHY IN THE NEWS?

- Latest official estimates project **India's Gross Domestic Product (GDP)** to grow by **7.7% in 2025–26**, indicating sustained economic momentum driven by domestic demand, investment, and resilient macroeconomic fundamentals.

BACKGROUND / CONCEPT

- Gross Domestic Product (GDP)** is the total monetary value of all **final goods and services** produced within a country's geographical boundaries during a specified period.
- It is the primary indicator used to measure the size and growth of an economy.
- In India, GDP estimates are prepared by the **National Statistical Office** under the **Ministry of Statistics and Programme Implementation**.

METHODS OF MEASURING GDP

- I. **Production (Value Added) Method**
 - A. Measures the value added by each sector of the economy.
- II. **Income Method**
 - A. Measures income earned by factors of production such as wages, profits, rent, and interest.
- III. **Expenditure Method**
 - A. Measures total expenditure on final goods and services:
 1. Private Final Consumption Expenditure (PFCE)

2. Government Final Consumption Expenditure (GFCE)
3. Gross Fixed Capital Formation (GFCF)
4. Net Exports (Exports – Imports)

KEY DRIVERS OF GROWTH

- Strong domestic consumption.
- Higher public capital expenditure.
- Expansion in manufacturing and infrastructure.
- Growth in the services sector.
- Rising private investment.
- Digitalisation and structural reforms.

SIGNIFICANCE

- Reflects the overall health of the economy.
- Attracts domestic and foreign investment.
- Generates employment opportunities.
- Increases government revenue through higher economic activity.
- Enhances India's global economic standing.
- Supports poverty reduction and improvements in living standards.

CHALLENGES / CONCERNS

- Global geopolitical uncertainties.
- Inflationary pressures.
- Uneven private investment across sectors.
- External demand slowdown affecting exports.
- Need for higher employment-intensive growth.

WAY FORWARD

- Sustain public investment in infrastructure.
- Encourage private sector investment through policy stability.
- Strengthen manufacturing under **Make in India**.
- Enhance exports through trade diversification.
- Invest in human capital, innovation, and digital infrastructure.
- Maintain macroeconomic stability through prudent fiscal and monetary policies.

PRELIMS BOOSTER BOX

- GDP** measures the value of all **final goods and services** produced within a country's borders.
- GDP estimates are compiled by the **National Statistical Office (NSO)**.



- **Nominal GDP** is measured at current prices.
- **Real GDP** is measured at constant prices and reflects actual economic growth.
- **Gross Value Added (GVA)** measures the value added by producers and is calculated as **GDP + Subsidies on products - Taxes on products**.
- India primarily uses the **Production (Value Added) Method** for estimating GDP.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. Gross Domestic Product (GDP) measures the value of final goods and services produced within a country's geographical boundaries.
2. The National Statistical Office (NSO) compiles India's GDP estimates.
3. Real GDP is measured at constant prices.

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

PadhAI MAINS PRACTICE QUESTION

- Discuss the major drivers of India's projected GDP growth in 2025–26.
- What policy measures are necessary to ensure that high economic growth translates into inclusive and sustainable development? (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Gross Value Added (GVA) excludes the effect of product taxes and subsidies.
2. Real GDP is measured at constant prices.
3. The National Statistical Office (NSO) prepares India's GDP estimates.

Which of the statements given above is/are correct?

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

Answer: D

4. Food Prices Push Up Retail Inflation to 3.9%



WHY IN THE NEWS?

- India's **retail inflation**, measured by the Consumer Price Index (CPI), rose to **3.9%**, primarily driven by an increase in **food prices**, according to the latest inflation data.

BACKGROUND / CONCEPT

- **Inflation** refers to the sustained increase in the general price level of goods and services over time.
- **Consumer Price Index (CPI)** measures changes in retail prices faced by consumers and is India's principal measure of inflation for monetary policy.
- CPI reflects changes in the cost of a representative basket of goods and services consumed by households.

CAUSES OF RISING FOOD INFLATION

- Supply disruptions due to adverse weather conditions.





- Seasonal fluctuations in the availability of vegetables and fruits.
- Higher transportation and logistics costs.
- Rising input costs such as fertilisers and fuel.
- Global commodity price volatility affecting imported food items.

SIGNIFICANCE

- Directly affects household purchasing power.
- Disproportionately impacts low-income households, as food constitutes a larger share of their expenditure.
- Influences the RBI's monetary policy decisions.
- Affects consumer demand and overall economic growth.
- Has implications for fiscal policy and food security programmes.

CHALLENGES / CONCERNS

- Volatile food prices due to climate variability.
- Supply chain bottlenecks.
- High dependence on the monsoon for agricultural output.
- Rising global commodity prices.
- Balancing inflation control with economic growth.

WAY FORWARD

- Improve agricultural supply chains and cold storage infrastructure.
- Strengthen buffer stock management for essential commodities.
- Promote climate-resilient agriculture.
- Enhance market integration through digital agricultural platforms.
- Coordinate monetary and fiscal policies to contain inflation without affecting growth.

PRELIMS BOOSTER BOX

- **Consumer Price Index (CPI)** measures retail inflation.
- Compiled by the **National Statistical Office** under the **Ministry of Statistics and Programme Implementation**.
- CPI is the inflation indicator targeted by the **Reserve Bank of India** under the **Flexible Inflation Targeting (FIT)** framework.
- The RBI's inflation target is **4%**, with a tolerance band of **2% to 6%**.

- **Food and beverages** constitute the largest weight in the CPI basket.
- **Core inflation** excludes food and fuel prices, as these are relatively more volatile.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. Consumer Price Index (CPI) measures retail inflation.
2. The Reserve Bank of India uses CPI as the primary inflation indicator for monetary policy.
3. Food and beverages have the highest weight in the CPI basket.

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

PadhAI MAINS PRACTICE QUESTION

- Food inflation remains one of the biggest challenges to price stability in India.
- Discuss the major causes of food inflation and suggest measures to ensure durable price stability without compromising economic growth. (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Core inflation excludes food and fuel prices.
2. The National Statistical Office compiles the Consumer Price Index.
3. The Reserve Bank of India targets Wholesale Price Index (WPI) inflation under the Flexible Inflation Targeting framework.

Which of the statements given above is/are correct?

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

Answer: A



5. Net FDI Hits \$6.6 Billion in April, 5-Year High



WHY IN THE NEWS?

- India's **net Foreign Direct Investment (FDI)** inflows reached **\$6.6 billion in April**, the highest level in the past five years, reflecting strong investor confidence and improving capital inflows.

BACKGROUND / CONCEPT

- Foreign Direct Investment (FDI)** refers to an investment made by a foreign entity in the productive assets or business operations of another country with the intention of acquiring a **lasting interest and management influence**.
- Unlike **Foreign Portfolio Investment (FPI)**, FDI represents long-term investment and generally involves control or significant influence over business operations.

TYPES OF FDI

- I. **Greenfield Investment**
 - A. Establishment of new production facilities or businesses from scratch.
- II. **Brownfield Investment**
 - A. Investment through acquisition or expansion of existing enterprises.

FDI ROUTES IN INDIA

- I. **Automatic Route**
 - A. Foreign investment does not require prior approval from the Government.
 - B. Subject to sectoral caps and conditions.
- II. **Government Route**

- A. Prior approval from the Central Government is required for specified sectors.

SIGNIFICANCE

- Brings long-term capital into the economy.
- Promotes technology transfer and innovation.
- Generates employment opportunities.
- Enhances manufacturing and industrial productivity.
- Improves export competitiveness.
- Strengthens India's balance of payments and foreign exchange position.
- Supports initiatives such as **Make in India** and **Aatmanirbhar Bharat**.

CHALLENGES / CONCERNS

- Uneven distribution of FDI across sectors and States.
- Global economic uncertainty affecting investment flows.
- Regulatory and procedural bottlenecks.
- Infrastructure gaps in some regions.
- Need for greater investment in high-technology manufacturing.

WAY FORWARD

- Continue simplifying FDI regulations.
- Improve ease of doing business and contract enforcement.
- Strengthen industrial infrastructure and logistics.
- Promote investment in emerging sectors such as semiconductors, renewable energy, and electronics.
- Encourage balanced regional distribution of FDI through targeted policy incentives.

PRELIMS BOOSTER BOX

- Foreign Direct Investment (FDI)** involves long-term investment with management control or significant influence.
- Foreign Portfolio Investment (FPI)** involves investment in financial assets without management control.
- FDI in India is regulated under the **Foreign Exchange Management Act, 1999 (FEMA)**.
- The **Department for Promotion of Industry and Internal Trade** formulates FDI policy, while the





Reserve Bank of India administers FEMA provisions relating to foreign investment.

- FDI can enter India through the **Automatic Route** or the **Government Route**, depending on the sector.
- Major recipients of FDI include **manufacturing, computer software and hardware, services, telecommunications, and construction**.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. Foreign Direct Investment (FDI) generally involves long-term investment with management control or significant influence.
2. Foreign Portfolio Investment (FPI) usually involves investment in financial securities without management control.
3. FDI policy in India is formulated by the Department for Promotion of Industry and Internal Trade (DPIIT).

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

PadhAI MAINS PRACTICE QUESTION

- Foreign Direct Investment (FDI) plays a crucial role in India's economic development.
- Discuss its significance for growth, employment, and technology transfer. What measures can further enhance India's attractiveness as an investment destination? (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

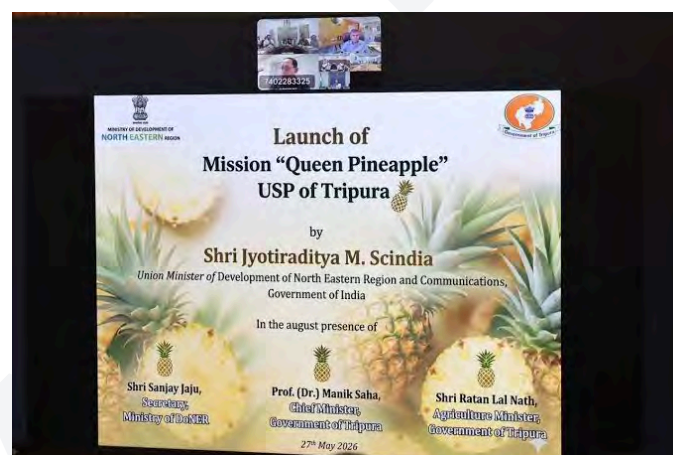
1. Foreign Direct Investment (FDI) generally provides investors with lasting interest and management influence in an enterprise.
2. The Department for Promotion of Industry and Internal Trade (DPIIT) formulates India's FDI policy.
3. All sectors in India permit 100% FDI under the Automatic Route.

Which of the statements given above is/are correct?

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

Answer: A

6. Mission Queen Pineapple Launched in Tripura



WHY IN THE NEWS?

- The Government recently launched **Mission Queen Pineapple** to promote the cultivation, processing, branding, and value chain development of the **Queen Pineapple** in **Tripura**, aiming to enhance farmers' incomes and boost exports.

BACKGROUND

ABOUT QUEEN PINEAPPLE

- Queen Pineapple** is a premium variety known for:
 - A. High sweetness.
 - B. Distinct aroma.
 - C. Low fibre content.
 - D. Juicy pulp.
- It is widely cultivated in **Tripura**, particularly under rain-fed conditions.
- The fruit received the **Queen Pineapple of Tripura (GI)** tag in **2018**, recognizing its unique geographical origin and quality.

KEY FEATURES OF THE MISSION

- Expansion of cultivation area.
- Promotion of scientific farming practices.





- Development of post-harvest infrastructure.
- Establishment of processing and packaging facilities.
- Strengthening cold-chain logistics.
- Promotion of exports and market linkages.
- Capacity building and support for farmers and Farmer Producer Organisations (FPOs).

SIGNIFICANCE

- Enhances farmers' income through value addition.
- Promotes agro-processing and food processing industries.
- Generates rural employment.
- Increases export potential of horticultural products.
- Strengthens the horticulture sector in Northeast India.
- Supports sustainable agricultural diversification.

CHALLENGES / CONCERNS

- Inadequate cold storage and logistics.
- Post-harvest losses.
- Limited processing facilities.
- Market access constraints for small farmers.
- Vulnerability to climate variability.

WAY FORWARD

- Expand processing and cold-chain infrastructure.
- Promote Farmer Producer Organisations (FPOs) for collective marketing.
- Strengthen branding of GI-tagged products.
- Encourage food processing industries and private investment.
- Improve export certification and quality standards.
- Enhance research on climate-resilient horticultural practices.
-

PRELIMS BOOSTER BOX

- **Queen Pineapple** received the **GI tag in 2018**.
- **Tripura** is one of India's leading producers of **Queen Pineapple**.

- A **Geographical Indication (GI)** is governed by the **Geographical Indications of Goods (Registration and Protection) Act, 1999**.
- GI registration in India is administered by the **Geographical Indications Registry**, located in **Chennai**.
- GI protection promotes rural livelihoods and preserves traditional products.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. Queen Pineapple of Tripura has been granted a Geographical Indication (GI) tag.
2. GI registration in India is governed by the Geographical Indications of Goods (Registration and Protection) Act, 1999.
3. The GI Registry is located in Chennai.

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

PadhAI MAINS PRACTICE QUESTION

- Discuss the role of Geographical Indication (GI)-tagged agricultural products in promoting rural development, exports, and farmers' incomes.
- Examine the significance of Mission Queen Pineapple in this context. (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

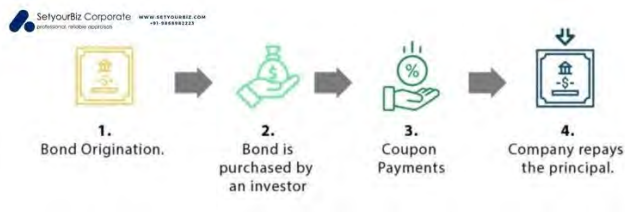
1. Queen Pineapple of Tripura received the Geographical Indication (GI) tag in 2018.
2. The Geographical Indications of Goods (Registration and Protection) Act was enacted in 1999.
3. GI protection is intended only for industrial products.

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

Answer: A



7. Zero Coupon Zero Principal (ZCZP) Instruments



WHY IN THE NEWS?

- **Zero Coupon Zero Principal (ZCZP) instruments** have gained attention as a regulated mechanism for **social impact financing** in India, enabling **Not-for-Profit Organisations (NPOs)** to raise funds through the social stock exchange framework without offering financial returns to investors.

BACKGROUND

WHAT ARE ZCZP INSTRUMENTS?

- Zero Coupon Zero Principal (ZCZP) instruments** are a unique class of securities designed for **philanthropic fundraising**.
- Features include:
 - No interest payments.
 - No repayment of the invested amount at maturity.
 - Funds are used exclusively for approved social development projects.
- They provide a transparent and regulated avenue for charitable donations through capital markets.

SOCIAL STOCK EXCHANGE (SSE)

- The **Social Stock Exchange (SSE)** is a separate segment of recognised stock exchanges.
- Introduced on the recommendations of the **Securities and Exchange Board of India (SEBI)**.
- Objectives:
 - Facilitate fundraising for social enterprises.
 - Enhance transparency and accountability.
 - Promote impact investing and philanthropy.

- Both **Not-for-Profit Organisations (NPOs)** and eligible **For-Profit Social Enterprises (FPEs)** can register on the SSE, subject to SEBI regulations.

KEY FEATURES OF ZCZP INSTRUMENTS

- Issued only by eligible NPOs registered with the SSE.
- No coupon (interest) payments.
- No principal repayment.
- Subject to disclosure and reporting requirements prescribed by SEBI.
- Intended exclusively for financing social welfare activities.

SIGNIFICANCE

- Expands innovative financing for the social sector.
- Promotes transparency in charitable fundraising.
- Encourages greater participation in philanthropy.
- Strengthens accountability of NPOs through disclosure norms.
- Supports achievement of sustainable development objectives.

CHALLENGES / CONCERNS

- Limited awareness among investors and NPOs.
- Need for robust impact measurement.
- Ensuring transparency in fund utilisation.
- Building investor confidence in social financing instruments.
- Strengthening capacity of smaller NPOs to meet compliance requirements.

WAY FORWARD

- Increase awareness about the Social Stock Exchange.
- Strengthen impact assessment and reporting standards.
- Simplify compliance for eligible NPOs.
- Encourage institutional philanthropy and CSR participation.
- Develop robust monitoring mechanisms for utilisation of funds.

PRELIMS BOOSTER BOX





- **Zero Coupon Zero Principal (ZCZP) instruments** provide **no interest** and **no repayment of principal**.
- They are issued by eligible **Not-for-Profit Organisations (NPOs)** registered on the **Social Stock Exchange (SSE)**.
- The **Social Stock Exchange** operates as a separate segment of recognised stock exchanges.
- The **Securities and Exchange Board of India (SEBI)** regulates the SSE framework.
- ZCZP instruments are intended for **social impact financing**, not financial investment returns.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. Zero Coupon Zero Principal (ZCZP) instruments do not provide interest payments or repayment of principal.
2. ZCZP instruments can be issued by eligible Not-for-Profit Organisations registered on the Social Stock Exchange.
3. The Social Stock Exchange framework is regulated by the Securities and Exchange Board of India (SEBI).

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

PadhAI MAINS PRACTICE

QUESTION

- Discuss the significance of the Social Stock Exchange (SSE) and Zero Coupon Zero Principal (ZCZP) instruments in promoting innovative financing for the social sector in India.
- Highlight the challenges associated with their implementation. (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Zero Coupon Zero Principal (ZCZP) instruments are designed primarily to generate financial returns for investors.

2. The Social Stock Exchange is regulated by the Securities and Exchange Board of India (SEBI).
3. Eligible Not-for-Profit Organisations can raise funds through ZCZP instruments.

A. 2 and 3 only

B. 1 and 2 only

C. 1 and 3 only

D. 1, 2 and 3

Answer: A

8. Memflation: Rising Memory Chip Prices Fuel Inflation

WHY IN THE NEWS?

- **Memflation** has gained attention as rising prices of **memory chips**—particularly **DRAM (Dynamic Random Access Memory)** and **NAND Flash**—are increasing the cost of electronic goods such as smartphones, laptops, and consumer electronics, thereby adding upward pressure on retail inflation.

BACKGROUND

WHAT IS MEMFLATION?

- Memflation** is a term combining "**memory**" and "**inflation**."
- It describes a situation where rising prices of semiconductor memory chips lead to increased prices of electronic devices.
- It is generally driven by:
 - A. Supply shortages.
 - B. Rising global demand for AI servers, data centres, and consumer electronics.
 - C. Geopolitical disruptions.
 - D. Production constraints in semiconductor manufacturing.

WHAT ARE MEMORY CHIPS?

Memory chips are semiconductor devices used to store data.

DRAM (Dynamic Random Access Memory)

- Temporary (volatile) memory.
- Used as the main working memory in:
 - A. Computers.
 - B. Smartphones.



- C. Servers.
- III. Data is lost when power is switched off.

NAND Flash Memory

- I. Non-volatile memory.
- II. Retains data even without power.
- III. Used in:
 - A. SSDs (Solid-State Drives).
 - B. Smartphones.
 - C. USB drives.
 - D. Memory cards.

IMPACT OF MEMFLATION

- I. Increases prices of:
 - A. Smartphones.
 - B. Laptops.
 - C. Tablets.
 - D. Consumer electronics.
 - E. Data storage devices.
- II. Raises production costs for electronics manufacturers.
- III. Contributes to imported inflation in countries dependent on semiconductor imports.
- IV. Can affect digital infrastructure and AI-related industries.

INDIA'S SEMICONDUCTOR INITIATIVES

- **India Semiconductor Mission (ISM).**
- **Production Linked Incentive Scheme.**
- Promotion of semiconductor fabrication, assembly, testing, marking, and packaging (ATMP/OSAT) facilities.
- Efforts to strengthen domestic electronics manufacturing under **Make in India**.

SIGNIFICANCE

- Highlights the strategic importance of semiconductors in the modern economy.
- Demonstrates the link between global supply chains and domestic inflation.
- Reinforces the need for semiconductor self-reliance.
- Encourages investment in India's electronics manufacturing ecosystem.
- Supports long-term technological and economic resilience.

CHALLENGES / CONCERNS

- Heavy dependence on imported semiconductor components.
- Limited domestic fabrication capacity.
- High capital and technology requirements for semiconductor manufacturing.
- Supply chain disruptions due to geopolitical tensions.
- Volatility in global semiconductor markets.

WAY FORWARD

- Accelerate implementation of the India Semiconductor Mission.
- Encourage investments in semiconductor fabrication and packaging.
- Diversify semiconductor supply chains.
- Strengthen research and development in chip design.
- Promote international partnerships for technology transfer and supply chain resilience.

PRELIMS BOOSTER BOX

- **Memflation** refers to inflation driven by rising prices of semiconductor memory chips.
- **DRAM is volatile memory**, while **NAND Flash is non-volatile memory**.
- The **India Semiconductor Mission (ISM)** aims to develop a domestic semiconductor ecosystem.
- The **PLI Scheme** supports electronics and semiconductor manufacturing in India.
- Semiconductors are critical inputs for electronics, automobiles, telecommunications, defence, and artificial intelligence.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. DRAM is a volatile memory that loses data when power is switched off.
2. NAND Flash memory retains data even without power.
3. The India Semiconductor Mission aims to promote semiconductor manufacturing in India.

Which of the statements given above is/are correct?

- A. 1 and 2 only
- B. 2 and 3 only



C. 1 and 3 only

D. 1, 2 and 3

Answer: D

PadhAI MAINS PRACTICE

QUESTION

- What is 'Memflation'?
- Discuss how fluctuations in global semiconductor markets can influence inflation, industrial growth, and technological self-reliance in India. (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. DRAM is a type of volatile memory.
2. NAND Flash memory is commonly used in SSDs and smartphones.
3. The India Semiconductor Mission seeks to strengthen India's semiconductor ecosystem.

A. 1 and 2 only

B. 2 and 3 only

C. 1 and 3 only

D. 1, 2 and 3

Answer: D



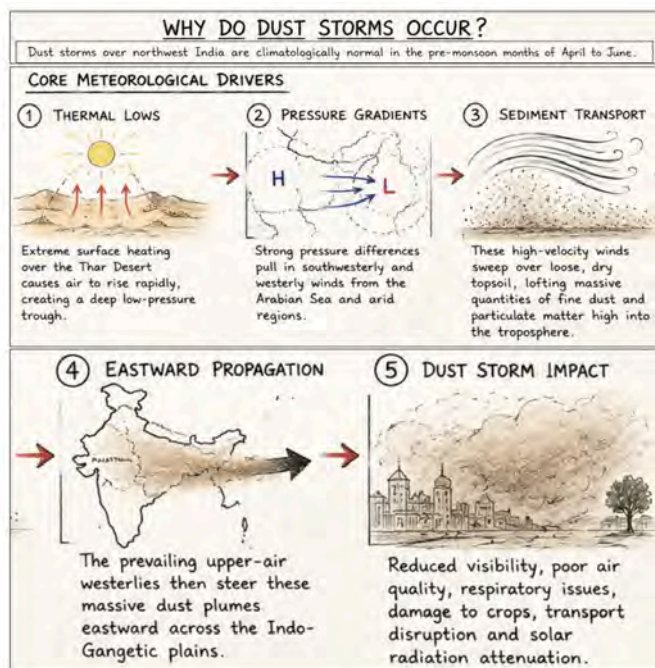
Subject

Geography





1. Aravalli Range's Role in Shielding Gangetic Plains from Thar Dust



WHY IN THE NEWS?

- Recent studies have highlighted the crucial role of the Aravalli Range in preventing dust from the Thar Desert from spreading into the Indo-Gangetic Plain, underscoring the need for conserving this ancient mountain system.

BACKGROUND / CONCEPT

- The **Aravalli Range** is one of the **oldest fold mountain ranges in the world**.
- It extends for about **700 km** from **Delhi** through **Haryana** and **Rajasthan** to **Gujarat**.
- The range forms a natural ecological barrier between the **Thar Desert** and the fertile **Indo-Gangetic Plains**.

ROLE OF THE ARAVALLI RANGE

- Acts as a barrier against dust storms originating from the Thar Desert.
- Helps reduce wind erosion and desertification.
- Conserves biodiversity by supporting forests and wildlife habitats.
- Recharges groundwater by facilitating rainfall infiltration.

- Regulates local climate and moderates extreme weather conditions.
- Prevents the eastward expansion of desert conditions.

THREATS TO THE ARAVALLIS

- Illegal mining.
- Deforestation.
- Rapid urbanisation and infrastructure development.
- Quarrying activities.
- Encroachment of forest land.
- Climate change and land degradation.

SIGNIFICANCE

- Improves air quality in northern India.
- Protects agricultural productivity in the Indo-Gangetic Plains.
- Supports biodiversity and ecosystem services.
- Enhances groundwater recharge.
- Strengthens climate resilience and environmental security.

CHALLENGES / CONCERNS

- Weak enforcement of environmental regulations.
- Fragmentation of forest habitats.
- Increasing pressure from urban expansion.
- Loss of native vegetation.
- Declining ecological connectivity.

WAY FORWARD

- Strict enforcement against illegal mining and encroachments.
- Large-scale afforestation using native species.
- Landscape-level ecological restoration of degraded hills.
- Strengthen community participation in conservation.
- Promote sustainable land-use planning and integrated watershed management.

PRELIMS BOOSTER BOX

- The **Aravalli Range** is among the **oldest fold mountain systems in the world**.
- It extends from **Delhi** through **Haryana**, **Rajasthan**, and **Gujarat**.
- The **highest peak** of the Aravalli Range is **Guru Shikhar** in the **Mount Abu** region of Rajasthan.





- The Aravallis act as a natural barrier against the eastward spread of the **Thar Desert**.
- Major rivers associated with the Aravalli system include the **Banas River, Luni River, and Sabarmati River**.
- The range is rich in minerals such as **marble, granite, copper, zinc, and lead**.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. The Aravalli Range is among the oldest fold mountain systems in the world.
2. The Aravalli Range extends through Delhi, Haryana, Rajasthan, and Gujarat.
3. Guru Shikhar is the highest peak of the Aravalli Range.

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

PadhAI PYQ BOOSTER SECTION

- Discuss the ecological significance of the Aravalli Range in maintaining environmental stability in north-western India.
- Examine the major threats facing the Aravallis and suggest measures for their conservation. (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

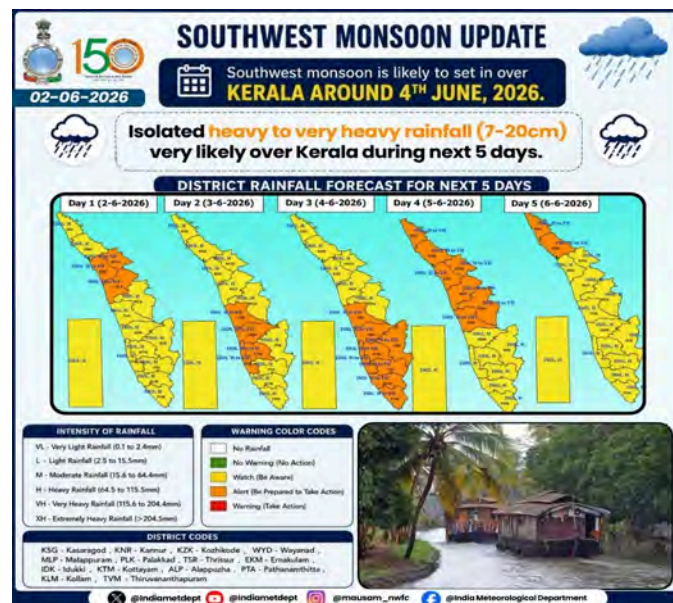
1. The Aravalli Range acts as a natural barrier against dust-laden winds from the Thar Desert.
2. Guru Shikhar is the highest peak of the Aravalli Range.
3. The Aravalli Range is a young fold mountain formed during the Himalayan orogeny.

Which of the statements given above is/are correct?

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

Answer: A

2. Monsoon to Set in over Kerala 'Around June 4'



WHY IN THE NEWS?

- The India Meteorological Department (IMD) has forecast that the **Southwest Monsoon** is likely to set in over **Kerala around June 4**, marking the beginning of India's principal rainy season.

BACKGROUND / CONCEPT

- The **Southwest Monsoon** is a seasonal reversal of winds caused by differential heating of land and sea.
- It accounts for nearly **75% of India's annual rainfall**.
- The monsoon normally reaches Kerala around **June 1** and advances northward to cover the entire country by mid-July.

MECHANISM OF THE SOUTHWEST MONSOON

- I. Intense summer heating creates a **low-pressure area** over northwestern India.
- II. The surrounding oceans remain relatively cooler, creating a pressure gradient.
- III. Moisture-laden winds blow from the **Indian Ocean** towards the Indian landmass.
- IV. The monsoon splits into:
 - A. **Arabian Sea Branch**
 - B. **Bay of Bengal Branch**

FACTORS INFLUENCING THE MONSOON





- Differential heating of land and sea.
- Position of the **Inter-Tropical Convergence Zone (ITCZ)**.
- Cross-equatorial winds.
- Jet streams.
- **El Niño–Southern Oscillation (ENSO)**.
- **Indian Ocean Dipole (IOD)**.
- Snow cover over the Himalayas and the Tibetan Plateau.

SIGNIFICANCE

- Supports nearly half of India's net sown agricultural area.
- Replenishes reservoirs, rivers, and groundwater.
- Supports hydropower generation.
- Influences food production and inflation.
- Sustains biodiversity and ecosystems.

CHALLENGES / CONCERNS

- Increasing variability due to climate change.
- Erratic rainfall and extreme weather events.
- Floods and droughts.
- Regional disparities in rainfall distribution.
- Impact on agriculture and water security.

WAY FORWARD

- Strengthen weather forecasting and early warning systems.
- Promote climate-resilient agriculture.
- Improve water conservation and watershed management.
- Expand irrigation infrastructure.
- Enhance disaster preparedness for floods and droughts.

PRELIMS BOOSTER BOX

- The **Southwest Monsoon** normally begins over **Kerala around June 1**.
- It contributes about **75% of India's annual rainfall**.
- It consists of the **Arabian Sea Branch** and the **Bay of Bengal Branch**.
- The **India Meteorological Department (IMD)** is responsible for monitoring and forecasting the monsoon.
- The **Inter-Tropical Convergence Zone (ITCZ)** plays a crucial role in the onset and progression of the monsoon.

- **ENSO and the Indian Ocean Dipole (IOD)** significantly influence the strength and distribution of monsoon rainfall.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. The Southwest Monsoon normally sets in over Kerala around the beginning of June.
2. The Southwest Monsoon has two branches—the Arabian Sea Branch and the Bay of Bengal Branch.
3. The Inter-Tropical Convergence Zone (ITCZ) influences the onset of the Indian monsoon.

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

PadhAI PYQ BOOSTER SECTION

- Explain the mechanism of the Southwest Monsoon in India.
- Discuss the major factors influencing its onset and variability, and examine its significance for India's economy and environment. (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Arabian Sea Branch and the Bay of Bengal Branch are the two branches of the Southwest Monsoon.
2. El Niño generally tends to weaken the Indian Southwest Monsoon.
3. The Southwest Monsoon contributes less than 40% of India's annual rainfall.

Which of the statements given above is/are correct?

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

Answer: A



3. Study: Hindu Kush Himalaya Region to Face Drier Monsoon, but Threat of Climate Hazards Remains

- Salween
- Yangtze
- Yellow River

MAJOR CLIMATE HAZARDS

- Glacier retreat and ice loss.
- **Glacial Lake Outburst Floods (GLOFs)**.
- Flash floods.
- Landslides.
- Cloudbursts.
- Heat stress in mountain ecosystems.
- Water scarcity during lean seasons.

SIGNIFICANCE

- Supports freshwater availability for nearly two billion people.
- Sustains agriculture, hydropower, and livelihoods across Asia.
- Regulates regional climate and monsoon systems.
- Hosts globally significant biodiversity hotspots.
- Acts as a major carbon sink through its forests and ecosystems.

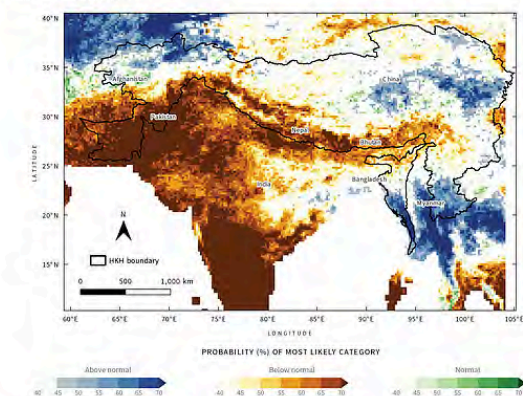
CHALLENGES / CONCERNS

- Rapid glacier melting due to rising temperatures.
- Increasing frequency of extreme weather events.
- Loss of biodiversity and ecosystem degradation.
- Growing risk of water insecurity.
- Vulnerability of mountain communities and downstream populations.

WAY FORWARD

- Strengthen glacier and climate monitoring systems.
- Develop early warning systems for GLOFs and flash floods.
- Promote climate-resilient infrastructure in mountain regions.
- Enhance transboundary cooperation among HKH countries for water and disaster management.
- Conserve forests and restore degraded mountain ecosystems.

FIGURE 10. SUB-SEASONAL MEAN PRECIPITATION ANOMALY FOR THE 2026 SUMMER MONSOON
SOURCE: HKH-S2S PREDICTION SYSTEM



WHY IN THE NEWS?

- A recent study has projected that the Hindu Kush Himalaya (HKH) region may experience a **drier monsoon** in the future.
- However, the risk of **climate-induced hazards** such as flash floods, glacial lake outburst floods (GLOFs), landslides, and extreme rainfall events is expected to remain high.

BACKGROUND / CONCEPT

- The **Hindu Kush Himalaya (HKH)** is one of the world's largest mountain systems, extending across **Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan**.
- Often referred to as the **"Third Pole"**, it contains the largest reserve of ice outside the Arctic and Antarctica.
- The region is the source of several major Asian rivers that support nearly **two billion people**.

MAJOR RIVERS ORIGINATING FROM THE HKH REGION

- Indus
- Ganga
- Brahmaputra
- Irrawaddy
- Mekong





- Integrate climate adaptation into regional development planning.

PRELIMS BOOSTER BOX

- The **Hindu Kush Himalaya (HKH)** spans **eight countries**: Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan.
- The HKH is known as the **"Third Pole"** because it contains the **largest volume of ice outside the polar regions**.
- The region is the source of major river systems including the **Indus, Ganga, Brahmaputra, Mekong, Yangtze, and Yellow River**.
- **Glacial Lake Outburst Flood (GLOF)** is the sudden release of water from a glacial lake due to the failure of its natural dam.
- The International Centre for Integrated Mountain Development (ICIMOD), headquartered in **Kathmandu**, promotes sustainable development in the HKH region.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. The Hindu Kush Himalaya region is often referred to as the "Third Pole."
2. The Ganga and Brahmaputra originate in the Hindu Kush Himalaya region.
3. Glacial Lake Outburst Floods (GLOFs) are associated with the sudden release of water from glacial lakes.

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

PadhAI PYQ BOOSTER SECTION

- The Hindu Kush Himalaya region is increasingly vulnerable to climate change despite projections of a drier monsoon.
- Discuss the major climate hazards affecting the region and suggest measures for strengthening climate resilience and disaster preparedness. (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

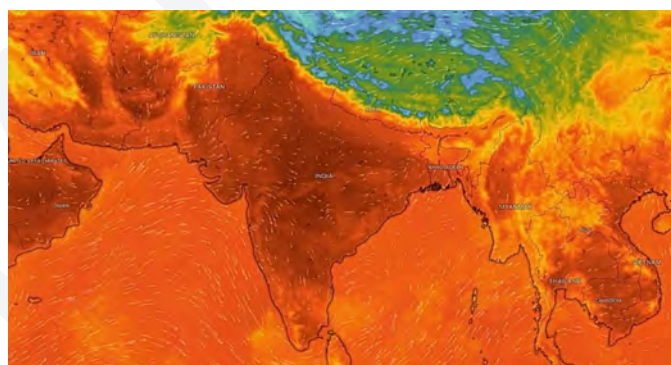
1. The Hindu Kush Himalaya region is spread across eight countries.
2. The International Centre for Integrated Mountain Development (ICIMOD) is headquartered in Kathmandu.
3. Glacial Lake Outburst Floods (GLOFs) occur due to volcanic eruptions beneath glaciers.

Which of the statements given above is/are correct?

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

Answer: A

4. El Niño Emerges in Pacific Ocean, to Intensify During SW Monsoon: IMD



WHY IN THE NEWS?

- The India Meteorological Department (IMD) has reported the emergence of **El Niño** conditions over the equatorial Pacific Ocean, with forecasts indicating that it may intensify during the **Southwest (SW) Monsoon** season.

BACKGROUND / CONCEPT

- I. **El Niño** is the warm phase of the **El Niño–Southern Oscillation (ENSO)**, characterised by:
 - A. Above-normal sea surface temperatures in the central and eastern equatorial Pacific Ocean.
 - B. Weakening of the **trade winds**.
 - C. Changes in atmospheric circulation, including the **Walker Circulation**.
- II. The opposite phase is **La Niña**, marked by cooler-than-normal sea surface temperatures.



HOW EL NIÑO AFFECTS THE INDIAN MONSOON

- Weakens the moisture-bearing monsoon winds.
- Reduces convection over the Indian subcontinent.
- Increases the probability of below-normal rainfall.
- Can lead to drought-like conditions in parts of India.
- Raises the risk of lower agricultural output and food inflation.

FACTORS THAT CAN MODIFY EL NIÑO'S IMPACT

- Indian Ocean Dipole (IOD)**
 - A **positive IOD** can partly offset the adverse impact of El Niño on the Indian monsoon.
- Snow cover over the Himalayas and the Tibetan Plateau**
- Intra-seasonal monsoon variability**, such as the Madden-Julian Oscillation (MJO).

SIGNIFICANCE

- Influences India's agricultural production.
- Affects reservoir levels and water availability.
- Impacts hydropower generation.
- Can contribute to food inflation and rural distress.
- Influences disaster management planning for droughts.

CHALLENGES / CONCERNS

- Increased likelihood of rainfall deficits.
- Reduced crop yields and farm incomes.
- Water scarcity in rain-fed regions.
- Higher food prices.
- Greater frequency of heatwaves.

WAY FORWARD

- Strengthen seasonal weather forecasting and early warning systems.
- Promote drought-resistant crop varieties.
- Improve irrigation efficiency through micro-irrigation.

- Enhance reservoir and groundwater management.
- Expand crop insurance and climate-resilient agricultural practices.

PRELIMS BOOSTER BOX

- **El Niño** is the **warm phase** of the ENSO cycle.
- It is characterised by **warming of sea surface temperatures** in the central and eastern equatorial Pacific Ocean.
- **La Niña** is the **cool phase** of ENSO and generally favours stronger Indian monsoon rainfall.
- The **Walker Circulation** weakens during El Niño events.
- A **positive Indian Ocean Dipole (IOD)** can reduce the adverse impact of El Niño on the Indian monsoon.
- ENSO is one of the most important drivers of global climate variability.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

- El Niño is associated with warming of sea surface temperatures in the central and eastern equatorial Pacific Ocean.
- El Niño generally weakens the Indian Southwest Monsoon.
- A positive Indian Ocean Dipole (IOD) can partially offset the adverse effects of El Niño on the Indian monsoon.

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

PadhAI PYQ BOOSTER SECTION

- What is El Niño?
- Explain its mechanism and discuss its impact on the Indian Southwest Monsoon and the economy.
- Also examine the role of the Indian Ocean Dipole (IOD) in influencing monsoon variability. (150 words)



PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. El Niño is characterised by warmer-than-normal sea surface temperatures in the central and eastern equatorial Pacific Ocean.
2. La Niña is generally associated with stronger Indian monsoon rainfall than El Niño.
3. During El Niño events, the trade winds over the equatorial Pacific typically strengthen.

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

Answer: A

5. Zojila Tunnel Nears Final Breakthrough



WHY IN THE NEWS?

- The **Zojila Tunnel** is nearing its final breakthrough, marking a major milestone in one of India's most strategically significant infrastructure projects.
- Once completed, it will provide **all-weather connectivity** between the **Ladakh** and the **Jammu and Kashmir**.

BACKGROUND / CONCEPT

- **Zoji La** is a high-altitude mountain pass in the **Greater Himalaya**.
- It connects the **Kashmir Valley** with the **Dras Valley** and onward to **Ladakh**.
- Heavy snowfall renders the pass inaccessible for several months each year, disrupting civilian movement and military logistics.

KEY FEATURES OF THE TUNNEL

- Located beneath **Zoji La** on **NH-1**.
- Designed as a **two-lane bi-directional road tunnel**.
- Will significantly reduce travel time between Srinagar and Leh.
- Ensures **all-weather connectivity** throughout the year.
- Equipped with modern ventilation, fire safety, and emergency evacuation systems.

SIGNIFICANCE

- Enhances strategic military mobility along the northern borders.
- Improves connectivity to Ladakh throughout the year.
- Boosts tourism in Kashmir and Ladakh.
- Facilitates trade, transportation, and economic development.
- Ensures uninterrupted supply of essential goods to remote regions.
- Promotes regional integration and socio-economic development.

CHALLENGES / CONCERNS

- Construction in difficult Himalayan terrain.
- Extreme weather conditions and heavy snowfall.
- Geological instability and avalanche risks.
- High construction and maintenance costs.
- Environmental concerns related to fragile mountain ecosystems.

WAY FORWARD

- Ensure timely completion while maintaining safety standards.
- Strengthen slope stabilisation and avalanche mitigation measures.
- Implement robust environmental management practices.
- Improve complementary road infrastructure and logistics.
- Promote sustainable tourism and disaster-resilient infrastructure in the region.

PRELIMS BOOSTER BOX

- **Zoji La** connects the **Kashmir Valley** with **Ladakh**.
- It lies on **National Highway-1 (NH-1)** connecting **Srinagar, Kargil, and Leh**.



- The **Zojila Tunnel** will provide **all-weather connectivity** between Jammu & Kashmir and Ladakh.
- The pass separates the **Kashmir Valley** from the **Dras Valley**.
- **Zoji La** is strategically important for maintaining connectivity to India's northern border areas.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. Zoji La connects the Kashmir Valley with Ladakh.
2. The Zojila Tunnel is being constructed on National Highway-1.
3. The primary objective of the tunnel is to provide all-weather connectivity.

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

PadhAI PYQ BOOSTER SECTION

- Discuss the strategic and socio-economic significance of the Zojila Tunnel.
- What challenges are associated with the construction of infrastructure projects in the fragile Himalayan region? (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Zojila Tunnel is being constructed beneath Zoji La on National Highway-1.
2. Zoji La connects the Kashmir Valley with the Dras Valley and Ladakh.
3. The Zojila Tunnel is primarily intended for railway connectivity between Srinagar and Leh.

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

Answer: A

6. Kailash Yatra via Nathu La Begins in Sikkim



WHY IN THE NEWS?

- The **Kailash Mansarovar Yatra** via **Nathu La** in **Sikkim** has commenced, with the first batch of pilgrims crossing into China's Tibet Autonomous Region after completing acclimatisation in Sikkim.

BACKGROUND / CONCEPT

- I. **Mount Kailash** is located in the **Tibet Autonomous Region**.
- II. It is revered as:
 - A. The abode of **Lord Shiva** in Hinduism.
 - B. The abode of **Demchok (Chakrasamvara)** in Buddhism.
 - C. The site where **Rishabhanatha** attained liberation in Jainism.
 - D. The spiritual centre of the **Bon** religion.
- III. **Lake Mansarovar**, situated near Mount Kailash, is regarded as one of the holiest lakes in Asia.

OFFICIAL ROUTES OF THE YATRA

- I. **Lipulekh Route**
 - A. Passes through **Uttarakhand**.
 - B. Managed with support from the **Kumaon Mandal Vikas Nigam**.
- II. **Nathu La Route**
 - A. Passes through **Sikkim**.
 - B. Considered comparatively less physically demanding due to greater road connectivity.
 - C. Requires acclimatisation before entering Tibet.

SIGNIFICANCE





- Strengthens India's cultural and civilisational ties with Tibet.
- Promotes people-to-people exchanges between India and China.
- Boosts religious tourism.
- Enhances connectivity through strategic Himalayan passes.
- Reflects bilateral cooperation in facilitating cross-border pilgrimage.

CHALLENGES / CONCERNS

- High-altitude sickness due to elevations above 4,500 metres.
- Harsh weather and difficult terrain.
- Dependence on bilateral relations between India and China.
- Environmental sensitivity of the Himalayan ecosystem.
- Need for adequate medical and emergency support.

WAY FORWARD

- Strengthen medical screening and acclimatisation facilities.
- Improve infrastructure while minimising ecological impacts.
- Enhance coordination between Indian and Chinese authorities.
- Promote sustainable pilgrimage practices.
- Ensure robust disaster preparedness and emergency response mechanisms.

PRELIMS BOOSTER BOX

- Mount Kailash** is located in the **Tibet Autonomous Region of China**.
- Lake Mansarovar** is a **freshwater lake**, while the nearby **Rakshastal** is a **saltwater lake**.
- Four major rivers originate near the Kailash region:
 - A. Indus
 - B. Sutlej
 - C. Brahmaputra (Yarlung Tsangpo)
 - D. Karnali
- Nathu La** lies in the **Dongkya Range** of the eastern Himalayas and connects **Sikkim** with Tibet.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. Mount Kailash is located in the Tibet Autonomous Region of China.
2. Lake Mansarovar is a freshwater lake situated near Mount Kailash.
3. The Indus and Sutlej rivers originate in the vicinity of the Kailash region.

Which of the statements given above is/are correct?

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

Answer: D

PadhAI PYQ BOOSTER SECTION

- The Kailash Mansarovar Yatra is not only a religious pilgrimage but also carries strategic and diplomatic significance.
- Discuss its importance in the context of India's cultural heritage, border connectivity, and India-China relations. (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Nathu La route to Kailash Mansarovar passes through Sikkim.
2. Lake Mansarovar is a freshwater lake, whereas Rakshastal is a saltwater lake.
3. Mount Kailash is the source of the Ganga River.

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

Answer: A

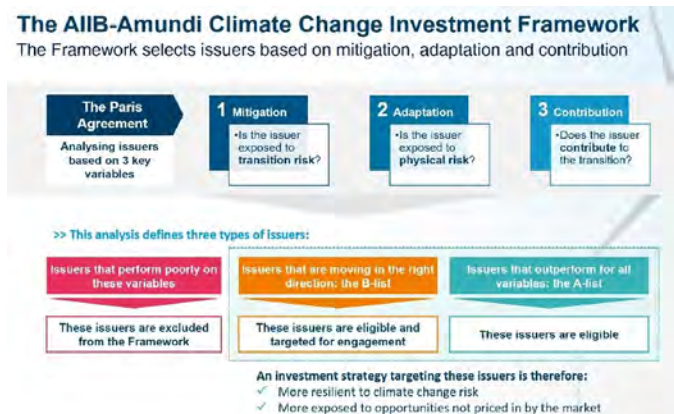


Subject

Environment & Ecology



1. A Framework for Climate and Development Capital



WHY IN THE NEWS?

- Growing concerns over the financing gap for climate action and sustainable development have revived discussions on creating an integrated **climate and development capital framework** to mobilise large-scale investments for developing countries, including India.

BACKGROUND / CONCEPT

- The **Paris Agreement** calls for aligning global financial flows with **low-carbon and climate-resilient development**.
- Developing countries face significant financing needs for:
 - Renewable energy.
 - Climate-resilient infrastructure.
 - Sustainable agriculture.
 - Disaster risk reduction.
 - Green technologies.
- Existing climate finance remains insufficient to meet global targets.

WHAT IS CLIMATE AND DEVELOPMENT CAPITAL?

- It is an integrated financing approach that supports:
 - Climate change mitigation.
 - Climate adaptation.
 - Sustainable economic growth.
 - Social development.

- It aims to maximise developmental benefits while reducing climate risks.

SOURCES OF CLIMATE AND DEVELOPMENT CAPITAL

- Public finance from governments.
- Multilateral Development Banks (MDBs).
- Private sector investments.
- Green bonds and sustainability-linked bonds.
- Climate funds such as the:
 - Green Climate Fund
 - Global Environment Facility
- Blended finance combining concessional and commercial capital.
- Philanthropic and impact investments.

SIGNIFICANCE

- Accelerates the transition to a low-carbon economy.
- Enhances resilience against climate-induced disasters.
- Supports achievement of the **Sustainable Development Goals (SDGs)**.
- Promotes green jobs and sustainable industrialisation.
- Reduces infrastructure and adaptation financing gaps.
- Strengthens energy security through renewable energy investments.

CHALLENGES / CONCERNS

- Large financing gap in developing countries.
- High cost of capital for climate projects.
- Limited access to concessional finance.
- Weak project preparation capacity.
- Inadequate private sector participation.
- Lack of standardised climate finance reporting.

WAY FORWARD

- Reform Multilateral Development Banks to increase climate lending.
- Expand blended finance mechanisms to leverage private investment.
- Improve access to affordable climate finance for developing countries.
- Develop robust green finance taxonomies and disclosure standards.





- Strengthen domestic financial institutions and project pipelines.
- Promote innovative instruments such as green bonds and climate risk insurance.

PRELIMS BOOSTER BOX

- The **Paris Agreement** seeks to align financial flows with **low greenhouse gas emissions and climate-resilient development**.
- The **Green Climate Fund (GCF)** was established under the **United Nations Framework Convention on Climate Change (UNFCCC)** to assist developing countries.
- **Blended finance** combines public or concessional finance with private investment to reduce investment risks.
- **Green bonds** are debt instruments used to finance environmentally sustainable projects.
- Climate finance supports both **mitigation** (reducing emissions) and **adaptation** (building resilience).

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. The Paris Agreement seeks to align financial flows with low-emission and climate-resilient development.
2. The Green Climate Fund supports climate action in developing countries.
3. Blended finance combines public and private sources of capital.

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

PadhAI MAINS PRACTICE

QUESTION

- Achieving climate goals requires a significant increase in climate and development finance.
- Discuss the importance of an integrated climate and development capital framework.
- What challenges do developing countries face in mobilising climate finance? (150 words)

PadhAI-GENERATED UPSC MCQ

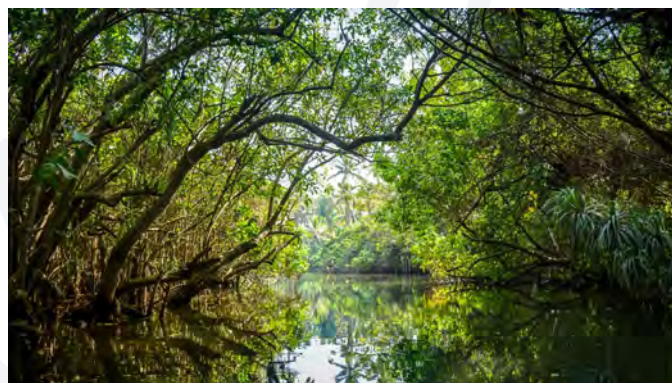
Consider the following statements:

1. Green bonds are issued to finance environmentally sustainable projects.
2. Climate finance includes both mitigation and adaptation activities.
3. The Green Climate Fund was established under the World Trade Organization (WTO).

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

Answer: A

2. The Power of Mangroves over Seawalls



WHY IN THE NEWS?

- Recent studies have highlighted that **mangrove ecosystems** can provide more effective and sustainable coastal protection than conventional **seawalls**, reinforcing the importance of nature-based solutions in climate adaptation and disaster risk reduction.

BACKGROUND / CONCEPT

- Mangroves are salt-tolerant (halophytic) forests that grow in **intertidal coastal zones**, estuaries, lagoons, and river deltas.
- They thrive in tropical and subtropical regions where freshwater mixes with seawater.
- India has approximately **3% of the world's mangrove cover**, with major concentrations along the eastern and western coasts and the Andaman & Nicobar Islands.

HOW MANGROVES PROTECT COASTS

- Reduce wave energy and storm surges.
- Stabilise shorelines by trapping sediments.





- Prevent coastal erosion.
- Reduce flooding during cyclones and high tides.
- Buffer the impacts of sea-level rise.
- Improve water quality by filtering pollutants.

MANGROVES VS SEAWALLS

I. Mangroves

- A. Self-regenerating natural ecosystems.
- B. Absorb wave energy and reduce erosion.
- C. Support biodiversity and fisheries.
- D. Store large amounts of **blue carbon**.
- E. Cost-effective over the long term.

II. Seawalls

- A. Engineered structures that reflect wave energy.
- B. Require high construction and maintenance costs.
- C. Can increase erosion in adjacent areas.
- D. Provide little ecological benefit.
- E. Less adaptable to changing climatic conditions.

SIGNIFICANCE

- Enhance resilience against cyclones and storm surges.
- Support fisheries and coastal livelihoods.
- Act as significant **blue carbon** sinks, helping mitigate climate change.
- Conserve biodiversity by providing habitats for fish, birds, and crustaceans.
- Promote sustainable coastal development through ecosystem-based adaptation.

CHALLENGES / CONCERNS

- Coastal urbanisation and infrastructure development.
- Aquaculture expansion.
- Industrial pollution.
- Illegal encroachments.
- Rising sea levels and climate change.
- Weak enforcement of coastal conservation regulations.

WAY FORWARD

- Promote large-scale mangrove restoration and afforestation.

- Integrate nature-based solutions into coastal zone management.
- Strengthen implementation of the **Coastal Regulation Zone (CRZ)** framework.
- Encourage community participation in mangrove conservation.
- Expand blue carbon financing and ecosystem-based adaptation projects.
- Improve monitoring using remote sensing and GIS technologies.

PRELIMS BOOSTER BOX

- Mangroves are **halophytic** plants adapted to saline environments.*
- They are found in **intertidal zones**, estuaries, and river deltas.*
- The **Sundarbans** is the world's largest mangrove forest and a **UNESCO World Heritage Site**.*
- Major mangrove regions in India include:*
 - A. Sundarbans
 - B. Bhitarkanika National Park
 - C. Pichavaram Mangrove Forest
 - D. Godavari-Krishna Delta
- Mangroves are among the most efficient natural ecosystems for **blue carbon** sequestration.*

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. Mangroves help reduce coastal erosion by trapping sediments.
2. Mangroves act as important blue carbon sinks.
3. The Sundarbans is the world's largest mangrove forest.

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

PadhAI MAINS PRACTICE QUESTION

- Nature-based solutions are increasingly being recognised as effective tools for climate adaptation.





- Discuss the role of mangroves in coastal protection and climate resilience.
- Compare their effectiveness with conventional engineering solutions such as seawalls. (150 words)

PadhAI-GENERATED UPSC MCQ

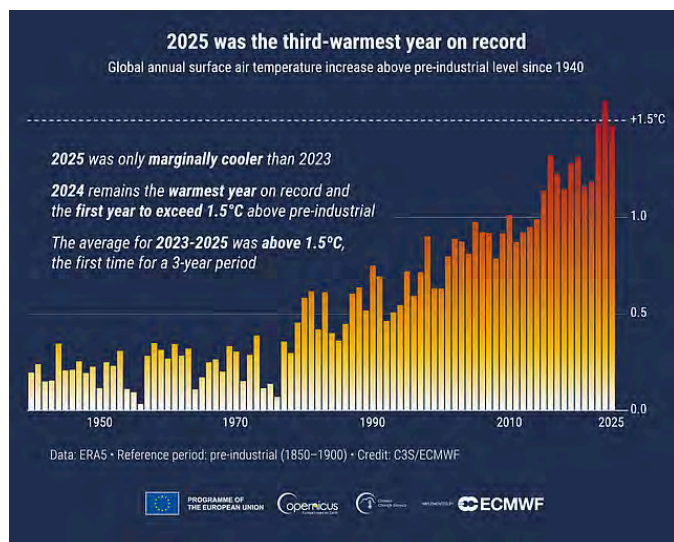
Consider the following statements:

1. Mangroves are salt-tolerant plants adapted to intertidal coastal environments.
2. Mangroves reduce storm surge impacts by dissipating wave energy.
3. Seawalls generally provide greater biodiversity benefits than mangrove ecosystems.

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

Answer: A

3. Human Contribution to Global Warming Highest Ever in 2025, Says Study



WHY IN THE NEWS?

- A recent international study has reported that **human-induced global warming has reached its highest recorded level in 2025**, primarily due to increasing **greenhouse gas (GHG) emissions** from fossil fuel combustion, industrial activities, and land-use changes.

BACKGROUND / CONCEPT

- I. **Global warming** refers to the long-term increase in the Earth's average surface temperature due to the enhanced **greenhouse effect**.
- II. Human activities since the **Industrial Revolution** have significantly increased atmospheric concentrations of greenhouse gases.
- III. The primary drivers include:
 - A. Burning of fossil fuels.
 - B. Deforestation.
 - C. Industrial processes.
 - D. Agriculture.
 - E. Waste management.

MAJOR GREENHOUSE GASES

- **Carbon dioxide (CO₂)** – Fossil fuels, cement production, deforestation.
- **Methane (CH₄)** – Agriculture, livestock, wetlands, waste disposal, fossil fuel extraction.
- **Nitrous oxide (N₂O)** – Fertiliser use and industrial activities.
- **Fluorinated gases** – Refrigeration, air conditioning, and industrial processes.

IMPACTS OF HUMAN-INDUCED GLOBAL WARMING

- Rising global temperatures.
- More frequent and intense heatwaves.
- Melting glaciers and polar ice sheets.
- Sea-level rise.
- Increased droughts, floods, and extreme rainfall events.
- Ocean warming and acidification.
- Loss of biodiversity and ecosystem degradation.
- Threats to food, water, and energy security.

SIGNIFICANCE

- Reinforces the scientific evidence linking human activities to climate change.
- Highlights the need for stronger implementation of Nationally Determined Contributions (NDCs).
- Supports informed policymaking for climate adaptation and mitigation.





- Emphasises the importance of sustainable development pathways.

CHALLENGES / CONCERNS

- Continued dependence on fossil fuels.
- Slow pace of energy transition.
- Insufficient climate finance for developing countries.
- Rising emissions from rapidly growing economies.
- Increasing climate-related disasters affecting vulnerable populations.

WAY FORWARD

- Accelerate the transition to renewable energy.
- Improve energy efficiency across sectors.
- Expand afforestation and ecosystem restoration.
- Promote sustainable agriculture and low-carbon technologies.
- Strengthen international cooperation on climate finance and technology transfer.
- Enhance adaptation measures to build resilience against climate impacts.

PRELIMS BOOSTER BOX

- The **Paris Agreement** aims to limit global warming to **well below 2°C**, while pursuing efforts to limit it to **1.5°C** above pre-industrial levels.
- **Carbon dioxide (CO₂)** is the largest contributor to anthropogenic global warming.
- **Methane (CH₄)** has a much higher global warming potential than CO₂ over a 20-year period but remains in the atmosphere for a shorter duration.
- The **Intergovernmental Panel on Climate Change (IPCC)** assesses scientific knowledge related to climate change.
- Climate action is addressed under **Sustainable Development Goal 13**.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. Carbon dioxide is the largest contributor to anthropogenic global warming.
2. Methane has a higher global warming potential than carbon dioxide over a 20-year period.

3. The Paris Agreement aims to limit global warming to well below 2°C above pre-industrial levels.

Which of the statements given above is/are correct?

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

Answer: D

PadhAI MAINS PRACTICE QUESTION

- Human-induced greenhouse gas emissions remain the principal driver of global warming.
- Discuss the major sources of anthropogenic emissions and examine the challenges in achieving the goals of the Paris Agreement. (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Carbon dioxide is the largest contributor to human-induced global warming.
2. Nitrous oxide is primarily emitted through the use of nitrogen-based fertilisers.
3. The Paris Agreement legally mandates identical emission reduction targets for all countries.

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

Answer: A

4. Arunachal Glacial Lakes Expanded in Decade



WHY IN THE NEWS?

- A recent study has found that **glacial lakes in Arunachal Pradesh have expanded significantly over the past decade**, raising concerns about the increasing risk of **Glacial Lake Outburst Floods (GLOFs)** due to climate change and accelerated glacier melting.

BACKGROUND / CONCEPT

- Glacial lakes** are water bodies formed by the accumulation of meltwater from glaciers.
- They are commonly dammed by **moraines** (accumulations of rocks and debris deposited by glaciers), ice, or bedrock.
- Climate change accelerates glacier melting, causing existing lakes to expand and new lakes to form.

WHAT IS A GLACIAL LAKE OUTBURST FLOOD (GLOF)?

- A **GLOF** is the sudden release of water from a glacial lake due to the failure of its natural dam.
- Triggers include:
 - Rapid glacier melting.
 - Heavy rainfall.
 - Earthquakes.
 - Avalanches or landslides entering the lake.
 - Collapse of moraine or ice dams.
- GLOFs can generate catastrophic floods, causing widespread damage downstream.

SIGNIFICANCE

- Indicates the growing impacts of climate change on the Himalayan cryosphere.
- Highlights increasing disaster risks in vulnerable mountain regions.
- Affects water resources, biodiversity, and hydropower infrastructure.
- Emphasises the need for improved glacier monitoring and disaster preparedness.

CHALLENGES / CONCERNS

- Rapid glacier retreat due to rising temperatures.
- Expansion of unstable moraine-dammed lakes.
- Limited monitoring in remote Himalayan regions.

- High vulnerability of downstream settlements and infrastructure.
- Increasing frequency of extreme weather events.

WAY FORWARD

- Strengthen remote sensing and field-based glacier monitoring.
- Develop comprehensive inventories of glacial lakes.
- Install early warning systems for GLOFs.
- Improve hazard mapping and risk assessments.
- Promote climate-resilient infrastructure in Himalayan regions.
- Enhance transboundary cooperation on Himalayan water and disaster management.

PRELIMS BOOSTER BOX

- A **glacial lake** is formed by meltwater accumulating in depressions created by glaciers.
- Moraines** are deposits of rocks and sediments left behind by glaciers and often act as natural dams.
- A **Glacial Lake Outburst Flood (GLOF)** occurs when a glacial lake suddenly releases large volumes of water due to dam failure.
- The **Himalayas** are among the world's most climate-sensitive mountain systems.
- The **National Disaster Management Authority (NDMA)** has issued guidelines for managing GLOF risks in the Himalayan region.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

- Glacial lakes are formed by the accumulation of glacier meltwater.
- Moraines can act as natural dams for glacial lakes.
- Earthquakes and avalanches can trigger Glacial Lake Outburst Floods (GLOFs).

Which of the statements given above is/are correct?

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

Answer: D



PadhAI MAINS PRACTICE

QUESTION

- The expansion of glacial lakes in the Himalayan region has heightened the risk of Glacial Lake Outburst Floods (GLOFs).
- Discuss the causes of glacial lake expansion and suggest measures to strengthen disaster preparedness and climate resilience in the Indian Himalayas. (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Moraine-dammed glacial lakes are generally more vulnerable to sudden outburst floods than bedrock-dammed lakes.
2. Rising temperatures accelerate glacier retreat, contributing to the expansion of glacial lakes.
3. Glacial Lake Outburst Floods (GLOFs) occur only due to volcanic eruptions beneath glaciers.

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

Answer: A

5. Biochar Turns India's Farm Smoke to 'Black Gold'



WHY IN THE NEWS?

- Biochar is gaining attention as a sustainable solution to **crop residue burning** in India by converting agricultural waste into "**black gold**"—a carbon-rich material that improves

soil health, enhances crop productivity, and helps mitigate climate change.

BACKGROUND / CONCEPT

- I. Crop residue burning, particularly in northwestern India, is a major source of:
 - A. Air pollution.
 - B. Greenhouse gas emissions.
 - C. Loss of soil nutrients.
- II. Biochar provides a sustainable method of utilizing agricultural residues while generating environmental and economic benefits.

WHAT IS BIOCHAR?

- I. A **carbon-rich solid material** produced from biomass such as:
 - A. Crop residues.
 - B. Wood waste.
 - C. Animal manure.
 - D. Organic waste.
- II. Produced through **pyrolysis**, where biomass is heated at high temperatures under low-oxygen conditions.
- III. Due to its stable carbon structure, biochar remains in soil for decades to centuries.

BENEFITS OF BIOCHAR

Environmental Benefits

- Reduces crop residue burning.
- Sequesters carbon, helping mitigate climate change.
- Lowers greenhouse gas emissions.
- Improves waste management.
- Reduces nutrient runoff and water pollution.

Agricultural Benefits

- Improves soil fertility.
- Enhances water-holding capacity.
- Increases nutrient retention.
- Promotes beneficial soil microorganisms.
- Improves crop productivity, especially in degraded soils.

Economic Benefits

- Converts agricultural waste into a value-added product.
- Reduces dependence on chemical fertilizers.



- Creates opportunities for rural entrepreneurship and carbon markets.

CHALLENGES / CONCERNS

- High initial cost of pyrolysis equipment.
- Limited awareness among farmers.
- Lack of standardized quality parameters.
- Need for region-specific application guidelines.
- Limited market development and policy incentives.

WAY FORWARD

- Promote decentralized biochar production units.
- Provide financial incentives and subsidies for pyrolysis technologies.
- Integrate biochar into sustainable agriculture and climate policies.
- Strengthen research on crop-specific biochar applications.
- Develop standards for production, certification, and quality control.
- Encourage carbon credit mechanisms for biochar-based carbon sequestration.

PRELIMS BOOSTER BOX

- **Biochar** is produced through **pyrolysis**, not combustion.
- **Pyrolysis** is the thermal decomposition of biomass in the **absence or limited supply of oxygen**.
- Biochar acts as a **carbon sink** by storing stable carbon in soils.
- Unlike charcoal, biochar is primarily intended for **soil improvement and carbon sequestration**.
- Biochar can improve **soil structure, water retention, and nutrient availability**, particularly in degraded soils.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. Biochar is produced through pyrolysis of biomass under limited oxygen conditions.
2. Biochar can improve soil water-holding capacity.
3. Biochar contributes to long-term carbon sequestration.

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

PadhAI MAINS PRACTICE

QUESTION

- Biochar is emerging as a sustainable solution to agricultural residue burning in India.
- Discuss its role in improving soil health, mitigating climate change, and promoting sustainable agriculture.
- Also examine the challenges associated with its large-scale adoption. (150 words)

PadhAI-GENERATED UPSC MCQ

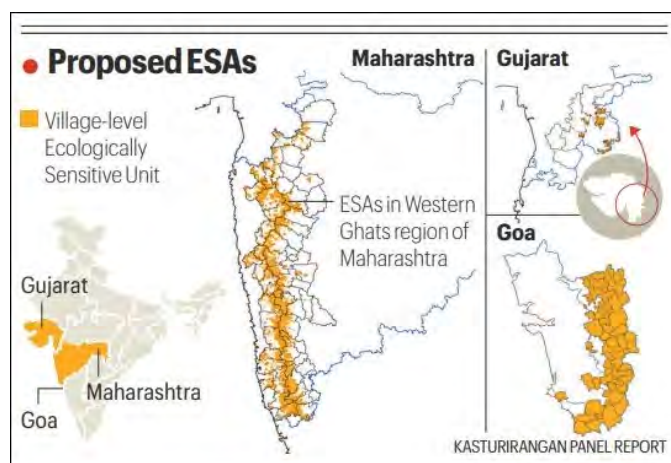
Consider the following statements:

1. Biochar is produced by heating biomass in the absence or limited supply of oxygen.
2. Biochar can enhance soil fertility by improving nutrient retention.
3. Biochar production through pyrolysis releases more greenhouse gases than open crop residue burning.

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

Answer: A

6. Govt Prepares to Notify Western Ghats Eco-Sensitive Areas in at Least Three States



WHY IN THE NEWS?

- The Union Government is preparing to notify **Eco-Sensitive Areas (ESAs)** in parts of the **Western Ghats** across at least **Kerala, Karnataka, and Goa**, following consultations with the concerned States.
- The notification aims to balance ecological conservation with sustainable development.

BACKGROUND / CONCEPT

WHAT ARE ECO-SENSITIVE AREAS (ESAs)?

- ESAs are ecologically important regions notified by the Central Government under the **Environment (Protection) Act, 1986**.
- They function as **buffer zones** around protected areas or ecologically fragile landscapes.
- Certain activities are **prohibited, regulated, or permitted** based on their environmental impact.

ABOUT THE WESTERN GHATS

- I. The Western Ghats extend for about **1,600 km** from **Gujarat to Kerala**, traversing six States:
 - A. Gujarat
 - B. Maharashtra
 - C. Goa
 - D. Karnataka
 - E. Tamil Nadu
 - F. Kerala
- II. They are recognised as a **UNESCO World Heritage Site** and one of the world's **eight "hottest hotspots" of biological diversity**.

EXPERT COMMITTEES ON THE WESTERN GHATS

Western Ghats Ecology Expert Panel (Gadgil Committee) – 2011

- Chaired by **Madhav Gadgil**.
- Recommended classifying the entire Western Ghats into three Ecologically Sensitive Zones (ESZs).
- Favoured decentralised environmental governance with greater involvement of local communities.

High-Level Working Group on Western Ghats (Kasturirangan Committee) – 2013

- Chaired by **K. Kasturirangan**.
- Recommended declaring approximately **37% of the Western Ghats** as Eco-Sensitive Area.
- Adopted a **landscape-based approach**, balancing conservation with developmental needs.

ACTIVITIES IN ECO-SENSITIVE AREAS

Prohibited Activities

- Mining and quarrying.
- Setting up highly polluting industries.
- Thermal power plants.
- Major red-category industries.

Regulated Activities

- Infrastructure development.
- Tourism projects.
- Construction activities.
- Expansion of industries.

Permitted Activities

- Sustainable agriculture.
- Organic farming.
- Eco-tourism.
- Traditional livelihoods.
- Conservation and afforestation.

SIGNIFICANCE

- Conserves one of the world's richest biodiversity hotspots.
- Protects endemic flora and fauna.
- Safeguards watersheds supplying water to millions.
- Enhances climate resilience and carbon sequestration.
- Reduces the risk of landslides, floods, and ecological degradation.
- Promotes sustainable development.

CHALLENGES / CONCERNS

- Opposition from local communities over livelihood concerns.
- Balancing conservation with developmental aspirations.





- Encroachment and deforestation.
- Mining and infrastructure pressures.
- Weak enforcement of environmental regulations.

WAY FORWARD

- Ensure participatory decision-making involving local communities.
- Promote sustainable agriculture and eco-tourism.
- Strengthen ecological monitoring using remote sensing and GIS.
- Provide compensation and livelihood support where restrictions affect local populations.
- Integrate conservation with climate adaptation and disaster risk reduction strategies.

PRELIMS BOOSTER BOX

- The **Western Ghats** are older than the **Himalayas** and are recognised as a **UNESCO World Heritage Site**.*
- They are one of the world's **eight hottest hotspots of biodiversity**.*
- The Western Ghats are the origin of several major peninsular rivers, including:
A. Godavari
B. Krishna
C. Kaveri*
- Eco-Sensitive Areas (ESAs)** are notified under the **Environment (Protection) Act, 1986**.*
- The **Kasturirangan Committee** recommended notifying about **37% of the Western Ghats** as **Eco-Sensitive Area**.*

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. Eco-Sensitive Areas are notified under the Environment (Protection) Act, 1986.
2. The Kasturirangan Committee recommended declaring about 37% of the Western Ghats as Eco-Sensitive Area.
3. The Western Ghats are recognised as a UNESCO World Heritage Site.

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

PadhAI MAINS PRACTICE QUESTION

- Discuss the ecological significance of the Western Ghats.
- Examine the rationale behind the notification of Eco-Sensitive Areas (ESAs) and the challenges in balancing environmental conservation with developmental needs. (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Gadgil Committee recommended classifying the entire Western Ghats into different Ecologically Sensitive Zones.
2. The Kasturirangan Committee adopted a landscape-based approach for identifying Eco-Sensitive Areas.
3. Mining is generally permitted without restriction in notified Eco-Sensitive Areas.

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

Answer: A



Subject

History, Art & Culture



1. Mountbatten Plan at 79: How It Redrew the Subcontinent



WHY IN THE NEWS?

- The **79th anniversary** of the **Mountbatten Plan**, announced on **3 June 1947**, has renewed discussions on its role in the partition of British India and the creation of the independent Dominions of India and Pakistan.

BACKGROUND / CONCEPT

- By 1947, communal tensions between the **Indian National Congress** and the **All-India Muslim League** had intensified.
- Earlier constitutional efforts, including the **Cabinet Mission Plan**, failed to secure agreement on a united India.
- Lord Louis Mountbatten, the last Viceroy of British India, was tasked with overseeing the transfer of power.

KEY FEATURES OF THE MOUNTBATTEN PLAN

- Accepted the **partition of British India** into India and Pakistan.
- Proposed the creation of **two independent Dominions**.
- Advanced the date of transfer of power from **June 1948 to 15 August 1947**.

- Allowed the **Punjab** and **Bengal** Legislative Assemblies to vote on partition.
- Provided for **referendums** in the **North-West Frontier Province** and the **Sylhet** district of Assam.
- Established the **Boundary Commissions**, headed by Sir Cyril Radcliffe, to demarcate the borders of Punjab and Bengal.
- Gave **princely states** the option to accede to either India or Pakistan, considering geographical contiguity and other practical factors.

INDIAN INDEPENDENCE ACT, 1947

- Enacted by the **British Parliament** based on the Mountbatten Plan.
- Came into force on **15 August 1947**.
- Ended British sovereignty over India.
- Created the **Dominion of India** and the **Dominion of Pakistan**.
- Abolished the office of the **Secretary of State for India**.
- Ended British paramountcy over princely states.

SIGNIFICANCE

- Marked the end of nearly two centuries of British colonial rule.
- Enabled the emergence of two sovereign nations.
- Established the constitutional basis for India's independence.
- Triggered the integration of princely states into the Indian Union.

CHALLENGES / CONSEQUENCES

- One of the largest mass migrations in human history.
- Widespread communal violence and loss of lives.
- Massive refugee crisis.
- Long-term India-Pakistan territorial disputes, particularly over **Jammu and Kashmir**.





- Enduring geopolitical and humanitarian consequences in South Asia.

WAY FORWARD

- Preserve historical records to promote informed understanding of Partition.
- Encourage cross-border academic and cultural exchanges.
- Promote communal harmony and constitutional values.
- Strengthen regional cooperation for peace and development in South Asia.

PRELIMS BOOSTER BOX

- The **Mountbatten Plan** was announced on **3 June 1947**.
- It formed the basis of the **Indian Independence Act, 1947**.
- **Lord Louis Mountbatten** was the last Viceroy of British India.
- **Sir Cyril Radcliffe** chaired the Boundary Commissions for Punjab and Bengal.
- The **Indian Independence Act, 1947** created the **Dominions of India and Pakistan** and ended British paramountcy over princely states.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. The Mountbatten Plan accepted the partition of British India.
2. The Indian Independence Act, 1947, was enacted by the British Parliament.
3. Sir Cyril Radcliffe headed the Boundary Commissions for Punjab and Bengal.

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

PadhAI MAINS PRACTICE

QUESTION

- Discuss the salient features of the Mountbatten Plan (3 June Plan).
- How did it shape the political geography of the Indian subcontinent, and what were its long-term consequences? (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Mountbatten Plan advanced the transfer of power to 15 August 1947.
2. The Indian Independence Act, 1947, ended British paramountcy over princely states.
3. The Cabinet Mission Plan had originally proposed the partition of British India into two independent Dominions.

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

Answer: A

2. The Hidden History of the Thai-Bharat Connection



WHY IN THE NEWS?

- Renewed diplomatic engagement and growing cultural exchanges between **India** and **Thailand** have brought attention to the deep historical, cultural, religious, and maritime links





that have connected the two civilizations for over two millennia.

BACKGROUND / CONCEPT

- Contacts between India and Thailand date back to the early centuries BCE through maritime trade across the **Bay of Bengal**.
- Indian merchants, monks, and scholars carried **Buddhism, Hinduism, Sanskrit, and Indian cultural traditions** to Southeast Asia.
- Indian influence became visible in Thai religion, language, literature, architecture, and systems of kingship.

HISTORICAL AND CULTURAL LINKS

- Spread of Buddhism**
 - A. Theravada Buddhism, with origins in the Indian subcontinent, became the dominant religion in Thailand.
- Hindu Influence**
 - A. Hindu deities such as **Brahma, Vishnu**, and **Shiva** continue to feature in Thai traditions and royal ceremonies.
- Sanskrit and Pali**
 - A. Many Thai words, royal titles, and religious texts derive from Sanskrit and Pali.
- Ramayana Tradition**
 - A. Thailand's national epic, **Ramakien**, is adapted from India's **Ramayana**.
- Architecture and Art**
 - A. Indian artistic traditions influenced temple architecture, sculpture, dance, and classical performing arts.

MODERN INDIA-THAILAND RELATIONS

- Strategic partners in the **Indo-Pacific**.
- Members of regional groupings such as:
 - A. BIMSTEC
 - B. ASEAN (Thailand is a member; India is a Dialogue Partner)
 - C. Mekong-Ganga Cooperation

- D. Indian Ocean Rim Association (India is a member; Thailand is a Dialogue Partner)

- Cooperation spans:
 - A. Trade and investment.
 - B. Maritime security.
 - C. Defence.
 - D. Tourism.
 - E. Digital economy.
 - F. Connectivity projects such as the **India-Myanmar-Thailand Trilateral Highway**.

SIGNIFICANCE

- Reinforces India's Act East Policy.
- Strengthens connectivity between South and Southeast Asia.
- Promotes cultural diplomacy and soft power.
- Enhances maritime cooperation in the Bay of Bengal and Indo-Pacific.
- Expands trade and economic integration.

CHALLENGES / CONCERNS

- Delays in connectivity projects.
- Security challenges along cross-border corridors.
- Competition from other regional powers.
- Need for greater tourism and educational exchanges.
- Limited awareness of shared civilisational heritage.

WAY FORWARD

- Expedite the India-Myanmar-Thailand Trilateral Highway.
- Promote Buddhist and cultural tourism circuits.
- Strengthen maritime and defence cooperation.
- Expand academic, educational, and youth exchanges.
- Enhance trade, digital connectivity, and people-to-people contacts.

PRELIMS BOOSTER BOX





- Thailand follows **Theravada Buddhism**, whose roots lie in the Indian subcontinent.
- **Ramakien** is Thailand's national epic, derived from the **Ramayana**.
- India and Thailand are members of **BIMSTEC** and the **Mekong–Ganga Cooperation**.
- Thailand is a member of **ASEAN**, while India is an **ASEAN Dialogue Partner**.
- The **India–Myanmar–Thailand Trilateral Highway** aims to improve road connectivity between South and Southeast Asia.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. Ramakien is the Thai adaptation of the Ramayana.
2. India and Thailand are members of BIMSTEC.
3. Thailand is a member of ASEAN.

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

PadhAI MAINS PRACTICE QUESTION

- India and Thailand share deep civilisational ties that continue to shape their contemporary bilateral relations.
- Discuss the historical foundations of these ties and evaluate their significance in the context of India's Act East Policy and the Indo-Pacific. (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Ramakien is the Thai adaptation of the Ramayana.

2. The India–Myanmar–Thailand Trilateral Highway is intended to improve connectivity between South and Southeast Asia.
3. Thailand is a member of the South Asian Association for Regional Cooperation (SAARC).

A. 1 and 2 only

B. 2 and 3 only

C. 1 and 3 only

D. 1, 2 and 3

Answer: A

3. India, China in Talks over Joint UNESCO Nomination for Xuanzang's Work



India, China in talks over joint UNESCO nominations for Xuanzang's work



WHY IN THE NEWS?

- India and **China** are exploring a **joint nomination to UNESCO** for the documentary heritage associated with the works of the Chinese Buddhist monk **Xuanzang**, recognising his contributions to preserving India's ancient history and strengthening civilisational ties.

BACKGROUND / CONCEPT

- **Xuanzang (602–664 CE)** was a Chinese Buddhist monk, scholar, and traveller of the **Tang Dynasty**.
- He travelled to India between **629 and 645 CE** to collect original Buddhist scriptures and study Buddhist philosophy.





- He spent several years at **Nalanda Mahavihara**, where he studied under the renowned scholar **Śīlabhadra**.
- After returning to China, he translated numerous Buddhist texts into Chinese.

XUANZANG'S MAJOR WORK

- I. **Great Tang Records on the Western Regions** (*Da Tang Xiyu Ji*).
- II. It documents:
 - A. Geography of ancient India.
 - B. Political conditions under **Harshavardhana**.
 - C. Buddhist monasteries and universities.
 - D. Social customs and religious practices.
 - E. Trade routes and regional kingdoms.

UNESCO MEMORY OF THE WORLD

PROGRAMME

- Launched by UNESCO in **1992**.
- Aims to preserve and promote access to the world's documentary heritage.
- Covers manuscripts, archives, rare books, maps, audio-visual records, and other documentary materials.
- It is distinct from the **World Heritage List**, which focuses on tangible cultural and natural heritage sites.

SIGNIFICANCE

- Strengthens India–China cultural diplomacy despite broader geopolitical differences.
- Recognises the historical importance of Xuanzang's records in reconstructing ancient Indian history.
- Promotes Buddhist heritage tourism and academic collaboration.
- Enhances global awareness of India's ancient centres of learning such as Nalanda.
- Supports preservation of shared documentary heritage.

CHALLENGES / CONCERNS

- Diplomatic sensitivities in India–China relations.
- Need for coordinated archival documentation and conservation.
- Balancing historical authenticity with modern geopolitical narratives.
- Ensuring long-term preservation of documentary materials.

WAY FORWARD

- Strengthen India–China cooperation in cultural heritage conservation.
- Promote collaborative research on Buddhist manuscripts and historical records.
- Digitise and preserve ancient documentary heritage.
- Expand academic exchanges on Buddhist studies and ancient history.
- Leverage shared heritage for cultural diplomacy and regional cooperation.

PRELIMS BOOSTER BOX

- **Xuanzang** was a **Chinese Buddhist monk** who visited India during the reign of **Harshavardhana**.
- He studied at **Nalanda Mahavihara** under **Śīlabhadra**.
- His travelogue, **Great Tang Records on the Western Regions**, is a key source for the history of **7th-century India**.
- The **UNESCO Memory of the World Programme** was launched in **1992** to preserve documentary heritage.
- The **Memory of the World Programme** is **different from UNESCO's World Heritage List**, which covers cultural and natural heritage sites.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. Xuanzang visited India during the reign of Harshavardhana.
2. Xuanzang studied at Nalanda Mahavihara.



3. The UNESCO Memory of the World Programme aims to preserve documentary heritage.

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

PadhAI MAINS PRACTICE

QUESTION

- Xuanzang's travel accounts are among the most valuable historical sources for understanding ancient India.
- Discuss their significance and examine how shared cultural heritage can contribute to strengthening India–China relations. (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Xuanzang visited India during the reign of Harshavardhana.
2. The Great Tang Records on the Western Regions is a travel account written by Xuanzang.
3. The UNESCO Memory of the World Programme is meant for recognising natural heritage sites of outstanding universal value.

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

Answer: A

4. NCERT to Restore Original 'Dancing Girl' Image

EXPRESS IMPACT

The Indian EXPRESS

NCERT to restore nude 'Dancing Girl' image in Class 9 Arts textbook



WHY IN THE NEWS?

- The National Council of Educational Research and Training (NCERT) has decided to restore the original image of the **Dancing Girl** in its school textbooks, following concerns over the use of an altered representation.

BACKGROUND / CONCEPT

- The **Dancing Girl** is a **bronze statuette** discovered in **1926** during excavations at **Mohenjo-daro**.
- The excavation was led by Ernest Mackay.
- The statuette dates to around **2500 BCE** and stands approximately **10.5 cm** tall.
- It was created using the **lost-wax (cire perdue) casting technique**.

FEATURES OF THE DANCING GIRL





- Made of **bronze**.
- Depicts a young female figure in a confident standing posture.
- Adorned with numerous bangles on one arm and a necklace.
- Exhibits remarkable anatomical realism and artistic sophistication.
- Demonstrates the Harappans' mastery of metallurgy and sculpture.

SIGNIFICANCE

- Symbolises the artistic excellence of the Indus Valley Civilization.
- Provides evidence of advanced bronze-casting technology.
- Reflects the socio-cultural life of the Harappan people.
- Serves as an important archaeological source for understanding ancient Indian civilisation.
- Represents one of the finest surviving examples of early metal sculpture.

LOST-WAX CASTING TECHNIQUE

- A wax model of the object is first prepared.
- It is coated with clay to form a mould.
- The mould is heated, causing the wax to melt and drain out.
- Molten metal is poured into the cavity.
- After cooling, the clay mould is broken to reveal the finished metal object.

WAY FORWARD

- Ensure authenticity in educational content based on archaeological evidence.
- Promote awareness of India's ancient heritage through accurate representations.
- Strengthen conservation and documentation of archaeological artefacts.
- Encourage interdisciplinary research in archaeology and history.

PRELIMS BOOSTER BOX

- The **Dancing Girl** was discovered at **Mohenjo-daro** in present-day **Pakistan**.*
- It belongs to the **Indus Valley Civilization** (c. **2600–1900 BCE**).*
- It was made using the **lost-wax (cire perdue) casting technique**.*
- Another famous Harappan sculpture is the **Priest-King**, carved from **steatite**.*
- Major Harappan sites in India include:*
 - Dholavira*
 - Lothal*
 - Rakhigarhi*
 - Kalibangan*

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. The Dancing Girl was discovered at Mohenjo-daro.
2. It was made using the lost-wax casting technique.
3. It belongs to the Indus Valley Civilization.

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

PadhAI MAINS PRACTICE QUESTION

- The 'Dancing Girl' is one of the finest examples of the artistic and technological achievements of the Indus Valley Civilization.
- Discuss its significance as an archaeological source for understanding Harappan society. (150 words)



PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Dancing Girl was discovered at Mohenjo-daro.
2. The statuette is made of bronze using the lost-wax casting technique.
3. The Priest-King sculpture from Mohenjo-daro is made of bronze.

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

Answer: A

5. Sangeet Natak Akademi

Announces Fellows and Awards for 2024-25



WHY IN THE NEWS?

- The **General Council of the Sangeet Natak Akademi** selected **seven Akademi Fellows (Akademi Ratna)** and **108 recipients of the Sangeet Natak Akademi Awards** for the years **2024 and 2025** in recognition of their outstanding contributions to India's performing arts.

BACKGROUND / CONCEPT

ABOUT SANGEET NATAK AKADEMI

- I. Established in **1953**.
- II. It is India's **National Academy for Music, Dance and Drama**.

- III. It is an **autonomous body** functioning under the **Ministry of Culture**.
- IV. Headquarters: **New Delhi**.
- V. It works for:
 - A. Preservation of India's performing arts.
 - B. Promotion of classical, folk, tribal, and contemporary art forms.
 - C. Documentation, research, training, and recognition of artists.

AKADEMI FELLOWSHIP (AKADEMI RATNA)

- The **highest honour** conferred by the Sangeet Natak Akademi.
- Awarded to **eminent practitioners** for exceptional and lifelong contributions to the performing arts.
- The number of living Fellows is generally limited to **40** at any given time.

SANGEET NATAK AKADEMI AWARDS

- I. Conferred annually to artists for outstanding contributions in:
 - A. Music.
 - B. Dance.
 - C. Theatre.
 - D. Traditional and folk arts.
 - E. Tribal performing arts.
 - F. Puppetry and other performing art traditions.
- II. The award includes:
 - A. A **Tamrapatra (copper plaque)**.
 - B. An **Angavastram (shawl)**.
 - C. A cash prize as determined by the Akademi.

SIGNIFICANCE

- Preserves India's intangible cultural heritage.
- Recognises excellence in performing arts.
- Encourages transmission of traditional art forms to future generations.
- Promotes cultural diversity and national integration.





- Enhances global recognition of India's artistic traditions.

CHALLENGES / CONCERNS

- Declining interest among younger generations in traditional art forms.
- Limited financial security for many artists.
- Need for greater documentation and digitisation of performing arts.
- Commercialisation affecting traditional practices.

WAY FORWARD

- Increase financial and institutional support for artists.
- Promote performing arts through digital platforms and educational curricula.
- Strengthen documentation and archival initiatives.
- Encourage youth participation through scholarships and training programmes.
- Enhance international cultural exchanges showcasing Indian performing arts.

PRELIMS BOOSTER BOX

- The **Sangeet Natak Akademi** was established in **1953**.
- It is an **autonomous body** under the **Ministry of Culture**.
- It is India's **National Academy of Music, Dance and Drama**.
- The **Akademi Fellowship (Akademi Ratna)** is the **highest honour** conferred by the Akademi.
- The **Sangeet Natak Akademi Awards** recognise excellence in classical, folk, tribal, and contemporary performing arts.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. The Sangeet Natak Akademi is an autonomous body under the Ministry of Culture.
2. It was established in 1953.

3. The Akademi Fellowship (Akademi Ratna) is the highest honour conferred by the Sangeet Natak Akademi.

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

PadhAI MAINS PRACTICE

QUESTION

- Discuss the role of the Sangeet Natak Akademi in preserving and promoting India's intangible cultural heritage.
- How do national cultural institutions contribute to safeguarding traditional performing arts in the era of globalization? (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Sangeet Natak Akademi is India's National Academy of Music, Dance and Drama.
2. It functions under the Ministry of Culture as an autonomous body.
3. The Akademi Fellowship (Akademi Ratna) is the highest honour conferred by the Akademi.

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

Answer: D



6. ASI Transfers Rakhigarhi Skeletons to AnSI



WHY IN THE NEWS?

- The Archaeological Survey of India (ASI) has transferred **three complete human skeletons and other skeletal remains** excavated from **Rakhigarhi** to the Anthropological Survey of India (AnSI) for advanced scientific analysis under a Memorandum of Understanding (MoU).

BACKGROUND / CONCEPT

- Rakhigarhi**, located in **Haryana**, is the **largest known site of the Indus Valley (Harappan) Civilization**.
- It flourished during the **Early Harappan (c. 3300–2600 BCE)** and **Mature Harappan (c. 2600–1900 BCE)** phases.
- Excavations have revealed:
 - Planned urban settlements.
 - Advanced drainage systems.
 - Burial sites.
 - Pottery and seals.
 - Ornaments and craft production.
 - Evidence of long-distance trade.

SCIENTIFIC ANALYSES TO BE CONDUCTED

- Ancient DNA (aDNA) Analysis**
 - To study ancestry, genetic diversity, and migration patterns.
- Palaeoanthropology**
 - To determine age, sex, stature, and biological characteristics.

III. Palaeopathology

- To identify diseases, nutritional deficiencies, and injuries.

IV. Stable Isotope Analysis

- To reconstruct diet, mobility, and environmental conditions.

V. Facial Reconstruction

- To recreate the probable facial features of ancient individuals using forensic techniques.

SIGNIFICANCE

- Enhances understanding of the biological profile of Harappan populations.
- Provides evidence on migration, kinship, and population history.
- Improves knowledge of ancient health, nutrition, and lifestyle.
- Strengthens interdisciplinary research combining archaeology, genetics, and anthropology.
- Helps reconstruct the social and cultural history of one of the world's earliest urban civilizations.

CHALLENGES / CONCERNS

- Poor preservation of DNA in tropical climatic conditions.
- Risk of contamination during sample collection and analysis.
- Ethical concerns regarding the handling of human remains.
- Requirement for sophisticated laboratory infrastructure.
- Need for careful conservation of fragile skeletal remains.

WAY FORWARD

- Expand multidisciplinary archaeological research.





- Strengthen collaboration between ASI, AnSI, and scientific institutions.
- Improve conservation facilities for excavated artefacts and skeletal remains.
- Promote genomic and archaeological research using international best practices.
- Digitise excavation records for future research and public access.

PRELIMS BOOSTER BOX

- I. **Rakhigarhi** is located in **Hisar district, Haryana**.
- II. It is regarded as the **largest known Harappan site** discovered so far.
- III. The site represents both **Early Harappan** and **Mature Harappan** phases.
- IV. Other major Harappan sites include:
 - A. Harappa
 - B. Mohenjo-daro
 - C. Dholavira
 - D. Lothal
 - E. Kalibangan
- V. The **Anthropological Survey of India (AnSI)** is an autonomous institution under the **Ministry of Culture**, conducting research in physical, biological, cultural, and social anthropology.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. Rakhigarhi is located in Haryana.
2. Rakhigarhi represents both the Early Harappan and Mature Harappan phases.
3. Ancient DNA analysis can provide insights into the ancestry and migration of ancient populations.

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

PadhAI MAINS PRACTICE

QUESTION

- Discuss the significance of multidisciplinary scientific analysis of human skeletal remains excavated from Rakhigarhi in understanding the Indus Valley Civilization.
- How can advances in archaeology and genetics reshape our knowledge of ancient Indian history? (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Rakhigarhi is currently the largest known site of the Indus Valley Civilization.
2. Stable isotope analysis can help reconstruct the diet and mobility of ancient populations.
3. The Anthropological Survey of India functions under the Ministry of Science and Technology.

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

Answer: A



Subject

Science & Tech



1. Indigenous RudraM-II Missile Clears Flight Trials



WHY IN THE NEWS?

- The **Defence Research and Development Organisation (DRDO)**, in collaboration with the **Indian Air Force (IAF)**, has successfully completed the flight trials of the **RudraM-II** indigenous air-to-surface missile from an airborne platform, validating its precision-strike capability under extreme release conditions.

BACKGROUND / CONCEPT

- The **RudraM** series has been developed by DRDO to provide the IAF with indigenous anti-radiation strike capability.
- Anti-radiation missiles are designed to detect and home in on electromagnetic emissions from enemy radar and communication systems.
- RudraM-II is an advanced version of **RudraM-I**, offering greater range, improved seekers, and enhanced precision.

KEY FEATURES OF RUDRAM-II

- Type:** Air-to-Surface Anti-Radiation Missile.
- Developer:** DRDO (led by **Research Centre Imarat**).
- Launch Platform:** Compatible with fighter aircraft such as the **Sukhoi Su-30MKI**.
- Target:** Enemy radars, communication centres, and surface-to-air missile (SAM) systems.

- Guidance:** Advanced navigation and terminal guidance for precision strikes.
- Capability:** Can engage high-value ground targets with pinpoint accuracy under varied operational conditions.

SIGNIFICANCE

- Enhances India's **Suppression of Enemy Air Defences (SEAD)** capability.
- Strengthens indigenous precision-strike weapon systems under **Aatmanirbhar Bharat**.
- Reduces dependence on imported anti-radiation missiles.
- Improves survivability of IAF fighter aircraft during offensive operations.
- Boosts India's deterrence and operational readiness.

CHALLENGES / CONCERNS

- Integration across multiple fighter platforms.
- Continuous upgrades to counter evolving enemy air-defence systems.
- Need for large-scale production and timely induction.
- Rapid technological advancements in electronic warfare requiring periodic improvements.

WAY FORWARD

- Expedite induction into the Indian Air Force.
- Integrate the missile with additional combat aircraft platforms.
- Continue development of longer-range and more advanced variants.
- Strengthen indigenous defence manufacturing through public-private collaboration.
- Enhance electronic warfare and network-centric combat capabilities.

PRELIMS BOOSTER BOX

- RudraM-II** is an **indigenous air-to-surface anti-radiation missile** developed by DRDO.
- Anti-radiation missiles destroy enemy **radars** and **surface-to-air missile (SAM)** systems by homing in on their radio-frequency emissions.
- The missile was successfully tested from a **Su-30MKI** fighter aircraft.
- The programme is led by **Research Centre Imarat (RCI)**, Hyderabad, a DRDO laboratory.



- RudraM-II is part of India's efforts to enhance **Suppression of Enemy Air Defences (SEAD)** capabilities.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. RudraM-II is an indigenous air-to-surface anti-radiation missile.
2. Anti-radiation missiles are designed to home in on enemy radar emissions.
3. RudraM-II has been developed by the Defence Research and Development Organisation (DRDO).

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

PadhAI MAINS PRACTICE QUESTION

- Discuss the strategic importance of indigenous anti-radiation missile systems such as RudraM-II for India's air power.
- How do such systems contribute to self-reliance in defence technology and modern electronic warfare? (150 words)

PadhAI-GENERATED UPSC MCQ

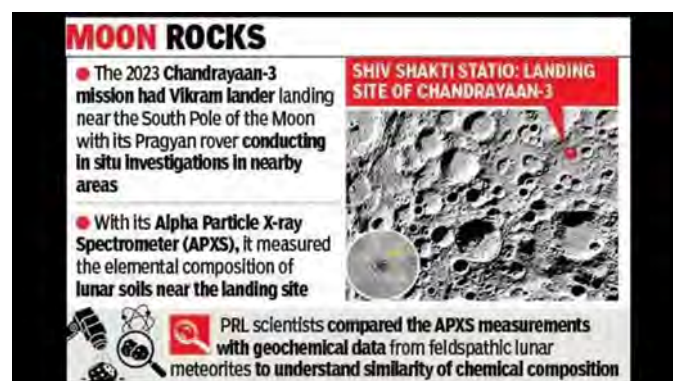
Consider the following statements:

1. Anti-radiation missiles primarily target enemy radar and air-defence systems.
2. RudraM-II is an indigenously developed air-to-surface missile.
3. The Research Centre Imarat is a laboratory under ISRO responsible for developing RudraM-II.

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

Answer: A

2. Shiv Shakti Point Soil Chemically Close to Lunar Meteorite that Hit Antarctica



WHY IN THE NEWS?

- Scientists have found that soil samples collected near **Shiv Shakti Point** by **Chandrayaan-3** are chemically similar to a **lunar meteorite** discovered in **Antarctica**.
- The finding provides new insights into the Moon's geological history and validates remote and in-situ observations.

BACKGROUND / CONCEPT

CHANDRAYAAN-3

- I. Launched by the **Indian Space Research Organisation (ISRO)** on **14 July 2023**.
- II. Successfully achieved a soft landing near the **Moon's south polar region** on **23 August 2023**.
- III. The landing site was named **Shiv Shakti Point**.
- IV. The mission consisted of:
 - A. **Vikram Lander**
 - B. **Pragyan Rover**

WHY ARE LUNAR METEORITES IMPORTANT?

- I. Lunar meteorites are rocks ejected from the Moon's surface by asteroid impacts and later fall to Earth.
- II. They provide direct samples of lunar material without requiring a space mission.
- III. Antarctica is a major location for recovering meteorites because:
 - A. Ice preserves meteorites well.
 - B. Dark meteorites are easily visible against the white ice.



- C. Ice movement concentrates meteorites in specific regions.

SIGNIFICANCE OF THE FINDING

- Confirms the accuracy of Chandrayaan-3's in-situ elemental measurements.
- Improves understanding of the composition of the Moon's south polar region.
- Helps reconstruct the Moon's geological and impact history.
- Supports future lunar exploration and sample-return missions.
- Demonstrates India's growing capabilities in planetary science.

KEY SCIENTIFIC INSTRUMENT

- I. **Laser-Induced Breakdown Spectroscopy (LIBS)** aboard the Pragyan Rover.
- II. Functions:
 - A. Determines the elemental composition of lunar soil and rocks.
 - B. Identifies elements such as:
 1. Sulphur
 2. Aluminium
 3. Calcium
 4. Iron
 5. Titanium
 6. Silicon
 7. Magnesium
 8. Oxygen

CHALLENGES / CONCERNS

- Limited duration of rover operations due to the lunar night.
- Need for direct sample-return missions for detailed laboratory analysis.
- Harsh environmental conditions at the lunar south pole.
- Limited knowledge of subsurface geology.

WAY FORWARD

- Expand lunar exploration through future Chandrayaan missions.
- Strengthen international collaboration in planetary science.
- Develop indigenous sample-return technologies.

- Enhance research on lunar resources for future human exploration.
- Promote advanced instrumentation for planetary missions.

PRELIMS BOOSTER BOX

- **Chandrayaan-3** achieved India's first successful **soft landing on the Moon**.
- The landing site is named **Shiv Shakti Point**.
- **Pragyan Rover** carried the **Laser-Induced Breakdown Spectroscopy (LIBS)** to analyse lunar soil.
- Lunar meteorites originate from the **Moon** but are found on **Earth** after being ejected by asteroid impacts.
- **Antarctica** is one of the world's richest regions for meteorite discoveries due to its ice-covered landscape.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. Shiv Shakti Point is the landing site of Chandrayaan-3.
2. Lunar meteorites are rocks ejected from the Moon by impact events.
3. The Pragyan Rover carried the Laser-Induced Breakdown Spectroscopy (LIBS).

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

PadhAI MAINS PRACTICE

QUESTION

- Discuss the scientific significance of Chandrayaan-3's findings from Shiv Shakti Point.
- How do in-situ lunar observations complement the study of lunar meteorites in understanding the Moon's geological evolution? (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Shiv Shakti Point is located near the Moon's south polar region.



2. Lunar meteorites reach Earth after being ejected from the Moon by impact events.
3. The Pragyan Rover's LIBS instrument is used to analyse the elemental composition of lunar soil.

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

Answer: D

3. Project Kusha: Indigenous Air Defence Shield



WHY IN THE NEWS?

- **Project Kusha**, India's ambitious indigenous long-range air defence programme, is progressing toward development and induction, marking a significant step in strengthening the country's multi-layered air defence architecture under the **Aatmanirbhar Bharat** initiative.

BACKGROUND / CONCEPT

- India is developing a **multi-layered air defence network** to counter evolving aerial threats.
- Project Kusha seeks to reduce dependence on imported long-range air defence systems while enhancing indigenous technological capabilities.
- The project forms part of India's broader defence modernisation and self-reliance strategy.

KEY FEATURES OF PROJECT KUSHA

- I. **Developer:** DRDO.
- II. **Type:** Long-Range Surface-to-Air Missile (LR-SAM) system.
- III. **Targets:**
 - A. Fighter aircraft.

- B. Cruise missiles.
- C. Ballistic missiles.
- D. UAVs and drones.
- E. Precision-guided munitions.

IV. **Components:**

- A. Long-range surveillance radar.
- B. Multi-function fire-control radar.
- C. Command and control system.
- D. Mobile missile launchers.

V. **Expected Capability:**

- A. Multi-target engagement.
- B. Network-centric operations.
- C. High mobility and rapid deployment.
- D. Layered air defence integration.

SIGNIFICANCE

- Strengthens India's indigenous air defence capability.
- Enhances protection of strategic military and civilian assets.
- Reduces reliance on imported missile defence systems.
- Supports the **Aatmanirbhar Bharat** initiative in defence manufacturing.
- Improves preparedness against emerging aerial threats.

CHALLENGES / CONCERNS

- Complex integration of radar, command, and interceptor systems.
- Requirement for continuous technological upgrades.
- High development and testing costs.
- Need for seamless interoperability with existing air defence assets.
- Rapid evolution of hypersonic and electronic warfare threats.

WAY FORWARD

- Accelerate development, testing, and induction timelines.
- Strengthen indigenous radar and missile technologies.
- Integrate Project Kusha with India's Integrated Air Command and Control System (IACCS).
- Expand collaboration between DRDO and the domestic defence industry.





- Invest in next-generation missile defence technologies against hypersonic threats.

PRELIMS BOOSTER BOX

- Project Kusha** is an **indigenous long-range surface-to-air missile (LR-SAM)** programme.
- It is being developed by the **DRDO**.
- The system is intended to intercept:
 - Aircraft.
 - Cruise missiles.
 - Ballistic missiles.
 - UAVs.
- It will complement existing systems such as the **S-400 Triumf** and **Akash** missile system.
- Project Kusha is part of India's effort to build a **multi-layered air defence network**.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

- Project Kusha is an indigenous long-range surface-to-air missile programme.
- It is being developed by the Defence Research and Development Organisation (DRDO).
- It is intended to complement India's existing multi-layered air defence network.

Which of the statements given above is/are correct?

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

Answer: D

PadhAI MAINS PRACTICE QUESTION

- Discuss the significance of Project Kusha in strengthening India's indigenous air defence capabilities.
- How does a multi-layered air defence system enhance national security against evolving aerial threats? (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

- Project Kusha is being developed as an indigenous long-range surface-to-air missile system.

- It is designed to intercept aircraft, cruise missiles, ballistic missiles, and UAVs.
- Project Kusha is being developed by the Indian Space Research Organisation (ISRO).

A. 1 and 2 only

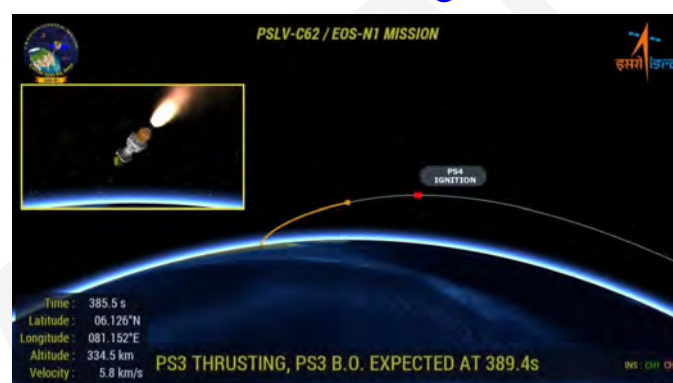
B. 2 and 3 only

C. 1 and 3 only

D. 1, 2 and 3

Answer: A

4. Anomaly in PSLV Detected and Resolved: Jitendra Singh



WHY IN THE NEWS?

- Union Minister **Jitendra Singh** informed that an anomaly detected during a recent **Polar Satellite Launch Vehicle (PSLV)** mission has been identified and resolved by the **Indian Space Research Organisation (ISRO)**, paving the way for future launches with corrective measures in place.

BACKGROUND / CONCEPT

POLAR SATELLITE LAUNCH VEHICLE (PSLV)

- Developed by **ISRO** as India's **workhorse launch vehicle**.
- First successful launch: **1994**.
- Primarily designed to place satellites into:
 - Polar Sun-Synchronous Orbit (SSO)**.
 - Low Earth Orbit (LEO)**.
- It has also successfully launched missions to:
 - Chandrayaan-1**.
 - Mars Orbiter Mission**.
- PSLV has launched hundreds of Indian and foreign satellites, earning global commercial recognition.



KEY FEATURES OF PSLV

- I. **Four-stage launch vehicle.**
- II. Uses a combination of:
 - A. Solid propulsion (1st & 3rd stages).
 - B. Liquid propulsion (2nd & 4th stages).
- III. Highly versatile with multiple variants:
 - A. PSLV-CA (Core Alone).
 - B. PSLV-XL.
 - C. Other mission-specific configurations.
- IV. Capable of launching multiple satellites in a single mission.

SIGNIFICANCE

- Backbone of India's satellite launch programme.
- Supports Earth observation, navigation, communication, and scientific missions.
- Enables commercial satellite launches through **NewSpace India Limited (NSIL)**.
- Strengthens India's position in the global space launch market.
- Demonstrates ISRO's robust quality assurance and mission review mechanisms.

CHALLENGES / CONCERNS

- Increasing complexity of multi-satellite missions.
- Need for continuous reliability improvements.
- Competition from reusable launch vehicles globally.
- Rising demand for heavier payload launch capabilities.

WAY FORWARD

- Strengthen mission assurance and fault-detection systems.
- Incorporate lessons learned from anomaly investigations.
- Accelerate development of reusable launch technologies.
- Expand commercial launch services through NSIL.
- Continue modernisation of India's launch vehicle ecosystem, including **Launch Vehicle Mark-3 (LVM3)** and future reusable launch systems.

PRELIMS BOOSTER BOX

- **PSLV** stands for **Polar Satellite Launch Vehicle**.
- It is a **four-stage** launch vehicle using alternating **solid and liquid propulsion**.
- PSLV is primarily used to launch satellites into **Sun-Synchronous Orbit (SSO)** and **Low Earth Orbit (LEO)**.
- It successfully launched **Chandrayaan-1** and the **Mars Orbiter Mission**.
- **LVM3** is ISRO's heavy-lift launch vehicle designed for heavier payloads and human spaceflight missions.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. PSLV is a four-stage launch vehicle.
2. PSLV uses both solid and liquid propulsion stages.
3. PSLV successfully launched both Chandrayaan-1 and the Mars Orbiter Mission.

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

PadhAI MAINS PRACTICE QUESTION

- The Polar Satellite Launch Vehicle (PSLV) has been the backbone of India's space programme.
- Discuss its key features, achievements, and significance in strengthening India's space capabilities and commercial launch services. (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. PSLV is primarily designed to place satellites into Sun-Synchronous Orbit and Low Earth Orbit.
2. PSLV is a four-stage launch vehicle using alternating solid and liquid propulsion.
3. PSLV was originally developed as a fully reusable launch vehicle.

- A. 1 and 2 only
- B. 2 and 3 only



C. 1 and 3 only

D. 1, 2 and 3

Answer: A

5.DRDO Demonstrates Ballistic Missile Defence Capability



WHY IN THE NEWS?

- The **Defence Research and Development Organisation (DRDO)** has successfully demonstrated key capabilities of India's **Ballistic Missile Defence (BMD)** system through recent interceptor missile trials, strengthening the country's multi-layered missile defence architecture.

BACKGROUND / CONCEPT

WHAT IS A BALLISTIC MISSILE DEFENCE (BMD) SYSTEM?

- A **Ballistic Missile Defence (BMD)** system is designed to detect, track, intercept, and destroy incoming ballistic missiles before they reach their targets.
- It uses a combination of:
 - Long-range surveillance radars.
 - Command, Control, Communications, Computers, and Intelligence (C4I) systems.
 - Interceptor missiles.

INDIA'S BMD PROGRAMME

- Developed by **DRDO** under a **two-tier architecture**:
 - Exo-atmospheric interception** (outside the Earth's atmosphere).
 - Endo-atmospheric interception** (within the Earth's atmosphere).

Key Interceptor Missiles

- Prithvi Defence Vehicle (PDV)**
 - Intercepts targets outside the atmosphere.
- Advanced Air Defence (AAD)**
 - Intercepts targets within the atmosphere.
- Prithvi Air Defence (PAD)** (technology demonstrator)
 - Earlier exo-atmospheric interceptor.

HOW THE BMD SYSTEM WORKS

- Detection:** Long-range radars identify an incoming ballistic missile.
- Tracking:** The missile's speed, trajectory, and impact point are calculated.
- Decision:** The command-and-control system selects the appropriate interceptor.
- Interception:** The interceptor destroys the hostile missile either inside or outside the atmosphere.

SIGNIFICANCE

- Enhances India's strategic deterrence.
- Protects critical military installations and major cities.
- Strengthens national security against ballistic missile threats.
- Demonstrates indigenous capabilities in advanced missile defence technologies.
- Supports the **Aatmanirbhar Bharat** initiative in defence manufacturing.

CHALLENGES / CONCERNS

- Ballistic missiles with manoeuvrable or multiple independently targetable re-entry vehicles (MIRVs) pose greater interception challenges.
- Emerging hypersonic weapons reduce interception time.
- High development and deployment costs.
- Requirement for continuous technological upgrades and integration.

WAY FORWARD

- Accelerate deployment of a nationwide layered missile defence network.
- Strengthen indigenous radar, sensor, and interceptor technologies.





- Enhance integration with space-based surveillance and early warning systems.
- Invest in technologies to counter hypersonic and advanced missile threats.
- Promote collaboration between DRDO, the armed forces, and the domestic defence industry.

PRELIMS BOOSTER BOX

- I. India's **Ballistic Missile Defence (BMD)** programme is being developed by **DRDO**.
- II. It consists of a **two-tier interception system**:
 - A. **Exo-atmospheric interception** using the **Prithvi Defence Vehicle (PDV)**.
 - B. **Endo-atmospheric interception** using the **Advanced Air Defence (AAD)** interceptor.
- III. The BMD system relies on:
 - A. Long-range tracking radars.
 - B. C4I (Command, Control, Communications, Computers, and Intelligence) systems.
 - C. Interceptor missiles.
- IV. **Ballistic missiles** follow a ballistic trajectory for most of their flight after the powered phase.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

- India's Ballistic Missile Defence programme is being developed by DRDO.
- The Prithvi Defence Vehicle (PDV) is designed for exo-atmospheric interception.
- The Advanced Air Defence (AAD) interceptor is designed for endo-atmospheric interception.

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

PadhAI MAINS PRACTICE QUESTION

- Discuss the significance of India's Ballistic Missile Defence (BMD) programme in strengthening national security.

- Explain the functioning of the two-tier BMD architecture and the challenges posed by emerging missile technologies. (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

- The Prithvi Defence Vehicle (PDV) is designed for exo-atmospheric interception.
- The Advanced Air Defence (AAD) missile is used for endo-atmospheric interception.
- India's Ballistic Missile Defence programme is being developed by the Indian Air Force.

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

Answer: A

6. Vaishnaw: More Firms to Make Memory Chips in India



WHY IN THE NEWS?

- Union Minister **Ashwini Vaishnaw** announced that more companies are expected to establish **memory chip manufacturing** facilities in India, reflecting the growing momentum of the country's semiconductor mission and efforts to build a self-reliant electronics manufacturing ecosystem.

BACKGROUND / CONCEPT

WHAT ARE MEMORY CHIPS?

- I. Memory chips are semiconductor devices used to **store data and program instructions** in electronic devices.
- II. They are essential components in:
 - A. Smartphones.





- B. Computers.
- C. Data centres.
- D. Automobiles.
- E. Artificial Intelligence (AI) systems.
- F. Consumer electronics.

TYPES OF MEMORY CHIPS

Volatile Memory

- I. Requires continuous power to retain data.
- II. Example:
 - A. **RAM (Random Access Memory).**

Non-Volatile Memory

- I. Retains data even after power is switched off.
- II. Examples:
 - A. **NAND Flash Memory.**
 - B. **NOR Flash Memory.**

SEMICON INDIA PROGRAMME

- I. Launched in **2021** with a financial outlay of **₹76,000 crore.**
- II. Objectives:
 - A. Establish semiconductor fabrication and packaging facilities.
 - B. Promote display manufacturing.
 - C. Develop semiconductor design capabilities.
 - D. Strengthen the electronics manufacturing ecosystem.
 - E. Reduce import dependence.

SIGNIFICANCE

- Enhances India's technological self-reliance.
- Strengthens supply chain resilience.
- Supports growth in electronics manufacturing.
- Creates high-skilled employment opportunities.
- Attracts foreign investment and advanced technology.
- Improves India's competitiveness in the global semiconductor industry.

CHALLENGES / CONCERNS

- High capital investment requirements.
- Complex manufacturing technology.
- Dependence on imported semiconductor equipment and raw materials.
- Shortage of highly skilled workforce.

- Strong competition from established semiconductor-producing countries.

WAY FORWARD

- Accelerate implementation of the Semicon India Programme.
- Develop semiconductor manufacturing clusters.
- Invest in research and development for advanced chip technologies.
- Strengthen industry-academia collaboration for skill development.
- Promote international partnerships while building indigenous capabilities.
- Expand incentives across the semiconductor value chain, including design, fabrication, and packaging.

PRELIMS BOOSTER BOX

- I. **Memory chips** store digital information and are broadly classified into:
 - A. **Volatile memory (RAM).**
 - B. **Non-volatile memory (Flash memory).**
- II. The **Semicon India Programme** was launched in **2021** with an outlay of **₹76,000 crore.**
- III. The semiconductor value chain includes:
 - A. Chip design.
 - B. Wafer fabrication.
 - C. Assembly, Testing, Marking, and Packaging (ATMP).
 - D. Semiconductor equipment and materials.
- IV. India aims to become a global hub for semiconductor manufacturing under the **Semicon India Programme.**

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. RAM is a type of volatile memory.
2. NAND Flash is a type of non-volatile memory.
3. The Semicon India Programme aims to promote semiconductor manufacturing in India.

Which of the statements given above is/are correct?

- A. 1 and 2 only
- B. 2 and 3 only



C. 1 and 3 only

D. 1, 2 and 3

Answer: D

PadhAI MAINS PRACTICE

QUESTION

- India's semiconductor mission seeks to strengthen technological self-reliance and supply chain resilience.
- Discuss the significance of domestic memory chip manufacturing and examine the challenges in developing a globally competitive semiconductor ecosystem. (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

- RAM is a volatile memory that loses data when power is switched off.
- NAND Flash memory is a type of non-volatile memory.
- Wafer fabrication is the final stage of the semiconductor value chain after assembly and packaging.

A. 1 and 2 only

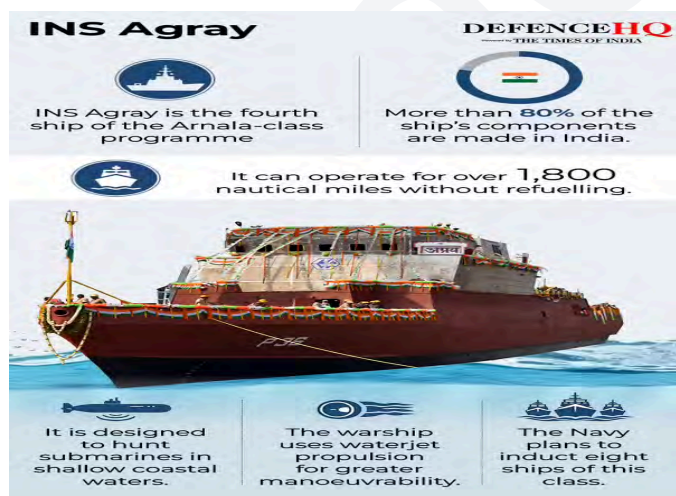
B. 2 and 3 only

C. 1 and 3 only

D. 1, 2 and 3

Answer: A

7. Three Indigenously Built Naval Ships to Be Commissioned



WHY IN THE NEWS?

- The **Indian Navy** is set to commission **three indigenously built naval platforms—INS Surat, INS Nilgiri, and INS Vaghsheer**—marking a major milestone in India's indigenous shipbuilding and maritime defence capabilities.

BACKGROUND / CONCEPT

INS SURAT

- Class:** Project 15B Guided Missile Destroyer.
- Builder:** Mazagon Dock Shipbuilders Limited (MDL).
- Role:**
 - Air defence.
 - Surface warfare.
 - Anti-submarine warfare.
- Equipped with advanced:
 - Surface-to-air missiles.
 - Anti-ship missiles.
 - Torpedoes.
 - Modern sensors and radar systems.

INS NILGIRI

- Class:** Project 17A Stealth Frigate.
- Builder:** Mazagon Dock Shipbuilders Limited.
- Features:
 - Stealth design.
 - Advanced combat management systems.
 - Multi-role operational capability.
- Successor to the earlier Nilgiri-class frigates.

INS VAGHSHEER

- Class:** Scorpene-class (Kalvari-class) diesel-electric submarine.
- Builder:** Mazagon Dock Shipbuilders Limited in collaboration with **Naval Group** of France.
- Features:
 - Advanced stealth characteristics.
 - Anti-surface and anti-submarine warfare capabilities.
 - Long-endurance underwater operations.

SIGNIFICANCE

- Strengthens India's maritime security in the **Indian Ocean**.
- Enhances naval deterrence and combat readiness.





- Boosts indigenous defence manufacturing under **Aatmanirbhar Bharat**.
- Demonstrates India's growing shipbuilding capability.
- Improves India's ability to safeguard Sea Lines of Communication (SLOCs).

CHALLENGES / CONCERNS

- Need for faster indigenous development of advanced propulsion systems.
- Dependence on certain imported defence technologies.
- Rising maritime competition in the Indo-Pacific.
- Requirement for continuous technological upgrades to counter emerging threats.

WAY FORWARD

- Accelerate indigenous warship and submarine construction programmes.
- Expand domestic production of critical naval systems and sensors.
- Strengthen collaboration between the Navy, DRDO, and Indian shipyards.
- Promote exports of indigenous naval platforms.
- Continue modernisation through next-generation destroyers, frigates, submarines, and unmanned maritime systems.

PRELIMS BOOSTER BOX

- **INS Surat** is a **Project 15B guided-missile destroyer**.
- **INS Nilgiri** is the lead ship of the **Project 17A stealth frigates**.
- **INS Vaghsheer** is the **sixth and final Kalvari-class (Scorpene-class) submarine**.
- All three platforms were built by **Mazagon Dock Shipbuilders Limited (MDL)** with significant indigenous content.
- **Project 75** relates to the construction of **Scorpene-class submarines** in India under technology transfer.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. INS Surat is a Project 15B guided-missile destroyer.
2. INS Nilgiri belongs to the Project 17A stealth frigate programme.

3. INS Vaghsheer is a Scorpene-class diesel-electric submarine.

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

PadhAI MAINS PRACTICE QUESTION

- Discuss the significance of indigenous warship and submarine construction in strengthening India's maritime security.
- How do projects such as Project 15B, Project 17A, and Project 75 contribute to the objectives of Aatmanirbhar Bharat in defence? (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. INS Surat is a guided-missile destroyer under Project 15B.
2. INS Vaghsheer belongs to the Kalvari-class submarines built under Project 75.
3. INS Nilgiri is India's first nuclear-powered submarine.

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

Answer: A

8. India Bans Epichlorohydrin and Chlorine in Tea Bags; BIS Issues New Standards



WHY IN THE NEWS?





- India has **prohibited the use of epichlorohydrin and chlorine in tea bags**, while the **Bureau of Indian Standards (BIS)** has notified new standards covering the **safety, quality, labelling, and traceability** of tea bags to strengthen consumer protection and facilitate exports.

BACKGROUND / CONCEPT

WHAT IS BIS?

- The **Bureau of Indian Standards (BIS)** is the **National Standards Body of India**.
- It functions under the **Ministry of Consumer Affairs, Food and Public Distribution**.
- Established under the **Bureau of Indian Standards Act, 2016**.
- Functions include:
 - Formulating Indian Standards.
 - Product certification.
 - Hallmarking of precious metals.
 - Conformity assessment.
 - Consumer protection through standardisation.

ABOUT THE CHEMICALS

EPICHLOROHYDRIN

- An industrial chemical used in:
 - Wet-strength paper.
 - Resins.
 - Adhesives.
- Residues may migrate into food and beverages if used in food-contact materials.
- Classified as a **probable human carcinogen** by the **International Agency for Research on Cancer (IARC)**.

CHLORINE

- Used as a bleaching agent in paper manufacturing.
- Excessive use may leave undesirable chemical residues in food-contact packaging.
- Its prohibition promotes safer and environmentally friendly manufacturing practices.

KEY FEATURES OF THE NEW BIS STANDARDS

- Ban on epichlorohydrin and chlorine in tea bags.
- Standards for:
 - Material safety.
 - Product quality.
 - Hygiene.
 - Packaging.
 - Labelling.
 - Traceability.
- Improved quality assurance for domestic and export markets.

SIGNIFICANCE

- Enhances consumer safety.
- Reduces exposure to hazardous chemicals.
- Strengthens confidence in Indian tea products.
- Supports export competitiveness through internationally accepted quality standards.
- Encourages environmentally sustainable manufacturing practices.

CHALLENGES / CONCERNS

- Compliance costs for manufacturers.
- Need for regular quality testing and certification.
- Monitoring adherence across the supply chain.
- Supporting MSMEs in adopting the new standards.

WAY FORWARD

- Strengthen testing infrastructure and certification facilities.
- Conduct awareness programmes for tea bag manufacturers.
- Promote eco-friendly and biodegradable packaging materials.
- Enhance traceability using digital technologies.
- Ensure periodic review of food-contact material standards in line with global best practices.

PRELIMS BOOSTER BOX

- The **Bureau of Indian Standards (BIS)** is the **National Standards Body of India**.*
- BIS functions under the **Ministry of Consumer Affairs, Food and Public Distribution**.*
- The **Bureau of Indian Standards Act, 2016** governs the functioning of BIS.*





- **Epichlorohydrin** is used in the manufacture of wet-strength paper and is classified by the **IARC** as a **probable human carcinogen (Group 2A)**.
- **Traceability** refers to the ability to track a product through all stages of production, processing, and distribution.

Answer: A

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. The Bureau of Indian Standards (BIS) functions under the Ministry of Consumer Affairs, Food and Public Distribution.
2. The Bureau of Indian Standards Act, 2016 governs the functioning of BIS.
3. Traceability enables tracking of a product throughout its supply chain.

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

PadhAI MAINS PRACTICE

QUESTION

- Discuss the role of quality standards and traceability in ensuring food safety and enhancing the global competitiveness of Indian agricultural products.
- Examine the significance of the Bureau of Indian Standards (BIS) in this context. (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Bureau of Indian Standards is the National Standards Body of India.
2. Epichlorohydrin is used in the manufacture of wet-strength paper and has potential health concerns.
3. BIS functions under the Ministry of Commerce and Industry.

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



Subject

Society & Social Issue



1. Missing from NFHS: Key Indicators Linked to Sex Ratio, Cancer Screening

WHY IN THE NEWS?

- Concerns have been raised over the omission of several important indicators—including **sex ratio at birth** and **cancer screening**—from the upcoming round of the **National Family Health Survey (NFHS)**, potentially affecting evidence-based policymaking in health and gender.

BACKGROUND / CONCEPT

WHAT IS THE NATIONAL FAMILY HEALTH SURVEY (NFHS)?

- NFHS is a **large-scale, multi-round household survey** conducted across India.
- It is coordinated by the **Ministry of Health and Family Welfare**.
- The survey is implemented by the **International Institute for Population Sciences (IIPS), Mumbai**.
- It provides nationally representative data on:
 - Population.
 - Health.
 - Nutrition.
 - Fertility.
 - Family planning.
 - Maternal and child health.
 - Gender-related indicators.

KEY INDICATORS REPORTED IN NFHS

- Fertility Rate (TFR).
- Infant Mortality Rate (IMR).
- Under-5 Mortality Rate (U5MR).
- Maternal health indicators.
- Child nutrition.
- Anaemia prevalence.
- Immunisation coverage.
- Family planning.
- Women's empowerment.
- Domestic violence.
- Sanitation and drinking water access.

WHY ARE THE OMITTED INDICATORS IMPORTANT?

Sex Ratio at Birth (SRB)

- Measures the number of **female live births per 1,000 male live births**.
- Helps detect **sex-selective practices**.
- Assists in monitoring implementation of the:
 - Pre-Conception and Pre-Natal Diagnostic Techniques (Prohibition of Sex Selection) Act, 1994.
 - Beti Bachao Beti Padhao.

Cancer Screening

- Covers screening for:
 - Breast cancer.
 - Cervical cancer.
 - Oral cancer.
- Supports early diagnosis and treatment.
- Helps assess implementation of the **National Programme for Prevention and Control of Non-Communicable Diseases (NP-NCD)**.

SIGNIFICANCE

- NFHS is a critical source of reliable health and demographic data.
- Supports evidence-based policymaking.
- Enables monitoring of SDGs and national health programmes.
- Helps identify regional disparities and vulnerable populations.
- Guides resource allocation and programme evaluation.

CHALLENGES / CONCERNS

- Data gaps may weaken policy planning.
- Reduced ability to monitor gender imbalance.
- Limited assessment of cancer screening coverage.
- Difficulty in evaluating long-term health trends.
- Potential impact on international reporting obligations.

WAY FORWARD

- Restore omitted indicators in future NFHS rounds.
- Align survey indicators with evolving public health priorities.





- Strengthen integration between NFHS and national health information systems.
- Improve periodic monitoring of gender and non-communicable disease indicators.
- Ensure stakeholder consultations before revising survey questionnaires.

PRELIMS BOOSTER BOX

- I. **NFHS** is conducted by the **International Institute for Population Sciences (IIPS)**, **Mumbai**, under the **Ministry of Health and Family Welfare**.
- II. **NFHS** provides data on:
 - A. Population.
 - B. Health.
 - C. Nutrition.
 - D. Fertility.
 - E. Family planning.
- III. **Sex Ratio at Birth (SRB)** is expressed as the number of **female live births per 1,000 male live births**.
- IV. The **PCPNDT Act, 1994** prohibits **sex selection** before and after conception and regulates the use of prenatal diagnostic techniques.
- V. Screening for **breast, cervical, and oral cancers** forms part of India's strategy for preventing and controlling non-communicable diseases.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

- The National Family Health Survey (NFHS) is conducted by the International Institute for Population Sciences (IIPS).
- Sex Ratio at Birth is measured as the number of female live births per 1,000 male live births.
- The PCPNDT Act aims to prohibit sex selection before and after conception.

Which of the statements given above is/are correct?

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

Answer: D

PadhAI MAINS PRACTICE QUESTION

- Discuss the significance of the National Family Health Survey (NFHS) in India's public health governance.

- Examine the implications of excluding key indicators such as Sex Ratio at Birth and cancer screening from future survey rounds. (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

- The National Family Health Survey is implemented by the International Institute for Population Sciences (IIPS), Mumbai.
- Sex Ratio at Birth is an important indicator for monitoring gender imbalance and sex-selective practices.
- The PCPNDT Act primarily regulates air pollution caused by diagnostic laboratories.

A. 1 and 2 only

B. 2 and 3 only

C. 1 and 3 only

D. 1, 2 and 3

Answer: A

2. Funds for Women's Businesses Spent on Household Needs, Finds NRLM Review

WHY IN THE NEWS?

- A government-commissioned evaluation of the **Deendayal Antyodaya Yojana-National Rural Livelihoods Mission (DAY-NRLM)** found that funds intended for women-led enterprises were frequently used to meet household consumption needs instead of starting income-generating activities.
- The findings have implications for the scheme's future and redesign.

BACKGROUND / CONCEPT

ABOUT DAY-NRLM

- I. Launched in **2011** as the **National Rural Livelihoods Mission (NRLM)** and renamed **DAY-NRLM** in **2016**.
- II. Implemented by the **Ministry of Rural Development**.
- III. Objective:
 - A. Reduce rural poverty.
 - B. Mobilise poor rural women into SHGs.
 - C. Promote financial inclusion.



- D. Support sustainable livelihoods and entrepreneurship.
- IV. It is one of the world's largest women-centric poverty alleviation programmes.

KEY FINDINGS OF THE REVIEW

- I. Revolving Funds meant for enterprise development were frequently used for immediate household requirements.
- II. Only a limited number of SHGs established group enterprises.
- III. Low uptake of bank loans due to:
 - A. Lack of assured markets.
 - B. Fear of loan repayment.
 - C. Limited business opportunities.
- IV. Access to higher levels of financial support, such as the **Community Investment Fund (CIF)** and **Community Enterprise Fund (CEF)**, remained limited.
- V. Weak institutional support from Village Organisations and Cluster-Level Federations affected enterprise development.

SIGNIFICANCE OF DAY-NRLM

- Promotes women's financial inclusion.
- Strengthens Self-Help Group institutions.
- Enhances access to formal banking and credit.
- Encourages rural entrepreneurship and livelihood diversification.
- Improves women's social and economic empowerment.
- Facilitates convergence with other government welfare programmes.

CHALLENGES / CONCERNS

- Limited market access for SHG products.
- Small-scale and low-productivity enterprises.
- Inadequate business development support.
- Pressure to achieve SHG formation targets.
- Low credit absorption and enterprise sustainability.
- Use of loans for consumption rather than productive investments.

WAY FORWARD

- Shift focus from SHG formation targets to sustainable enterprise creation.

- Strengthen market linkages and value-chain integration.
- Improve entrepreneurship training and mentoring.
- Increase access to larger credit and enterprise funds.
- Enhance support from community institutions and rural livelihood missions.
- Promote digital marketing and branding of SHG products.

PRELIMS BOOSTER BOX

- I. **DAY-NRLM** is implemented by the **Ministry of Rural Development**.
- II. It organises poor rural women into **Self-Help Groups (SHGs)** for financial inclusion and livelihood promotion.
- III. Key financial support under the scheme includes:
 - A. **Revolving Fund (RF)**.
 - B. **Community Investment Fund (CIF)**.
 - C. **Community Enterprise Fund (CEF)**.
- IV. SHGs are linked with banks to facilitate **collateral-free credit**.
- V. DAY-NRLM emphasises **women's empowerment, financial inclusion, and sustainable livelihoods**.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. DAY-NRLM is implemented by the Ministry of Rural Development.
2. The scheme primarily promotes women's Self-Help Groups for financial inclusion and livelihood generation.
3. Community Investment Fund (CIF) is one of the financial support mechanisms under DAY-NRLM.

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

PadhAI MAINS PRACTICE QUESTION

- Discuss the role of the Deendayal Antyodaya Yojana–National Rural Livelihoods Mission





(DAY-NRLM) in promoting women's economic empowerment.

- Examine the challenges in translating Self-Help Group financing into sustainable rural enterprises. (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. DAY-NRLM aims to organise poor rural women into Self-Help Groups (SHGs).
2. The scheme promotes financial inclusion through bank linkages and livelihood support.
3. The Ministry of Finance is the nodal ministry for implementing DAY-NRLM.

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

Answer: A

3. What Is Lost and Gained in NFHS-6?

WHY IN THE NEWS?

- The proposed design of the **6th National Family Health Survey (NFHS-6)** has sparked debate after the inclusion of new indicators and the exclusion of several existing ones, raising concerns over the survey's ability to comprehensively monitor India's health and demographic trends.

BACKGROUND / CONCEPT

ABOUT NFHS

- I. The **National Family Health Survey (NFHS)** is a large-scale, nationally representative household survey.
- II. Conducted under the **Ministry of Health and Family Welfare**.
- III. Implemented by the **International Institute for Population Sciences (IIPS), Mumbai**.
- IV. Conducted periodically to provide data on:
 - A. Population.
 - B. Health.
 - C. Nutrition.
 - D. Fertility.
 - E. Family planning.
 - F. Gender.

- G. Non-communicable diseases (NCDs).

WHAT IS GAINED IN NFHS-6?

- I. Inclusion of indicators on:
 - A. Ageing and elderly well-being.
 - B. Disability.
 - C. Digital connectivity and access.
 - D. Climate-related vulnerabilities.
 - E. Expanded information on social determinants of health.
- II. Better alignment with evolving public health challenges and Sustainable Development Goals (SDGs).

WHAT IS LOST?

- I. Omission of **Sex Ratio at Birth (SRB)**.
- II. Exclusion of screening indicators for:
 - A. Breast cancer.
 - B. Cervical cancer.
 - C. Oral cancer.
- III. Reduced ability to monitor:
 - A. Gender imbalance.
 - B. Early detection of non-communicable diseases.
 - C. Progress of key health programmes over time.

SIGNIFICANCE OF NFHS

- I. Provides reliable, nationally representative health and demographic data.
- II. Guides formulation and evaluation of public policies.
- III. Supports monitoring of:
 - A. National Health Mission.
 - B. Nutrition programmes.
 - C. Family planning initiatives.
 - D. SDG targets.
- IV. Enables inter-state comparisons and evidence-based resource allocation.

CHALLENGES / CONCERNS

- Break in time-series data due to omission of long-tracked indicators.
- Reduced comparability with previous NFHS rounds.
- Potential weakening of monitoring for gender and cancer-related programmes.





- Balancing questionnaire length with the need for comprehensive data.

WAY FORWARD

- Retain core indicators across survey rounds to preserve trend analysis.
- Add new indicators without compromising continuity.
- Strengthen consultations with public health experts before revising questionnaires.
- Integrate NFHS findings with other national health databases.
- Periodically review survey design to address emerging health priorities while maintaining historical comparability.

PRELIMS BOOSTER BOX

- I. **NFHS** is implemented by the **International Institute for Population Sciences (IIPS), Mumbai** under the **Ministry of Health and Family Welfare**.
- II. It provides data on:
 - A. Fertility.
 - B. Mortality.
 - C. Nutrition.
 - D. Maternal and child health.
 - E. Family planning.
 - F. Gender indicators.
- III. **Sex Ratio at Birth (SRB)** measures the number of **female live births per 1,000 male live births**.
- IV. NFHS data are widely used for monitoring **Sustainable Development Goals (SDGs)** and national health programmes.
- V. NFHS is a **sample survey**, not a population census.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

- The National Family Health Survey (NFHS) is implemented by the International Institute for Population Sciences (IIPS).
- Sex Ratio at Birth is measured as the number of female live births per 1,000 male live births.
- NFHS is conducted as part of the decennial Population Census.

Which of the statements given above is/are correct?

- A. 1 and 2 only
- B. 2 and 3 only

C. 1 and 3 only

D. 1, 2 and 3

Answer: A

PadhAI MAINS PRACTICE QUESTION

- The National Family Health Survey (NFHS) is a cornerstone of evidence-based policymaking in India.
- Discuss the implications of introducing new indicators while discontinuing some existing ones in NFHS-6.
- Suggest measures to ensure both continuity and relevance in national health surveys. (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

- NFHS is a nationally representative household survey on health and demographic indicators.
- Continuity of key indicators across successive NFHS rounds is important for analysing long-term trends.
- NFHS is conducted by the Office of the Registrar General and Census Commissioner of India.

A. 1 and 2 only

B. 2 and 3 only

C. 1 and 3 only

D. 1, 2 and 3

Answer: A

4. Amid Youth Protests, a Snapshot of India's Employment Rate Over This Decade

WHY IN THE NEWS?

- Recent youth protests demanding greater employment opportunities have renewed attention on **India's employment rate**, with data showing that although the absolute number of jobs has increased over the past decade, the **employment rate has declined** because the working-age population has grown faster than employment.

BACKGROUND / CONCEPT

WHAT IS EMPLOYMENT RATE (ER)?





- **Employment Rate (ER)** is the **percentage of the working-age population (usually 15 years and above) that is employed**.
- Unlike the unemployment rate, ER is not affected by changes in labour force participation, making it a better indicator of the economy's ability to generate jobs.

RELATED INDICATORS

- **Labour Force Participation Rate (LFPR):** Percentage of the working-age population that is either employed or actively seeking employment.
- **Worker Population Ratio (WPR):** Percentage of the population that is employed (used in the Periodic Labour Force Survey and conceptually similar to the employment rate).
- **Unemployment Rate (UR):** Percentage of the labour force that is unemployed but actively seeking work.

KEY TRENDS OVER THE DECADE

- Employment increased in absolute numbers but not enough to keep pace with population growth.
- Employment rates declined for:
 - Men.
 - Women.
 - Most age groups.
 - Most educational categories.
- Female employment continues to remain significantly lower than male employment.
- The economy has witnessed:
 - Growth in self-employment and gig work.
 - Slow expansion of formal wage employment.
 - Persistent challenges in creating high-quality jobs.

SIGNIFICANCE

- Employment generation is essential for harnessing India's **demographic dividend**.
- Higher employment improves:
 - Household incomes.
 - Consumption demand.
 - Poverty reduction.
 - Inclusive economic growth.

- Quality employment contributes to social stability and long-term economic resilience.

CHALLENGES / CONCERNS

- Jobless or employment-poor economic growth.
- Low female labour force participation.
- High youth unemployment.
- Skill mismatch between education and industry requirements.
- Growth of informal and gig employment with limited social security.
- Regional disparities in employment opportunities.

GOVERNMENT INITIATIVES

- **Skill India Mission**
- **Make in India**
- **Startup India**
- **Prime Minister Employment Generation Programme (PMEGP)**
- **Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)**
- **Production Linked Incentive Scheme (PLI)**

WAY FORWARD

- Promote labour-intensive manufacturing sectors.
- Increase female workforce participation through supportive policies.
- Strengthen vocational education and industry-linked skill development.
- Expand formal employment with social security coverage.
- Encourage MSMEs and entrepreneurship for job creation.
- Improve labour market data for evidence-based policymaking.

PRELIMS BOOSTER BOX

- **Periodic Labour Force Survey (PLFS)** is conducted by the **National Statistics Office (NSO)**.
- **Employment Rate (ER)** measures the share of the **working-age population** that is employed.
- **Labour Force Participation Rate (LFPR)** includes both employed and unemployed persons actively seeking work.



- **Worker Population Ratio (WPR)** is the proportion of employed persons in the population.
- **Unemployment Rate (UR)** is calculated as a percentage of the labour force, not the total population.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. The Employment Rate measures the proportion of the working-age population that is employed.
2. The Labour Force Participation Rate includes both employed persons and those actively seeking employment.
3. The Periodic Labour Force Survey (PLFS) is conducted by the National Statistics Office (NSO).

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

PadhAI MAINS PRACTICE QUESTION

- India's demographic dividend can become a demographic burden if adequate employment opportunities are not created.
- Discuss the trends in India's employment over the past decade and suggest measures to promote inclusive and quality employment. (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. The Employment Rate is generally unaffected by fluctuations in labour force participation.
2. The Worker Population Ratio (WPR) measures the proportion of employed persons in the population.
3. The Periodic Labour Force Survey (PLFS) is conducted by the Reserve Bank of India.

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

Answer: A

5. How India Cut Child Deaths Faster Than the World

WHY IN THE NEWS?

- Recent global health estimates show that **India has reduced child mortality at a faster pace than the global average**, driven by improvements in maternal and child healthcare, immunisation, nutrition, and public health interventions.
- However, challenges remain in reducing neonatal deaths and addressing regional disparities.

BACKGROUND / CONCEPT

KEY CHILD MORTALITY INDICATORS

- I. **Neonatal Mortality Rate (NMR):**
 - A. Number of deaths during the **first 28 days of life** per **1,000 live births**.
- II. **Infant Mortality Rate (IMR):**
 - A. Number of deaths of children **below one year of age** per **1,000 live births**.
- III. **Under-5 Mortality Rate (U5MR):**
 - A. Number of deaths of children **below five years of age** per **1,000 live births**.

FACTORS BEHIND INDIA'S PROGRESS

- Expansion of the **Universal Immunization Programme**.
- Promotion of institutional deliveries under the **Janani Suraksha Yojana**.
- Strengthening of primary healthcare through the **Ayushman Bharat** initiative.
- Improved maternal healthcare and antenatal services.
- Better nutrition through the **POSHAN Abhiyaan**.
- Increased access to sanitation under the **Swachh Bharat Mission**.
- Enhanced newborn care and breastfeeding practices.

SIGNIFICANCE

- Contributes to achieving **Sustainable Development Goal 3**.
- Improves child survival and life expectancy.
- Reduces health inequalities.





- Enhances human capital and long-term economic productivity.
- Reflects improvements in India's public health system.

CHALLENGES / CONCERNS

- Neonatal mortality remains relatively high.
- Regional disparities across States and districts.
- Malnutrition continues to contribute to child deaths.
- Limited access to quality healthcare in remote areas.
- Shortage of skilled healthcare workers.
- Burden of preventable infectious diseases in vulnerable populations.

WAY FORWARD

- Strengthen neonatal intensive care and newborn health services.
- Improve maternal nutrition and antenatal care.
- Expand universal immunisation coverage.
- Address social determinants such as sanitation, education, and poverty.
- Strengthen district-level health infrastructure and workforce.
- Improve monitoring through robust health data systems.

PRELIMS BOOSTER BOX

- **Neonatal Mortality Rate (NMR):** Deaths within 28 days of birth per 1,000 live births.
- **Infant Mortality Rate (IMR):** Deaths below 1 year per 1,000 live births.
- **Under-5 Mortality Rate (U5MR):** Deaths below 5 years per 1,000 live births.
- **Universal Immunization Programme (UIP)** is one of the world's largest public immunisation programmes.
- **SDG 3.2** aims to end preventable deaths of newborns and children under five years of age by 2030.

PadhAI PYQ BOOSTER SECTION

Consider the following statements:

1. Neonatal Mortality Rate measures deaths occurring within the first 28 days of life per 1,000 live births.
2. Infant Mortality Rate measures deaths of children below one year per 1,000 live births.

3. Under-5 Mortality Rate includes all deaths occurring before a child attains the age of five years.

Which of the statements given above is/are correct?

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

Answer: D

PadhAI MAINS PRACTICE QUESTION

- India has achieved a faster decline in child mortality than the global average.
- Discuss the factors responsible for this progress and examine the challenges that must be addressed to achieve the child health targets under Sustainable Development Goal 3. (150 words)

PadhAI-GENERATED UPSC MCQ

Consider the following statements:

1. Neonatal Mortality Rate refers to deaths occurring within the first 28 days of life per 1,000 live births.
2. Under-5 Mortality Rate includes neonatal and infant deaths.
3. The Universal Immunization Programme has contributed to reducing child mortality in India.

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

Answer: D



Subject

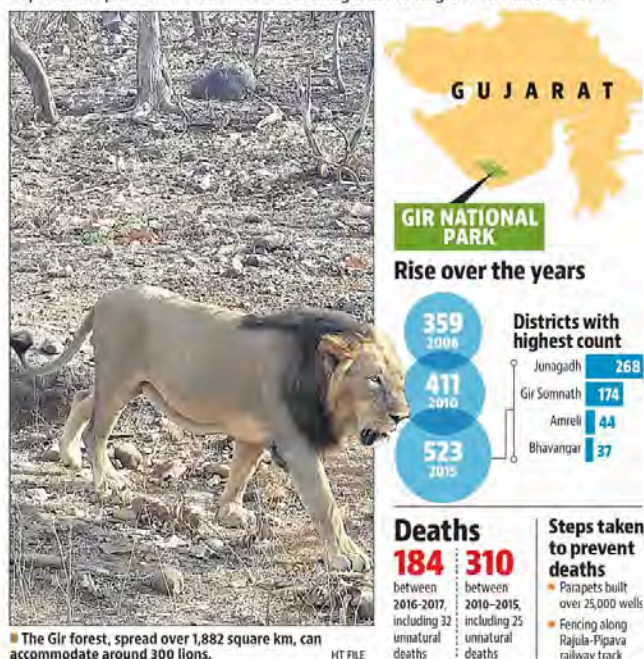
Species in News



1. Gir Lion Deaths Not Alarming, But Highlight the Need for Multiple Wild Populations

Lion count on the rise

Population spike in Gir National Park causing lions to migrate to other districts



- **Habitat Type:** Dry deciduous forests, scrub forests, savannas, and grasslands
- **Activity Pattern:** Primarily crepuscular and nocturnal
- **Diet:** Chital, sambar, nilgai, wild boar, livestock (in fringe areas)
- **Special Traits:**
 - Only wild lion population outside Africa
 - Lives in **social prides**, unlike the largely solitary tiger
 - Acts as a **flagship and umbrella species** for dry forest ecosystems

Threat Matrix

- **Major Threats:**
 - **Single-population risk** (entire wild population concentrated in one landscape)
 - Disease outbreaks (e.g., Canine Distemper Virus)
 - Natural disasters (cyclones, droughts, forest fires)
 - Human–lion conflict in surrounding villages
 - Road and railway accidents
 - Genetic bottleneck due to limited geographic distribution

Taxonomy & Identity

- **Common Name:** Asiatic Lion
- **Scientific Name:** *Panthera leo persica*
- **Family/Order:** Felidae | Carnivora
- **Key Identification Features:**
 - Slightly smaller than the African lion
 - Distinct **longitudinal belly fold** (a key identification feature)
 - Males have comparatively shorter and less extensive manes

IUCN & Legal Status (“Holy Trinity”)

- **IUCN Red List:** Endangered
- **Wildlife Protection Act, 1972:** Schedule I
- **CITES:** Appendix I

Eco-Behavioral Traits

Prelims Booster

Asiatic lion is **endemic to India** and survives only in the **Greater Gir Landscape**.

- A **single wild population** is highly vulnerable to catastrophic events, making the establishment of a **second free-ranging population** a conservation priority.
- **Kuno National Park** was identified by the **Supreme Court of India** (2013) as the site for lion reintroduction to create an additional wild population.
- The recent lion deaths are **not considered alarming in isolation**, but they reinforce the importance of **population diversification** for long-term species survival.





2. Tigress Zeenat Welcomes Four Cubs in Similipal: Boost to Genetic Diversity in Tiger Conservation



- Females usually give birth to **2–4 cubs**, which remain dependent on the mother for up to two years
- Similipal is renowned for its **melanistic tiger population**, caused by a high frequency of a recessive gene in an isolated population.

Threat Matrix

- **Major Threats:**
 - Habitat fragmentation and corridor disruption
 - Human–tiger conflict
 - Poaching of tigers and prey species
 - Inbreeding in isolated populations (especially in Similipal)
 - Wildlife diseases and climate-induced habitat changes

Taxonomy & Identity

- **Common Name:** Bengal Tiger
- **Scientific Name:** *Panthera tigris tigris*
- **Family/Order:** Felidae | Carnivora
- **Key Identification Features:**
 - Largest cat species in India with distinctive black stripes on an orange coat
 - Solitary, territorial apex predator
 - Unique stripe pattern for individual identification

IUCN & Legal Status (“Holy Trinity”)

- **IUCN Red List:** Endangered
- **Wildlife Protection Act, 1972:** Schedule I
- **CITES:** Appendix I

Eco-Behavioral Traits

- **Habitat Type:** Tropical moist and dry deciduous forests, grasslands, mangroves
- **Activity Pattern:** Primarily nocturnal and crepuscular
- **Diet:** Carnivorous (deer, wild boar, gaur, and other ungulates)
- **Special Traits:**
 - Apex predator regulating prey populations and maintaining ecosystem balance

Prelims Booster

- **Similipal Tiger Reserve** is part of the **Similipal Biosphere Reserve** and is a major tiger landscape in eastern India.
- The reserve is globally known for its **melanistic (pseudo-melanistic) Bengal tigers**, a rare genetic trait.
- Tigress **Zeenat** was **translocated to Similipal** to enhance **genetic diversity** and strengthen the isolated tiger population.
- The birth of four cubs is an indicator of the **successful adaptation and breeding** of the translocated tigress.
- The initiative reflects India's shift toward **scientific population and genetic management** under **Project Tiger**.



3. Nilgiri Tahr Population Rises to 1,364 in Tamil Nadu: Encouraging Signs for India's Endemic Mountain Ungulate



Taxonomy & Identity

- **Common Name:** Nilgiri Tahr
- **Scientific Name:** *Nilgiritragus hylocrius*
- **Family/Order:** Bovidae | Artiodactyla
- **Key Identification Features:**
 - Stocky, goat-like mountain ungulate with **short, backward-curving horns**
 - Adult males ("saddlebacks") have a **dark brown to black coat with a silvery-grey saddle patch**
 - Excellent climber adapted to steep rocky cliffs and grass-covered slopes

IUCN & Legal Status ("Holy Trinity")

- **IUCN Red List:** Endangered
- **Wildlife Protection Act, 1972:** Schedule I
- **CITES:** Not Listed

Eco-Behavioral Traits

- **Habitat Type:** Montane grasslands interspersed with shola forests (typically above 1,200 m)
- **Activity Pattern:** Diurnal
- **Diet:** Herbivorous (grasses, herbs, shrubs)
- **Special Traits:**

- Highly adapted to rugged cliffs and steep escarpments
- Lives in herds, with males joining female groups mainly during the breeding season
- Considered a **flagship species of the Western Ghats' montane ecosystem**

Threat Matrix

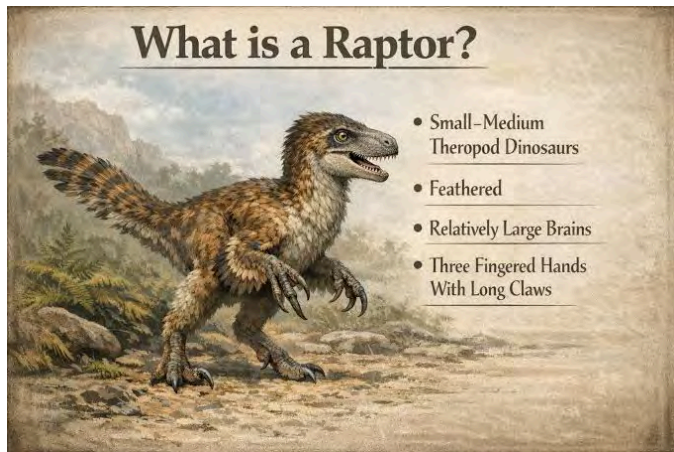
- **Major Threats:**
 - Habitat fragmentation due to plantations and infrastructure development
 - Invasive plant species (e.g., wattle, eucalyptus, pine) replacing native grasslands
 - Climate change affecting high-altitude ecosystems
 - Livestock grazing and disease transmission
 - Small, isolated populations reducing genetic diversity

Prelims Booster

- **Endemic to the Western Ghats** and found nowhere else in the world.
- **Tamil Nadu's latest synchronised survey estimated 1,364 individuals, reflecting a 4.68% increase over the previous year's count.**
- **Largest population occurs in Eravikulam National Park.**
- **State-led conservation is being strengthened through the Nilgiri Tahr Conservation Project launched by the Government of Tamil Nadu.**
- **The Nilgiri Tahr is the State Animal of Tamil Nadu.**



4. Kaziranga Records 30 Raptor and 6 Stork Species: A Testament to Wetland Biodiversity



Taxonomy & Identity

Raptors (Birds of Prey)

- **Common Group:** Raptors
- **Representative Families:** Accipitridae, Falconidae, Pandionidae, Strigidae (owls are raptors but usually treated separately)
- **Order:** Accipitriformes / Falconiformes (depending on family)
- **Key Identification Features:**
 - Sharp hooked beak
 - Powerful talons
 - Exceptional eyesight
 - Carnivorous predators or scavengers

Storks

- **Common Group:** Storks
- **Family:** Ciconiidae
- **Order:** Ciconiiformes
- **Key Identification Features:**
 - Large long-legged wading birds
 - Long neck and stout pointed bill
 - Associated with wetlands, floodplains, and marshes

IUCN & Legal Status (“Holy Trinity”)

- **IUCN Red List:** Varies by species
 - Examples:
 - Greater Adjutant – Endangered
 - Lesser Adjutant – Vulnerable
 - Black-necked Stork – Near Threatened
- **Wildlife Protection Act, 1972:** Most raptors and storks are protected under **Schedule I or Schedule II** (species-specific).
- **CITES:** Varies by species (many raptors are listed in Appendix II).

Eco-Behavioral Traits

Raptors

- **Activity Pattern:** Mostly diurnal (except owls)
- **Diet:** Fish, reptiles, mammals, birds, carrion
- **Special Traits:**
 - Apex avian predators
 - Control rodent and pest populations
 - Indicators of healthy food chains

Storks

- **Activity Pattern:** Diurnal
- **Diet:** Fish, amphibians, crustaceans, insects
- **Special Traits:**
 - Nest colonially on tall trees
 - Depend on healthy wetlands
 - Excellent indicators of wetland productivity

Threat Matrix

- Wetland degradation
- Floodplain modification
- River pollution
- Decline in fish populations
- Electrocutation from power lines
- Climate change affecting breeding and migration
- Human disturbance near nesting colonies

Prelims Booster

- **Kaziranga National Park** is a **UNESCO World Heritage Site** and an **Important Bird Area (IBA)**.



- The park recorded **30 species of raptors** and **6 species of storks**, reflecting its rich avian diversity.
- Raptors occupy the **highest trophic level**, making them excellent **bioindicators**.
- Storks are considered **flagship species of wetland ecosystems**.
- Kaziranga's **beels (oxbow lakes)** and **Brahmaputra floodplains** support exceptional bird diversity, including many migratory species.

5. Delhi Ranks Second Among Global Capitals in Bird Diversity



Taxonomy & Identity

- **Group:** Birds (Class **Aves**)
- **Diversity Recorded:** Over **430 bird species** have been recorded in Delhi, making it one of the most bird-rich capital cities globally.
- **Representative Groups:**
 - Raptors (eagles, kites, vultures)
 - Waterbirds (storks, herons, ducks)
 - Waders
 - Passerines (songbirds)
 - Migratory birds from Central Asia and Siberia

IUCN & Legal Status ("Holy Trinity")

- **IUCN Red List:** Varies by species (Least Concern to Critically Endangered)
- **Wildlife Protection Act, 1972:** Most bird species are protected under **Schedule I or Schedule II** (species-specific).
- **CITES:** Varies by species.

Geographic Range

Location

- **Delhi**

Major Bird Habitats

- Yamuna Biodiversity Park
- Asola Bhatti Wildlife Sanctuary
- Okhla Bird Sanctuary (on the Delhi-Uttar Pradesh border)
- Najafgarh Jheel
- Ridge forests (Northern, Central & Southern Ridge)
- Yamuna floodplains

Flyway

- Lies along the **Central Asian Flyway (CAF)**, an important migratory bird route.

Eco-Behavioral Traits

- **Habitats:** Wetlands, floodplains, forests, grasslands, urban parks, agricultural fields
- **Activity Pattern:** Mostly diurnal (owls are nocturnal)
- **Diet:** Varies by species—nectar, seeds, fruits, insects, fish, rodents, carrion
- **Special Traits:**
 - Large number of **resident and migratory birds**
 - Presence of wetlands supports winter migrants
 - Birds serve as **indicator species** for urban ecosystem health

Threat Matrix

- Wetland degradation and encroachment
- Pollution of the Yamuna River
- Urbanization and habitat fragmentation
- Air and noise pollution
- Invasive plant species
- Climate change affecting migration timing
- Collision with buildings and power lines

Prelims Booster

- **Delhi is among the world's richest capital cities in bird diversity**, ranking **second globally** according to recent bird records.
- Located on the **Central Asian Flyway (CAF)**, making it a major stopover for migratory birds.





- **Najafgarh Jheel** is one of the largest remaining wetlands in the National Capital Region and an important habitat for waterbirds.
- The **Delhi Ridge** forms the northern extension of the **Aravalli Range**, providing crucial forest habitat for birds.
- Urban biodiversity can thrive where **wetlands, forests, and green spaces are effectively conserved**.

6. Frogs Build 'Cloudy' Foam Nests in South Africa: A Remarkable Breeding Adaptation



Taxonomy & Identity

- **Common Name:** Foam-nesting Frogs
- **Representative Species:** Grey Foam-nest Tree Frog (*Chiromantis xerampelina*)
- **Family/Order:** Rhacophoridae | Anura
- **Key Identification Features:**
 - Medium-sized arboreal frogs
 - Possess adhesive toe pads for climbing
 - Produce **white, frothy ("cloud-like") foam nests** above water bodies during breeding

IUCN & Legal Status ("Holy Trinity")

- **IUCN Red List:** Least Concern (*Grey Foam-nest Tree Frog*)
- **Wildlife Protection Act, 1972:** Not Applicable (species not found in India)
- **CITES:** Not Listed

Eco-Behavioral Traits

- **Habitat Type:** Freshwater wetlands and temporary pools
- **Activity Pattern:** Nocturnal
- **Diet:** Insects and other small invertebrates
- **Special Traits:**
 - Females and males whip mucus into **foam nests** suspended from vegetation over water.
 - Eggs develop safely inside the moist foam.
 - After hatching, tadpoles drop directly into the water below.
 - Foam protects eggs from:
 - Dehydration
 - Temperature fluctuations
 - Predators
 - Some parasites

Threat Matrix

- Wetland destruction
- Climate change causing irregular rainfall
- Water pollution
- Agricultural expansion
- Habitat fragmentation
- Emerging amphibian diseases (e.g., chytrid fungus)

Prelims Booster

Foam nesting is a **reproductive adaptation**, not a characteristic of all frogs.

- Foam acts as a **natural incubator**, maintaining moisture and protecting developing embryos.
- Frogs are among the **most sensitive bioindicators** of ecosystem health due to their permeable skin and biphasic life cycle.
- Amphibians are considered the **most threatened vertebrate group globally**, with habitat loss, disease, and climate change driving declines.

7. Stray Tigress Settles in Guru Ghasidas–Tamor Pingla



Reserve: Hope for Chhattisgarh's Tiger Revival

Taxonomy & Identity

- **Common Name:** Bengal Tiger
- **Scientific Name:** *Panthera tigris tigris*
- **Family/Order:** Felidae | Carnivora
- **Key Identification Features:**
 - Largest wild cat in India with distinctive black stripes on an orange coat
 - Solitary, territorial apex predator
 - Excellent swimmer and ambush hunter

IUCN & Legal Status (“Holy Trinity”)

- **IUCN Red List:** Endangered
- **Wildlife Protection Act, 1972:** Schedule I
- **CITES:** Appendix I

Eco-Behavioral Traits

- **Habitat Type:** Tropical moist and dry deciduous forests, grasslands, and riverine forests
- **Activity Pattern:** Primarily crepuscular and nocturnal
- **Diet:** Deer, wild boar, gaur, and other medium-to-large ungulates
- **Special Traits:**
 - Solitary and highly territorial
 - Females establish territories where prey and water are abundant
 - Young tigers naturally disperse to colonize new habitats, aiding gene flow between populations
 - Acts as an **umbrella and flagship species**, conserving entire forest ecosystems

Threat Matrix

- Habitat fragmentation and corridor degradation
- Human-tiger conflict
- Poaching of tigers and prey species
- Mining and infrastructure development
- Small, isolated populations leading to genetic bottlenecks

- Declining prey base

Prelims Booster

- **Guru Ghasidas–Tamor Pingla Tiger Reserve** is Chhattisgarh's fourth tiger reserve, notified in 2024.
- The reserve forms part of the **Central Indian Tiger Landscape**, one of the world's most important tiger conservation regions.
- Natural dispersal of a breeding tigress is a **positive indicator of habitat connectivity and ecosystem recovery**.
- Female tigers play a crucial role in **establishing breeding populations**, making their settlement significant for long-term revival.
- Maintaining **wildlife corridors** is essential for ensuring genetic exchange between tiger populations.

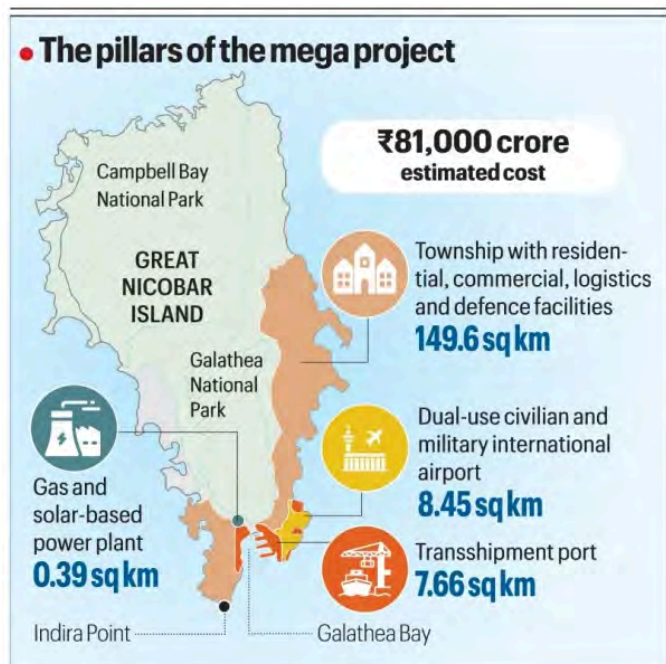


Subject

Places in News



1. Great Nicobar Transshipment Port



Why the Project Was Criticised

According to reports, concerns include:

Strategic Justification

Questions have been raised on whether the project clearly demonstrates:

- Long-term strategic necessity.
- Commercial viability.
- Expected shipping demand.

Environmental Costs

Potential impacts include:

- Diversion of large forest areas.
- Disturbance to coastal ecosystems.
- Effects on nesting beaches of the Leatherback sea turtle.

Tribal Concerns

Possible impacts on:

- Shompen Tribe
- Nicobarese

Locational Context

Location

- Proposed at **Galathea Bay** on the southeastern coast of **Great Nicobar Island**.

- Part of the Andaman and Nicobar Islands.

Nearby Strategic Features

- Indira Point
- Six Degree Channel
- Malacca Strait (one of the world's busiest shipping lanes)

Prelims Focus

- *Galathea Bay*
- *Great Nicobar Island*
- *Six Degree Channel*
- *Malacca Strait*

Physical Geography

Galathea Bay

- Located on the southeastern coast of Great Nicobar.
- Important nesting site for Leatherback sea turtles.

Protected Areas

Nearby:

- Galathea National Park
- Campbell Bay National Park

Seismic Zone

The island lies close to the **Sunda subduction zone**, making it vulnerable to:

- Earthquakes
- Tsunamis

The region was heavily affected during the **2004 Indian Ocean tsunami**.

Environmental & Ecological Importance

Great Nicobar is part of the:

- Sundaland Biodiversity Hotspot

Key features include:

- Tropical evergreen forests.
- Mangroves.
- Coral reefs.
- Endemic birds and mammals.
- Marine turtle nesting habitats.

Quick Revision Table

Feature	Great Nicobar Port
Location	Galathea Bay



Island	Great Nicobar
Nearby Chokepoint	Malacca Strait
Strategic Goal	Transshipment hub
Environmental Issue	Forest loss & turtle habitat
Tribal Communities	Shompen, Nicobarese

2. Oman



Why Oman Appears in News

Oman is frequently in the news due to:

- India's strategic access to Duqm Port.
- Maritime security in the Strait of Hormuz.
- Regional diplomacy and mediation efforts.
- Energy trade and logistics.
- Indian Ocean geopolitics.

Locational Context

Location

- Situated in the **southeastern Arabian Peninsula**.

Borders

- Saudi Arabia (west)
- United Arab Emirates (northwest)
- Yemen (southwest)

Coastline

- Arabian Sea (south and east)
- Gulf of Oman (northeast)

Strategic Waterway

- Controls part of the southern coast of the:
 - Strait of Hormuz

Capital

- Muscat

Prelims Focus

- *Gulf of Oman*
- *Arabian Sea*
- *Strait of Hormuz*
- *Arabian Peninsula*

India–Oman Strategic Partnership

Key Maritime Cooperation

Port of Duqm

India has access to the Port of Duqm for:

- Naval logistics.
- Ship maintenance.
- Commercial trade.

Defence Cooperation

- Joint military exercises.
- Maritime security cooperation.
- Anti-piracy operations in the Arabian Sea.

Trade

Oman is among India's important trade and energy partners in West Asia.

How Oman Cushions India's Trade

During regional conflicts:

- The Port of Duqm, located **outside the Persian Gulf**, offers a relatively safer logistics hub than ports deep inside the Gulf.
- Access to the Arabian Sea without sailing deep into the Gulf can improve supply-chain resilience.
- Oman's traditionally neutral foreign policy allows it to maintain relations with multiple regional actors, making it a stable partner during periods of tension.

Physical Geography

Major Water Bodies

- Arabian Sea





- Gulf of Oman
- Strait of Hormuz

Important Ports

- Port of Duqm
- Port Sultan Qaboos
- Port of Salalah

Quick Revision Table

Feature	Oman
Capital	Muscat
Coastline	Arabian Sea & Gulf of Oman
Strategic Waterway	Strait of Hormuz
Key Indian Interest	Port of Duqm
Importance	Energy security, maritime logistics

3. Aravalli Range



Why It Appears in News

The Aravallis are frequently in the news because of:

- Discovery of prehistoric rock art and engravings.
- Conservation of wildlife corridors.
- Illegal mining.
- Urban encroachment.
- Groundwater recharge and ecological restoration.

Locational Context

Location

- The **Aravalli Range** extends for about **700 km** in **northwestern India**.
- Runs in a **southwest–northeast** direction.

States Covered

- Gujarat
- Rajasthan
- Haryana
- Delhi

Highest Peak

- Guru Shikhar (1,722 m)
- Located in Mount Abu.

Prelims Focus

- *Oldest fold mountain in India.*
- *Guru Shikhar.*
- *States traversed by the Aravallis.*

Physical Geography

Geological Features

- Residual fold mountains.
- Composed mainly of:
 - Quartzite
 - Marble
 - Granite
 - Gneiss

Rivers Originating from the Aravallis

West-flowing

- Luni River

East-flowing

- Banas River
- Sabarmati River
- Sahibi River



Quick Revision Table

Feature	Aravalli Range
Type	Old fold mountain
Age	Precambrian (among the oldest in the world)
Highest Peak	Guru Shikhar
States	Gujarat, Rajasthan, Haryana, Delhi
Major River Origin	Luni, Banas, Sabarmati
Recent News	Prehistoric rock engravings and game boards

4. Gulf Region & Indian Seafarers



Why It Appears in News

The issue has gained attention because of:

- Regional conflict in West Asia.
- Attacks on commercial shipping.
- Safety concerns for Indian merchant navy personnel.
- Risks to India's energy imports and maritime trade.

Locational Context

Key Water Bodies

Persian Gulf

- Semi-enclosed sea rich in oil and natural gas.
- Bordered by:
 - Iran

- Iraq
- Kuwait
- Saudi Arabia
- Bahrain
- Qatar
- United Arab Emirates

Strait of Hormuz

- Connects the Persian Gulf with the Gulf of Oman.
- One of the world's most important maritime chokepoints.

Gulf of Oman

- Connects the Strait of Hormuz to the:
 - Arabian Sea

Strategic Importance

Maritime Chokepoint

The **Strait of Hormuz** is crucial because:

- It carries roughly one-fifth of global oil trade.
- Any disruption can increase energy prices and affect global supply chains.

India's Maritime Strategy

India seeks to:

- Ensure freedom of navigation.
- Protect sea lines of communication (SLOCs).
- Enhance maritime domain awareness.
- Coordinate with regional partners for safe shipping.

Physical Geography

Key Maritime Route

Persian Gulf → Strait of Hormuz → Gulf of Oman → Arabian Sea → Indian Ocean

Important Ports Nearby

- Port of Duqm
- Port of Fujairah
- Chabahar Port

Quick Revision Table

Feature	Importance
Persian Gulf	Major oil and gas producing region
Strait of Hormuz	Global energy chokepoint



Gulf of Oman	Connects Hormuz to the Arabian Sea
Arabian Sea	Main maritime route to India
Main Concern	Safety of seafarers and uninterrupted trade

5. Strait of Hormuz



Why It Appears in News

The Strait of Hormuz is frequently in the news because of:

- Maritime security concerns.
- Regional conflicts.
- Energy supply disruptions.
- Iran–Gulf relations.
- International freedom of navigation debates.

Locational Context

Location

The **Strait of Hormuz** is a narrow maritime passage connecting:

- Persian Gulf → Gulf of Oman → Arabian Sea

Countries Bordering the Strait

- Iran (north)
- Oman (south, via the Musandam Peninsula)

Important Nearby States

- United Arab Emirates
- Saudi Arabia
- Qatar

- Kuwait
- Iraq

Geopolitical / Strategic Importance

Global Energy Chokepoint

- Around **20% of global oil trade** and a significant share of LNG exports transit through the Strait of Hormuz, making it one of the world's most critical maritime chokepoints.

Why It Matters for India

- A large share of India's crude oil and LNG imports comes from Gulf countries.
- Any disruption can increase:
 - Oil prices.
 - Freight and insurance costs.
 - Risks to India's energy security and trade.

Physical Geography

Width

- Narrowest point: about **33 km**.

Shipping Lanes

- International traffic follows designated **Traffic Separation Schemes (TSS)** to reduce collision risks.
- These lanes pass through waters adjacent to both Iran and Oman.

Quick Revision Table

Feature	Strait of Hormuz
Connects	Persian Gulf → Gulf of Oman
Opens Into	Arabian Sea
Bordering Countries	Iran & Oman
Global Importance	Major oil and LNG chokepoint
India's Interest	Energy imports and maritime trade



6. Nathu La



Why It Appears in News

- Resumption of the **Kailash Mansarovar Yatra** via Nathu La.
- Designation of Nathu La as a temporary immigration check post for the pilgrimage season.
- Improved coordination between Indian authorities and China for pilgrimage logistics.

Locational Context

Nathu La Pass

- Located in **East Sikkim**.
- Altitude: **~4,310 m (14,140 ft)**.
- Situated on the **India–China border**.
- Connects:
 - Sikkim
 - Tibet Autonomous Region

Nearby Places

- Gangtok (capital of Sikkim)
- Tsomgo Lake
- Jelep La (another historic Himalayan pass)

Route to Kailash

Gangtok → Nathu La → Tibet → Mount Kailash → Lake Manasarovar

Prelims Focus

- **Nathu La location.**

- **India–China border pass.**
- **Difference between Nathu La and Jelep La.**

Geopolitical / Strategic Importance

India–China Border

- Nathu La is one of the **few officially open border trading and pilgrimage passes** between India and China.
- It forms part of the historic **Silk Route**.

Strategic Importance

- Important for:
 - Border management.
 - Military logistics.
 - India–China confidence-building measures.
 - Limited cross-border trade.

Historical / Cultural Overlay

Ancient Trade Route

- Nathu La was a key branch of the **Silk Route**, linking India with Tibet.

Kailash Mansarovar Significance

- Mount Kailash is revered by:
 - Hindus (abode of Lord Shiva)
 - Buddhists
 - Jains
 - Followers of the Bon faith
- Lake Manasarovar is considered one of Asia's holiest lakes.

Physical Geography

Himalayan Range

- Located in the **Eastern Himalayas**.

Climate

- Alpine and cold desert conditions.
- Heavy snowfall during winter often closes the pass.

Nearby Rivers

The region contributes to river systems such as the:

- Teesta River basin.

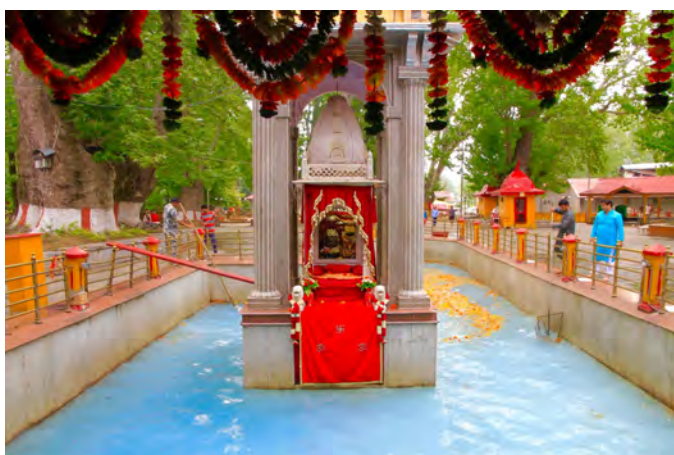
Quick Revision Table

Feature	Nathu La Pass
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State	Sikkim
Connects	India – Tibet (China)
Mountain Range	Eastern Himalayas
Historical Role	Silk Route
Importance	Border trade & Kailash Yatra
Nearby City	Gangtok

7. Kheer Bhawani Temple



Why It Appears in News

The temple is in the news because:

- Thousands of Kashmiri Pandits participated in the annual **Kheer Bhawani Mela**.
- Local residents and leaders welcomed the pilgrims, highlighting efforts to promote communal harmony and cultural continuity.

Locational Context

Location

- Situated at **Tulmulla village** in **Ganderbal district**.
- About **22 km northeast of Srinagar**.

Physical Setting

- Located in the **Kashmir Valley**.
- Surrounded by **Chinar trees**.
- Built around a **natural freshwater spring**, which is central to the temple's religious significance.

Nearby Geographical Features

- Jhelum River flows through the Kashmir Valley.

- Dal Lake and Wular Lake are nearby important water bodies.

Prelims Focus

- Tulmulla village.
- Ganderbal district.
- Kashmir Valley mapping.

Historical / Cultural Importance

Presiding Deity

- Dedicated to **Goddess Ragnya Devi (Kheer Bhawani)**, a form of Goddess Durga.

Name Origin

- The temple derives its name from '**Kheer**' (**rice pudding**), the traditional offering made to the deity.

Sacred Spring

- The temple is built around a **hexagonal sacred spring**.
- According to local belief, the **colour of the spring's water changes**, and darkening of the water is traditionally considered an omen. This is a matter of faith rather than a scientifically established phenomenon.

Kheer Bhawani Mela

- Celebrated annually on **Jyeshtha Ashtami** (Hindu lunar calendar).
- One of the most important religious gatherings of the **Kashmiri Pandit** community.

Geopolitical / Strategic Importance

Although not strategically significant in a military sense, the temple has importance for:

- Preservation of Kashmir's pluralistic cultural heritage.
- Return and participation of displaced **Kashmiri Pandits**.
- Confidence-building and social reconciliation in the Kashmir Valley.

Quick Revision Table

Feature	Kheer Bhawani Temple
Location	Tulmulla, Ganderbal, J&K
Deity	Goddess Ragnya Devi (Kheer Bhawani)



Famous For	Sacred spring & annual mela
Festival	Jyeshtha Ashtami
Community	Kashmiri Pandits



Subject

Person in News



1. General N. S. Raja Subramani



1. Identification: Why in News?

General N. S. Raja Subramani has assumed office as the **Chief of Defence Staff (CDS) of India**. In his first address, he emphasized implementing the **"JAI" vision—Jointness, Atmanirbhar Bharat, and Innovation**—to strengthen India's military capabilities through integrated operations, indigenous defence production, and technological advancement.

Facts

- **Institutional Role:**
 - **Chief of Defence Staff (CDS)** of India.
 - Principal Military Adviser to the **Government of India** and Secretary of the **Department of Military Affairs (DMA)**.
- **Military Background:**
 - Senior officer of the **Indian Army** with extensive operational and command experience.
- **Previous Appointment:**
 - Served as the **Vice Chief of the Army Staff (VCOAS)** before becoming CDS.
- **'JAI' Vision:**
 - **Jointness:** Enhanced integration among the Army, Navy, and Air Force.
 - **Atmanirbhar Bharat:** Greater reliance on indigenous defence manufacturing.
 - **Innovation:** Adoption of emerging technologies, AI, cyber capabilities, and modern warfare systems.
- **Defence Reforms:**

- Expected to accelerate **theatre command** reforms and improve tri-service coordination.

- **Strategic Priorities:**

- Strengthening border preparedness, maritime security, and network-centric warfare.

- **Role of CDS:**

- Coordinates long-term defence planning, capability development, procurement prioritisation, and joint military operations.

- **Significance:**

- His appointment comes at a crucial phase of India's defence modernisation and emphasis on self-reliance in the defence sector.

Literary / Intellectual Contributions

- Not known for published books or academic works.
- Contributed to India's military strategy through:
 - Defence planning
 - Operational doctrine
 - Joint-service integration initiatives

Landmark Achievements

- Appointed as the **Chief of Defence Staff**, India's highest-ranking military officer.
- Advocated the **'JAI' doctrine** to guide India's military transformation.
- Played a key role in promoting **joint military operations** and **indigenous defence capabilities**.
- Contributed to strengthening India's preparedness for **multi-domain warfare**.





2. Admiral Krishna Swaminathan



1. Identification: Why in News?

Admiral Krishna Swaminathan has assumed office as the **27th Chief of the Naval Staff (CNS)** of India, succeeding Admiral Dinesh K. Tripathi. He takes charge at a crucial time as the Indian Navy focuses on maritime security, force modernization, indigenous capability development, and challenges in the Indo-Pacific region.

Facts

- **Institutional Role:**
 - **Chief of the Naval Staff (CNS)** of the Indian Navy (27th CNS).
- **Previous Appointment:**
 - Served as **Flag Officer Commanding-in-Chief (FOC-in-C), Western Naval Command**, one of the Navy's three operational commands.
- **Professional Background:**
 - Commissioned into the **Indian Navy in 1987**.

- Specialist in **Communication and Electronic Warfare**.
- **Major Commands Held:**
 - Commanded several frontline warships, including the aircraft carrier **INS Vikramaditya** and the guided missile destroyer **INS Mysore**.
- **Leadership Experience:**
 - Previously served as **Vice Chief of the Naval Staff** and **Chief of Personnel**, contributing to modernization and human resource management within the Navy.
- **Strategic Priorities:**
 - Strengthening **maritime security**, enhancing **operational preparedness**, and accelerating **indigenisation** under the *Atmanirbhar Bharat* initiative.
- **Awards & Honours:**
 - Recipient of the **Param Vishisht Seva Medal (PVSM)**, **Ati Vishisht Seva Medal (AVSM)**, and **Vishisht Seva Medal (VSM)** for distinguished service.

Literary / Intellectual Contributions

- Not known for published books or academic works.
- Contributed to:
 - Naval operational doctrines
 - Maritime strategy
 - Personnel management and training reforms
 - Modernisation of naval capabilities

Landmark Achievements

- Appointed as the **27th Chief of the Naval Staff** of India.
- Commanded India's premier aircraft carrier **INS Vikramaditya**.
- Played an important role in enhancing **naval training, operational safety, and force modernization**.
- Expected to lead the Navy's transformation towards **technology-driven and integrated maritime operations**.



3. Subhash C. Kashyap



1. Identification: Why in News?

Renowned constitutional expert and former **Secretary-General of the Lok Sabha, Dr. Subhash C. Kashyap**, passed away at the age of **97**. He was widely regarded as one of India's foremost authorities on the **Constitution, parliamentary democracy, and legislative procedures**.

Facts

- **Institutional Role:**
 - Former **Secretary-General of the Lok Sabha** (1983–1990), serving the 7th, 8th, and 9th Lok Sabhas.
- **Constitutional Expert:**
 - One of India's leading scholars on the **Constitution, constitutional law, and parliamentary procedures**.
- **Academic & Professional Career:**
 - Associated with the **Parliament of India** for over three decades.
 - Former head of the **International Centre for Parliamentary Documentation** of the Inter-Parliamentary Union (IPU), Geneva.
- **Committee Memberships:**
 - Member of the **National Commission to Review the Working of the Constitution**.

- Member of the **High-Level Committee on Simultaneous Elections** chaired by former President Ram Nath Kovind.
- **Awards & Honours:**
 - Awarded the **Padma Bhushan** in 2015 for his contributions to public affairs.
- **Scholarship:**
 - Authored **over 100 books** on constitutional law, parliamentary democracy, governance, and political science.
- **Public Influence:**
 - His books have been standard reference material for **civil services aspirants, law students, and political science scholars**.
- **Legacy:**
 - Remembered as a "**living encyclopedia**" of the **Indian Constitution and Parliament** for his lifelong contribution to strengthening democratic institutions.

Literary / Intellectual Contributions

- Notable works include:
 - Our Constitution: An Introduction to India's Constitution and Constitutional Law
 - Constitution of India: A Handbook for Students
 - Several books on **Parliamentary Procedure, Constitutional Law, Governance, and Electoral Reforms**.

Landmark Achievements

- Served as **Secretary-General of the Lok Sabha** during a crucial phase of India's parliamentary evolution.
- Authored **100+ books**, making constitutional concepts accessible to students and policymakers.
- Contributed to major constitutional and electoral reform committees.
- Played a significant role in promoting awareness of **constitutional values and parliamentary democracy**.



4. Air Marshal Ashutosh Dixit



1. Identification: Why in News?

Air Marshal Ashutosh Dixit has been appointed as the **Vice Chief of the Air Staff (VCAS)** of the **Indian Air Force (IAF)**. He assumed office on **1 July 2026**, succeeding Air Marshal Nagesh Kapoor, at a time when the IAF is focusing on modernization, indigenous capability development, and joint military reforms.

Facts

- **Institutional Role:**
 - **Vice Chief of the Air Staff (VCAS)**, Indian Air Force—the second-highest appointment in the IAF.
- **Previous Appointment:**
 - Served as the **Chief of Integrated Defence Staff (CISC)** before his elevation to VCAS.
- **Military Background:**
 - Commissioned into the **fighter stream of the Indian Air Force in 1986**.
- **Flying Experience:**
 - Distinguished **fighter pilot, flying instructor, and experimental test pilot** with **3,300+ flying hours** on more than

20 aircraft types, including Mirage-2000, MiG-21, and Jaguar.

- **Operational Experience:**
 - Participated in **Operation Safed Sagar** during the Kargil conflict and **Operation Rakshak**.
- **Key Leadership Roles:**
 - Former **Deputy Chief of the Air Staff, Air Officer Commanding-in-Chief, Central Air Command**, and **Senior Air Staff Officer, South Western Air Command**.
- **Contribution to Indigenous Defence:**
 - Played a significant role in programmes such as **LCA Tejas Mk-1A, Tejas Mk-2, and the Advanced Medium Combat Aircraft (AMCA)**, supporting **Atmanirbhar Bharat** in defence.
- **Strategic Importance:**
 - Expected to lead efforts in **IAF modernization, joint theatre commands, force integration, and technology-driven capability enhancement**.

Literary / Intellectual Contributions

- Not known for published books or academic works.
- Contributed through:
 - Defence planning and modernization
 - Indigenous aerospace development
 - Joint military strategy and capability planning

Landmark Achievements

- Appointed **Vice Chief of the Air Staff**, one of the highest leadership positions in the IAF.
- Contributed extensively to **indigenous fighter aircraft development and modernization programmes**.
- Served in key operational and strategic appointments across the Indian Air Force.
- Recognized as an accomplished **fighter pilot, test pilot, and military planner**.



5. General Dhiraj Seth



1. Identification: Why in News?

General Dhiraj Seth has assumed office as the **31st Chief of the Army Staff (COAS)** of the **Indian Army**, succeeding General Upendra Dwivedi. Previously serving as the Vice Chief of the Army Staff, he takes charge at a crucial time as India focuses on military modernization, integrated theatre commands, and self-reliance in defence.

Facts

- **Institutional Role:**
 - **Chief of the Army Staff (COAS)** – the professional head of the **Indian Army**.
- **Previous Appointment:**
 - Served as the **Vice Chief of the Army Staff (VCOAS)** before his elevation as Army Chief.
- **Military Background:**
 - Commissioned into the **2nd Lancers (Gardner's Horse)** of the **Armoured Corps** in 1986.
 - Brings nearly **four decades of military service**.
- **Major Commands Held:**
 - General Officer Commanding-in-Chief (**Southern Command**).
 - General Officer Commanding-in-Chief (**South Western Command**).
 - Commanded **XXI Corps (Sudarshan Chakra Corps)** and other key operational formations.
- **Historic Distinction:**
 - First officer from the **Armoured Corps** to become Army Chief in nearly **three decades**.

- **Strategic Priorities:**
 - Focus on **Army modernization, technology-driven warfare, border preparedness**, and **jointness** among the three services.
- **Defence Reforms:**
 - Expected to accelerate **Integrated Theatre Commands**, capability development, and **Atmanirbhar Bharat** in defence.
- **Awards & Decorations:**
 - Awarded the **Param Vishisht Seva Medal (PVSM)**, **Uttam Yudh Seva Medal (UYSM)**, and **Ati Vishisht Seva Medal (AVSM)** for distinguished military service.

Literary / Intellectual Contributions

- Not known for published books or academic works.
- Contributed through:
 - Military strategy and operational planning
 - Defence modernization initiatives
 - Joint-service operational doctrine

Landmark Achievements

- Appointed as the **31st Chief of the Army Staff** of India.
- Commanded two major Army Commands along India's western front.
- Recognized for promoting **future warfare capabilities, technology integration**, and **self-reliance in defence**.
- Brings extensive experience in **armoured warfare**, strategic planning, and operational leadership.

6. Tushar Mehta



1. Identification: Why in News?

Tushar Mehta has been **reappointed as the Solicitor General of India** for a further **three-year term**, effective from **1 July 2026**, reaffirming the Union Government's confidence in his legal leadership before the Supreme Court and other constitutional courts.

Facts

- **Institutional Role:**
 - **Solicitor General of India (SGI)** – the **second-highest law officer** of the Union Government after the Attorney General.
- **Current Appointment:**
 - Reappointed for a **three-year term** beginning **1 July 2026** by the **Appointments Committee of the Cabinet (ACC)**.
- **Professional Background:**
 - Senior Advocate with extensive expertise in **constitutional, civil, commercial, and public law**.
- **Previous Positions:**
 - **Additional Solicitor General of India (2014–2018)**.
 - **Additional Advocate General of Gujarat** before joining the Union Government.
- **Tenure as SGI:**
 - Serving as **Solicitor General since October 2018**, making him one of the **longest-serving Solicitors General** in India's history.
- **Key Responsibilities:**
 - Represents the **Union Government** before the **Supreme Court**, High Courts, and constitutional tribunals.
 - Advises the Government on significant legal and constitutional matters.
- **Major Cases:**
 - Appeared in several landmark cases involving:
 - Constitutional interpretation
 - National security
 - Citizenship and electoral matters
 - Centre–State disputes

- Taxation and regulatory reforms

● **Significance of Reappointment:**

- Ensures continuity in the Government's legal representation during major constitutional and public policy litigation.

Literary / Intellectual Contributions

- Not known for published books.
- Contributes through:
 - Constitutional advocacy
 - Legal opinions before constitutional courts
 - Development of jurisprudence through landmark cases

Landmark Achievements

- Appointed **Solicitor General of India** in **2018**.
- Reappointed multiple times, reflecting sustained confidence in his legal expertise.
- Has represented the Union Government in numerous **high-profile constitutional and policy matters** before the Supreme Court.
- Among the **longest-serving Solicitors General** in independent India.

7. Keir Starmer



1. Identification: Why in News?

Keir Starmer has been in the news after **stepping down as the Prime Minister of the United Kingdom**, less than two years after leading the Labour Party to a historic **landslide victory in the 2024 general election**. His resignation followed mounting political pressure and declining public support.

Facts

- **Institutional Role:**
 - Former **Prime Minister of the United Kingdom** (2024–2026).
 - Former **Leader of the Labour Party**.
- **Professional Background:**
 - Trained as a **barrister** specializing in human rights law.
 - Served as **Director of Public Prosecutions (DPP)** and head of the **Crown Prosecution Service (2008–2013)**.
- **Political Career:**
 - Became **Leader of the Labour Party in 2020**.
 - Led Labour to a **landslide victory in the 2024 UK General Election**, ending 14 years of Conservative rule.
- **Key Governance Priorities:**
 - Economic stability and public service reforms.
 - Workers' rights and planning reforms.
 - Strengthening border security and public institutions.
- **Foreign Policy:**
 - Supported **Ukraine** in the Russia–Ukraine conflict.
 - Strengthened ties with major partners, including **India**, the **European Union**, and the **United States**.
- **Reason for Resignation:**
 - Resigned following internal party dissatisfaction, declining popularity, and electoral setbacks, despite Labour's 2024 mandate.
- **Leadership Legacy:**
 - Credited with rebuilding Labour after its 2019 defeat and returning the party to power.

- **Successor Context:**

- His resignation paved the way for a new Labour leadership under Andy Burnham.

Literary / Intellectual Contributions

- Not known for major literary works.
- Contributed through:
 - Legal writings and public policy speeches.
 - Advocacy for constitutional governance, rule of law, and criminal justice reforms.

Landmark Achievements

- Led the **Labour Party** to its first general election victory since 2005.
- Restored Labour to government after **14 years in opposition**.
- Introduced reforms in public services, labour rights, and economic governance.
- Played a significant role in strengthening the UK's international engagement during his tenure.

