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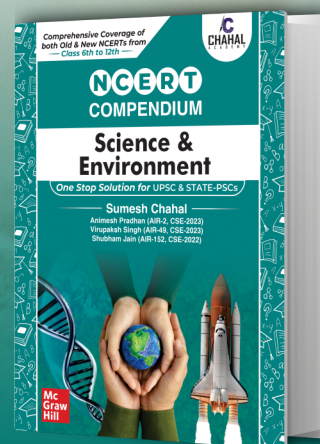
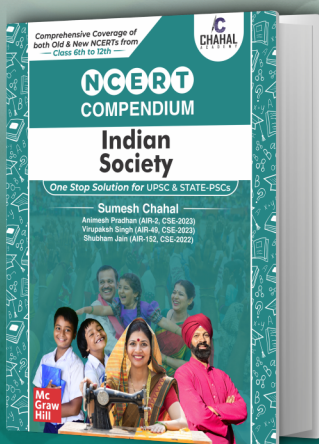
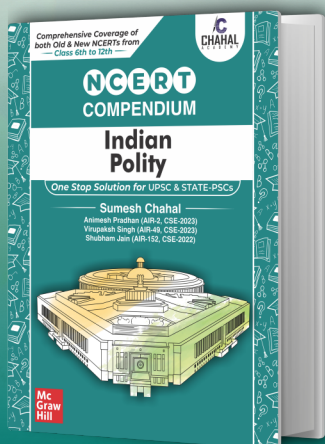
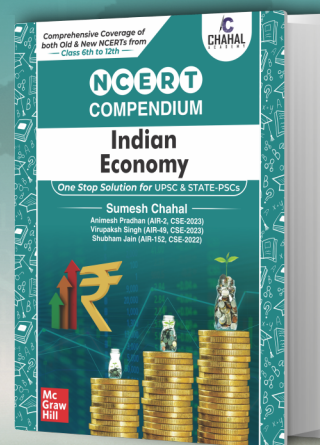
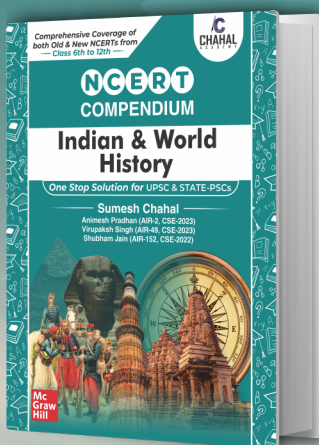
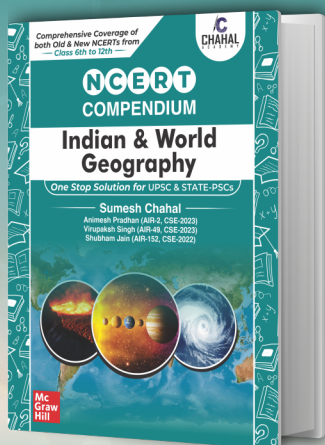


TABLE OF CONTENTS

POLITY AND GOVERNANCE 3	<ul style="list-style-type: none"> ▪ USEPA, NOW A VOICE FOR CLIMATE DENIALISM.....52 ▪ WILL NOT LET ANYONE TOUCH ARAVALLI: SC.....53 ▪ ILLEGAL MINING GOVERNANCE55 ▪ BOOST TO KASHMIR’S FLORAL TOURISM56 ▪ DAL LAKE.....57 ▪ PANGOLINS.....59 ▪ MACAQUES58
<ul style="list-style-type: none"> ▪ SPEAKER OF LOK SABHA 3 ▪ ANTI-LYNCHING GUIDELINES 2018 4 ▪ URBAN GOVERNANCE FAILURE 5 ▪ MONETARY POLICY COMMITTEE 6 ▪ FINANCE COMMISSION’S BALANCING ACT 8 ▪ MOTION OF THANKS 10 ▪ REPRODUCTIVE RIGHTS & AUTONOMY 11 ▪ SC/ST SUB-CLASSIFICATION VERDICT..... 12 ▪ FREEDOM OF SPEECH AND EXPRESSION 13 ▪ HATE SPEECH 15 	SCIENCE AND TECHNOLOGY 60
INTERNATIONAL RELATIONS 167	<ul style="list-style-type: none"> ▪ WATER SAFETY & MICROPLASTICS.....60 ▪ AI & EMPLOYABILITY TRANSITION.....61 ▪ AI-POWERED DEVICES TO SPOT SIGNS OF CANCER63 ▪ 3D LUNG MODELS & INDIA’S FIGHT AGAINST T.B.64 ▪ PREVENTIVE HEALTHCARE & VACCINATION65 ▪ FROZEN EMBRYO DONATION67 ▪ OBESITY AS A CHRONIC DISEASE68 ▪ GENOME EDITING THERAPY.....69
<ul style="list-style-type: none"> ▪ INDIA–BRAZIL RELATIONS 17 ▪ INSURGENCY IN BALOCHISTAN 18 ▪ INDIA-ISRAEL VISIT.....20 ▪ INDIA–PAKISTAN RELATIONS.....21 ▪ IRAN–US TALKS AMID ESCALATING TENSIONS 23 ▪ PM VISIT TO MALAYSIA 24 ▪ MYANMAR ELECTIONS 25 ▪ STRATEGIC EVOLUTION OF INDIA–FRANCE RELATIONS 26 ▪ IN BANGLADESH, A NEW POLITICAL MOMENT..... 28 	DEFENCE AND SECURITY 72
ECONOMY AND AGRICULTURE 30	<ul style="list-style-type: none"> ▪ BIG WIN FOR INTERNAL SECURITY, BUT NO TIME TO REST . 72 ▪ DRONE GOVERNANCE & INNOVATION73 ▪ INDIA’S AVIATION IN NEED OF DATA-DRIVEN OVERSIGHT ..75 ▪ INDIA’S DEFENCE SURGE76 ▪ MARITIME PARTNERSHIP STRENGTHENING77 ▪ NVS-02 SATELLITE FAILURE.....79
<ul style="list-style-type: none"> ▪ BANKING REFORMS & REITS.....30 ▪ BUDGET ON THE TEXTILE ECONOMY 31 ▪ LABOUR WELFARE & INCLUSION 32 ▪ CAPEX & DEBT SUSTAINABILITY.....33 ▪ GROWTH REVISION AND ITS IMPLICATIONS 35 ▪ GLOBAL TRADE & INSTITUTIONS.....36 ▪ RBI MAINTAINS STATUS QUO.....37 ▪ SEMICONDUCTOR SUPPLY CHAINS 39 ▪ MAKE IN INDIA 40 ▪ WHO NEEDS A FINANCIAL MODEL LESS VULNERABLE 42 ▪ DIGITAL COMPETITION & PRIVACY 43 	SOCIAL ISSUES..... 81
ENVIRONMENT AND GEOGRAPHY..... 45	<ul style="list-style-type: none"> ▪ HIV DRUG INNOVATION & PUBLIC HEALTH81 ▪ MISSING CHILDREN IN INDIA.....82 ▪ MENSTRUAL HEALTH84 ▪ MATERNITY BENEFIT ACT IS PROGRESSIVE85 ▪ ALARA PHILOSOPHY.....86 ▪ AVOIDANT/RESTRICTIVE FOOD INTAKE DISORDER.....86 ▪ MENINGOCOCCAL DISEASE87
<ul style="list-style-type: none"> ▪ CARBON CAPTURE NET-ZERO GOAL 45 ▪ STRATEGIC DEVELOPMENT VS SUSTAINABILITY 46 ▪ OCEAN GOVERNANCE & BIODIVERSITY 47 ▪ CENTRAL INDIA’S HUMAN–ELEPHANT CRISIS..... 49 ▪ INDIA’S BID FOR FULL MEMBERSHIP OF THE IEA 50 ▪ FIRE-DETECTION ALGORITHM FOR STUBBLE BURNING..... 51 	HISTORY AND CULTURE..... 88
	<ul style="list-style-type: none"> ▪ TRIVENI KALA SANGAM AT 7588 ▪ MILITANT NATIONALISM & UNITY89 ▪ HOYSALA TEMPLES.....90 ▪ DECOLONISATION & NATIONAL ICONS.....92
	GOVERNMENT SCHEMES..... 94
	<ul style="list-style-type: none"> ▪ MILESTONE UNDER PM SURYA GHAR SCHEME94 ▪ ROAD SAFETY & WELFARE GOVERNANCE94

▪ BHARAT-VISTAAR	95	▪ CHANDRA SHEKHAR AZAD	108
▪ INDIA'S PRAHAAR POLICY	97	MISCELLANEOUS.....	110
▪ 'RAH-VEER' SCHEME.....	98	▪ MISSION FOR AATMANIRBHARTA IN PULSES.....	110
▪ STATE INNOVATION MISSION (SIM)	99	▪ BHARAT GI.....	111
IMPORTANT REPORTS.....	100	▪ OL CHIKI SCRIPT	111
▪ GLOBAL MIND HEALTH 2025 REPORT	100	▪ SOLID FUEL DUCTED RAMJET TECHNOLOGY	111
▪ GENDER EQUALITY GAP	100	▪ SOLID WASTE MANAGEMENT (SWM) RULES, 2026.....	112
▪ HUMAN DEVELOPMENT INDEX (HDI)	102	DAILY MCQs FROM THE HINDU & INDIAN EXPRESS (FEB'26). 113	
PERSONALITIES IN NEWS	104	▪ DAILY MCQS PRACTICE	113
▪ MAHARSHI DAYANAND SARASWATI.....	104	▪ ANSWER KEY	125
▪ CHHATRAPATI SHIVAJI MAHARAJ JAYANTI 2026.....	105		
▪ REMEMBERING LALA LAJPAT RAI	106		

POLITY & GOVERNANCE

SPEAKER OF LOK SABHA

Why in News: The Lok Sabha Speaker has come into focus due to a removal notice by the Opposition and his decision to step aside from presiding on moral grounds amid growing parliamentary tensions.

Key Details

- The Speaker refrained from presiding over proceedings amid a removal notice, highlighting ethical accountability.
- The office derives authority from **Articles 93–110** of the Constitution.
- Powers such as **Money Bill certification and anti-defection decisions** make the office highly influential.
- A no-confidence motion under **Article 94(c)** reflects institutional accountability mechanisms.
- Rising disruptions indicate a **crisis of trust in parliamentary functioning**.

Constitutional Position of the Speaker

- **Articles 93 & 94 – Constitutional Basis:** The Constitution mandates election of the Speaker and Deputy Speaker, and provides for resignation and removal. The Speaker continues till the first sitting of the next Lok Sabha, ensuring continuity.
- **Guardian of the House:** The Speaker presides over proceedings, maintains order, interprets rules, and ensures discipline. This role is essential for smooth legislative functioning and institutional stability.
- **Symbol of Neutrality:** Though elected on a party ticket, the Speaker is expected to rise above politics, following the Westminster convention of impartiality and fairness.
- **Custodian of Parliamentary Privileges:** The Speaker safeguards privileges of members and ensures freedom of speech within the House under constitutional provisions.

Powers and Functions: Institutional Authority

- **Money Bill Certification (Article 110):** The Speaker's decision on whether a Bill is a Money Bill is final, directly affecting the role of the Rajya Sabha and federal balance.
- **Anti-Defection Decisions (Tenth Schedule):** The Speaker decides on disqualification of members, influencing party discipline and stability of governments.
- **Control over Proceedings:** Powers include deciding agenda, granting permission for debates, suspending members, and maintaining decorum during disruptions.
- **Committee System Linkage:** Referring Bills to Parliamentary Committees enhances scrutiny, expert input, and accountability in law-making.

Removal of Speaker: Constitutional Safeguards

- **Article 94(c) – Removal Mechanism:** The Speaker can be removed by a resolution passed by a **majority of all the then members**, ensuring a high threshold.
- **14-Day Notice Requirement:** A mandatory notice period ensures seriousness and prevents abrupt or politically motivated removal attempts.
- **Support of 50 Members:** At least 50 members must support the motion for admission, acting as a procedural safeguard.
- **Participation during Proceedings:** The Speaker can participate and vote in the first instance but cannot exercise a casting vote, ensuring fairness.

Legislature–Judiciary Interface

- **Judicial Review vs Parliamentary Autonomy:** Courts generally respect the Speaker's decisions but have intervened in cases of delay or bias (e.g., anti-defection cases).
- **Money Bill Controversies:** Certification of controversial Bills as Money Bills has triggered debates on **judicial scrutiny and constitutional limits**.
- **Balance of Power:** This interface reflects the tension between **parliamentary sovereignty and constitutional supremacy**.
- **Evolving Jurisprudence:** Supreme Court judgments increasingly emphasise accountability & transparency in Speaker's decisions.

Federal and Institutional Implications

- **Impact on Rajya Sabha:** Money Bill certification bypasses the Upper House, affecting federal representation of states.
- **Centre–State Balance:** Since Rajya Sabha represents states, limiting its role indirectly affects federalism.
- **Policy Implications:** Decisions influence taxation, expenditure, & welfare laws, impacting governance outcomes.
- **Need for Neutrality:** Impartial decisions ensure fairness in legislative processes across regions and political interests.

Public Participation & Democratic Legitimacy

- **Link with Popular Sovereignty:** Parliament represents “We the People”, and the Speaker ensures their voice is expressed through orderly debate.
- **Opposition Rights:** Fair allocation of time and recognition of dissent strengthens democratic accountability.
- **Transparency and Trust:** Open and unbiased conduct enhances citizens' confidence in parliamentary institutions.
- **Deliberative Democracy:** The Speaker facilitates reasoned discussion, aligning with constitutional ideals of debate and consensus.

Crisis of Trust in Parliament

- **Frequent Disruptions:** Repeated adjournments and protests reduce legislative productivity and weaken democratic deliberation.
- **No-Confidence Motion Against Speaker:** Such motions indicate deep political mistrust and institutional strain.
- **Declining Debate Quality:** Reduced discussion time and increased confrontation undermine Parliament's deliberative role.
- **Erosion of Civility:** Shift from policy-based disagreement to personal and institutional conflict affects democratic norms.

Historical Perspective & Democratic Ethos

- **Rare Removal Attempts:** Motions in 1954, 1966, and 1987 did not succeed, reflecting respect for the office.
- **Coalition Era Disruptions:** Earlier disruptions existed but were often issue-based, not institutional.
- **Ethical Parliamentary Conduct:** Leaders like Sushma Swaraj emphasised that opponents are not enemies, highlighting democratic civility.
- **Continuity vs Change:** Current tensions suggest a deeper structural challenge to institutional trust.

Conclusion

The Speaker of the Lok Sabha is central to maintaining **constitutional balance, democratic accountability, and parliamentary dignity**. Ensuring **institutional neutrality, transparency in decisions, and adherence to conventions** is crucial. Reforms such as **time-bound decisions in anti-defection cases, clearer guidelines on Money Bills, and strengthening committee systems** can enhance credibility. Ultimately, rebuilding trust between the government and Opposition, and reaffirming that democracy thrives on **debate, not disruption**, is essential for sustaining India's parliamentary republic.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Que. Discuss the constitutional position, powers, and functions of the Speaker of the Lok Sabha. Why is neutrality essential in parliamentary democracy? (150 Words, 10 Marks)

ANTI-LYNCHING GUIDELINES 2018

Why in News: The Supreme Court recently declined to actively enforce its **2018 anti-lynching guidelines**, raising concerns over judicial oversight, state accountability, and rising vigilante violence.

Key Details

- The Supreme Court termed its 2018 anti-lynching directions as **"unmanageable"** and preferred a **case-by-case approach**.
- Petitioners sought **contempt action against States** for failing to prevent mob lynching and cow vigilantism.

- The 2018 judgment had declared that lynching must be **"curbed and crippled."**
- Implementation of guidelines by States has been **weak and inconsistent**.

Constitutional Framework & Rule of Law

- **Article 21 – Right to Life:** Mob lynching directly violates the fundamental right to life and personal liberty, which includes protection from arbitrary violence and unlawful deprivation of life.
- **Article 14 – Equality Before Law:** Vigilante justice undermines equality, as individuals are punished by mobs rather than through due process, leading to selective and discriminatory targeting.
- **State's Duty (Directive Principles):** The State is obligated to ensure public order and protect citizens, reflecting the constitutional vision of a **welfare state governed by law**.
- **Rule of Law Principle:** Lynching represents a breakdown of legal authority, replacing institutional justice with **mob justice**, which is antithetical to constitutional democracy.

Background: 2018 Anti-Lynching Judgment

- **Supreme Court Verdict (2018):** The Court condemned mob lynching and cow vigilantism, declaring such acts as a **"horrendous act of mobocracy."**
- **Preventive Measures:** States were directed to appoint **nodal officers**, identify sensitive districts, and take steps to prevent incidents proactively.
- **Punitive Measures:** Fast-track courts, victim compensation schemes, and strict punishment for perpetrators were recommended.
- **Remedial Measures:** The Court emphasized **victim rehabilitation, FIR registration, and accountability of police officials** for negligence.

Judicial Shift: From Activism to Restraint

- **Recent Supreme Court Position:** The Court has now declined continuous monitoring, calling earlier directions **"general and unmanageable."**
- **Case-by-Case Approach:** Instead of systemic oversight, the Court prefers addressing incidents individually, limiting broader enforcement.
- **Judicial Retreat Concerns:** This shift is seen as a move from **judicial activism to judicial restraint**, raising concerns about enforcement gaps.
- **Impact on Constitutional Governance:** Reduced judicial oversight may weaken the role of the Court as a **guardian of fundamental rights**.

Failure of Law Enforcement Mechanisms

- **Policing Deficiencies:** Law enforcement agencies in some regions have failed to act promptly, allowing mob violence to escalate.
- **Institutional Weakness:** The need for Supreme Court guidelines itself reflects gaps in **police accountability and administrative capacity**.

- **Rising Incidents:** Reports indicate continued or increasing instances of **cow vigilantism and mob attacks** since 2018.
- **Allegations of Complicity:** In certain cases, authorities have been accused of **inaction or indirect support**, eroding trust in institutions.

State Actions & Vigilantism

- **Quasi-Legal Empowerment:** Some States have reportedly granted **informal or legal backing to vigilante groups**, blurring the line between law enforcement and mob action.
- **Federal Responsibility:** “Public order” is a State subject, making States primarily responsible for preventing such crimes.
- **Implementation Gap:** Many States have not fully implemented the **nodal officer system, fast-track courts, or preventive mechanisms**.
- **Judicial Deference to States:** The Court has advised petitioners to approach High Courts, indicating a **decentralized approach to enforcement**.

Implications for Rule of Law & Democracy

- **Erosion of Legal Authority:** Vigilante violence challenges the monopoly of the State over legitimate use of force.
- **Weakening of Fundamental Rights:** Continued lynching incidents threaten **constitutional guarantees of equality and liberty**.
- **Declining Public Trust:** Judicial reluctance and state inaction may reduce confidence in institutions meant to protect citizens.
- **Majoritarian Concerns:** Lynching often intersects with identity politics, raising concerns about **minority rights and social cohesion**.

Way Forward

The issue of mob lynching requires a **multi-dimensional response**. There is a need for:

- **Enactment of a dedicated anti-lynching law** to provide clear definitions and punishments.
- **Strengthening police accountability** through reforms and independent oversight.
- **Judicial vigilance** to ensure enforcement of fundamental rights.
- **Public awareness and social reform** to counter misinformation and hate narratives.

The Supreme Court’s shift highlights institutional challenges, but **upholding rule of law demands coordinated action by judiciary, executive, and society** to protect constitutional values.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. Which of the following rights is most directly violated in cases of mob lynching?

- (a) Article 19
- (b) Article 21

- (c) Article 25
- (d) Article 32

Answer: (b)

Descriptive Question

Que. Discuss the role of the judiciary in addressing mob lynching in India. Examine the implications of the Supreme Court’s recent shift on its 2018 guidelines. (150 Words, 10 Marks)

URBAN GOVERNANCE FAILURE

Why in News: A fatal incident in **Noida**, where a man drowned after his car fell into an unguarded water-filled pit on a city road, has raised serious concerns about **urban planning, governance failures, and accountability**.

Key Details

- The incident occurred in **Sector 150, Noida**, a planned urban area, not a peripheral or rural zone.
- A **four-lane road abruptly narrowed and turned sharply**, violating standard road design norms.
- An **uncondoned, water-filled excavation pit** existed adjacent to the road in a fog-prone area.
- Multiple agencies—planning authority, builder, road department, and emergency services—were involved.

Urban Planning and Road Design Failures

- **Violation of Road Geometry Norms:** The sudden 90-degree turn from a four-lane road to a narrow stretch violates **Indian Road Congress (IRC)** and **CRR** guidelines, which mandate gradual curves based on design speed.
- **Absence of Crash Barriers:** Urban roads near hazards must have **guardrails or crash barriers**, especially where visibility is low due to fog, as per national road safety standards.
- **Lack of Speed Management:** No visible speed-calming measures or signage were present, reflecting weak enforcement of **urban traffic safety norms**.
- **Planned Area Paradox:** The incident occurred in a notified, planned sector, highlighting that **urban planning failures are not limited to informal settlements**.

Land Use Planning and Floodplain Mismanagement

- **Construction in Floodplain Zones:** The plot lies close to the **Hindon river floodplain**, where groundwater levels are naturally high, making deep basements structurally risky.
- **Ignored Hydro-geological Conditions:** Urban development norms require assessment of **groundwater seepage**, especially for double-basement structures, which appears to have been overlooked.
- **Questionable Land Allotment:** Selling floodplain or low-lying land for intensive construction raises concerns about **environmental clearance and zoning compliance**.

- **Urban Flood Risk:** Such practices increase the risk of **urban flooding and waterlogging**, a growing problem in Indian cities.

Regulatory Oversight and Builder Accountability

- **Abandoned Construction Sites:** The water-filled pit was part of an incomplete project, indicating poor monitoring of **stalled real estate developments**.
- **Failure of Planning Authorities:** Urban local bodies are responsible for ensuring that unused plots are **secured and hazard-free**, which was not done.
- **Multiple Ownership Transfers:** Repeated transfer of the plot without project completion reflects gaps in **real estate regulation**, despite frameworks like **RERA**.
- **Absence of Preventive Action:** No temporary fencing or warning signs were installed, violating basic **public safety norms**.

Emergency Response and Institutional Coordination

- **Delayed Rescue Operations:** Emergency services reportedly arrived late, pointing to weak **disaster response preparedness** in urban areas.
- **Poor Inter-agency Coordination:** Effective response requires coordination between **police, fire services, and local authorities**, which appeared inadequate.
- **Urban Disaster Management Gap:** While cities face risks like flooding, collapses, and accidents, **city-level disaster management plans** often remain poorly implemented.
- **Accountability Deficit:** With multiple agencies involved, responsibility gets diffused, reducing the likelihood of **individual or institutional accountability**.

Civic Awareness and Governance Culture

- **Normalisation of Irregularities:** Citizens often adapt to unsafe urban conditions, such as open pits and poor lighting, until tragedy strikes.
- **Weak Social Auditing:** Limited citizen participation in monitoring urban infrastructure reduces pressure on authorities for compliance.
- **Trust Deficit in Institutions:** Repeated urban accidents erode public confidence in **municipal governance and planning agencies**.
- **Democratic Responsibility:** Urban governance is a shared responsibility requiring **active citizenship and responsive administration**.

Conclusion

The Noida tragedy underscores systemic weaknesses in **urban planning, land-use regulation, infrastructure safety, and accountability mechanisms**. India's rapid urbanisation demands stricter enforcement of planning norms, transparent land allotment, secured construction sites, and robust emergency response systems. Preventing such tragedies requires not only administrative action but also a governance culture centred on **public safety, coordination, and accountability**.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. Which of the following institutions issues guidelines related to road geometry and design in India?

- (a) NHAI
- (b) Indian Road Congress
- (c) NDMA
- (d) Town and Country Planning Organisation

Answer: (b)

Descriptive Question

Que. Urban accidents in India often reflect systemic governance failures rather than isolated lapses. Discuss with reference to urban planning and institutional accountability. (150 Words, 10 Marks)

MONETARY POLICY COMMITTEE

Why in News: The **Reserve Bank of India's Monetary Policy Committee (MPC)** is in focus following its recent policy meeting reviewing inflation, growth outlook, and liquidity conditions while deciding the policy repo rate.

Key Details

- The MPC was established in **2016** under the amended **Reserve Bank of India Act, 1934** to institutionalise inflation targeting.
- It has **6 members (3 RBI + 3 external)**, with decisions by majority and **casting vote of the RBI Governor**.
- It targets **4% CPI inflation (±2%)** while supporting economic growth.
- It meets **at least six times annually** and determines the **repo rate**, influencing overall economic activity.

Legal Basis & Evolution of MPC

- **Statutory Backing (2016 Reform):** The MPC was created through the **Finance Act, 2016**, amending the RBI Act, marking a shift to a **rule-based monetary policy framework**.
- **Operationalisation (October 2016):** It formally replaced the earlier discretionary system where the RBI Governor had sole authority, ensuring **collective decision-making**.
- **Inflation Targeting Framework:** India adopted **flexible inflation targeting**, aligning with global practices followed by countries like the UK and New Zealand.
- **Shift in Policy Paradigm:** The transition improved **predictability, transparency, and credibility** of monetary policy in India.

Rationale for Creation

- **Reducing Discretionary Power:** Earlier concentration of authority in the RBI Governor was replaced by a **committee-based system**, ensuring checks and balances.
- **Enhancing Transparency & Accountability:** Public disclosure of decisions and minutes ensures **institutional accountability and informed market expectations**.

- **Anchoring Inflation Expectations:** A clear inflation target helps reduce uncertainty for investors, businesses, and households.
- **Global Best Practices:** Adoption of MPC aligns India with **modern central banking frameworks**, improving investor confidence.

Composition & Institutional Structure

- **Six-Member Committee:** Includes the RBI Governor (Chairperson), Deputy Governor (Monetary Policy), one RBI nominee, and **three external experts** appointed by the government.
- **External Members' Role:** Experts from economics, banking, or finance ensure **diverse perspectives and independent analysis**.
- **Fixed Tenure:** External members serve a **4-year non-renewable term**, ensuring independence from political influence.
- **Decision-Making Mechanism:** Decisions are taken by **majority vote**, with the Governor having a **casting vote in case of a tie**.

Objectives & Inflation Targeting Framework

- **Primary Objective:** Maintain **price stability** while keeping in mind the objective of economic growth.
- **Inflation Target:** The government has notified a **4% CPI inflation target with $\pm 2\%$ band (2%–6%)**, providing flexibility.
- **Accountability Mechanism:** If inflation breaches limits for **three consecutive quarters**, RBI must submit a report explaining reasons and corrective steps.
- **Balancing Growth & Stability:** The MPC ensures that inflation control does not excessively compromise growth and employment.

Monetary Policy Instruments

- **Repo Rate (Key Tool):** The rate at which RBI lends to banks; changes influence **borrowing costs, demand, and inflation**.
- **Reverse Repo Rate & SDF:** Used to **absorb excess liquidity**, stabilising short-term interest rates.
- **Marginal Standing Facility (MSF):** Provides emergency liquidity to banks, ensuring **financial stability during stress**.
- **Open Market Operations (OMOs):** Buying/selling government securities to manage liquidity and influence money supply.
- **Cash Reserve Ratio (CRR):** Mandatory reserves maintained by banks with RBI, affecting **credit creation capacity**.

Decision-Making Process & Transparency

- **Regular Meetings:** MPC meets **bi-monthly (at least six times annually)** to assess economic conditions.
- **Comprehensive Assessment:** Includes analysis of **inflation trends, GDP growth, global conditions, and liquidity**.

- **Public Communication:** After each meeting, RBI releases a **Monetary Policy Statement**, voting details, and minutes.
- **Transparency Measures:** Disclosure of individual views enhances **credibility and reduces policy uncertainty**.

Monetary Transmission Mechanism

- **Interest Rate Channel:** Repo rate changes influence **bank lending and deposit rates**, affecting consumption and investment.
- **Credit & Demand Impact:** Lower rates boost borrowing & demand, while higher rates curb inflationary pressures.
- **Exchange Rate Channel:** Interest rate changes influence capital flows and currency value.
- **Transmission Challenges:** Effectiveness depends on **banking sector health, liquidity, and market expectations**.

Significance in Indian Economy

- **Anchoring Inflation Expectations:** Predictable inflation reduces uncertainty and protects purchasing power.
- **Boosting Investor Confidence:** Stable macroeconomic environment attracts **domestic and foreign investment**.
- **Financial Stability:** MPC helps prevent excessive inflation or deflation, ensuring economic balance.
- **Global Credibility:** Strengthens India's image as a **stable and predictable economy**.

Challenges Before MPC

- **Supply-Side Inflation:** Food and fuel shocks, beyond monetary control, complicate inflation management.
- **Growth vs Inflation Trade-off:** Tight monetary policy may slow growth, especially during economic downturns.
- **Global Uncertainties:** Oil prices, geopolitical tensions, and capital flows impact domestic policy decisions.
- **Transmission Issues:** Weak banking transmission reduces effectiveness of policy rate changes.

Recent Trends & Contemporary Relevance

- **Post-Pandemic Policy Focus:** MPC balanced **growth revival with inflation control**, initially maintaining accommodative stance.
- **Liquidity Normalisation:** Gradual withdrawal of excess liquidity to prevent overheating of the economy.
- **Global Monetary Tightening:** Actions by central banks like the US Federal Reserve influence India's policy stance.
- **Role in Volatile Times:** MPC plays a key role during **inflation spikes, currency volatility, and global shocks**.

Conclusion

The MPC has strengthened India's monetary policy framework by introducing **transparency, accountability,**

and credibility. Going forward, improving **monetary transmission, coordination with fiscal policy, and addressing supply-side constraints** will enhance its effectiveness. A balanced approach between inflation control and growth will be crucial for sustaining macroeconomic stability.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. In case of a tie in MPC voting, who has the casting vote?

- (a) Finance Minister
- (b) Deputy Governor
- (c) RBI Governor
- (d) Senior-most external member

Answer: (c)

Descriptive Question

Que. Discuss the role of the Monetary Policy Committee (MPC) in institutionalising inflation targeting in India. Evaluate its effectiveness and challenges. (250 Words, 15 Marks)

FINANCE COMMISSION'S BALANCING ACT

Why in News: Debate has emerged over whether the recommendations of the **16th Finance Commission** truly strengthen fiscal federalism despite retaining the states' share in the divisible pool.

Key Details

- The **16th Finance Commission** retained the states' share in the divisible pool at **41%**.
- Growing use of **cesses and surcharges** by the Union reduces the effective shareable tax pool.
- Concerns persist among some states, especially southern states, regarding **horizontal devolution fairness**.

- Experts argue that headline ratios may mask deeper issues in India's **fiscal federal structure**.

Constitutional Framework of Finance Commission

- **Constitutional Mandate (Article 280):** The Finance Commission (FC) is a constitutional body tasked with recommending the distribution of tax revenues between the Union and states to maintain fiscal balance.
- **Vertical and Horizontal Devolution:** The FC determines (i) vertical sharing between Centre and states and (ii) horizontal distribution among states based on criteria like population, income distance, and area.
- **Role in Cooperative Federalism:** By ensuring predictable fiscal transfers, the FC supports **cooperative federalism**, enabling coordination between different tiers of government.
- **Evolution of Devolution:** The **14th Finance Commission** significantly increased states' share to 42%, marking a major shift toward fiscal decentralisation.

The Headline 41% Devolution: Continuity or Illusion

- **Retention by 16th FC:** The continuation of the **41% share** (recommended by the 15th FC after J&K reorganisation) appears to signal stability in Centre-state fiscal relations.
- **Shrinking Divisible Pool:** However, the effective benefit depends on the **size of the divisible pool**, which has been affected by the rising share of non-divisible revenues.
- **Growing Use of Cesses and Surcharges:** Over the past decade, the Union has increasingly relied on these levies, which are **excluded from the divisible pool under Article 270**.
- **Effective Share Decline:** As per various fiscal analyses, states' effective share in gross tax revenue is **lower than the headline 41%**, raising concerns about transparency.

Criteria for Distribution of Central Taxes among States

Criteria	15 th FC (2021-26)	16 th FC (2026-31)
Income Distance	45%	42.5%
Population (2011)	15%	17.5%
Demographic Performance	12.5%	10%
Area	15%	10%
Forest	10%	10%
Tax and Fiscal Efforts	2.5%	-
Contribution to GDP	-	10%
Total	100%	100%

Sources: Reports of the 15th and 16th Finance Commissions.

Issue of Cesses and Surcharges

- **Legal but Controversial Tool:** While constitutionally permitted, excessive reliance on cesses and surcharges is seen by states as **bypassing the spirit of fiscal federalism**.

- **Rising Proportion:** The share of cesses and surcharges in Union gross tax revenue has reportedly risen from **around 10% in early 2010s to nearly 18–20% in recent years**.
- **Impact on State Finances:** States bear major expenditure responsibilities in sectors like health,

education, and infrastructure but receive a **shrinking shareable resource base**.

- **Planning Uncertainty:** Unpredictable transfers make it harder for states to plan long-term investments and manage fiscal deficits effectively.

Horizontal Devolution and Regional Concerns

- **Southern States' Concerns:** Some southern states argue that population-based criteria disadvantage states that achieved **early demographic transition and better social indicators**.
- **Modest Increase in Share:** The rise in southern states' share from about **15.8% to around 17%** is viewed by critics as incremental rather than structural.
- **Equity vs Efficiency Debate:** Finance Commissions traditionally balance **equity (support to poorer states)** with **efficiency (reward for performance)**, often leading to political contestation.
- **Historical Trend:** The southern region's share was above **21% during the 11th FC**, indicating a long-term relative decline.

Performance-Based Criteria: Limited Impact

- **Introduction of GSDP Contribution:** The 16th FC included states' **contribution to GDP** as a criterion to recognise economic performance.

- **Structural Constraints:** However, Gross State Domestic Product reflects historical and structural factors, not purely current policy effort.
- **Removal of Tax Effort Criterion:** Dropping the explicit **tax effort parameter** weakens incentives for states to improve their own revenue mobilisation.
- **Dominance of Population Factors:** Population-based indicators continue to carry significant weight, limiting the overall impact of performance incentives.

Fiscal Federalism in Contemporary India

- **Expenditure Responsibilities of States:** States account for nearly **60% of public expenditure** in areas such as health, education, agriculture, and local infrastructure.
- **GST and Fiscal Space:** The introduction of GST has reduced states' independent taxation powers, increasing dependence on transfers.
- **Borrowing Constraints:** States operate under FRBM limits and require Centre's consent for certain borrowings, affecting fiscal autonomy.
- **Need for Trust-Based Federalism:** Effective fiscal federalism depends not only on formulas but also on **predictability, transparency, and cooperative spirit**.

Finance Commission

The Finance Commission is the balancing wheel of fiscal federalism in India
-Indian Constitution

Article 280
(Indian Constitution Part XII)

Constitution of FC as a Quasi
Judicial Body

Constituted by

President of India
quinquennially (or earlier)

Makes Recommendations to President about

- Distribution of net tax proceeds between Centre and States
- Principles for grants-in-aid to the states by the Centre
- Evaluates the rise in the Consolidated Fund of a state to affix the resources of Panchayats/Municipalities
- Other financial matters referred to it by President

• **Recommendations of the FC are only advisory and not binding on the Government**

Members

- Chairman + 4 members (including an HC judge - appointed by President)
- Authority to decide qualifications - Parliament
- Tenure- as specified by the President
- Reappointment - Eligible

Powers of a Civil Court

As per Code of Civil Procedure 1908

First FC —● Second FC —● ... —● Fifteenth FC —● Sixteenth FC

Chairman - KC Neogy Chairman - K Santhanam

Chairman - NK Singh

Chairman
Dr. Arvind Panagariya

State Finance Commission

- Constituted by Governor every 5th year (Article 243)
- Reviews the financial position of Panchayats and Municipalities

Conclusion

The Finance Commission's recommendations provide important fiscal continuity, but true federal balance requires strengthening the **effective divisible pool**, rationalising the use of cesses and surcharges, and better rewarding states' fiscal effort. India's cooperative federalism will remain robust only when fiscal transfers reflect both **equity and efficiency** in a transparent and predictable manner.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Que. Which of the following revenues are excluded from the divisible pool shared with states?

- (a) Corporation tax
- (b) Income tax
- (c) Cesses and surcharges
- (d) GST compensation cess

Answer: (c)

MOTION OF THANKS

Why in News: The Motion of Thanks recently became contentious due to its adoption in the Lok Sabha **without the Prime Minister's reply**, raising concerns over parliamentary conventions and executive accountability.

Key Details

- The Motion of Thanks is a **formal resolution following the President's Address under Article 87**.
- It was adopted **without the Prime Minister's reply**, marking an **unprecedented procedural deviation**.
- Concerns were raised regarding **Opposition rights, debate restrictions, and security justifications**.
- It continues to function as an **implicit test of majority support in the Lok Sabha**.

Concept & Nature of Motion of Thanks

- **Parliamentary Convention:** The Motion of Thanks is not explicitly mentioned in the Constitution but has evolved as a **well-established parliamentary practice**, forming a key part of legislative functioning.
- **Formal Acknowledgment:** It formally thanks the President for the Address, which outlines the **government's policies, programmes, and legislative agenda**.
- **From Ceremony to Substance:** It converts the President's Address from a ceremonial speech into a **substantive political debate**, enabling scrutiny of government actions.
- **Implicit Confidence Motion:** Though not formally a confidence motion, its passage in Lok Sabha reflects **continued majority support of the government**.

Constitutional Framework

- **Article 87 – President's Address:** Mandates the President to address Parliament at the **first session after general elections and the first session each year**, forming the basis for the Motion of Thanks.

- **Article 75(3) – Collective Responsibility:** Establishes that the Council of Ministers is **collectively responsible to the Lok Sabha**, which is operationalised through debates like the Motion of Thanks.
- **Constitutional Silence & Convention:** While the Constitution does not explicitly mention the Motion, its consistent practice gives it **constitutional significance through convention**.
- **Defeat Equals Loss of Confidence:** If the Motion is defeated in Lok Sabha, it implies that the government has **lost majority support**, leading to political consequences.

Procedure in Parliament

- **Initiation:** The Motion is moved by a **senior member of the ruling party** and seconded by another MP, marking the formal beginning of discussion.
- **Comprehensive Debate:** A **multi-day debate** follows, where members from all parties discuss government performance, policies, and national issues.
- **Amendments:** MPs may move amendments expressing **criticism, regret, or highlighting omissions** in the President's Address.
- **Limitations on Amendments:** Amendments cannot **criticise the President personally**, question the constitutional office, include defamatory content, or raise unrelated matters.
- **Voting & Outcome:** The Motion is passed by a **simple majority in Lok Sabha**, while Rajya Sabha's approval has no bearing on government stability.
- **Prime Minister's Reply (Convention):** Traditionally, the debate concludes with the **Prime Minister's reply**, addressing concerns raised during discussions.

Recent Unprecedented Development

- **No PM Reply (2026 Event):** The Lok Sabha adopted the Motion of Thanks **without the Prime Minister's reply**, marking a significant departure from parliamentary convention.
- **Security Justification:** The Speaker cited **credible inputs regarding possible "unexpected actions" by Opposition MPs**, raising concerns about security near the Prime Minister.
- **Restrictions on Opposition:** The Leader of the Opposition was **disallowed from citing certain references**, limiting the scope of debate.
- **Procedural Concerns:** No formal resolution was passed to **dispense with the Prime Minister's reply**, raising questions on procedural legitimacy.
- **Criticism and Debate:** Critics termed the justification as **implausible**, arguing that such actions weaken democratic norms and transparency.

Significance in Parliamentary Democracy

- **Annual Government Review:** The Motion acts as a platform for **comprehensive evaluation of government performance and policies**.

- **Instrument of Accountability:** It ensures **executive accountability to Parliament**, allowing MPs to question and critique governance.
- **Opposition's Role:** Provides the Opposition an opportunity to **present alternative policies and highlight governance gaps**.
- **Operationalising Collective Responsibility:** It translates the constitutional principle of **collective responsibility into practice through debate and scrutiny**.

Democratic Concerns

- **Curtailed Debate:** Limiting discussion or bypassing the Prime Minister's reply undermines the **deliberative nature of parliamentary democracy**.
- **Weakening Accountability:** The absence of a reply reduces **direct executive accountability**, which is central to parliamentary functioning.
- **Impact on Opposition Rights:** Restrictions on the Opposition weaken **checks and balances**, affecting democratic pluralism.
- **Constitutional Morality:** Ignoring established conventions risks eroding **constitutional morality**, as emphasised by B.R. Ambedkar.

Limitations of the Motion

- **Majoritarian Dominance:** Governments with strong majorities generally ensure passage, reducing the Motion to a **formality in practice**.
- **Political Polarisation:** Debates often become **politically charged**, limiting meaningful policy discussion.
- **Rhetorical Nature:** Focus may shift to **political rhetoric rather than substantive policy analysis**.
- **Emerging Procedural Deviations:** Recent developments indicate potential **weakening of accountability mechanisms and parliamentary traditions**.

Conclusion

The Motion of Thanks remains a cornerstone of India's parliamentary democracy, transforming the President's Address into a **mechanism of legislative scrutiny and accountability**. However, the recent departure from convention—particularly the absence of the Prime Minister's reply—raises serious concerns about **executive accountability, Opposition rights, and constitutional morality**. Strengthening parliamentary practices, ensuring full debate, and adhering to established conventions are essential to preserve the **integrity and effectiveness of democratic governance**.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. Which principle of democracy is most directly affected by the Prime Minister not replying to the debate?
 (a) Federalism
 (b) Judicial review

- (c) Executive accountability to Parliament
- (d) Separation of powers

Answer: (c)

Descriptive Question

Que. The Motion of Thanks serves as an important instrument of executive accountability in parliamentary democracy. Discuss in the context of recent procedural developments. (150 Words, 10 Marks)

REPRODUCTIVE RIGHTS & AUTONOMY

Why in News: The Supreme Court recently permitted termination of a 30-week pregnancy of a teenager, reaffirming women's reproductive autonomy.

Key Details

- The Supreme Court overturned a Bombay High Court order and allowed abortion at **30 weeks of gestation**.
- The Court emphasised that a woman **cannot be compelled to continue an unwanted pregnancy**.
- The ruling strengthens the rights framework under the **Medical Termination of Pregnancy (MTP) Act, 2021**.
- The judgment highlights the growing judicial focus on **mental health and bodily autonomy**.

Legal Framework: Medical Termination of Pregnancy (MTP) Act

- **Evolution of the Law:** India enacted the MTP Act in **1971**, later amended in **2021** to expand access to safe and legal abortion. The amendment aimed to align law with reproductive rights and medical advancements.
- **Gestational Limits:** The 2021 amendment permits abortion up to **20 weeks on medical advice** and up to **24 weeks for specified categories** such as survivors of rape, minors, and differently-abled women.
- **Beyond 24 Weeks:** Termination beyond 24 weeks is allowed only in cases of **substantial foetal abnormalities** or through court intervention, which explains the frequent litigation.
- **Medical Boards' Role:** State-level medical boards assess late-term cases, but delays and inconsistent interpretations often push women to approach courts.

Supreme Court's Key Observations

- **Primacy of Women's Choice:** The Court clearly stated that no woman can be forced to carry a pregnancy she does not intend to continue, reinforcing **bodily autonomy**.
- **Mental Health Recognition:** The judgment placed **mental trauma on par with physical health**, broadening the interpretation of "grave injury to health" under the MTP Act.
- **Public Health Approach:** The Court acknowledged that restrictive abortion laws do not stop abortions but instead **increase unsafe procedures**, a concern flagged by global health bodies.
- **Progressive Constitutional Reading:** The ruling builds on earlier jurisprudence linking reproductive choice with **Article 21 (Right to Life and Personal Liberty)**.

Reproductive Autonomy under the Constitution

- **Article 21 Expansion:** The right to reproductive choice has been read into Article 21 through judicial interpretation, recognising **privacy, dignity, and bodily integrity**.
- **Link with Right to Privacy (2017):** The Supreme Court's privacy judgment established that decisional autonomy in matters of reproduction is a **core privacy right**.
- **Gender Justice Dimension:** Reproductive autonomy is essential for **substantive equality under Article 14**, as forced pregnancy disproportionately burdens women.
- **International Commitments:** India is a signatory to **CEDAW**, which calls for ensuring women's access to reproductive healthcare and informed choice.

Inconsistency in Judicial Outcomes

- **Case-by-Case Approach:** Indian courts have delivered **non-uniform rulings** in late-term abortion cases, creating legal uncertainty.
- **Contrast with 2023 Decision:** In 2023, the Court denied a married woman's plea for termination at 26 weeks, highlighting inconsistency in judicial reasoning.
- **Role of Marital Status:** The present case shows that **minor status and social vulnerability** influenced judicial empathy, raising concerns about equal treatment.
- **Need for Clear Standards:** Experts argue that absence of uniform guidelines leads to **forum shopping, delays, and mental distress** for pregnant women.

Ethical and Legal Debate: Foetus vs Woman

- **Foetal Viability Question:** Courts often weigh the foetus's potential right to life against the woman's autonomy, especially in late-term cases.
- **Indian Legal Position:** Indian law does **not recognise foetal personhood as absolute**, but the balancing exercise creates ambiguity.
- **Shift in Judicial Tone:** The recent ruling moves away from the polarised **pro-life vs pro-choice** framing toward a health-centred approach.
- **Global Context:** Many countries are witnessing intense abortion debates, making India's rights-based but regulated model significant.

Structural Challenges in Access to Safe Abortion

- **Delay in Detection:** Many women, especially minors and rural women, realise pregnancy late, pushing them beyond statutory limits.
- **Medical Infrastructure Gaps:** Shortage of trained providers and functioning medical boards restricts access despite legal permissibility.
- **Social Stigma:** Unmarried women and adolescents face **family and societal pressure**, discouraging timely medical consultation.
- **Unsafe Abortions:** According to public health estimates, unsafe abortions still contribute significantly to **maternal morbidity and mortality** in India.

Conclusion

The Supreme Court's ruling is a significant step toward strengthening reproductive autonomy and recognising mental health within abortion jurisprudence. However, inconsistent judicial outcomes, procedural delays, and social stigma continue to limit meaningful access. India must move toward clearer legal standards, stronger healthcare infrastructure, and rights-based awareness to ensure that reproductive choice becomes a practical reality rather than a courtroom exception. Upholding women's autonomy is essential for advancing constitutional morality and gender justice.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Que. With reference to the Medical Termination of Pregnancy (Amendment) Act, 2021, consider the following statements:

1. It allows abortion up to 24 weeks for certain categories of women.
2. It recognises mental health as a ground for termination.
3. It grants an absolute right to abortion on demand.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Answer: b (1&2 only)

SC/ST Sub-Classification Verdict

Why in News: The Supreme Court has sought an **Action Taken Report (ATR)** from the Union Government regarding implementation of its **2024 Constitution Bench judgment permitting sub-classification within Scheduled Castes and extending the creamy layer principle to SC/STs**.

Key Details

- A 7-judge Constitution Bench (August 1, 2024) allowed **sub-classification within Scheduled Castes** for equitable distribution of reservation benefits.
- The Court overruled its 2004 judgment in **E.V. Chinnaiah vs State of Andhra Pradesh**.
- The majority held that SCs are **not a homogeneous class** and inequality exists within them.
- The Court also supported applying the **creamy layer principle** to SCs and STs to ensure substantive equality.

Constitutional Framework of SC/ST Reservation

- **Article 15(4) and 16(4):** These provisions empower the State to make special provisions for socially and educationally backward classes and SCs/STs in education and public employment.
- **Article 341 & 342:** The President notifies Scheduled Castes and Scheduled Tribes, and Parliament alone can modify the list. This ensures uniform identification at the national level.

- **Principle of Substantive Equality (Article 14):** Reservation is not merely formal equality but aims to correct historical injustice and structural discrimination.
- **Protective Discrimination:** Affirmative action for SC/STs is rooted in the constitutional vision of **social justice**, a core feature of the Constitution.

Evolution of Judicial Position

- **E.V. Chinnaiyah (2004):** The Supreme Court held that SCs form a homogeneous group and cannot be sub-classified by states, as it would amount to tampering with the Presidential List.
- **Davinder Singh Case (2024):** The 7-judge Bench overruled Chinnaiyah, holding that **sub-classification is constitutionally permissible** to ensure equitable distribution of reservation benefits.
- **Majority View (6:1):** The Court observed that empirical evidence shows inequality within SC communities, and treating them as a single block defeats equality goals.
- **Dissenting Opinion:** Justice Bela Trivedi maintained that SCs constitute a homogeneous class and sub-classification may violate Article 341.

Concept of Sub-Classification within SCs

- **Rationale:** Data and state-level studies show that certain sub-castes within SCs corner a disproportionate share of reservation benefits.
- **Equitable Distribution:** Sub-classification ensures that the most marginalised groups among SCs also receive fair access to opportunities.
- **Federal Autonomy:** The judgment strengthens the power of states to design targeted welfare policies based on empirical evidence.
- **Constitutional Validity:** The Court clarified that sub-classification does not alter the Presidential List but reorganises benefits within it.

Extension of Creamy Layer Principle to SC/ST

- **Creamy Layer Concept:** Originated in Indra Sawhney (1992) for OBCs, it excludes socially advanced individuals from reservation benefits.
- **Judicial Endorsement (2024):** Justice B.R. Gavai, in a concurring opinion, emphasised evolving a policy to identify the creamy layer among SCs/STs.
- **Objective:** To prevent affluent or advanced members within SC/ST from monopolising reservation benefits.
- **Debate and Sensitivity:** Traditionally, SC/ST reservations were linked to untouchability and historical discrimination rather than economic criteria, making this extension complex.

Contemporary Significance

- **Implementation Challenge:** The Supreme Court's recent direction seeking an Action Taken Report reflects judicial monitoring of compliance.
- **Political and Social Implications:** Sub-classification may reshape caste-based political mobilisation and intra-community dynamics.

- **Data-Driven Governance:** The judgment emphasises empirical evidence as a basis for policy, aligning with constitutional morality.
- **Balancing Equality:** The ruling seeks to harmonise **social justice with fairness within beneficiary groups.**

Way Forward

- **Comprehensive Socio-Economic Data Collection:** The Centre and states must undertake detailed caste-wise socio-economic studies to identify intra-group disparities objectively.
- **Clear Legislative Framework:** Parliament or states should frame transparent guidelines to operationalise sub-classification without constitutional ambiguity.
- **Balanced Creamy Layer Criteria:** Any criteria must consider social backwardness alongside economic indicators to avoid undermining the rationale of SC/ST reservations.
- **Judicial-Executive Coordination:** Timely submission of Action Taken Reports and consultative policymaking will ensure constitutional compliance.
- **Safeguarding Social Harmony:** Public communication and stakeholder engagement are necessary to prevent social tensions and misinterpretation of the policy.

Conclusion

The Supreme Court's 2024 verdict marks a significant evolution in India's affirmative action jurisprudence. By recognising inequality within Scheduled Castes and endorsing the creamy layer principle, the Court has strengthened the constitutional commitment to **substantive equality**. However, effective implementation will require careful balancing of social justice, constitutional mandates, and social cohesion. The republic's promise of equality must reach the most marginalised within the marginalised.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Que. The recent Supreme Court judgment permitting sub-classification within Scheduled Castes marks a shift towards substantive equality. Discuss.

Freedom of Speech and Expression

Why in News: The Uttar Pradesh government ordered an FIR against a film's makers over its title, reigniting debate on **freedom of speech, criminalisation of expression, and limits of executive power.**

Key Details

- The Uttar Pradesh government ordered an **FIR against a film titled Ghoskhor Pandat** citing hurt sentiments.
- The title was alleged to disturb **religious/caste harmony**, leading to state intervention.
- The producer withdrew promotional material under **threat of legal action**, indicating coercive pressure.
- The issue reflects a growing trend of **turning artistic expression into a law-and-order problem.**

Constitutional Framework of Free Speech

- **Article 19(1)(a) – Core Guarantee:** It ensures freedom of speech and expression to all citizens, including **artistic, literary, and cinematic expression**. This right is essential for democracy and informed public discourse.
- **Article 19(2) – Reasonable Restrictions:** The Constitution allows restrictions on grounds like **public order, decency, morality, and sovereignty**, but these must be **specific, justified, and proportionate**.
- **Judicial Interpretation:** Courts have repeatedly held that **mere offensiveness is not sufficient**; only speech that **incites violence or public disorder** can be legitimately restricted.
- **Doctrine of Proportionality:** Any restriction must be the **least restrictive measure**, ensuring minimal interference with fundamental rights.

From Expression to Law-and-Order Issue

- **Criminalisation of Speech:** In the present case, a matter of artistic expression was quickly converted into a **criminal offence**, bypassing careful legal scrutiny.
- **Executive Overreach:** The direct order to file an FIR reflects **premature executive intervention**, raising concerns about misuse of state power.
- **Coercive Effect of FIR:** Even before judicial review, the FIR itself acts as a **tool of intimidation**, compelling compliance through fear of legal consequences.
- **Erosion of Due Process:** Instead of courts determining legality, **administrative action dominates**, undermining constitutional safeguards.

Pattern of Restrictions on Artistic Expression

- **Increasing Censorship Trends:** Films and documentaries have increasingly faced **bans, edits, or removal**, reflecting shrinking creative space.
- **Recent Examples:** Controversies around films like *The Kerala Story* (2023), *Padmaavat*, and documentaries like *India: The Modi Question* highlight recurring restrictions.
- **Lack of Judicial Oversight:** Many actions are taken **without prior judicial determination**, raising concerns about arbitrariness.
- **Impact on Creative Freedom:** Such interventions discourage **experimentation, dissent, and critical narratives** in art and cinema.

Problem of 'Hurt Sentiments' Standard

- **Subjective Nature:** In a diverse society like India, claims of hurt sentiments are **highly subjective and variable**, making them unreliable legal standards.
- **Unlimited Scope for Abuse:** Any group can claim offence, leading to **frequent demands for bans or censorship**, thereby restricting legitimate expression.
- **Judicial Position:** Courts have emphasised that **law cannot protect every individual's sensitivity**, as it would suppress democratic dialogue.

- **Threat to Pluralism:** Over-reliance on sentiments undermines **tolerance, diversity, and open debate**, core values of the Constitution.

Chilling Effect on Free Expression

- **Self-Censorship:** Fear of legal action forces creators to **avoid controversial topics**, reducing diversity of ideas in the public domain.
- **Weakening Marketplace of Ideas:** Democracy thrives on debate, criticism, and dissent; excessive restrictions weaken this **free exchange of ideas**.
- **Loss to Society:** Public loses access to **alternative perspectives, satire, and critique**, which are essential for accountability.
- **Judicial Opportunity Lost:** When cases are suppressed early, courts cannot **clarify legal standards**, affecting long-term jurisprudence.

Proper Constitutional Approach

- **Burden on the State:** The state must carefully evaluate whether speech **actually threatens public order**, rather than assuming it.
- **Judicial Review as Remedy:** Any alleged illegality must be addressed through **courts, not executive orders**, ensuring fairness and legality.
- **Least Restrictive Measures:** Authorities should adopt alternatives like **advisories or classification**, instead of outright bans or criminal action.
- **Reasoned Decision-Making:** Restrictions must be backed by **clear reasoning and evidence**, ensuring transparency and accountability.

Role of the State in a Democracy

- **Protector of Rights:** The state has a constitutional duty to **protect freedom of expression**, not suppress it.
- **Maintaining Public Order:** Law and order must be ensured **without curtailing legitimate speech**, maintaining a balance between liberty and authority.
- **Avoiding Populist Pressure:** Governments must resist **majoritarian or populist demands** that undermine constitutional values.
- **Promoting Constitutional Morality:** Upholding tolerance, debate, and dissent is essential for sustaining **democratic culture**.

Conclusion

The recent episode highlights a growing tendency to **criminalise dissent and artistic expression**, undermining the spirit of **Article 19(1)(a)**. Bypassing judicial scrutiny and relying on executive coercion creates a **chilling effect on creativity and democratic debate**. A constitutional approach rooted in **proportionality, judicial oversight, and protection of dissent** is essential to maintain the balance between **freedom and public order** in a vibrant democracy.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Que. Which of the following statements are correct in respect of Article 19 of the Constitution of India?

1. Article 19 guarantees six fundamental freedoms to all citizens of India.
2. Reasonable restrictions on these freedoms can be imposed by the State.
3. Foreign nationals are also entitled to the freedoms under Article 19.

Select the correct answer:

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

Answer: (a)

Descriptive Question

Que. Discuss the scope and limitations of freedom of speech and expression in India. How does the misuse of criminal law affect democratic discourse? (150 Words, 10 Marks)

- **Article 19(2) – Reasonable Restrictions:** Allows restrictions on grounds such as **public order, decency, morality, sovereignty, and integrity of India.**
- **Balancing Rights:** The Constitution seeks a balance between **individual liberty and societal harmony**, preventing misuse of speech.
- **Role of Fraternity:** The Preamble emphasises **fraternity**, making it a guiding principle against hate-driven expression.

Legal Framework (Statutory Provisions)

- **Bharatiya Nyaya Sanhita (BNS):** Contains provisions penalising acts promoting **enmity between groups, incitement to violence, and disturbing public order.**
- **Representation of the People Act (RPA), 1951:** Prohibits candidates from seeking votes on **religious or communal grounds**, ensuring free and fair elections.
- **Election Commission’s Role:** The Model Code of Conduct restricts **divisive speeches during elections**, though enforcement remains a challenge.
- **Challenges in Enforcement:** Vague definitions and selective application often result in **inconsistent accountability.**

Assam Case: Governance vs Polarisation

- **Developmental Concerns:** Assam lags in **HDI, per capita income, industrial employment, and health outcomes**, indicating governance gaps.
- **Shift in Political Discourse:** Instead of focusing on development, allegations suggest a shift towards **identity-based and communal narratives.**
- **Electoral Strategy:** Communal polarisation is often used to **mobilise votes**, diverting attention from socio-economic issues.
- **Policy Implications:** Such discourse risks weakening **inclusive development and social cohesion.**

Allegations of Hate Speech by Public Office Holders

- **Nature of Allegations:** Statements portraying communities as **demographic threats** and linking them to issues like floods or economic activity.
- **Targeted Narratives:** Accusations include terms like **“fertilizer jihad”** and economic targeting of specific communities.
- **Impact of High Office:** Statements by constitutional authorities carry **greater influence and legitimacy**, increasing their impact.
- **Ethical Responsibility:** Public officials are bound by their **oath to uphold constitutional values**, including secularism and equality.

Judicial Perspective & Key Doctrines

- **Cumulative Effect Doctrine:** The Supreme Court has emphasised that repeated speeches must be seen in **totality, not isolation**, to assess harm.
- **Key Judgements:** Cases like *Amish Devgan v. Union of India* and *Tehseen S. Poonawalla v. Union of India* highlight the seriousness of hate speech.

HATE SPEECH

Why in News: A petition in the Supreme Court challenges alleged communal remarks by Assam Chief Minister ahead of Assembly elections, raising concerns over hate speech and constitutional accountability.

Key Details

- Assam, approaching Assembly elections, continues to lag behind national averages in **HDI, income, education, and health indicators.**
- Allegations have been made against the Chief Minister for using **communal rhetoric targeting Bengali-origin Muslims.**
- A petition by CPI(M)/CPI in the Supreme Court alleges a **pattern of hate speech and constitutional violations.**
- The issue involves legal scrutiny under the **Constitution, Bharatiya Nyaya Sanhita (BNS), and Representation of the People Act (RPA).**

Concept of Hate Speech

- **Definition and Nature:** Hate speech includes any expression—spoken, written, or digital—that **incites hatred, discrimination, or violence** against groups based on religion, caste, ethnicity, gender, etc.
- **Threat to Social Harmony:** It undermines **fraternity and unity**, which are core constitutional values, and can lead to communal tensions and violence.
- **Global Recognition:** International frameworks like the **UN’s Rabat Plan of Action** emphasise regulating speech that incites discrimination or violence.
- **Digital Amplification:** Social media platforms have increased the **speed and reach of hate speech**, making regulation more complex and urgent.

Constitutional Framework on Free Speech vs Restrictions

- **Article 19(1)(a) – Freedom of Speech:** Guarantees freedom of expression as a fundamental right, essential for democracy and public discourse.

- **Authority of the Speaker:** Hate speech by those controlling **state machinery (like police)** is considered more dangerous.
- **Judicial Activism vs Restraint:** Courts face the challenge of balancing **free speech with prevention of communal harm**.

Broader Democratic and Constitutional Concerns

- **Equality Before Law:** The case raises whether hate speech laws apply **equally to all, including those in high executive offices**.
- **Secularism and Rule of Law:** Hate speech undermines the **secular fabric** and threatens constitutional governance.
- **Electoral Integrity:** Communal rhetoric can distort **free and fair elections**, violating democratic norms.
- **Public Trust in Institutions:** Lack of accountability may erode **citizens' trust in governance and judiciary**.

Conclusion

Addressing hate speech requires a **balanced and consistent approach** involving legal clarity, institutional accountability, and civic awareness. Strengthening enforcement of existing laws, ensuring neutrality of authorities, and promoting constitutional values like **fraternity, secularism, and equality** are essential. The ongoing judicial scrutiny highlights that **no individual,**

regardless of position, is above constitutional norms, reaffirming the rule of law in a democratic republic.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Que. Which of the following grounds are mentioned under Article 19(2) for restricting free speech?

1. Public order
2. Sovereignty and integrity of India
3. Decency or morality
4. Nationalization of industries

Select the correct answer:

- (a) 1, 2 and 3 only
- (b) 2 and 4 only
- (c) 1 and 4 only
- (d) 1, 2, 3 and 4

Answer: (a)

Descriptive Question

Que. Discuss the constitutional and legal framework governing hate speech in India. How can a balance be maintained between freedom of speech and social harmony? (150 Words, 10 Marks)

INTERNATIONAL RELATIONS

INDIA–BRAZIL RELATIONS

Why in News: Brazilian President **Luiz Inácio Lula da Silva**'s recent visit to India highlighted deepening India–Brazil ties amid global trade tensions and renewed focus on Global South cooperation.

Key Details

- India and Brazil aim to **double bilateral trade to \$30 billion by 2030**.
- Agreements signed in **critical minerals, steel & mining, and digital cooperation**.
- Both nations faced **50% U.S. tariffs**, reflecting rising protectionism.
- Reaffirmed commitment to **multilateralism and Global South solidarity**.

Strategic Partnership & Bilateral Relations

- **Historical Diplomatic Ties:** India and Brazil established diplomatic relations in **1948**, evolving into a **Strategic Partnership (2006)**. Both are large democracies with similar developmental challenges.
- **Shared Democratic Values:** Both countries emphasise **democracy, sovereignty, and inclusive development**, strengthening cooperation in global forums.
- **Economic Complementarity:** India imports **crude oil, sugar, and minerals**, while exporting **pharmaceuticals, IT services, and machinery**, creating mutually beneficial trade.
- **High-Level Engagement:** Regular summits and visits, including Lula's recent visit, ensure **policy coordination and long-term strategic alignment**.

Trade Expansion & Economic Cooperation

- **Trade Target of \$30 Billion:** Bilateral trade currently around **\$15–16 billion** is expected to double by 2030, indicating strong economic potential.
- **Sectoral Agreements:** Cooperation in **critical minerals, steel, and mining** aims to reduce dependence on **China-centric supply chains**.
- **Digital & Technology Collaboration:** Agreements on digital cooperation support **innovation, fintech, and AI ecosystems**, enhancing future-ready economies.
- **Agriculture & Energy Linkages:** Brazil is a leader in **biofuels**, while India is a major agricultural economy, enabling collaboration in **food security and renewable energy**.

Global Trade Tensions & U.S. Tariffs

- **Impact of Protectionism:** Both India and Brazil faced **50% tariffs from the U.S.**, reflecting increasing global trade fragmentation.

- **Strategic Concerns:** Tariffs were linked to issues like **BRICS membership, Russian oil imports, and trade policies**, showing geopolitical-economic linkage.
- **Negotiation Challenges:** Ongoing negotiations with the U.S. have not yielded final agreements, indicating **uncertainty in global trade rules**.
- **Need for Diversification:** These challenges push both countries to **diversify markets and strengthen South–South trade networks**.

Multilateral Platforms & Global Governance

- **BRICS Cooperation:** As key members of **BRICS**, India and Brazil advocate for **reformed global financial institutions**.
- **IBSA Dialogue Forum:** The **IBSA Dialogue Forum** promotes **South–South cooperation** among democratic developing nations.
- **G4 Group for UNSC Reform:** Along with Germany and Japan, both support **expansion of the UN Security Council** for better representation.
- **Global Biofuels Alliance:** Cooperation in **clean energy and sustainability** highlights commitment to climate action and energy security.

IBSA Dialogue Forum: Structure & Significance

- **Background & Composition:** Established in **2003 (Brasília Declaration)**, IBSA includes **India, Brazil, and South Africa**, representing three continents.
- **Core Objectives:** Promotes **multilateralism, UN reforms, poverty alleviation, and development cooperation**.
- **Sectoral Cooperation:** Covers **agriculture, defence (IBSAMAR exercises), health, energy, and science & technology**.
- **IBSA Fund:** Supports projects in **Least Developed Countries (LDCs)**, recognised globally for inclusive development initiatives.
- **Strategic Role:** Enhances **collective bargaining power** and strengthens the voice of the Global South.

Global South Solidarity & Collective Bargaining

- **Call for Unity:** Lula emphasised **collective negotiation (“unionisation”)** rather than individual deals with major powers like the U.S.
- **Strength in Numbers:** Coordinated strategies improve bargaining power, especially for **developing economies facing asymmetric trade relations**.
- **South–South Cooperation:** India–Brazil cooperation reflects a broader push for **equitable globalisation and inclusive growth**.

- **Geopolitical Relevance:** In an era of multipolarity, such alliances help **balance Western dominance in global institutions**.

Challenges in India–Brazil Relations

- **Geographical Distance:** Physical distance increases logistics costs and limits trade expansion.
- **Overlapping Platforms:** IBSA’s relevance sometimes overshadowed by BRICS, reducing its visibility.
- **Domestic Political Changes:** Leadership transitions and electoral politics can affect policy continuity.
- **Trade Imbalances & Barriers:** Tariffs, regulatory issues, and lack of connectivity hinder full potential.

Conclusion

India–Brazil relations are entering a **strategically significant phase**, driven by trade expansion, supply chain diversification, and shared geopolitical interests. Strengthening platforms like IBSA and BRICS, enhancing economic integration, and promoting collective bargaining will be crucial in navigating global uncertainties. Their partnership reflects the growing importance of **Global South solidarity** in shaping a more **balanced, inclusive, and multipolar world order**.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. With reference to recent developments in India–Brazil relations, consider the following statements:

1. India and Brazil have set a target to double bilateral trade to \$30 billion by 2030.
2. Both countries signed agreements limited only to agricultural cooperation.
3. India and Brazil are members of the IBSA Dialogue Forum.

Which of the statements given above is/are correct?

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

Answer: (a)

Descriptive Question

Que. “India–Brazil relations are central to strengthening Global South solidarity in an era of rising protectionism.” Discuss. (150 Words, 10 Marks)

- **Borders:** It shares borders with Iran and Afghanistan, along with a coastline on the Arabian Sea. This strategic location enhances its geopolitical and trade significance.
- **Population:** The province has a population of around 12 million, making it one of the least densely populated regions. Low population density also affects infrastructure development and service delivery.
- **Physiography:** The terrain is dominated by mountain ranges such as Sulaiman, Kirthar, and Chagai, along with deserts like Kharan. This rugged geography makes governance and connectivity challenging.
- **Climate:** Balochistan experiences an arid to semi-arid climate with very low rainfall and extreme temperatures. Such climatic conditions limit agricultural productivity and economic opportunities.
- **Natural Resources:** The region is rich in minerals like coal, copper, gold, chromite, and natural gas. However, inadequate local benefit-sharing has led to resentment among indigenous communities.
- **Strategic Port:** Gwadar Port provides direct access to the Arabian Sea and is a critical node in regional trade. It enhances Pakistan’s connectivity with global maritime routes.
- **Drainage:** Rivers such as Dasht, Hingol, and Zhob are mostly seasonal and depend on rainfall. Limited water resources further constrain development and agriculture.

Genesis & Background

- **Accession Issue (1948):** Balochistan’s integration into Pakistan has been historically contested by sections of the local population. This unresolved issue has remained a major source of political discontent.
- **Repeated Insurgencies:** Since 1948, the province has witnessed five major insurgencies, reflecting deep-rooted grievances. Each phase has been marked by cycles of violence and temporary suppression.
- **Centralised Governance:** Strong control by the central government with limited provincial autonomy has created a sense of alienation. Local demands for greater self-governance have largely remained unmet.
- **Resource Disputes:** Conflicts over ownership, revenue-sharing, and control of natural resources have intensified tensions. Local communities often feel excluded from decision-making and benefits.

Nature of Insurgency & Security Dynamics

- **Militant Groups:** Organisations like the Balochistan Liberation Army carry out attacks targeting civilians and security forces. Their objective is often linked to demands for autonomy or independence.
- **Group Coordination:** Rebel groups such as BLA and Balochistan Liberation Front have formed alliances like Baloch Raaji Aajoi Sangar. This coordination has increased the scale and effectiveness of attacks.

INSURGENCY IN BALOCHISTAN

Why in News: Balochistan is in focus due to rising insurgency, coordinated militant attacks, military reprisals, human rights concerns, and its strategic importance linked to Gwadar Port and the China-Pakistan Economic Corridor.

Key Details

- **Geographical Extent:** Balochistan is the largest province of Pakistan, covering ~347,190 sq km, which constitutes nearly 44% of the country’s total land area. Despite its size, it remains underdeveloped and sparsely populated.

- **Military Response:** The Pakistani state relies heavily on counter-insurgency operations to restore order. However, such measures have largely produced short-term stability without addressing root causes.
- **Cycle of Violence:** Repeated patterns of insurgent attacks followed by military reprisals have created a prolonged cycle of instability. This cycle prevents long-term peace and development.

Drivers of Insurgency

- **Political Marginalisation:** Limited political representation and lack of autonomy have generated dissatisfaction among the Baloch population. This has fueled demands for greater control over regional affairs.
- **Economic Exclusion:** Despite abundant natural resources, local communities receive minimal economic benefits. Perceived exploitation has intensified resentment against the state.
- **Security-Centric Approach:** Excessive reliance on military force instead of dialogue has aggravated tensions. It has widened the gap between the state and local population.
- **Regional Instability:** Developments such as the Taliban takeover of Kabul 2021 have worsened the regional security environment. Porous borders facilitate movement of militants and weapons.
- **Militant Ecosystem:** Presence of groups like Tehreek-e-Taliban Pakistan adds to the complexity of the conflict. Their activities often overlap with local insurgent movements.

Human Rights Concerns

- **Enforced Disappearances:** Numerous cases of missing persons have been reported, raising serious concerns among human rights organisations. This has contributed to distrust toward state institutions.
- **Extrajudicial Killings:** Allegations of killings without legal process have been widely reported. Such practices undermine the rule of law and democratic principles.
- **Arbitrary Detentions:** Individuals are often detained without due legal procedures or transparency. This further alienates local populations and fuels resentment.
- **Accountability Deficit:** Lack of independent oversight in security operations leads to limited accountability. This weakens institutional credibility and public trust.

Economic & Strategic Significance

- **CPEC Hub:** Balochistan hosts key projects under the China-Pakistan Economic Corridor, making it central to regional connectivity. These projects aim to enhance infrastructure and trade.
- **Maritime Access:** Gwadar Port provides strategic access to the Arabian Sea, facilitating international trade routes. It is crucial for energy transport and maritime logistics.

- **Resource Wealth:** The province's vast reserves of minerals and energy resources make it economically important. Proper utilisation could significantly boost national and regional development.
- **Geopolitical Location:** Its location links South Asia, Central Asia, and West Asia, increasing its strategic relevance. It plays a vital role in regional geopolitics and connectivity initiatives.

Challenges & Limitations

- **Persistent Insurgency:** Despite repeated military operations, insurgency continues to persist. This indicates the inadequacy of purely security-based approaches.
- **Governance Deficit:** Weak administrative capacity and poor governance hinder effective policy implementation. This exacerbates socio-economic challenges.
- **Trust Deficit:** A significant gap exists between the state and local communities. This mistrust obstructs dialogue and conflict resolution.
- **Development Gaps:** Lack of inclusive growth and infrastructure development increases inequality. This fuels further discontent among local populations.
- **Policy Imbalance:** Over-reliance on military measures without adequate political engagement limits long-term solutions. Balanced strategies are required.

Contemporary Relevance in Regional Politics

- **Internal Security:** The insurgency highlights the complexities of managing internal conflicts in a federal structure. It underscores the need for balanced governance approaches.
- **Geopolitical Dimension:** Balochistan is linked to China's strategic interests through CPEC. This adds an international dimension to the conflict.
- **Resource Politics:** The region exemplifies tensions over equitable distribution of natural resources. It raises questions about sustainable and inclusive development.
- **Regional Stability:** Instability in Balochistan affects broader South Asian and West Asian security dynamics. It has implications for cross-border relations and trade.

Way Forward

- **Political Dialogue:** Initiating structured negotiations with Baloch groups is essential for long-term peace. Dialogue can help address grievances and build trust.
- **Inclusive Development:** Ensuring fair distribution of economic benefits from natural resources is critical. Transparent development projects can reduce resentment.
- **Decentralisation:** Enhancing provincial autonomy and local governance participation can empower communities. This would improve accountability and representation.

- **Human Rights Protection:** Strengthening rule of law and preventing abuses is necessary for restoring trust. Institutional reforms are required to ensure accountability.
- **Comprehensive Strategy:** A balanced approach combining political, economic, and security measures is essential. This can break the cycle of violence and instability.

Conclusion

The insurgency in Balochistan reflects deep-rooted structural challenges related to governance, resource distribution, and political inclusion. A sustainable resolution requires a shift towards dialogue, inclusive development, and institutional accountability. Without addressing these fundamental issues, achieving long-term peace and stability will remain difficult.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. Which of the following mountain ranges are found in Balochistan?

1. Sulaiman Range
2. Kirthar Range
3. Chagai Hills
4. Pir Panjal Range

Which of the above are correct?

- (a) 1, 2 and 3 only
- (b) 2, 3 and 4 only
- (c) 1 and 4 only
- (d) 1, 2, 3 and 4

Answer: (a)

Descriptive Question

Que. Examine the causes of insurgency in Balochistan and suggest measures for achieving long-term peace and stability. (150 Words, 10 Marks)

INDIA-ISRAEL VISIT

Why in News: Prime Minister Narendra Modi's recent visit to Israel upgraded bilateral ties while raising questions about India's balanced stance in the Israel–Palestine conflict.

Key Details

- India–Israel relations were elevated to a **Special Strategic Partnership** with over **15 MoUs** signed across sectors.
- Agreements included **labour mobility**, aiming to send **50,000 Indian workers** to Israel over five years.
- India reiterated support for a **two-state solution**, but avoided direct reference to civilian casualties in Gaza.
- Regional initiatives like **I2U2** and **IMEC** were reaffirmed, highlighting India's broader West Asia engagement.

Evolution of India–Israel Relations

- **Civilizational and Historical Links:** India has hosted Jewish communities such as Bene Israel and Cochin

Jews for over **2,000 years**, with no history of persecution, reflecting deep civilizational tolerance.

- **Diplomatic Recognition and Delay:** India recognised Israel in **1950** but established full diplomatic relations only in **1992**, due to Cold War politics, Non-Aligned Movement commitments, and support for Palestine.
- **Post-1992 Transformation:** Relations expanded rapidly in trade, defence, and agriculture, marking a shift from ideological hesitation to **strategic pragmatism**.
- **High-Level Political Engagement:** Prime ministerial visits in **2017 and 2026** signify growing political trust and normalisation of ties in India's foreign policy.



Strategic and Defence Cooperation

- **Defence Partnership:** Israel is among India's top defence suppliers, providing **missile systems, UAVs, radars, and surveillance technologies**, enhancing India's security preparedness.
- **Counter-Terrorism Cooperation:** Both nations follow a policy of **zero tolerance towards terrorism**, strengthening intelligence sharing after events like **26/11 Mumbai attacks** and **October 7, 2023 Hamas attack**.
- **Border and Internal Security:** Israeli technologies are used in **border management and counter-insurgency operations**, especially in sensitive regions.
- **Strategic Partnership Upgrade:** The elevation to a **Special Strategic Partnership (2026)** reflects deepening defence and security convergence.

Economic, Technological and Agricultural Cooperation

- **Trade and Investment Growth:** Bilateral trade has diversified from diamonds to **chemicals, defence equipment, and high-tech sectors**, with ongoing negotiations for an **FTA**.

- **Innovation and Start-up Ecosystem:** Israel, known as the “**Start-Up Nation**”, collaborates with India in **AI, cybersecurity, fintech, and innovation ecosystems**.
- **Agricultural Transformation:** Israeli technologies like **drip irrigation and precision farming** have improved productivity in states like Haryana and Gujarat through **Centres of Excellence**.
- **Labour Mobility Agreements:** The agreement to send **50,000 Indian workers** strengthens economic ties and provides employment opportunities abroad.

West Asia Policy and Strategic Balancing

- **Balanced Diplomacy Tradition:** India historically maintains ties with Israel, Palestine, and Gulf countries, guided by **strategic autonomy and non-alignment principles**.
- **Support for Palestine:** India consistently supports a **two-state solution** and Palestinian statehood through UN-backed processes.
- **Emerging Challenges:** A perceived pro-Israel tilt may strain relations with **Iran, Gulf countries, and Arab nations**, which are crucial for energy security and diaspora welfare.
- **Abraham Accords Impact:** Normalisation between Israel and Arab states has opened new avenues for India’s **multi-alignment strategy** in the region.

Geopolitical and Regional Implications

- **Timing of the Visit:** The visit occurred amid global criticism of Israel over **Gaza conflict and West Bank settlements**, adding geopolitical sensitivity.
- **Regional Connectivity Initiatives:** India reaffirmed participation in **I2U2** and **India-Middle East-Europe Economic Corridor (IMEC)**, focusing on infrastructure and trade connectivity.
- **Iran Factor:** Rising tensions involving Iran create challenges for India, given its interests in **Chabahar Port and energy imports**.
- **Global Strategic Positioning:** India aims to position itself as a **balancing power** in West Asia, promoting cooperation while avoiding alignment with any bloc.

Diplomatic Optics and Political Significance

- **High Diplomatic Warmth:** Israeli PM Benjamin Netanyahu’s personal involvement reflects strong bilateral optics and political signalling.
- **Domestic Political Context (Israel):** The visit may strengthen Netanyahu politically amid elections and criticism over governance and security issues.
- **Missed Opportunity with Palestine:** Lack of a parallel visit to Palestine raises concerns about India’s traditional diplomatic balance.
- **Symbolism vs Substance:** While optics were strong, India must ensure that **symbolic gestures align with long-term strategic interests**.

India as a ‘Leading Power’ in West Asia

- **Multi-Alignment Strategy:** India engages simultaneously with Israel, UAE, Saudi Arabia, Iran, and Palestine, reflecting a **multi-vector foreign policy**.
- **Energy and Diaspora Interests:** Over **8 million Indians in West Asia** and dependence on oil imports make regional stability critical.
- **Global South Leadership:** India positions itself as a voice for peace, dialogue, and development in international forums.
- **Normative and Strategic Balance:** India must balance **moral commitments (Palestine)** with **strategic interests (Israel cooperation)**.

Conclusion

Prime Minister Modi’s visit marks a significant milestone in India–Israel relations, strengthening cooperation in defence, technology, and economic sectors. However, India must maintain its **delicate diplomatic balance in West Asia** by reaffirming support for Palestine, engaging all regional stakeholders, and upholding strategic autonomy. A calibrated approach will enhance India’s credibility as a **responsible global power and regional stabiliser**.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Que. Consider the following statements regarding India–Israel relations:

1. India established full diplomatic relations with Israel in 1992.
2. Israel is among India’s top defence suppliers.
3. India does not support a two-state solution.

Which of the statements are correct?

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

Answer: (a)

INDIA–PAKISTAN RELATIONS

Why in News: Recent opinion pieces and diplomatic discussions have revived the debate on whether calibrated dialogue, alongside firm security measures, can prevent perpetual hostility in India–Pakistan relations.

Key Details

- India–Pakistan relations have remained largely frozen due to **cross-border terrorism and trust deficit**.
- Past peace initiatives have often been derailed by **terror attacks traced to Pakistan-based groups**.
- Complete disengagement has increased risks of **miscalculation and escalation** in a nuclearised region.
- There is growing emphasis on **incremental, issue-based engagement** rather than summit-centric diplomacy.

Historical Trajectory of India–Pakistan Relations

- **Post-Independence Rivalry:** Since 1947, India–Pakistan relations have been shaped by Partition, wars (1947, 1965, 1971, 1999), and the Kashmir dispute, creating deep strategic mistrust.
- **Peace Initiatives and Setbacks:** Efforts such as the **Lahore Declaration (1999)**, **Agra Summit (2001)**, and **composite dialogue** were followed by events like **Kargil conflict** and **26/11 Mumbai attacks**, undermining confidence.
- **Terrorism as Core Obstacle:** India maintains that dialogue cannot proceed without credible action against terror groups operating from Pakistani soil, making terrorism the central issue.
- **Resultant Diplomatic Stalemate:** Repeated disruptions have led to a rigid policy posture, limiting formal diplomatic engagement.

Security Concerns and India’s Strategic Position

- **Cross-Border Terrorism:** Attacks such as **Pathankot (2016)** and **Pulwama (2019)** reinforced India’s position that security assurances must precede talks.
- **Doctrine of Accountability:** India’s stance reflects the belief that dialogue without accountability risks legitimising hostile actions.
- **Military and Diplomatic Responses:** Measures like **surgical strikes (2016)** and **Balakot airstrikes (2019)** signalled a shift towards deterrence without full-scale war.
- **Limits of Hard Power:** While deterrence is necessary, it alone cannot address long-term instability or prevent accidental escalation.

Risks of No Dialogue in a Nuclearised Region

- **Communication Vacuum:** Absence of diplomatic channels increases the danger of **misinterpretation and unintended escalation**.
- **Role of Hyper-Nationalism:** Social media driven rhetoric and domestic political pressures can rapidly escalate tensions.
- **Regional Volatility:** South Asia remains a conflict-prone region, where even limited incidents can spiral due to lack of crisis-management mechanisms.
- **Strategic Stasis:** Silence is not neutrality; it is stagnation that allows tensions to harden rather than resolve.

Case for Incremental and Layered Engagement

- **Beyond Summit Diplomacy:** High-profile summits are vulnerable to disruption; sustained peace requires **multi-layered engagement**.
- **People-to-People Contacts:** Cultural exchanges, sports, academic collaboration, and medical visas help humanise the “other” and counter stereotypes.
- **Low-Risk Engagement Areas:** Pilgrimages, student exchanges, and artistic interactions pose minimal security risks while building social capital.

- **Expanding Peace Constituency:** Such engagement strengthens moderate voices within Pakistan that favour stability over hostility.

Conditional and Calibrated Dialogue Framework

- **Engagement without Endorsement:** Dialogue does not imply approval of hostile actions; it is an investment in conflict prevention.
- **Clear Benchmarks:** India can set measurable conditions such as action against proscribed terror groups or curbing hate rhetoric.
- **Reciprocal Steps:** Limited Pakistani compliance can be met with proportional Indian responses, such as Track-II talks or limited sporting ties.
- **From Binary to Incremental Diplomacy:** Moving away from an “all or nothing” approach allows flexibility without compromising principles.

Role of Regional and Issue-Based Multilateralism

- **SAARC Limitations:** Bilateral tensions have paralysed SAARC, reducing its effectiveness as a regional platform.
- **Alternative Cooperation Areas:** Climate change, disaster relief, pandemic response, and **Indus Waters Treaty mechanisms** offer neutral ground for engagement.
- **Humanitarian Logic:** Cooperation in non-political areas builds trust while addressing shared vulnerabilities.

Conclusion

India’s challenge is to balance **uncompromising security concerns** with **pragmatic engagement strategies**. Permanent disengagement risks conflict escalation, while unconditional dialogue risks moral hazard. A calibrated approach—firm on terrorism, flexible on contact, and incremental in confidence-building—offers the most realistic path forward. Peace is not a concession, and dialogue, when carefully structured, is not defeat but a strategic necessity in a volatile region.

EXPECTED QUESTIONS UPSC CSE

Prelims MCQ

Que. Which of the following best explains the limitation of “no dialogue” policy in India–Pakistan relations?

- (a) It violates international law
- (b) It increases economic costs
- (c) It raises risks of miscalculation and escalation
- (d) It weakens regional organisations only

Answer: (c)

Descriptive Question

Que. Dialogue without accountability is risky, but no dialogue is equally dangerous. Examine this statement in the context of India–Pakistan relations. (150 Marks, 10 Marks)

IRAN-US TALKS AMID ESCALATING TENSIONS

Why in News: Iran's President Masoud Pezeshkian has signalled willingness for "fair and equitable negotiations" with the United States amid rising West Asian tensions, while Washington has not yet confirmed talks.

Key Details

- Iran's reformist President has instructed the Foreign Minister to pursue negotiations with the US under suitable conditions.
- The move reportedly has backing from Iran's Supreme Leader, marking a significant political shift.
- The US has linked any talks to Iran's nuclear programme, amid recent military escalations.
- Regional actors such as Türkiye and Pakistan are emerging as potential facilitators.

Background of Iran-US Relations

- **Post-1979 Hostility:** Diplomatic relations between Iran and the US broke down after the **Iranian Revolution (1979)**, leading to decades of sanctions, mistrust, and strategic rivalry.
- **Nuclear Issue as Core Dispute:** Iran's nuclear programme has been the central point of tension, culminating in the **JCPOA (2015)**, from which the US withdrew in 2018.
- **Sanctions and Economic Pressure:** US-led sanctions have severely impacted Iran's economy, affecting oil exports, currency value, and public welfare.
- **Recurring Cycles of Escalation:** Periodic military incidents, cyberattacks, and proxy conflicts in West Asia have repeatedly derailed diplomatic efforts.

Significance of Pezeshkian's Statement

- **Shift in Iranian Political Messaging:** The call for "fair and equitable negotiations" marks a departure from earlier hardline rhetoric, indicating a pragmatic approach.
- **Supreme Leader's Implicit Approval:** Support from Ayatollah Khamenei is crucial, as the Supreme Leader holds decisive authority over foreign and security policy.
- **Domestic Context:** The move follows nationwide protests and internal instability, suggesting diplomacy as a tool to ease external pressure.
- **Conditional Engagement:** Iran has stressed negotiations must be free from threats and excessive demands, reflecting concerns over sovereignty and dignity.

US Position and Strategic Calculations

- **Uncertainty over Talks:** The US has not formally confirmed negotiations, indicating cautious diplomacy amid domestic and strategic constraints.
- **Nuclear Conditionality:** Washington has linked talks to curbs on Iran's nuclear programme, including enrichment levels and inspections.

- **Military Posture in the Region:** Incidents such as the shooting down of an Iranian drone near a US aircraft carrier highlight continued security tensions.
- **Alliance Considerations:** US policy is influenced by regional allies, particularly Israel and Gulf countries, wary of Iran's strategic ambitions.

Role of Regional and External Actors

- **Türkiye as a Mediator:** Türkiye's neutral diplomatic positioning and regional influence make it a plausible venue for negotiations.
- **Pakistan's Emerging Role:** Pakistan's invitation to participate reflects its growing diplomatic engagement and strategic balancing in West Asia.
- **Regional Stability Concerns:** Countries dependent on Gulf trade routes are invested in de-escalation, especially in the Strait of Hormuz.
- **Multipolar Diplomacy:** The involvement of multiple regional actors signals a shift from unilateral to multilateral crisis management.

Security Tensions in the Persian Gulf

- **Strategic Importance of Strait of Hormuz:** Nearly **20% of global oil trade** passes through this chokepoint, making any military incident globally significant.
- **Drone and Naval Incidents:** The recent drone shootdown underscores risks of miscalculation in heavily militarised waters.
- **Proxy and Hybrid Warfare:** Both sides engage indirectly through proxies, cyber operations, and economic pressure, complicating diplomacy.
- **Impact on Global Energy Markets:** Escalation can lead to oil price volatility, affecting inflation and growth worldwide.

Implications for India

- **Energy Security:** Stability in Iran-US relations are crucial for India's oil imports and long-term energy diversification.
- **Connectivity Projects:** Improved relations could revive India's strategic interests in **Chabahar Port** and regional connectivity to Central Asia.
- **Diaspora and Trade:** Millions of Indians live in the Gulf region, making regional peace a direct national interest.
- **Strategic Autonomy:** India supports dialogue and diplomacy while maintaining balanced relations with both Iran and the US.

Way Forward

- **Structured and Phased Dialogue:** Iran and the United States should adopt a **step-by-step negotiation framework**, beginning with confidence-building measures such as sanctions relief in exchange for nuclear transparency, rather than attempting a comprehensive settlement at once.
- **Revival of Multilateralism:** Re-engaging regional and global stakeholders including the **EU, UN, and regional mediators such as Türkiye and Oman** can enhance

legitimacy, reduce mistrust, and prevent bilateral deadlock.

- **De-escalation in the Persian Gulf:** Both sides must prioritise **military de-confliction mechanisms**, including communication hotlines and adherence to international maritime norms, to avoid accidental escalation in critical waterways like the Strait of Hormuz.
- **Addressing Regional Security Concerns:** Negotiations should gradually expand beyond the nuclear issue to include **regional stability, proxy conflicts, and missile proliferation**, ensuring durable peace rather than issue-specific truces.
- **Respect for Sovereignty and Mutual Dignity:** Sustainable diplomacy requires negotiations that are **free from coercion, excessive conditionality, and regime-change narratives**, aligning with Iran's demand for dignity and the US emphasis on compliance.
- **Role of Middle Powers:** Countries such as **India, Türkiye, and Pakistan** can play a constructive role by supporting dialogue, humanitarian cooperation, and economic engagement without aligning exclusively with any bloc.
- **Long-term Economic Integration:** Gradual economic normalisation through trade, investment, and energy cooperation can create **stakeholder incentives for peace**, reducing the likelihood of future confrontation.

Conclusion

Sustainable Iran–US engagement requires trust-building, phased negotiations, and respect for mutual security concerns. Regional mediators can play a constructive role in reducing misperceptions. Diplomacy, rather than coercion, remains the only viable path to long-term stability in West Asia, with positive spillover effects for global security and economic order.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. The Strait of Hormuz is strategically important because it:

- Connects the Red Sea to the Mediterranean
- Is a major route for global oil trade
- Separates the Caspian Sea from the Black Sea
- Hosts permanent UN naval forces

Answer: (b)

Descriptive Question

Que. Discuss the strategic significance of renewed Iran–US negotiations for regional stability in West Asia. (150 Words, 10 Marks)

PM VISIT TO MALAYSIA

Why in News: Prime Minister Narendra Modi's visit to Malaysia made headlines for **resetting strained ties**, signing MoUs-strengthening counter-terrorism cooperation, and reaffirming India's commitment to ASEAN.

Key Details

- **PM Modi's 24-hour Kuala Lumpur visit** aimed to **reset India–Malaysia ties** after cancelling his 2025 trip.
- Talks with **PM Anwar Ibrahim** led to **MoUs** and a renewed push to **strengthen bilateral cooperation**.
- Despite past strains over **terrorism-related remarks and Pakistan**, both sides **unequivocally condemned cross-border terrorism**.
- Key focus areas included **counter-terrorism cooperation, semiconductors, and trade, defence, energy, and digital ties**.
- The visit reaffirmed **India's commitment to ASEAN** and set the stage for **closer regional coordination**.

Purpose of the Visit: Resetting Ties

- **Making amends** was the central aim of Prime Minister Narendra Modi's **24-hour visit to Kuala Lumpur**, following the **cancellation of his Malaysia trip in 2025** due to the ASEAN summit.
- Mr. Modi stated that this was why **Malaysia became his first foreign destination** in the new year.

High-Level Engagements and Outcomes

- Talks with **Prime Minister Anwar Ibrahim**, who had visited India in **2024**, resulted in the signing of **multiple MoUs**.
- Both sides agreed to **strengthen bilateral cooperation** across key sectors.

Background Tensions in 2025

- India–Malaysia relations saw some **strain in 2025** despite Malaysia condemning the **Pahalgam terror attacks**.
- Mr. Ibrahim's call for a **"full and thorough enquiry"**, along with appeals for **India–Pakistan de-escalation** and offers of **mediation**, caused unease in New Delhi.
- Malaysia also hosted **Pakistan Prime Minister Shahbaz Sharif** in October 2025, adding to sensitivities.

Renewed Consensus on Terrorism

- Mr. Modi chose to **set aside past differences**, signalling a diplomatic reset.
- The **joint statement unequivocally condemned terrorism**, including **cross-border terrorism**.
- Both countries agreed to enhance **counter-terrorism cooperation, intelligence sharing, and coordination at the UN and FATF**.

Economic and Technological Cooperation

- A key outcome was an **MoU on semiconductors**, building on collaboration between **IIT Madras Global** and the **Advanced Semiconductor Academy of Malaysia**.
- The two sides highlighted cooperation in **trade, defence, energy, and digital technologies**.
- **Contentious issues**, such as the continued stay of **Zakir Naik** in Malaysia, were **deliberately avoided in public discussions**.

MYANMAR ELECTIONS: CRISIS OF LEGITIMACY AND IMPLICATIONS FOR INDIA

Multilateral and Trade Issues

- Differences over **ASEAN-related matters** were tactfully side-stepped.
- Mr. Modi's earlier decision to skip the **ASEAN summit** had slowed talks on reviewing the **ASEAN-India Trade in Goods Agreement (AITIGA)**.
- Past **critical remarks by India's Commerce Minister** on the FTA and ASEAN countries had left lingering discontent.

Strategic Significance of the Visit

- The visit reaffirmed **India's commitment to ASEAN**, even as New Delhi pursues **FTAs with Europe and the U.S.**
- On **BRICS**, India merely **noted Malaysia's aspiration for membership**, while confirming Mr. Ibrahim's invitation as Malaysia is a **BRICS partner country**.
- With **Indonesia already a BRICS member**, the visit may pave the way for **closer regional coordination**.

Broader Implications

- Mr. Modi's warmly received visit could **deepen India-Malaysia ties**.
- It also helps **lay the groundwork for stronger India-ASEAN engagement**, reflecting shared geography and common responses to **global strategic shifts**.

Conclusion

The visit marked a diplomatic reset, reaffirming mutual trust and strategic engagement between India and Malaysia. By prioritising counter-terrorism, economic cooperation, and regional commitment to ASEAN, the engagement laid a constructive foundation for deeper bilateral ties and enhanced regional coordination amid evolving global geopolitical challenges.

EXPECTED QUESTIONS FOR UPSC CSE

PRELIMS MCQ

Que. India and Malaysia are both members of which of the following groupings?

1. East Asia Summit (EAS)
2. ASEAN Regional Forum (ARF)
3. Quad
4. Indian Ocean Rim Association (IORA)

Select the correct answer using the code below:

- (a) 1 and 2 only
- (b) 1, 2 and 4 only
- (c) 2 and 3 only
- (d) 1, 2, 3 and 4

Answer: (b)

Descriptive Question

Que. Critically analyse how Prime Minister Narendra Modi's visit to Malaysia helped reset strained bilateral relations, and assess its significance and limitations for India's ASEAN engagement and regional diplomacy. (250 words, 15 marks)

Why in News: Myanmar held **controversial military-led elections (Dec 2025–Jan 2026)** amid ongoing conflict, raising concerns over legitimacy and implications for India's security and diplomacy.

Key Details

- Elections held **five years after the 2021 military coup**; widely criticised as non-inclusive.
- **USDP (military-backed)** secured victory; opposition parties like NLD were dissolved.
- Voting conducted in **265 of 330 townships**, mainly urban areas; turnout dropped to ~55%.
- Continued violence: **7,700+ deaths, 30,000+ arrests**, large-scale displacement and destruction.

Myanmar Political Crisis & Military Rule

- **2021 Military Coup:** The military led by Min Aung Hlaing overthrew the elected government, ending Myanmar's democratic transition and re-establishing authoritarian rule.
- **State Administration Council (SAC):** The junta governs through SAC, centralising power and suppressing dissent, weakening democratic institutions.
- **Suppression of Opposition:** Leaders like Aung San Suu Kyi remain detained; opposition parties including NLD were dissolved, eliminating electoral competition.
- **Civil Conflict Expansion:** Ethnic armed organisations and People's Defence Forces have expanded control, leading to a **fragmented state authority**.

Credibility of Elections (2025–26)

- **Restricted Electoral Participation:** Elections were conducted in only **265 out of 330 townships**, excluding conflict-prone rural regions, limiting representativeness.
- **Pre-determined Outcome:** Military-backed **USDP victory was widely expected**, indicating political engineering rather than democratic competition.
- **Declining Voter Turnout:** Turnout fell to **~55% (from ~70% earlier)**, reflecting public distrust and rejection of the electoral process.
- **Lack of International Recognition:** Western countries and many global actors rejected the elections as **neither free nor fair**, reducing legitimacy.

Elections Amid Armed Conflict

- **Humanitarian Crisis:** Since the coup, **7,700+ deaths and 30,000+ arrests** highlight widespread repression and instability.
- **Large-scale Destruction:** Over **1.13 lakh houses destroyed**, especially in Sagaing and Magway, indicating intensity of conflict.
- **Territorial Fragmentation:** Resistance groups control **91 towns**, significantly limiting the junta's effective governance.

- **Escalating Violence:** Elections are unlikely to reduce conflict; instead, they may intensify resistance against the military regime.

India–Myanmar Relations

- **Strategic Importance**
 - ✓ **Gateway to Southeast Asia:** Myanmar is central to India’s **Act East Policy**, serving as a land bridge to ASEAN countries.
 - ✓ **Shared Border:** India shares a **1,643 km border** with Myanmar, linking it directly to Northeast India’s security dynamics.
- **Connectivity & Economic Cooperation**
 - ✓ **Kaladan Multi-Modal Project:** Connects Kolkata to Sittwe port and Northeast India, crucial for regional trade and development.
 - ✓ **India-Myanmar-Thailand Trilateral Highway:** Enhances connectivity with Southeast Asia, promoting trade, tourism, and strategic outreach.
 - ✓ **Project Delays:** Ongoing conflict has slowed infrastructure projects, affecting India’s regional integration goals.
- **Security Concerns**
 - ✓ **Insurgency Linkages:** Northeast insurgent groups have historically used Myanmar’s border regions as safe havens.
 - ✓ **Transnational Crimes:** Rise in **drug trafficking, human trafficking, and cybercrime networks**, including cyber scam centres.
 - ✓ **Indian Nationals Issue:** Over **2,000 Indians rescued since 2022**, highlighting emerging non-traditional security threats.
- **Humanitarian Challenges**
 - ✓ **Refugee Influx:** Around **90,000+ Myanmar refugees** in Mizoram and Manipur strain local resources.
 - ✓ **Lack of Refugee Policy:** India lacks a formal refugee law, leading to **state-level management challenges**.

India’s Response: Balancing Principles and Pragmatism

- **Support for Democracy:** India has consistently emphasised **free, fair, and inclusive elections** without explicitly endorsing the junta.
- **Strategic Engagement:** Continued engagement ensures protection of India’s **security and connectivity interests**.
- **Diplomatic Signalling:** India maintained distance by clarifying that participation in elections was **not official endorsement**.
- **Humanitarian Assistance:** Initiatives like **Operation Brahma (2025 earthquake relief)** reflect engagement without legitimising the regime.

Regional & Global Dimensions

- **ASEAN’s Role:** ASEAN has not fully recognised the elections, reflecting regional concern over instability.
- **Geopolitical Competition:** China’s growing influence in Myanmar complicates India’s strategic space.

- **Indo-Pacific Context:** Stability in Myanmar is crucial for **regional connectivity and security architecture**.

Conclusion

Myanmar’s elections have failed to restore legitimacy or stability, instead deepening political fragmentation. For India, the challenge lies in balancing **democratic principles with strategic pragmatism**. A calibrated approach involving **limited engagement, regional cooperation, and humanitarian support** is essential to safeguard national interests while supporting a peaceful and inclusive resolution in Myanmar.

EXPECTED QUESTIONS FOR UPSC CSE	
Prelims MCQ	
Que. The Kaladan Multi-Modal Transit Project connects:	
(a) India to Bangladesh	
(b) India to Myanmar and Northeast India	
(c) India to Sri Lanka	
(d) India to Nepal	
Answer: (b)	
Descriptive Question	
Que. Examine India’s approach of ‘engagement without endorsement’ in dealing with Myanmar’s military regime.	
(150 Words, 10 Marks)	

STRATEGIC EVOLUTION OF INDIA - FRANCE RELATIONS

Why in News: The 2026 visit of French President Emmanuel Macron has elevated India–France ties to a **Special Global Strategic Partnership**, reflecting deeper cooperation in defence, technology, and global governance.

Key Details

- India and France upgraded ties to a **Special Global Strategic Partnership (2026)**.
- Launch of **India–France Year of Innovation 2026** and new technology collaborations.
- Expansion of defence ties including **Rafale-M jets and HAMMER missile production**.
- Strengthening Indo-Pacific cooperation and joint initiatives in AI, space, and clean energy.

Historical Evolution of Relations

- **Post-Colonial Cooperation (1947–1962):** France adopted a peaceful approach in transferring territories like Puducherry to India by 1962, unlike Portugal’s resistance in Goa. This established early diplomatic trust.
- **Strategic Autonomy during Cold War:** Both nations resisted bloc politics and pursued independent foreign policies, forming a natural alignment based on non-alignment and sovereignty.
- **Early Defence and Space Cooperation:** India procured aircraft like Mystère and Ouragan, while France supported India’s space programme through

technology transfer, including the Viking engine base for PSLV.

- **Post-1998 Strategic Partnership:** France stood by India after Pokhran-II nuclear tests, becoming the **first Western country** to sign a strategic partnership, signalling long-term trust.



Defence Industrial Integration & Strategic Autonomy

- **Shift to Co-development Model:** The partnership has evolved from buyer-seller to **joint production**, exemplified by Rafale jets and Scorpène submarines under Project-75.
- **Recent Defence Collaborations (2026):** BEL–Safran joint venture for HAMMER missiles and the H125 helicopter assembly line highlight increasing localisation and technology transfer.
- **Strategic Autonomy Convergence:** Both countries advocate a **multipolar world order**, avoiding overdependence on major powers like the US or China.
- **Defence Trade Significance:** France accounts for nearly **25–30% of India’s arms imports**, making it a key defence partner.

Space Cooperation & Technology Synergy

- **ISRO–CNES Partnership:** Long-standing cooperation includes satellite launches, training, and Earth observation missions, strengthening India’s space capabilities.
- **TRISHNA Satellite Mission:** Joint thermal infrared satellite for climate monitoring reflects growing focus on **space-based environmental governance**.
- **Human Spaceflight Support:** France is assisting India’s **Gaganyaan mission (2027)** with expertise in astronaut training and space medicine.
- **Strategic Importance of Space:** Space collaboration enhances **navigation, communication, and defence capabilities**, crucial in modern geopolitics.

Indo-Pacific Strategy & Maritime Security

- **Shared Regional Interests:** France is an Indo-Pacific resident power due to territories like Réunion, aligning with India’s regional vision.
- **Naval Cooperation:** Exercises like **Varuna (23rd edition in 2025)** strengthen interoperability and maritime security.
- **Free and Open Indo-Pacific:** Both nations promote rule-based order to counter aggressive maritime expansion and protect sea lanes.
- **Maritime Trade Linkages:** Bilateral trade (~\$11–12 billion) depends heavily on secure maritime routes, reinforcing strategic cooperation.

Digital Sovereignty & Artificial Intelligence

- **Emerging Technology Partnership:** Both countries aim to develop **ethical and inclusive AI frameworks**, avoiding dominance of US-China tech models.
- **India–France Innovation Year 2026:** Strengthens startup ecosystems, research collaboration, and digital innovation.
- **AI in Public Sector:** Launch of AI centres in healthcare (e.g., AIIMS collaboration) highlights real-world applications.
- **Global Norm-Setting Role:** India and France are positioning themselves as leaders in **AI governance and digital democracy**.

Clean Energy & Climate Cooperation

- **International Solar Alliance (ISA):** Jointly launched by India and France during COP21 (Paris), promoting solar energy adoption globally.
- **Nuclear Energy Collaboration:** Focus on **Small Modular Reactors (SMRs)** to achieve India’s target of **100 GW nuclear capacity by 2047**.
- **Energy Security & Sustainability:** Nuclear energy complements renewable energy for stable base-load power.
- **Climate Leadership:** Both nations support global climate commitments under the Paris Agreement.

Global Governance & Multipolarity

- **Reform of Global Institutions:** France supports India’s bid for a **permanent UNSC seat**, advocating equitable global representation.
- **Voice of Global South:** India’s leadership in Global South aligns with France’s push for inclusive multilateralism.
- **Joint Diplomatic Initiatives:** Cooperation in UN, FATF, and climate forums strengthens global governance frameworks.
- **“Third Way” Strategy:** India–France partnership represents an alternative to bipolar US–China dominance.

Areas of Friction in Relations

- **Jaitapur Nuclear Project Delay:** Issues related to cost, liability, and technology have stalled progress despite long negotiations.

- **Trade Imbalances:** Bilateral trade remains limited and concentrated in sectors like aerospace, with volatility in exports.
- **Russia-Ukraine Divergence:** India's neutral stance differs from France's EU-aligned position, creating subtle diplomatic tensions.
- **Technology Transfer Issues:** Delays in deep transfer of critical defence technologies due to regulatory and IP concerns.

Conclusion

India–France relations have matured into a **comprehensive strategic partnership** rooted in trust, autonomy, and shared global vision. Strengthening cooperation in defence manufacturing, digital governance, and clean energy, while resolving challenges in trade and nuclear projects, will be crucial. As middle powers, both nations are well-positioned to shape a **stable multipolar world order** through sustained institutional collaboration under frameworks like Horizon 2047.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. Which of the following initiatives was jointly launched by India and France?

- International Solar Alliance
- QUAD
- Belt and Road Initiative
- Blue Dot Network

Answer: (a)

Descriptive Question

Que. Trace the evolution of India–France relations and analyse the key areas of strategic convergence in recent years. (150 Words, 10 Marks)

IN BANGLADESH, A NEW POLITICAL MOMENT

Why in News: Bangladesh's 2026 parliamentary elections have brought the Bangladesh Nationalist Party (BNP) to power, marking a major political transition with regional implications.

Key Details

- The BNP-led alliance secured **over 200 seats** in the 300-member Jatiya Sangsad, forming a clear majority government.
- The elections followed the **ban on Awami League** and exile of Sheikh Hasina, making the transition politically significant.
- Jamaat-e-Islami continues to hold a **limited yet influential presence** in Parliament.
- The developments have **strategic implications for India–Bangladesh relations and regional geopolitics**.

Electoral Outcome & Political Realignment

- **Decisive BNP Mandate:** The BNP crossing 200 seats reflects a **strong electoral wave**, signalling voter desire

for change and restoring competitive politics after a prolonged phase of dominance.

- **End of Awami League Dominance:** The absence of the Awami League marks a **structural break in Bangladesh politics**, although its legacy in governance and liberation history continues to influence narratives.
- **Revival of Bipolar Politics:** Bangladesh returns to its traditional **BNP vs Awami League political framework**, which defined democratic competition after the 1990s transition from military rule.
- **Leadership under Tarique Rahman:** Emerging signals suggest a **moderate and pragmatic approach**, focusing on economic stability, governance reforms, and institutional processes.

Role of Jamaat-e-Islami (JEI)

- **Continued Parliamentary Relevance:** Despite limited seats, Jamaat-e-Islami remains a **key political actor**, influencing coalition dynamics and legislative debates.
- **Historical Legacy of 1971:** The party's opposition to Bangladesh's liberation continues to shape **public perception and political legitimacy issues**.
- **Electoral Mainstreaming:** Its participation reflects the electorate's attempt to balance **religious identity with governance priorities** in a democratic framework.
- **Policy Influence Potential:** Even with fewer seats, JEI can shape discussions on **education, social policy, and identity politics**.

Constitutional and Institutional Developments

- **Constitutional Referendum:** Public endorsement of reforms provides **initial democratic legitimacy**, but sustainability depends on implementation.
- **Text vs Practice Gap:** Constitutional success depends not only on provisions but on **institutional behaviour, rule of law, and accountability**.
- **Need for Institutional Restraint:** Democratic consolidation requires **judicial independence, free media, and protection of opposition space**.
- **Transition to Stable Constitutionalism:** Bangladesh faces the challenge of converting **electoral victory into long-term democratic stability**.

Generational Mobilisation & Political Participation

- **Rise of Youth Politics:** Student-led movements before elections indicate **growing political awareness and demand for accountability**.
- **Mobilisation–Representation Gap:** Despite active participation, youth groups remain **underrepresented in formal political institutions**.
- **Demand for Governance Reform:** The movement reflects dissatisfaction with **corruption, patronage networks, and elite dominance**.
- **Long-term Democratic Impact:** Youth mobilisation may gradually reshape **political culture, leadership patterns, and policy priorities**.

Minority Security and Social Cohesion

- **Concerns over Minority Safety:** Reports of attacks on Hindu communities during transition raise questions about **law and order and social harmony**.
- **Indicator of Democratic Health:** Protection of minorities is a **core test of constitutional democracy and rule of law**.
- **Legacy of 1971 Vision:** Bangladesh's founding ideals emphasised **secularism and equality**, which must be preserved.
- **Need for Administrative Assurance:** The new government must ensure **visible protection measures and confidence-building among minorities**.

Economic Context and Development Pressures

- **Export-led Growth Model:** Bangladesh's economy is driven by **garments (over 80% exports), remittances, and female workforce participation**.
- **Per Capita Income Progress:** Bangladesh has shown strong growth, with **per capita income occasionally matching or exceeding India in nominal terms**.
- **Vulnerability to External Shocks:** Heavy reliance on textiles exposes the economy to **global demand fluctuations and trade disruptions**.
- **Migration Spillover Risk:** Economic instability may lead to **irregular migration into Indian states like Assam and West Bengal**, creating socio-political challenges.
- **Governance Delivery Test:** The new regime's legitimacy will depend on **job creation, inflation control, and inclusive growth**.

Implications for India – Strategic Geography

- **Siliguri Corridor (Chicken's Neck):** A narrow **20–22 km corridor** connecting mainland India to the Northeast, making Bangladesh's stability strategically crucial.
- **Dependence on Stable Relations:** Cooperation with Bangladesh ensures **smooth connectivity, trade routes, and military logistics**.
- **Risk under Adverse Alignment:** Political instability or hostile alignment may **threaten India's Northeast connectivity and border security**.
- **Act East Policy Link:** India's outreach to Southeast Asia depends heavily on **transit routes and cooperation with Bangladesh**.

External Geopolitical Contestation

- **China's Expanding Presence:** Investments in ports like **Chittagong and Mongla** align with China's Indian Ocean strategy, increasing its regional footprint.
- **Strategic Encirclement Concerns:** Along with Gwadar and Hambantota, Chinese presence may contribute to **pressure on India's maritime space**.
- **Pakistan's Tactical Interests:** Pakistan may attempt to revive **historical intelligence and ideological networks** during political transitions.
- **Western Engagement:** The US and UK involvement reflects **Indo-Pacific strategic competition and democratic positioning**.
- **Bay of Bengal Security:** Bangladesh's alignment will influence **maritime security, trade routes, and regional balance**.

Conclusion

Bangladesh stands at a critical juncture where electoral change must translate into **democratic consolidation, institutional accountability, and inclusive governance**. For India, the priority lies in **pragmatic engagement based on geography, economic interdependence, and security concerns**. The durability of this political transition will depend on how effectively Bangladesh balances **domestic stability with external geopolitical pressures**.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. The Jatiya Sangsad is the Parliament of:

- (a) Nepal
- (b) Bangladesh
- (c) Sri Lanka
- (d) Myanmar

Answer: (b)

Descriptive Questions

Que. Discuss the implications of recent political developments in Bangladesh for India's strategic and economic interests. (150 Words, 10 Marks)

ECONOMY & AGRICULTURE

BANKING REFORMS & REITS

Why in News: The RBI has raised the acquisition finance limit for banks to 75% and proposed allowing bank lending to listed REITs to deepen credit and capital markets.

Key Details

- RBI increased the **acquisition finance limit** from the earlier proposed 70% to **75% of deal value**.
- Banks may now **fund promoters' stake** in setting up new companies under revised norms.
- RBI has proposed permitting banks to **lend to listed Real Estate Investment Trusts (REITs)** with exposure capped at **49% of asset value**.
- The move aims to **enhance credit flow, support M&A activity, and deepen real estate financing markets**.

Acquisition Finance: Meaning and Regulatory Change

- **What is Acquisition Finance:** Acquisition finance refers to loans provided by banks to companies or promoters to **purchase stakes or acquire another company**. It is crucial for mergers and acquisitions (M&A).
- **Revised Lending Cap (75%):** RBI has allowed banks to finance up to **75% of the acquisition value**, up from the draft proposal of 70%. This increases leverage availability for corporate deals.
- **Bank-Level Due Diligence:** The acquisition value must be **independently assessed by banks**, ensuring prudential risk management and preventing over-leveraging.
- **Support for Corporate Restructuring:** Easier acquisition finance is expected to **facilitate consolidation**, especially in sectors like infrastructure, manufacturing, and services.

Promoter Funding and New Company Formation

- **Funding Promoters' Equity:** RBI has permitted banks to finance promoters' stake when they set up **new companies**, subject to prudential norms.
- **Boost to Entrepreneurship and Start-ups:** This move can improve **access to capital for promoters**, especially in capital-intensive sectors.
- **Risk Considerations:** Historically, promoter funding has been sensitive due to risks of **evergreening and excessive leverage**, hence banks must maintain strict credit appraisal.
- **Alignment with Credit Growth Needs:** The reform reflects RBI's attempt to **balance growth with financial stability** in the banking system.

REITs in India: Concept and Significance

- **What are REITs:** Real Estate Investment Trusts are **investment vehicles that own and manage income-generating real estate**, allowing small investors to participate in property markets.
- **SEBI-Regulated Structure:** In India, REITs are regulated by **SEBI (2014 framework)** and must distribute **at least 90% of their net distributable cash flows** to investors.
- **Current Presence:** India currently has **five listed REITs**, mainly focused on commercial office assets in major cities.
- **Role in Financial Deepening:** REITs help **monetise real estate assets**, improve transparency, and provide an alternative investment avenue.

RBI Proposal: Bank Lending to REITs

- **Proposed Lending Permission:** RBI has floated a proposal to allow banks to **extend loans to listed REITs**, similar to existing lending to InvITs.
- **Exposure Cap (49%):** Bank exposure will be capped at **49% of the REIT asset value**, limiting systemic risk.
- **Parity with InvITs:** Banks already lend to **Infrastructure Investment Trusts (InvITs)**; extending this to REITs promotes **regulatory consistency**.
- **Expected Impact:** This may **reduce cost of capital** for REITs and boost the commercial real estate sector.

Economic and Financial Implications

- **Boost to M&A Activity:** Higher acquisition finance limits can **accelerate corporate consolidation**, improving efficiency and competitiveness.
- **Credit Growth for Banks:** New lending avenues to REITs and promoters may support **bank credit expansion**, which is key for economic growth.
- **Real Estate Sector Support:** Easier financing to REITs can improve **liquidity in commercial real estate**, a sector recovering post-pandemic.
- **Financial Stability Concerns:** RBI must monitor risks of **excess leverage, asset bubbles, and concentration exposure**, especially in cyclical real estate markets.

Conclusion

The RBI's calibrated relaxation reflects a **pro-growth yet cautious regulatory approach** aimed at deepening financial markets and supporting investment activity. Going forward, strong risk management by banks, robust disclosure by REITs, and close regulatory supervision will be essential to ensure that increased credit availability translates into sustainable and stable economic growth.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. With reference to Real Estate Investment Trusts (REITs) in India, consider the following:

1. They are regulated by SEBI.
2. They must distribute at least 90% of distributable cash flows to investors.
3. Only banks can invest in REIT units.

Which of the statements given above is/are correct?

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

Answer: (a)

Descriptive Question

Que. Discuss the significance of RBI's recent changes in acquisition finance norms. How can they impact India's corporate and banking sectors? (150 Words, 10 Marks)

- Budget 2026 announced multiple initiatives such as the **National Fibre Scheme, Textile Expansion and Employment Scheme, Text-ECON, and Samarth 2.0.**
- Focus has shifted from fragmented schemes to a **value-chain based textile strategy.**
- Emphasis on **mega textile parks**, artisan inclusion, skill development, and export competitiveness.
- Concerns remain regarding **branding, design ownership, artisan income security, and global competition.**

Strategic Importance of the Textile Sector

- **Employment Generator:** Textiles employ over **45 million workers directly** and around **100 million indirectly**, making it the **second-largest employer after agriculture.**
- **Export Backbone:** India is among the world's top textile producers, contributing nearly **11% of total merchandise exports**, spanning cotton, man-made fibres, garments, and handicrafts.
- **Cultural and Regional Spread:** From handloom clusters in the Northeast to powerloom hubs in Tamil Nadu and Gujarat, textiles support **regional balance and inclusive growth.**
- **Link with MSMEs:** Over **80% of textile units are MSMEs**, making the sector vital for decentralised industrialisation.

BUDGET ON THE TEXTILE ECONOMY

Why in News: The **Union Budget 2026** has repositioned the **textile sector as a strategic engine of growth, employment, and exports** through an integrated value-chain approach.

Key Details



Budget 2026: Shift Towards a Value-Chain Approach

- **From Fragmentation to Integration:** Earlier policies addressed isolated issues like subsidies or incentives; Budget 2026 links **fibre, production, skills, artisans, and exports** into one ecosystem.
- **National Fibre Scheme:** Aims to ensure **sustainable raw-material availability**, including cotton, man-made fibres, and technical textiles, reducing import dependence.

- **Textile Expansion & Employment Scheme:** Targets **scale expansion and job creation**, especially in labour-intensive garment manufacturing.
- **Text-ECON Initiative:** Focuses on competitiveness through **technology upgradation, compliance standards, and logistics efficiency.**

Infrastructure Push: Mega Textile Parks & Clusters

- **Challenge Mode Textile Parks:** New mega textile parks are proposed to consolidate **spinning, weaving, processing, and garmenting** at one location.

- **Cost Reduction & Efficiency:** Integrated parks reduce **logistics costs, power inefficiencies, and time delays**, improving global competitiveness.
- **Attracting Investment:** World-class infrastructure encourages **FDI and private capital**, especially in MMF and technical textiles.
- **Global Benchmarking:** Such parks mirror successful models seen in **Vietnam and Bangladesh**, helping India compete on scale.

Artisan Economy & Gram Swaraj Initiative

- **Mahatma Gandhi Gram Swaraj Initiative:** Aims to strengthen **khadi, handloom, and handicrafts** through better branding, training, and market access.
- **Cultural Capital:** India's textile strength lies not only in factories but in its **living craft traditions**, supporting rural livelihoods.
- **Women & Informal Workers:** Artisan sectors employ a high proportion of **women and informal workers**, advancing inclusive development.
- **Limitations:** Despite focus, issues of **pricing power, income security, and market intermediaries** remain unresolved.

Skills & Samarth 2.0: Progress and Gaps

- **Operational Skill Focus:** Samarth 2.0 prioritises training in **machine operation, quality control, and factory productivity**.
- **Need for Creative Skills:** Global textile value increasingly lies in **design, fashion forecasting, branding, and merchandising**, which remain underdeveloped.
- **Managerial & Systems Skills:** Absence of training in **supply-chain management, sustainability compliance, and digital platforms** limits competitiveness.
- **Design Leadership Deficit:** Without nurturing creative authorship, India risks remaining a **cost-based supplier**, not a value-setter.

Global Trade Environment: Opportunities and Risks

- **Trade Agreements:** FTAs can improve market access but also expose Indian producers to **subsidised and low-cost imports**.
- **Rising Competition:** Countries like **Bangladesh and Vietnam** enjoy preferential trade terms and lower production costs.
- **Compliance Pressure:** Global markets demand adherence to **ESG norms, labour standards, and sustainability certifications**.
- **Beyond Scale:** Infrastructure alone is insufficient; **brand creation, standards compliance, and design differentiation** are critical.

Conclusion

Budget 2026 marks a **turning point in textile policy**, recognising the sector as central to India's economic and social fabric. However, the next phase must move **from**

producing more to valuing better. Strengthening design ecosystems, ensuring artisan income security, promoting brand ownership, and building creative and managerial skills will be essential for India to move up the global textile value chain. Only then can textiles become not just a manufacturing success, but a **value-driven global industry for India**.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Que. Discuss how Budget 2026 marks a shift in India's textile policy from fragmented schemes to a value-chain based approach. What gaps still need to be addressed? (GS 3; 150 Words, 10 Marks)

LABOUR WELFARE & INCLUSION

Why in News: The implementation of revised wage definition and gratuity provisions under labour codes is increasing corporate liabilities while strengthening worker social security and financial inclusion.

Key Details

- **Wage Definition Reform:** Wages must constitute at least 50% of total remuneration, increasing PF, pension, and gratuity benefits.
- **Gratuity for Fixed-Term Workers:** Eligibility after one year ensures financial security for short-term employees.
- **Corporate Impact:** Companies face higher liabilities but contribute to fair income redistribution.
- **Expansion of Coverage:** Social security extended to gig, platform, and unorganised workers with portability benefits.

Wage Definition Reform

- **50% Wage Rule:** The new rule mandates that basic wage, DA, and retaining allowance must form at least **50% of total remuneration**, preventing artificial salary structuring.
- **Earlier Practice:** Companies kept basic wages at **30–35%**, reducing contributions to PF and gratuity, thereby weakening long-term worker benefits.
- **Enhanced Social Security:** Higher wage base increases **Provident Fund (PF), pension contributions, and gratuity payouts**, ensuring better retirement security.
- **Formalisation of Earnings:** The reform aligns wages with actual earnings, reducing informal components and promoting **transparent compensation structures**.

Gratuity for Fixed-Term Employees (Labour Market Inclusion)

- **One-Year Eligibility:** Fixed-term employees now qualify for gratuity after **one year of service**, unlike earlier rules requiring five years.

- **Recognition of Modern Employment:** Reflects the rise of **contractual and short-term employment** in sectors like IT, manufacturing, and services.
- **Asset Creation Mechanism:** Even short-term jobs now contribute to **long-term savings**, transforming employment into a source of financial stability.
- **Risk Mitigation:** Workers gain protection during **job transitions, layoffs, or economic shocks**, reducing vulnerability.

Financial Inclusion through Social Security

- **PF, Pension & Gratuity as Tools:** These instruments act as **formal savings mechanisms**, promoting long-term financial planning among workers.
- **Inclusion of Informal Workforce:** For the first time, **gig workers, platform workers, and unorganised labour** are recognised within the legal framework.
- **Portability of Benefits:** Workers can carry benefits across jobs and states, crucial for **migrant labour mobility** in India.
- **Reduction in Informality:** Encourages workers to enter the **formal economy**, improving access to credit, insurance, and welfare schemes.

Corporate Impact & Redistribution

- **Increased Financial Liability:** Companies like **TCS, Infosys, HCLTech, and L&T** face higher contributions toward employee benefits.
- **Redistribution Towards Labour:** Increased employer contributions lead to **fairer income distribution**, strengthening labour's share in economic growth.
- **Boost to Consumption:** Higher disposable and secured income enhances **purchasing power**, stimulating demand in the economy.
- **Long-Term Gains for Firms:** Improved worker satisfaction and retention can enhance **productivity and organisational stability**.

Macroeconomic Implications

- **Demand-Led Growth:** Increased worker income security leads to **higher consumption expenditure**, a key driver of India's GDP.
- **Savings and Investment:** Formal savings through PF and pensions contribute to **capital formation and financial sector deepening**.
- **Economic Stability:** Social security reduces vulnerability during downturns, enhancing **resilience against economic shocks**.
- **Inclusive Growth:** Labour codes align growth with **equity and social justice**, ensuring benefits reach broader sections.

Labour Codes as Structural Reform

- **Consolidation of Laws:** 29 labour laws have been merged into **four labour codes**, simplifying compliance and governance.
- **Transparency and Efficiency:** Uniform wage definitions and rules reduce ambiguity and improve **ease of doing business**.

- **Balanced Approach:** Aims to balance **worker welfare and employer flexibility**, essential for a dynamic labour market.
- **Addressing Legacy Issues:** Replaces outdated and fragmented laws with a **modern regulatory framework** suited to current economic realities.

Challenges and Concerns

- **Industry Resistance:** Higher compliance costs and liabilities may discourage hiring or increase reliance on automation.
- **Implementation Gaps:** Effective execution across states remains a challenge due to **administrative capacity constraints**.
- **Trade Union Opposition:** Some unions view reforms as **pro-employer**, highlighting concerns over job security and bargaining power.
- **Informal Sector Reach:** Ensuring real benefits reach **unorganised workers** requires robust identification and delivery mechanisms.

Conclusion

The labour codes represent a transformative step toward **financial inclusion, income security, and social justice**. By reforming wage definitions, expanding social security, and including new-age workers, they promote inclusive economic growth. However, their success depends on **effective implementation, stakeholder consensus, and institutional capacity**, ensuring that India's growth is both sustainable and equitable.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Que. Discuss the significance of wage definition reform under labour codes in promoting financial inclusion and social security in India. (150 Words, 10 Marks)

CAPEX & DEBT SUSTAINABILITY

Why in News: The Union Budget 2026–27 marks a strategic shift towards **debt-to-GDP targeting**, while sustaining a strong **public capital expenditure (capex) push** to support growth.

Key Details

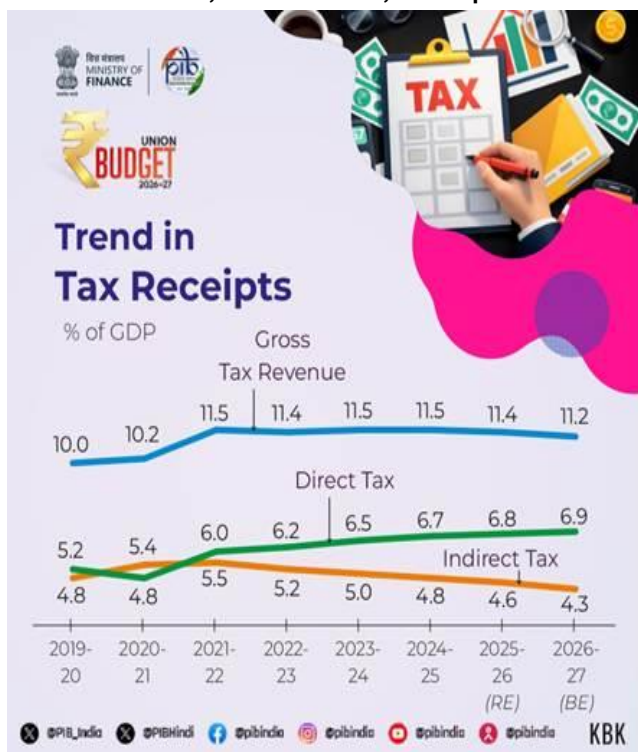
- Centre's **capital expenditure for FY27** is pegged at **₹12.22 lakh crore**, 11.5% higher than FY26 RE.
- The government aims to reduce **debt-to-GDP ratio to 55.6% in FY27**, with a medium-term target of ~50% by FY31.
- **Fiscal deficit target** for FY27 is set at **4.3% of GDP**, continuing fiscal consolidation.
- Non-tax revenues are boosted by **record RBI surplus and higher disinvestment receipts**.

Shift from Fiscal Deficit to Debt-to-GDP Targeting

- **New Fiscal Anchor:** The Budget marks a transition from decades of fiscal-deficit-based targeting to **debt-to-**

GDP ratio as the primary fiscal anchor, aligning India with global best practices.

- **Medium-Term Debt Strategy:** The Centre targets a debt-to-GDP ratio of **50% (±1%) by FY31**, enhancing fiscal credibility and policy predictability.
- **Rating Agencies' Perspective:** Global agencies such as **S&P, Moody's and Fitch** consider high public debt a constraint on India's sovereign rating, affecting borrowing costs.
- **Macroeconomic Rationale:** Lower debt ratios can reduce interest outgo, freeing resources for **infrastructure, social sectors, and capital formation**.



Capex as the Engine of Economic Growth

- **Sustained Public Investment:** Capital outlay has risen sharply from **₹3.08 lakh crore in FY19 to ₹12.22 lakh crore in FY27**, reflecting a long-term infrastructure-led growth strategy.
- **Capex-to-GDP Stability:** Central capex remains at **3.1% of GDP**, indicating consistency despite fiscal consolidation pressures.
- **Crowding-in Effect:** High public capex is expected to stimulate **private investment**, especially when corporate capex remains subdued.
- **Growth Multiplier Impact:** Infrastructure spending has a higher fiscal multiplier compared to revenue expenditure, supporting both **cyclical recovery and structural growth**.

Sectoral Composition of Capital Expenditure

- **Transport Infrastructure Dominance:** Roads and railways together account for nearly **65% of total capex**, strengthening logistics efficiency and regional connectivity.
- **Roads and Highways:** Allocation of **₹2.94 lakh crore in FY27** supports national highway expansion and last-mile connectivity.

- **Railways Modernisation:** Railways receive **₹2.77 lakh crore**, aiding freight corridors, electrification, and passenger safety.
- **Defence Capex:** Defence capital outlay rises to **₹2.19 lakh crore**, supporting indigenisation under Atmanirbhar Bharat.

Fiscal Consolidation and Borrowing Strategy

- **Gradual Deficit Reduction:** Fiscal deficit is budgeted at **4.3% of GDP**, down from 4.4% in FY26, reflecting a calibrated glide path.
- **Borrowing Requirements:** Gross market borrowing for FY27 is estimated at **₹17.2 lakh crore**, higher than FY26, necessitating careful debt management.
- **Quality of Spending:** A declining **RECO (Revenue Expenditure to Capital Outlay) ratio** signals improving expenditure quality.
- **Policy Credibility:** The government has emphasised gradualism to avoid growth shocks and maintain macroeconomic stability.

Role of Non-Tax Revenue: RBI Dividend & Disinvestment

- **Record RBI Surplus:** RBI transferred a record **₹2.69 lakh crore surplus in FY26**, becoming a critical fiscal support.
- **FY27 Projections:** Total dividend from RBI, PSBs and financial institutions is estimated at **₹3.16 lakh crore**.
- **Disinvestment Push:** Disinvestment receipts are projected at **₹80,000 crore**, with asset monetisation and REIT-based recycling of CPSE assets.
- **Fiscal Significance:** Non-tax revenue is estimated at **₹6.66 lakh crore**, reducing dependence on borrowings.

Fertiliser Subsidy Pressures and Fiscal Risks

- **Rising Subsidy Burden:** Fertiliser subsidy for FY26 overshoot BE by over **₹18,500 crore**, reaching around **₹1.86 lakh crore**.
- **Price Controls and Overuse:** Urea prices have remained unchanged since 2012, leading to **excess consumption** and rising imports.
- **Import Dependence:** Urea imports may exceed **10 million tonnes in FY26**, amid stagnant domestic production.
- **External Vulnerabilities:** Global price volatility, geopolitical tensions, and a **weaker rupee** pose fiscal risks for FY27.

Conclusion

The Union Budget 2026–27 balances **growth imperatives with fiscal prudence** by sustaining capex while transitioning to debt sustainability. Going forward, success will depend on crowding in private investment, rationalising subsidies, strengthening asset monetisation, and maintaining a credible fiscal glide path. A capex-driven yet fiscally responsible strategy remains central to India's long-term macroeconomic stability.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Que. In Union Budget 2026–27, the primary fiscal anchor adopted by the Centre is:

- (a) Revenue deficit
- (b) Fiscal deficit
- (c) Debt-to-GDP ratio
- (d) Primary deficit

Answer: (c)

GROWTH REVISION AND ITS IMPLICATIONS

Why in News: The Ministry of Statistics and Programme Implementation (MoSPI) released the new GDP series (base year 2022–23), estimating FY26 growth at **7.6%**, higher than the earlier 7.4% estimate under the old series.

Key Details

- India's real GDP growth for **FY26 is estimated at 7.6%** under the new base year (2022–23).
- The earlier estimate under the 2011–12 series was **7.4%**.
- Major methodological reform: shift from **single deflation to double deflation method**.
- New data sources such as **GST, e-Vahan, PLFS, and ASUSE** have been incorporated.

Base Year Revision in National Accounts

- **Meaning of Base Year Revision:** GDP base year revision is undertaken to reflect structural changes in the economy. India shifted from **2011–12 to 2022–23 as the new base year**, after more than a decade.
- **Purpose of Revision:** It ensures better sectoral representation, inclusion of emerging industries, and improved statistical accuracy in measuring economic activity.
- **Past Revisions:** In 2015, the base year was revised from **2004–05 to 2011–12**, which significantly altered growth figures, triggering debate among economists.

Methodological Reform: Single vs Double Deflation

- **Single Deflation (Old Method):** Earlier, MoSPI used a single price deflator for most sectors (excluding agriculture and mining), which could overstate growth when commodity prices fell.
- **Double Deflation (New Method):** The new series adjusts both **input and output prices separately**, giving a more accurate estimate of real Gross Value Added (GVA).
- **Granular Deflators:** Price indices are now applied at a more detailed level, improving precision in sectors like manufacturing and services.
- **Global Best Practice:** Double deflation aligns India's methodology with international statistical standards, enhancing comparability.

Sectoral Impact of the New Series

- **Primary Sector Expansion:** Agriculture and allied activities are estimated to be larger in absolute size by around **4–6%** in recent years under the new series.
- **Secondary Sector Revision:** Manufacturing and construction appear smaller compared to earlier estimates, suggesting moderation in industrial output.
- **Tertiary Sector Adjustment:** Services sector size has been recalibrated downward in some years, reflecting refined measurement.
- **Policy Relevance:** Sectoral rebalancing impacts policy decisions on **investment, credit allocation, and employment strategy**.

Growth Revisions and Economic Outlook

- **FY26 Growth:** Revised to **7.6%**, higher than the earlier 7.4%, reflecting resilience amid global uncertainty.
- **Quarterly Performance:** Q3 growth estimated at **7.8%**, indicating strong momentum in domestic demand.
- **Past Year Adjustments:** FY24 growth revised downward (7.2% from 9.2%), while FY25 growth revised upward (7.1% from 6.5%).
- **FY27 Outlook:** The Chief Economic Adviser projected growth at **7–7.4%**, with risks tilted to the upside.

Data Sources and Statistical Modernisation

- **GST Data:** Provides real-time insight into business activity and tax compliance.
- **e-Vahan Database:** Helps measure vehicle registrations, reflecting consumption trends.
- **PLFS (Periodic Labour Force Survey):** Improves labour market measurement and employment estimation.
- **ASUSE (Annual Survey of Unincorporated Sector Enterprises):** Captures informal sector data more accurately.

Broader Economic Implications

- **Credibility and Transparency:** Frequent and transparent revisions strengthen institutional credibility but also require clear communication.
- **Policy Calibration:** Fiscal and monetary policies rely on accurate GDP data for deficit targets, inflation control, and interest rate decisions.
- **International Comparisons:** A higher and more accurate GDP base enhances India's global economic standing.
- **Debate on Data Integrity:** Past revisions triggered discussions among policymakers and economists regarding statistical robustness.

Way Forward

- **Ensure Transparency in Methodology:** MoSPI should publish detailed technical papers, deflator construction methods, and sector-wise revisions in a user-friendly manner to build trust among researchers, markets, and policymakers.
- **Timely Release of Back-Series Data:** Completion and publication of historical back-series (pre-2022-23) on

priority will enable meaningful trend analysis, policy evaluation, and international comparison.

- **Strengthen Statistical Institutions:** Enhancing the autonomy, capacity, and resources of the national statistical system will improve data credibility and reduce controversies around GDP estimation.
- **Improve High-Frequency Data Integration:** Greater use of real-time administrative databases (GST, digital payments, satellite data, e-way bills) can further refine measurement of the formal and informal economy.
- **Better Measurement of the Informal Sector:** Since India's workforce is largely informal, periodic and robust surveys like ASUSE and PLFS must be strengthened to avoid under- or over-estimation of economic activity.
- **Enhance Centre-State Data Coordination:** Harmonising state-level statistical systems and improving data sharing will lead to more accurate sub-national GDP estimates and better fiscal planning.
- **Promote Data Literacy and Communication:** Government agencies should proactively explain revisions and their implications to avoid misinterpretation and maintain public confidence.

Conclusion

The new GDP series represents an important step toward statistical modernisation and improved measurement accuracy. However, transparency in methodology, timely release of back-series data, and independent statistical oversight are essential to maintain credibility. A robust statistical framework is crucial for evidence-based policymaking and sustaining India's growth trajectory.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. Which of the following statements regarding GDP base year revision is correct?

- (a) It changes only nominal GDP
- (b) It reflects structural changes in the economy
- (c) It is done every year
- (d) It eliminates inflation from GDP

Answer: (b)

Descriptive Question

Que. Discuss the significance of base year revision in GDP calculation. How does the shift to double deflation improve measurement accuracy? (GS Paper III)

- India is expected to **lower tariffs and non-tariff barriers** and increase imports of US energy and goods.
- The development coincides with progress in the **India-EU Free Trade Agreement (FTA)**.
- The **U.S. Supreme Court** restricted executive tariff powers, highlighting institutional checks but also policy uncertainty.

Tariff Reduction & Trade Impact

- **Export Competitiveness Boost:** Lower US tariffs enhance price competitiveness of Indian exports such as **textiles, apparel, and gems & jewellery**, which had faced declining demand due to high duties. This provides immediate relief to labour-intensive sectors.
- **Stabilisation of Trade Flows:** The US remains India's **largest trading partner (including services)**, with bilateral trade exceeding \$190 billion. Reduced tariffs restore partial predictability in cross-border trade.
- **Sectoral Gains with Limits:** While sectors competing with **Bangladesh and Vietnam** gain short-term advantage, structural issues like productivity and logistics still constrain long-term growth.
- **Short-Term Relief vs Long-Term Uncertainty:** Absence of a legally binding agreement or timeline limits investor confidence, making gains **temporary rather than structural**.

Institutional Fragility in Global Trade

- **Executive-Driven Trade Policy:** Recent US trade actions show increasing reliance on **executive decisions**, bypassing legislative oversight and multilateral frameworks like the WTO.
- **Erosion of Rules-Based Order:** Sudden tariff hikes, retaliatory measures, and unilateral announcements weaken the **post-World War II multilateral trading system**.
- **Credibility Deficit:** Even close partners such as the EU have faced policy reversals, indicating that **strategic proximity does not ensure policy stability**.
- **Investment Uncertainty:** Frequent policy changes increase risk perception, discouraging **long-term foreign direct investment (FDI)** and supply chain commitments.

Institutions & Economic Theory

- **Role of Institutions in Growth:** Modern economic theory emphasises that **stable rules, predictable policies, and credible commitments** are essential for sustained economic development.
- **Anglo-Saxon Model Under Stress:** The US, traditionally a proponent of institutional stability, now exhibits **unilateralism**, contradicting its own economic philosophy.
- **Scholarly Perspective:** Economist **Daron Acemoglu** highlights that inclusive institutions drive prosperity, while weak institutions lead to uncertainty and inequality.

GLOBAL TRADE & INSTITUTIONS

Why in News: The United States has reduced tariffs on Indian goods while parallel developments such as the India-EU trade agreement and a U.S. Supreme Court ruling on tariff powers have raised concerns over institutional stability in global trade.

Key Details

- The US reduced tariffs on Indian goods from around **50% to 18%**, including removal of earlier punitive duties.

- **Historical Warning:** Economist **Jagdish Bhagwati** cautioned against unilateral trade actions, noting their potential to disrupt global economic cooperation.

Trade as Strategic Statecraft

- **Beyond Comparative Advantage:** Classical theory (David Ricardo) focuses on mutual gains, but modern trade reflects **power dynamics, geopolitics, and strategic leverage**.
- **Weaponisation of Tariffs:** Tariffs are increasingly used as tools of **economic coercion**, influencing negotiations on unrelated issues such as energy imports.
- **National Security Linkages:** As noted by Thomas Schelling, trade policy is intertwined with **national security and geopolitical strategy**.
- **Strategic Autonomy Concerns:** For India, maintaining independence in decisions such as **Russian oil imports** while engaging with the US is a key challenge.

India's Strategic Trade Trilemma

- **Mundell–Fleming Trade-off:** India cannot simultaneously ensure **strategic autonomy, unrestricted energy imports, and deep trade integration** with major powers without trade-offs.
- **Balancing Multiple Interests:** Protecting farmers, MSMEs, and export sectors while engaging in global trade requires **calibrated liberalisation**.
- **RCEP Withdrawal Example:** India exited **Regional Comprehensive Economic Partnership (2019)** citing risks to domestic industry, reflecting cautious trade strategy.
- **Perception & Diplomacy:** Trade agreements must appear **mutually beneficial**, as perception impacts both domestic support and global credibility.

India–EU Trade Partnership as Counterbalance

- **Rules-Based Framework:** The EU follows **WTO norms, legal processes, and dispute settlement mechanisms**, offering greater policy predictability.
- **Market Diversification:** The EU represents a **high-income consumer base of 450+ million people**, reducing dependence on any single market.
- **Complementary Trade Structure:** India exports **seafood, spices, rice, and pharmaceuticals**, aligning well with EU demand patterns.
- **Long-Term Strategic Value:** Despite regulatory complexity, the EU provides **institutional reliability**, which is critical for sustained trade growth.

Constitutional & Institutional Developments in the US

- **Judicial Check on Executive Power:** The U.S. Supreme Court ruled that tariffs imposed under **IEEPA** lacked congressional authorization, reinforcing checks and balances.
- **Limits of Executive Authority:** The judgment clarified that taxation powers, including tariffs, require **legislative approval**, strengthening democratic accountability.

- **Policy Uncertainty Persists:** Despite judicial intervention, alternative legal provisions (e.g., Trade Act 1974) allow temporary tariffs, maintaining uncertainty.
- **Global Implications:** The ruling impacts ongoing negotiations, including those with India, by altering the **bargaining environment and policy credibility**.

Domestic Policy Imperatives for India

- **Strengthening Manufacturing:** Focus on **labour-intensive sectors** like textiles and electronics is crucial for employment and export competitiveness.
- **Improving Logistics & Productivity:** High logistics costs (around **13–14% of GDP**) reduce competitiveness; infrastructure reforms are essential.
- **Trade Diversification Strategy:** Expanding FTAs with the EU, ASEAN, and other regions reduces **overdependence and risk exposure**.
- **Institutional Capacity Building:** Strong domestic institutions enhance **negotiation capability, policy consistency, and implementation efficiency**.

Conclusion

India should welcome tariff reductions from the US as an opportunity for short-term export gains but remain cautious about policy unpredictability. The long-term strategy must focus on **diversification of trade partners, strengthening domestic manufacturing, and aligning with rule-based economies like the EU**. In an increasingly volatile global trade environment, **institutional reliability and strategic autonomy** will be the key pillars of India's sustainable economic growth.

EXPECTED QUESTIONS FOR UPSC CSE	
Prelims MCQ	
Que. The primary risk associated with recent US trade policies is:	
(a) High regulatory compliance	
(b) Excessive multilateralism	
(c) Policy instability due to executive unilateralism	
(d) Overdependence on WTO mechanisms	
	Answer: (c)
Descriptive Question	
Que. Discuss the role of institutions in ensuring stability in global trade. How does the India–EU partnership provide an alternative model? (150 Words, 10 Marks)	

RBI MAINTAINS STATUS QUO

Why in News: In its February Monetary Policy Committee (MPC) meeting, the **Reserve Bank of India (RBI) maintained the policy rate status quo** after cumulative rate cuts in 2025, citing comfortable inflation and improving growth prospects.

Key Details

- RBI kept the **repo rate unchanged** after cumulative cuts of **125 basis points in 2025**.

- India's GDP growth for **FY26 is estimated at 7.4%**, with FY27 growth projected at around **7.2%**.
- Inflation remains benign, with **Q4 FY26 inflation near 3.2%** and core inflation around **2.6%**.
- RBI has chosen to **conserve policy space** amid global uncertainty and domestic liquidity challenges.

RBI's Monetary Policy Stance: Status Quo with Strategic Caution

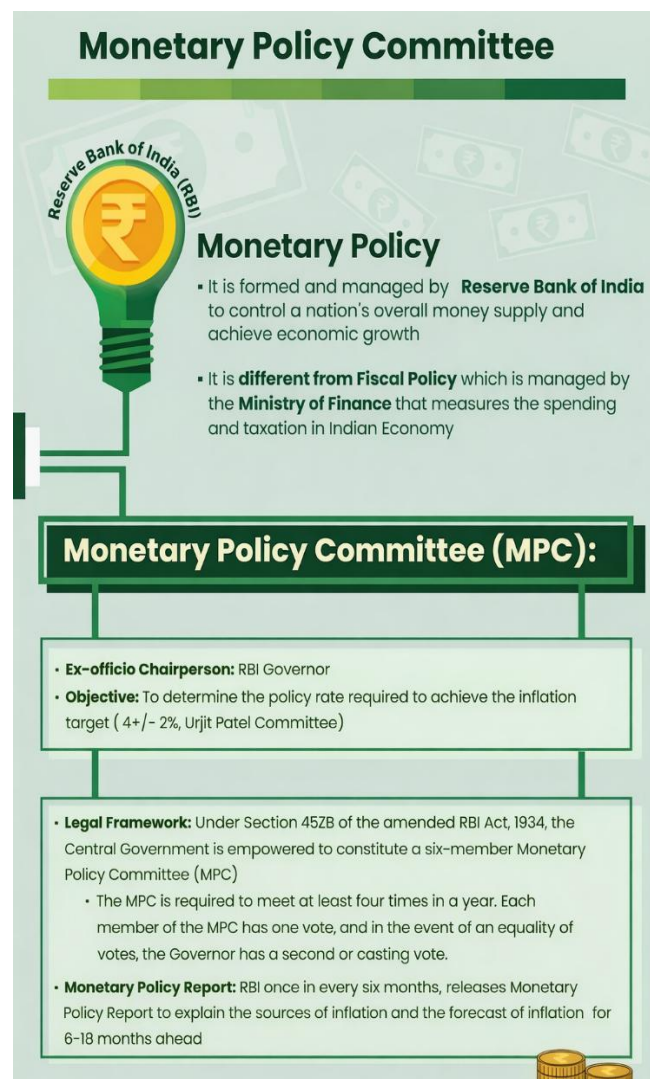
- **Pause after Aggressive Easing:** After cutting rates by 125 bps in 2025, the RBI paused further easing to assess the transmission of monetary policy and evolving macroeconomic conditions.
- **Data-Dependent Approach:** The decision reflects a calibrated strategy where future actions will depend on inflation trends, growth momentum, and global financial stability.
- **Policy Ammunition Preserved:** By not cutting rates further, the RBI has retained space to respond to unforeseen shocks such as global financial volatility or supply-side inflation.
- **Continuity in Liquidity Management:** Although no new liquidity measures were announced, RBI signalled readiness to intervene to ensure orderly market conditions.

Growth Outlook: Domestic Resilience and Trade Optimism

- **Strong GDP Performance:** As per advance estimates, India's GDP growth is expected at **7.4% in FY26**, indicating sustained domestic demand and investment activity.
- **Impact of Trade Developments:** The anticipated **India-US trade deal** and ongoing negotiations with the EU are expected to improve export competitiveness and capital inflows.
- **Export Revival Potential:** US tariffs had earlier led to a **2.2% contraction in non-petroleum exports to the US** (Sept–Nov 2025), impacting sectors like textiles and gems. Lower tariffs could reverse this trend.
- **Incremental Growth Boost:** Preliminary estimates suggest that tariff reductions may add **0.2 percentage points** to GDP growth in FY27.

Inflation Dynamics: Comfort Zone but Watchful Monitoring

- **Benign Headline Inflation:** Inflation is estimated at around **3.2% in Q4 FY26**, remaining well within the RBI's tolerance band of 2–6%.
- **Low Core Inflation:** Core inflation stood near **2.6% in December 2025**, indicating muted demand-side price pressures.
- **Role of Supply Conditions:** Assuming normal monsoons and stable commodity prices, inflation is expected to average around **4% in FY27**.
- **New CPI Series Impact:** RBI and analysts remain cautious as the forthcoming CPI series may alter inflation measurement and policy assessment.



Liquidity Conditions and Forex Interventions

- **Tightening System Liquidity:** Average banking system liquidity declined to **₹0.7 trillion** in recent months from **₹2 trillion earlier**, partly due to forex interventions.
- **RBI's Forex Operations:** RBI intervened in currency markets to manage rupee volatility, which temporarily absorbed domestic liquidity.
- **Expected Improvement Ahead:** With improved capital inflows from trade deals, pressure on the rupee may ease, reducing the need for frequent interventions.
- **Balancing Act:** The RBI aims to maintain sufficient liquidity without fuelling inflation or asset price bubbles.

Government Borrowings and Bond Market Stress

- **Rising G-Sec Yields:** Despite policy rate cuts, **10-year G-sec yields have risen by about 45 bps**, reflecting supply-side pressures.
- **High Borrowing Requirements:** Large central government borrowings for FY27 and elevated state government borrowings have tightened demand-supply dynamics.
- **Widening Yield Spreads:** The spread between the repo rate and 10-year G-sec has widened to **around 150 bps**, while state development loan spreads rose to **70 bps**.
- **Role of Open Market Operations (OMO):** RBI may resort to OMO purchases to stabilise bond yields and support orderly market functioning.

Conclusion

The RBI's decision to maintain the status quo reflects a **pragmatic and forward-looking monetary policy approach**. With inflation under control and growth improving, the central bank has rightly preserved policy ammunition to address future uncertainties. Going ahead, the focus will be on ensuring adequate liquidity, stabilising bond markets, and supporting sustainable growth amid a volatile global environment. Coordinated fiscal-monetary management and external sector stability will be critical to maintaining macroeconomic resilience.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQs

Que. The RBI's decision to maintain policy rates despite benign inflation primarily reflects:

- (a) Fear of fiscal dominance
- (b) Need to preserve monetary policy space
- (c) Rising food inflation
- (d) Declining credit demand

Answer: (b)

SEMICONDUCTOR SUPPLY CHAINS AND RARE EARTH GEOPOLITICS

Why in News: Global semiconductor and aerospace firms face shortages of critical rare earths like yttrium and scandium amid China-U.S. trade tensions ahead of a high-level bilateral summit.

Key Details

- Shortages of **yttrium and scandium**, largely produced in China, are affecting U.S. semiconductor and aerospace supply chains.
- Prices of yttrium have reportedly surged sharply, with exports to the U.S. falling significantly after Chinese controls.
- The issue has strategic implications for **5G chips, jet engines, and defence technologies**.
- The matter is expected to feature in upcoming high-level U.S.-China diplomatic engagements.

Rare Earth Elements (REEs): Strategic Importance

- **Definition and Composition:** Rare earth elements comprise a group of **17 metallic elements**, including yttrium and scandium, essential for high-technology manufacturing despite being used in small quantities.
- **Critical Role in Modern Technology:** REEs are indispensable for **semiconductors, electric vehicles, wind turbines, defence electronics, and aerospace coatings**, making them central to the digital economy.
- **High Value-Low Volume Nature:** Even minute disruptions in supply can halt production of advanced technologies because substitutes are limited and processing is complex.
- **Strategic Mineral Classification:** Many countries, including India and the U.S., classify REEs as **critical**

minerals due to their importance for economic and national security.



Economic importance	Supply risk
<ul style="list-style-type: none">• Disruption potential• Substitutability index (EI)• GVA multiplier score• Cross-cutting index (CCI)	<ul style="list-style-type: none">• Governance-weighted mineral concentration• End-of-life recycling rates (EOL-RR)• Import reliance (IR) and self sufficiency (SS)• Substitutability index (SR)

China's Dominance in Rare Earth Supply Chains

- **Near-Monopoly in Processing:** China accounts for roughly **60–70% of global rare earth mining and about 85–90% of processing capacity**, giving it significant leverage.
- **Export Controls as Geopolitical Tool:** China has periodically imposed export restrictions on rare earths, using supply chains as **economic statecraft** in trade disputes.
- **Value Chain Advantage:** Beyond mining, China dominates **refining, separation, and magnet manufacturing**, which are technologically intensive stages.
- **Global Dependence Risk:** Heavy reliance on a single supplier exposes countries to **supply shocks, price volatility, and strategic vulnerability**.

Impact on Semiconductor and 5G Ecosystem

- **Risk to Next-Generation Chips:** Scandium shortages threaten production of **advanced 5G semiconductor components**, potentially delaying telecom infrastructure rollout.
- **Aerospace and Defence Concerns:** Yttrium-based thermal coatings are critical for **jet engines and turbines**, where heat resistance is essential for performance and safety.
- **Supply Chain Fragility:** The semiconductor industry already faces **geopolitical fragmentation and chip shortages**, making rare earth constraints more disruptive.
- **Industry Response:** Some firms have begun **rationing materials and prioritising large clients**, indicating tightening supply conditions.

Geopolitical Dimensions: U.S.-China Tech Rivalry

- **Technology as Strategic Competition:** The rare earth issue reflects the broader **U.S.-China competition in critical technologies**, including AI, semiconductors, and telecom.

- **Trade Truce but Persistent Frictions:** Although export curbs were partially eased, data indicate supplies to the U.S. remain constrained, highlighting **trust deficits**.
- **Weaponisation of Supply Chains:** Control over critical minerals is increasingly viewed as a tool of **geo-economic influence**, similar to energy geopolitics.
- **Diplomatic Engagement:** The upcoming summit signals attempts to manage tensions, but structural competition in high technology is likely to persist.

Implications for India

- **Opportunity for Supply Diversification:** Global efforts to reduce dependence on China open space for India to emerge as an **alternative processing and manufacturing hub**.
- **Domestic Resource Potential:** India possesses rare earth reserves, particularly in **monazite sands along coastal regions**, though extraction and processing remain limited.
- **Semiconductor Mission Synergy:** The **India Semiconductor Mission (ISM)** and Production Linked Incentive (PLI) schemes aim to build domestic chip capacity, which requires secure mineral supply chains.
- **Strategic Partnerships:** India is part of initiatives like the **Minerals Security Partnership (MSP)** and Quad cooperation on critical technologies, enhancing resilience.

Policy Challenges

- **Environmental Concerns:** Rare earth mining and processing generate **radioactive waste and ecological damage**, complicating rapid expansion.
- **Technological Barriers:** Separation and refining technologies are complex and capital-intensive, requiring **long-term investment and R&D**.
- **Market Volatility:** Prices of rare earths are highly volatile, discouraging private investment outside China.
- **Supply Chain Concentration:** Building diversified supply chains requires coordination across mining, refining, and manufacturing ecosystems.

Way Forward

- **Diversify Global Supply Chains:** Countries should reduce overdependence on a single supplier by promoting mining and processing in regions such as Australia, India, Africa, and Latin America. Strategic stockpiles of critical minerals can cushion short-term disruptions.
- **Strengthen Domestic Capabilities (India Focus):** India must accelerate exploration of monazite and other rare earth reserves, expand processing capacity through agencies like IREL, and integrate mineral security with the India Semiconductor Mission.
- **Promote Recycling and Circular Economy:** Investment in recovery of rare earths from electronic waste, magnets, and industrial scrap can create a secondary supply stream and reduce environmental pressure from fresh mining.

- **Deepen Strategic Partnerships:** India should leverage platforms such as the Quad, Minerals Security Partnership, and bilateral agreements to secure technology transfer, joint ventures, and long-term mineral supply contracts.
- **Invest in R&D and Substitutes:** Public-private investment in material science can help develop alternative materials, improve efficiency of rare earth use, and build indigenous separation technologies.
- **Ensure Sustainable Mining Practices:** Environmental safeguards, community participation, and transparent regulation are essential to balance mineral extraction with ecological protection and social acceptance.

Conclusion

The emerging rare earth crunch underscores the growing strategic importance of **critical mineral security in the technology age**. Countries must diversify supply chains, invest in domestic processing, promote recycling, and deepen international cooperation. For India, this is both a warning and an opportunity to strengthen its semiconductor ambitions and position itself in resilient global value chains.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. Scandium and yttrium are important primarily because they are used in:

(a) Food preservation
 (b) Semiconductor and aerospace technologies
 (c) Textile dyeing
 (d) Pharmaceutical antibiotics

Answer: (b)

Descriptive Question

Que. Evaluate India's preparedness to leverage opportunities arising from the global diversification of critical mineral supply chains. (150 Words, 10 Marks)

MAKE IN INDIA

Why in news: **Make in India** is in focus due to recent **Union Budget measures**, expansion of **PLI schemes**, push for **semiconductor manufacturing**, and efforts to strengthen domestic production amid global supply-chain shifts and the **China-plus-one strategy**.



Key Details

- **Make in India** is a flagship initiative of the **Government of India**, launched in **September 2014**
- Objective is to transform India into a **global manufacturing hub**
- Focus on **25 priority sectors** including:
- Core pillars of the initiative:
 - ✓ **Ease of Doing Business** through deregulation and simplification
 - ✓ **FDI liberalisation** in key manufacturing sectors
 - ✓ **Skill development** via Skill India and industry-academia linkages
 - ✓ **Infrastructure creation** including industrial corridors and logistics parks
- Emphasis on **domestic value addition, job creation, and export competitiveness**

Core Pillars

- **Ease of Doing Business**
 - ✓ Simplification of laws and procedures
 - ✓ Online approvals and time-bound clearances
 - ✓ Reduction in regulatory burden
- **Infrastructure Development**
 - ✓ Industrial corridors and manufacturing clusters
 - ✓ Improved logistics, ports, highways, and freight corridors
- **Skill Development**
 - ✓ Industry-linked skilling programmes
 - ✓ Focus on manufacturing-specific and advanced skills
- **Innovation and Technology**
 - ✓ Promotion of R&D and indigenous technology
 - ✓ Adoption of Industry 4.0, automation, and digital manufacturing

Priority Sectors

- Covers **25 strategic sectors**, including:
 - ✓ **Electronics and semiconductors**
 - ✓ **Automobiles and auto components**
 - ✓ **Defence manufacturing**
 - ✓ **Pharmaceuticals and medical devices**
 - ✓ **Textiles and apparel**
 - ✓ **Renewable energy**
 - ✓ **Chemicals and petrochemicals**
- Sector-specific policies designed to attract targeted investments

Major Policy Instruments

(A) Production Linked Incentive (PLI) Scheme

- ✓ Provides **financial incentives** based on **incremental production and sales**
- ✓ Aims to achieve **economies of scale** and global cost competitiveness
- ✓ Encourages **domestic value addition** instead of import-dependent assembly
- ✓ Targets **sunrise sectors** such as electronics, semiconductors, EVs, pharmaceuticals, and solar modules

- ✓ Helps integrate Indian firms into **global value chains**

(B) FDI Liberalisation

- ✓ Increased **FDI limits** and **automatic route approvals** in manufacturing sectors
- ✓ Liberalisation in **defence, electronics, pharmaceuticals, and automobiles**
- ✓ Enhances **technology transfer**, managerial expertise, and capital inflows
- ✓ Improves India's attractiveness as a **manufacturing destination**

(C) Industrial Corridors and Manufacturing Clusters

- ✓ Development of **industrial corridors** with multimodal connectivity
- ✓ Creation of **integrated townships** offering plug-and-play infrastructure
- ✓ Reduces logistics costs and improves supply-chain efficiency
- ✓ Promotes **cluster-based manufacturing** and regional industrialisation

(D) MSME Support Measures

- ✓ Credit support through **guarantee schemes** and easier access to finance
- ✓ Focus on **technology upgradation** and quality improvement
- ✓ Market access via government procurement and export promotion
- ✓ Integration of MSMEs with **large manufacturing value chains**

Achievements So Far

- Significant **growth in electronics manufacturing**, particularly mobile phones
- Rise in **defence production** and steady increase in defence exports
- Improved **investment climate** and higher investor confidence
- Strengthening of **domestic manufacturing ecosystems** in selected sectors
- Enhanced recognition of India as an **emerging global manufacturing hub**

Challenges

- **High logistics and input costs** reducing cost competitiveness
- **Land acquisition issues** and complexities in labour regulations
- Persistent **skill mismatch** between industry needs and workforce capabilities
- Limited **deep value addition**, with dependence on imported components
- **Uneven implementation** of reforms and policies across states

Way Forward

- **Deepen manufacturing ecosystems** by strengthening MSME participation in global value chains
- **Scale up PLI schemes** with focus on high-technology and sunrise sectors

- **Invest in skilling and reskilling** aligned with Industry 4.0 requirements
- **Improve logistics efficiency** through multimodal transport and digital platforms
- **Promote green manufacturing** to align with climate commitments
- **Strengthen state-level reforms** for faster land, labour, and approval processes

Conclusion

Make in India is central to India's vision of becoming a **self-reliant & globally competitive manufacturing economy**.

By promoting **investment, innovation, infrastructure, and skill development**, the initiative strengthens domestic production, reduces import dependence, and creates employment. Its long-term success depends on **consistent reforms, technology adoption, MSME integration, and global value-chain participation**, ensuring sustainable and inclusive industrial growth.

EXPECTED QUESTION FOR UPSC CSE

PRELIMS MCQ

Que. Which of the following are core policy instruments under the Make in India initiative as highlighted in the editorial?

1. Deregulation and simplification to improve ease of doing business
2. Liberalisation of FDI in priority manufacturing sectors
3. Skill development aligned with industry needs
4. Infrastructure development including industrial corridors

Select the correct answer using the code below:

- (a) 1, 2 and 3 only
- (b) 2, 3 and 4 only
- (c) 1, 3 and 4 only
- (d) 1, 2, 3 and 4

Answer: (d)

Descriptive Question

Que. "Make in India aims to transform India into a global manufacturing hub." Discuss. (10 marks, 150 words.)

WHO NEEDS A FINANCIAL MODEL LESS VULNERABLE

Why in News: The withdrawal of the United States from the World Health Organization (WHO) has created a significant funding shortfall, raising concerns about the sustainability of global health governance.

Key Details

- The US exit has reduced WHO's 2026–27 budget by nearly \$4 billion, creating an estimated 15% funding gap.
- WHO has announced a "reset" of priorities, focusing on **life-saving services** and scaling back lower-impact programmes.

- Structural reforms include **merging departments, halving director-level posts, and potential workforce cuts of over 7,000 staff**.
- The crisis has reignited debate on creating a **resilient and predictable financial model** for global health governance.

WHO: Mandate and Global Role

- **Specialised UN Agency (1948):** The World Health Organization was established in 1948 with the objective of attaining the **highest possible level of health for all people**, making health a global public good.
- **Norm-setting Authority:** WHO develops international health regulations, disease classification systems, and global health standards such as the **International Health Regulations (2005)**.
- **Emergency Response Leadership:** It coordinates responses to pandemics (COVID-19), Ebola outbreaks, and polio eradication efforts, providing technical expertise and logistical coordination.
- **Support to Developing Countries:** Many low- and middle-income countries depend on WHO for **immunisation support, maternal health programmes, and disease surveillance systems**.

Funding Structure and Vulnerabilities

- **Assessed vs Voluntary Contributions:** WHO's budget is financed through **assessed contributions (mandatory membership fees)** and **voluntary contributions** from countries and private donors. Over 70% of funding comes from voluntary sources.
- **Dependence on Major Donors:** The United States has historically been the **largest contributor**, making WHO vulnerable to geopolitical shifts.
- **Earmarked Funding Problem:** Most voluntary funds are earmarked for specific projects, reducing WHO's flexibility to allocate resources based on emerging priorities.
- **Budgetary Uncertainty:** The recent US withdrawal has reduced the 2026–27 budget by around **\$4 billion**, compelling the agency to restructure operations.

Impact of the Financial Crunch

- **Programme Rationalisation:** WHO has indicated it will focus on "life-saving services" and scale back "lower-impact services," potentially affecting long-term health system strengthening.
- **Workforce Reduction:** Planned restructuring may reduce staff strength by more than **7,000 personnel**, limiting technical assistance to member states.
- **Impact on Conflict Zones:** Health responses in fragile regions such as **Gaza and Sudan** may suffer due to resource constraints.
- **Immunisation and Outbreak Response:** Funding shortages could disrupt vaccination drives and weaken preparedness against infectious disease outbreaks in vulnerable regions.

Global Health Governance as a Public Good

- **Health as a Global Public Good:** Infectious diseases do not respect national boundaries, making global health governance essential for collective security.
- **Lessons from COVID-19:** The pandemic exposed weaknesses in international coordination and underscored the importance of strong multilateral institutions.
- **Need for Financial Stability:** Political unpredictability should not determine the functioning of an agency responsible for global disease surveillance and response.
- **Equity and Access:** WHO plays a crucial role in promoting equitable access to vaccines, medicines, and health technologies, especially in the Global South.

India's Perspective and Multilateralism

- **India as a Responsible Stakeholder:** India has consistently supported multilateral health initiatives and advocated for equitable vaccine distribution.
- **Domestic Experience:** India's success in large-scale immunisation and digital health initiatives can inform global health governance reforms.
- **Global South Leadership:** As a voice of developing nations, India can advocate for a more democratic and predictable financing framework.
- **Alignment with SDG 3:** Sustainable Development Goal 3 (Good Health and Well-being) requires a stable and adequately funded WHO.

Conclusion

The current funding crisis presents an opportunity to rethink the financial architecture of global health governance. A resilient WHO requires:

- Increasing the share of **assessed contributions** to reduce overdependence on voluntary funding.
- Creating a **global health contingency fund** insulated from geopolitical volatility.
- Promoting diversified donor participation, including emerging economies.
- Strengthening transparency and accountability to build donor confidence.

A stable and predictable financial model is essential to ensure that global health remains insulated from political fluctuations. In an interconnected world, weakening WHO would undermine collective health security. Strengthening its financial resilience is not merely an institutional reform but a global necessity.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Que. With reference to the World Health Organization (WHO), consider the following statements:

1. It was established in 1948 as a specialised agency of the United Nations.
2. Its funding is entirely based on mandatory contributions from member states.
3. It plays a role in coordinating international responses to health emergencies.

Which of the statements given above are correct?

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

Answer: (a)

DIGITAL COMPETITION & PRIVACY

Why in News: The Supreme Court of India questioned WhatsApp and Meta Platforms Inc. over its 2021 data-sharing policy while hearing an appeal against a penalty imposed by the Competition Commission of India.

Key Details

- **Supreme Court scrutiny:** The Court raised concerns over WhatsApp's data-sharing practices and market dominance.
- **Privacy policy change:** The 2021 update enabled data sharing with Facebook and Instagram on a "take-it-or-leave-it" basis.
- **CCI penalty:** A fine of ₹213.14 crore was imposed by CCI, currently under judicial review.
- **Market dominance:** WhatsApp's strong network effect ensures near-universal usage in India.
- **Regulatory gap:** The case highlights the need for a dedicated digital competition law.

Network Effects & Market Dominance

- **Definition of Network Effect:** A platform becomes more valuable as more users join it; WhatsApp's utility increases because **nearly everyone is already on it**, creating a self-reinforcing cycle.
- **Near-Universal Presence:** With over **500 million users in India**, WhatsApp dominates digital communication, making it difficult for competitors to gain traction.
- **Barrier to Entry:** New platforms like Signal or Telegram struggle because users prefer platforms where their contacts already exist.
- **Lock-in Effect:** Users cannot easily switch platforms without losing social and professional networks, leading to **reduced competition and consumer choice**.

Data Sharing & Privacy Concerns

- **2021 Privacy Policy Update:** WhatsApp allowed sharing of user data with Meta's ecosystem (Facebook, Instagram), raising concerns over **data monetisation and profiling**.
- **Take-it-or-Leave-it Consent:** Users were forced to accept new terms or exit the platform, undermining the principle of **informed and free consent**.
- **End-to-End Encryption Paradox:** While messages remain encrypted, **metadata (usage patterns, contacts)** can still be shared, raising privacy concerns.
- **Data as Economic Resource:** In the digital economy, user data is a **key asset for targeted advertising and revenue generation**, intensifying regulatory scrutiny.

Competition Law & Regulatory Challenges

- **CCI Intervention:** The Competition Commission penalised WhatsApp for abusing its **dominant position** under the Competition Act, 2002.
- **Global Regulatory Trend:** Countries like the EU (Digital Markets Act) are adopting stricter rules to regulate **Big Tech dominance**.
- **Limitations of Existing Laws:** Traditional competition law focuses on price, whereas digital markets require assessment of **data control and network effects**.
- **Regulatory Overlap:** Issues of privacy, competition, and consumer protection overlap, requiring **coordinated institutional response**.

Limitations of User Choice & Opt-Out Mechanisms

- **Default Bias Problem:** Most users accept default settings without understanding implications, making opt-out mechanisms ineffective.
- **Illusion of Choice:** Due to WhatsApp's dominance, users effectively have **no real alternative**, weakening consumer autonomy.
- **Information Asymmetry:** Users lack awareness of how their data is used, creating an imbalance between platforms and consumers.
- **Structural Power of Platforms:** Dominant platforms can impose conditions unilaterally, highlighting the need for **ex-ante regulation**.

Need for Digital Competition Law in India

- **Draft Digital Competition Law (2024):** India has proposed a framework to regulate **systemically important digital intermediaries (SIDIs)**.
- **Ex-Ante Regulation:** Unlike traditional laws, it aims to prevent anti-competitive practices **before harm occurs**.
- **Growing Digital Economy:** With nearly **1 billion internet users**, India requires robust safeguards for fair competition.
- **Balancing Innovation & Regulation:** The law must ensure that **innovation is not stifled**, while preventing monopolistic practices.

Role of Judiciary in Digital Governance

- **Judicial Oversight:** The Supreme Court's intervention highlights the judiciary's role in **protecting fundamental rights and market fairness**.
- **Link with Right to Privacy:** Data-sharing concerns relate to the **Right to Privacy (Puttaswamy judgment, 2017)** under Article 21.
- **Ensuring Accountability:** Courts act as a check on both corporate power and regulatory gaps.
- **Catalyst for Policy Reform:** Judicial observations often push the executive to enact **comprehensive legal frameworks**.

Conclusion

WhatsApp's dominance driven by network effects makes user consent largely symbolic rather than real. While monetisation of services is legitimate, it must not undermine competition, privacy, and consumer choice. India must expedite a **robust digital competition law**, strengthen institutional coordination, and ensure that digital markets remain fair, transparent, and accountable in the era of Data-Driven economies.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. Which of the following best describes "network effect"?

- (a) Increase in internet speed
- (b) Increase in value of a service as more users join
- (c) Government regulation of networks
- (d) Data encryption mechanism

Answer: (b)

Descriptive Question

Que. Discuss the implications of data-sharing policies of digital platforms on competition and privacy in India. (150 Words, 10 Marks)

ENVIRONMENT AND GEOGRAPHY

CARBON CAPTURE NET-ZERO GOAL

Why in News: The Union Budget 2026 has allocated ₹20,000 crore over five years to accelerate **Carbon Capture, Utilisation and Storage (CCUS)** technologies to support India's net-zero target.

Key Details

- CCUS involves capturing carbon dioxide from industrial sources and storing or converting it into useful products.
- India has committed to achieving **net-zero emissions by 2070** (COP26, Glasgow).
- Hard-to-abate sectors like **cement, steel, power and chemicals** are major focus areas.
- Globally, CCUS deployment remains limited but is essential for meeting climate goals.

Understanding CCUS Technology

- **Carbon Capture:** CO₂ is captured from industrial processes such as cement kilns, steel furnaces, and power plants before it enters the atmosphere, reducing direct emissions.
- **Carbon Utilisation:** Captured CO₂ can be converted into fuels, chemicals, building materials, or used in enhanced oil recovery, creating economic value.
- **Carbon Storage:** CO₂ is stored in deep geological formations such as depleted oil and gas reservoirs, ensuring long-term isolation from the atmosphere.
- **Technology Spectrum:** CCUS is not a single technology but a **chain of processes** involving capture, transport, utilisation and storage, each requiring advanced engineering.

Global Status of Carbon Capture

- **Limited Current Deployment:** Around **45 commercial CCUS facilities** operate globally, capturing only **around 50 million tonnes of CO₂ annually**, less than 0.5% of global emissions.
- **Gap with Climate Targets:** To achieve global net-zero by 2050, CCUS capacity must reach **435 million tonnes per year by 2030**, highlighting a massive scale-up challenge.
- **Regional Leaders:** The US, Europe and China are leading CCUS deployment, driven by climate policies and industrial decarbonisation needs.
- **Cost and Scale Constraints:** High costs, infrastructure needs and safety concerns have slowed widespread adoption.

Why CCUS Is Critical for India

- **Growing Emissions Trajectory:** India's emissions are expected to rise in the near term due to infrastructure development and industrial expansion.
- **Hard-to-Abate Sectors:** In cement and steel industries, most CO₂ emissions arise from **chemical processes**, not fuel combustion, making renewable energy insufficient alone.
- **Net-Zero Commitment:** Achieving net-zero by 2070 is impossible without CCUS, as recognised by global climate pathways and IPCC assessments.
- **Energy Security Balance:** CCUS allows India to pursue decarbonisation without compromising growth and development needs.

India's Progress on CCUS (Policy & Institutional Efforts)

- **Pilot Projects:** Companies like **NTPC, Tata Steel, Dalmia Cement and ONGC** are running pilot and demonstration CCUS projects.
- **Research Ecosystem:** Multiple institutions are developing indigenous solutions, supported by **Centres of Excellence at IIT Bombay and JNCASR, Bengaluru**.
- **Mapping Storage Potential:** India has identified potential geological sites suitable for long-term carbon storage.
- **DST CCUS Roadmap 2030:** Released in December, it identifies technological, financial and policy bottlenecks to scale-up.

Significance of Budgetary Support

- **Bridging the Funding Gap:** Many CCUS technologies are laboratory-proven but require large investments for field-scale testing and commercialisation.
- **Improving Technology Readiness:** Budgetary support aims to raise **Technology Readiness Levels (TRLs)** from pilot to commercial deployment.
- **Sectoral Focus:** Funds target power, steel, cement, refineries and chemicals — the largest industrial emitters in India.
- **Game-Changing Potential:** Experts suggest commercial CCUS deployment in India could begin within the next five years.

Economic and Strategic Benefits

- **Industrial Competitiveness:** CCUS can help Indian exports comply with mechanisms like the EU's **Carbon Border Adjustment Mechanism (CBAM)**.
- **Job Creation:** New value chains in capture, transport, storage and utilisation can generate skilled employment.
- **Infrastructure Synergies:** Supports continued infrastructure growth while lowering carbon intensity.

- **Climate Leadership:** Indigenous CCUS solutions enhance India's credibility as a responsible climate actor.

Conclusion

Carbon Capture, Utilisation and Storage is not an optional technology but a **strategic necessity** for India's net-zero pathway. While renewables and efficiency measures remain central, CCUS provides the only viable solution for decarbonising hard-to-abate industries. The ₹20,000 crore budgetary push, combined with research, regulatory clarity, and private sector participation, can transform CCUS from pilot projects into a mainstream climate solution. A phased, region-specific and cost-effective deployment strategy will be crucial for long-term success.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Que. Consider the following statements about CCUS:

1. CCUS is primarily relevant for sectors where emissions arise from chemical processes.
2. Switching entirely to renewable electricity can eliminate CO₂ emissions from cement production.
3. CCUS technologies are essential for achieving global net-zero targets.

Which of the above statements are correct?

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

Answer: (c)

STRATEGIC DEVELOPMENT VS SUSTAINABILITY

Why in News: The **National Green Tribunal (NGT)** upheld environmental clearance for the Great Nicobar Project, highlighting its strategic importance despite ecological and tribal concerns.

Key Details

- NGT upheld environmental clearance, citing safeguards and national strategic importance.
- The project includes a **trans-shipment port, airport, township, and 450 MVA power plant.**
- Around **9 lakh trees across 130 sq. km** may be felled, raising biodiversity concerns.
- Risks to **leatherback turtle nesting sites and coral ecosystems** have been highlighted.
- Concerns persist regarding **tribal consent and Forest Rights Act compliance.**

Strategic Importance of Great Nicobar Project

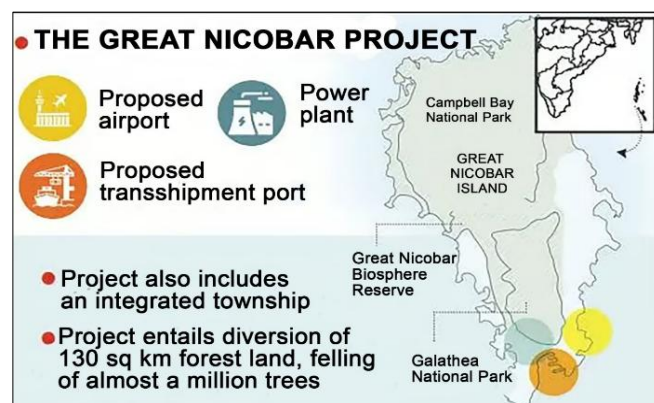
- **Geostrategic Location:** Great Nicobar lies near the **Malacca Strait**, one of the busiest global shipping routes, making it critical for India's maritime security and Indo-Pacific strategy.
- **Trans-shipment Hub Potential:** The proposed port can reduce India's dependence on foreign ports like

Colombo and Singapore, improving **trade efficiency and logistics competitiveness.**

- **Defence and Security Dimensions:** The project enhances India's ability to monitor **Chinese presence in the Indian Ocean Region (IOR)** and strengthens naval capabilities.
- **Act East Policy Integration:** It aligns with India's **Act East Policy**, boosting connectivity with Southeast Asia and promoting regional economic integration.

Infrastructure and Economic Development

- **Multi-component Mega Project:** The project includes a **port, international airport, township, and power plant**, aiming to transform the island into an economic hub.
- **Boost to Trade and Investment:** Improved infrastructure can attract **foreign investment, shipping traffic, and tourism**, contributing to economic growth.
- **Employment Generation:** It is expected to create **direct and indirect employment opportunities**, especially in logistics, construction, and services.
- **Regional Development:** The project aims to integrate remote island regions into the **national economic framework**, reducing regional disparities.



Environmental Concerns and Biodiversity Loss

- **Deforestation and Habitat Loss:** Nearly **9 lakh trees may be felled across 130 sq. km**, leading to large-scale destruction of pristine tropical forests.
- **Threat to Endangered Species:** The island hosts **leatherback turtles (IUCN: Vulnerable)**, whose nesting sites may be severely disrupted by construction activities.
- **Coral Reef Damage:** Coastal infrastructure may harm **coral ecosystems**, which are crucial for marine biodiversity and act as natural barriers against disasters.
- **Fragile Island Ecosystem:** Islands have **low ecological resilience**, meaning damage may be irreversible and recovery extremely slow.

Tribal Rights and Socio-Cultural Issues

- **Indigenous Communities:** The island is home to **Shompen (Particularly Vulnerable Tribal Group) and Nicobarese tribes**, with distinct cultural and ecological dependence.

- **Forest Rights Act Concerns:** Questions remain about proper implementation of the **Forest Rights Act, 2006**, especially regarding consent and land rights.
- **Allegations of Coercion:** Reports suggest that tribal representatives may have been pressured to sign “**consent**” documents, raising concerns about free and informed participation.
- **Cultural Displacement Risks:** Large-scale development may disrupt traditional lifestyles, leading to **loss of identity and socio-cultural disintegration**.

Legal and Institutional Issues

- **Role of National Green Tribunal (NGT):** The NGT upheld the clearance, emphasising **strategic importance and procedural compliance**.
- **Concerns over Appraisal Process:** Critics argue that the decision relied heavily on government reports without **independent environmental assessment**.
- **Transparency Issues:** Limited public disclosure citing strategic reasons raises questions about **accountability and democratic oversight**.
- **Balancing Development and Justice:** The case reflects challenges in reconciling **environmental governance with national interest priorities**.

Historical Lessons from Global Examples

- **Case of Nauru and Banaba:** Excessive phosphate mining in the early 20th century led to **ecological devastation and displacement of indigenous populations**.
- **Irreversible Ecological Damage:** Banaba became largely uninhabitable, showing that **short-term economic gains can lead to long-term environmental collapse**.
- **Warning for Fragile Regions:** These cases highlight the need for **sustainable planning in ecologically sensitive and remote areas**.
- **Relevance to Great Nicobar:** The project raises similar concerns about whether development may come at the **cost of irreversible ecological and social damage**.

Development vs Environment Debate

- **Economic Growth Imperative:** Developing nations like India require infrastructure for **growth, trade, and strategic security**.
- **Ecological Sustainability:** Environmental protection is essential for **long-term survival, climate resilience, and biodiversity conservation**.
- **Inclusive Development:** Development must ensure **justice for indigenous communities** and avoid exclusion.
- **Need for Balanced Approach:** The debate is not binary but requires a **sustainable and participatory development model**.

Conclusion

The Great Nicobar Project highlights the complex interplay between **strategic interests, economic development,**

environmental sustainability, and tribal rights. While national security and economic growth are important, they cannot come at the cost of irreversible ecological damage and social injustice. A **transparent, science-based, and participatory decision-making process** is essential to ensure that development remains sustainable and inclusive. The success of the project will ultimately depend on how well India balances these competing priorities.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. Great Nicobar Island is strategically important because:

- (a) It lies near the Malacca Strait
- (b) It has major mineral reserves
- (c) It is India’s largest island
- (d) It is located in the Arabian Sea

Answer: (a)

Descriptive Question

Que. Examine the environmental, strategic, and socio-cultural implications of the Great Nicobar Island Project. Discuss whether strategic considerations can justify ecological costs and concerns over tribal rights. (250 words, 15 marks)

OCEAN GOVERNANCE & BIODIVERSITY

Why in News: The High Seas Treaty is gaining attention as more countries move toward ratification, bringing it closer to enforcement for global marine biodiversity conservation.

Key Details

- The **High Seas Treaty (BBNJ Agreement, 2023)** is an UN-led agreement to protect biodiversity beyond national jurisdiction.
- It complements **UNCLOS (1982)** and governs nearly **two-thirds of the world’s oceans**.
- It enables creation of **Marine Protected Areas (MPAs)** to achieve the **30x30 target**.
- It mandates **Environmental Impact Assessments (EIAs)** and ensures equitable sharing of marine genetic resources.

High Seas & Governance Gap

- **Definition of High Seas:** High seas refer to ocean areas **beyond Exclusive Economic Zones (EEZs)**, covering nearly **64% of ocean surface and 95% of ocean volume**, making them crucial for global ecology.
- **Lack of Comprehensive Framework:** Prior to the treaty, governance was fragmented across bodies like regional fisheries organisations, leading to **regulatory gaps in biodiversity protection**.
- **Limitations of UNCLOS:** While UNCLOS provides a legal framework for maritime zones, it lacks **specific mechanisms for biodiversity conservation** in areas beyond national jurisdiction.

- **Global Commons Challenge:** High seas are a **global-commons**, leading to issues like over-exploitation due to absence of clear ownership and weak enforcement.

Need for the High Seas Treaty

- **Rising Environmental Threats:** High seas face pressures from **overfishing, illegal fishing, marine pollution, and deep-sea mining**, threatening fragile ecosystems.
- **Climate Change Impacts:** Ocean warming, acidification, and deoxygenation are disrupting marine biodiversity and affecting **global carbon cycles**.
- **Biodiversity Loss:** Marine species in high seas are declining due to unsustainable practices, impacting **food security and ecological balance**.
- **Equity Concerns:** Advanced nations dominate access to marine genetic resources, raising concerns about **fair benefit-sharing with developing countries**.

Core Objectives of the Treaty

- **Conservation & Sustainable Use:** The treaty aims to balance ecological protection with economic use, ensuring **long-term sustainability of marine resources**.
- **Marine Protected Areas (MPAs):** Provides a legal mechanism to designate MPAs in high seas to conserve ecosystems and meet the **global 30% protection target by 2030**.
- **Regulation of Marine Genetic Resources (MGRs):** Ensures access and equitable sharing of benefits derived from genetic materials used in pharmaceuticals and biotechnology.
- **Environmental Impact Assessments (EIAs):** Mandates prior assessment of activities like mining and fishing to prevent **irreversible ecological damage**.

Key Provisions & Institutional Mechanism

- **Marine Protected Areas (MPAs):** Decisions on MPAs will be taken through a **Conference of Parties (COP)**, enabling global cooperation in conservation efforts.
- **Equitable Benefit Sharing:** Introduces mechanisms to ensure that profits from marine genetic resources are **shared fairly**, especially with developing nations.
- **Scientific & Technical Body:** Provides scientific guidance to ensure that decisions are based on **evidence and ecological sustainability**.
- **Capacity Building:** Focuses on **technology transfer, funding, and training** to help developing countries participate effectively in ocean governance.

Significance for India

- **Blue Economy Growth:** India's initiatives like **Deep Ocean Mission** and focus on blue economy will benefit from improved global governance frameworks.
- **Access to Marine Resources:** Ensures fair access to marine genetic resources, supporting sectors like **pharmaceuticals and biotechnology**.

- **Environmental Protection:** Aligns with India's commitments under **climate agreements and sustainable development goals**, especially SDG 14.
- **Strategic Maritime Interests:** Strengthens India's role in global maritime diplomacy and enhances cooperation in the **Indian Ocean Region (IOR)**.

Challenges and Concerns

- **Ratification Requirement:** The treaty requires ratification by **at least 60 countries** to come into force, which may delay implementation.
- **Enforcement Issues:** Monitoring activities in vast high seas is difficult due to **lack of central authority and logistical constraints**.
- **Economic vs Environmental Trade-offs:** Conflicts may arise between conservation goals and commercial interests like **fishing, shipping, and mining**.
- **Geopolitical Competition:** Strategic rivalry over deep-sea resources may hinder cooperation and lead to **resource conflicts**.

Way Forward

- **Early Ratification & Domestic Alignment:** Countries, including India, should expedite ratification and align domestic laws with treaty provisions to ensure **timely operationalisation and legal coherence**.
- **Strengthening Global Cooperation:** Effective implementation requires collaboration among nations, regional bodies, and institutions to ensure **collective action in managing global commons**.
- **Technology-driven Monitoring & Enforcement:** Use of **satellite surveillance, AI-based tracking, and digital monitoring systems** can improve compliance and address enforcement challenges in vast ocean spaces.
- **Balancing Conservation with Economic Interests:** Policies must ensure that activities like fishing, shipping, and mining are regulated to maintain a **sustainable balance between ecology and economy**.
- **Capacity Building for Developing Countries:** Enhanced funding, training, and technology transfer should be prioritised to ensure **equitable participation and benefit-sharing** in ocean governance.
- **Integration with SDG 14 (Life Below Water):** Aligning treaty implementation with SDG targets will strengthen global efforts toward **marine conservation, pollution reduction, and sustainable resource use**.
- **Promoting Scientific Research & Data Sharing:** Encouraging collaborative marine research and open data platforms will support **evidence-based policymaking and innovation in conservation strategies**.

Conclusion

The High Seas Treaty represents a **historic step in global ocean governance**, addressing long-standing legal and ecological gaps. Early ratification, stronger enforcement mechanisms, technological monitoring, and inclusive international cooperation are essential for its success.

Aligning the treaty with **SDG 14 (Life Below Water)** will ensure sustainable and equitable use of marine resources for future generations.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Que. Consider the following statements regarding the High Seas Treaty (BBNJ Agreement):

1. It was adopted under the framework of UNCLOS.
2. It applies to marine areas within EEZs of coastal states.
3. It provides for creation of MPAs in areas beyond national jurisdiction.

Which of the statements is/are correct?

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

Answer: (a)

CENTRAL INDIA'S HUMAN-ELEPHANT CRISIS

Why in News: Rising elephant attacks across Jharkhand, Odisha and West Bengal have highlighted the intensifying human–elephant conflict in central India.

Key Details

- Several deaths were reported recently due to elephant attacks in Jharkhand, Odisha and West Bengal.
- Less than **8% of India's ~22,446 elephants** are responsible for nearly half of conflict casualties.
- Habitat fragmentation due to mining, reservoirs and drought-driven migration is the key trigger.
- Experts warn the conflict may worsen as **crop-dependent elephant populations increase**.

Human–Elephant Conflict (HEC): Nature and Trends

- **Definition and scale:** Human–Elephant Conflict refers to negative interactions between humans and elephants resulting in crop loss, property damage and human/animal deaths. India records **500+ human deaths annually** due to elephants (MoEFCC estimates).
- **Geographical spread:** Traditionally concentrated in eastern and northeastern India, HEC is now expanding into **central Indian landscapes** such as Chhattisgarh, Madhya Pradesh and Maharashtra.
- **Disproportionate impact by few herds:** Data shows **<8% of elephants cause nearly 50% casualties**, indicating the role of specific crop-raiding, habituated herds rather than the entire population.
- **Socio-economic implications:** Small and marginal farmers suffer heavy crop losses, leading to livelihood stress, retaliatory killings and erosion of local support for conservation.

Drivers of Elephant Displacement in Central India

- **Serial droughts (1980s El Niño events):** Severe droughts during **1982–83 and 1986–87 El Niño** reduced natural fodder and water availability, forcing elephants to expand their range in search of resources.
- **Mining expansion:** Rapid growth of iron ore and coal mining in **Singhbhum, Keonjhar, Sundargarh and Talcher** fragmented core elephant habitats and migration corridors.
- **Reservoir construction:** Large dams in **Mahanadi and Brahmani basins** submerged rich riverine forests, permanently altering traditional elephant routes.
- **Linear infrastructure growth:** Roads, Rail lines, transmission lines and settlements have created **barrier effects**, preventing seasonal migration and increasing human interface.

Habitat Fragmentation and Corridor Disruption

- **Loss of migratory routes:** Elephants are wide-ranging megafauna that depend on seasonal migration. Blocking of corridors since the **mid-1980s** has converted migratory herds into resident crop-raiders.
- **Fragmented forest quality:** Many central Indian forests are now **monoculture plantations**, which provide poor-quality fodder compared to natural mixed forests.
- **Carrying capacity mismatch:** Experts note that elephant populations in some patches now **exceed ecological carrying capacity**, pushing herds into farmlands.
- **Landscape-level spread:** Elephant presence has expanded across **Jangalmahal (West Bengal), Hasdeo Arand (Chhattisgarh), Gadchiroli (Maharashtra)**, indicating a structural ecological shift.

Crop-Dependent Herds: A Growing Ecological Concern

- **High-nutrient crop attraction:** Crops such as paddy, maize and sugarcane provide **higher calories than forest fodder**, encouraging habitual crop raiding.
- **Behavioural change across generations:** New calves born in crop-raiding herds may **lose memory of natural foraging**, making long-term behavioural reversal difficult.
- **Population growth in disturbed landscapes:** Improved nutrition from crops has paradoxically **boosted breeding success**, increasing herd sizes in conflict zones.
- **Long restoration timelines:** According to wildlife experts, meaningful habitat recovery may take **20–40 years**, implying prolonged conflict risk.

Institutional and Policy Framework

- **Project Elephant (1992):** Centrally sponsored scheme for elephant conservation, corridor protection, and conflict mitigation.
- **Elephant Reserves:** India has **30+ elephant reserves** aimed at landscape-level conservation, though many corridors remain unsecured.

- **Compensation mechanisms:** States provide ex gratia for human death, crop loss and property damage, but delays and under-assessment remain issues.
- **National Elephant Action Plan (2020):** Focuses on habitat security, conflict mitigation, use of technology (early warning systems, drones) and community participation.

Emerging Concerns

- **Climate variability link:** Increasing frequency of droughts and extreme weather may further stress elephant habitats.
- **Development vs conservation dilemma:** Mining in biodiversity-rich regions like **Hasdeo Arand** highlights the policy trade-off between economic growth and ecological security.
- **Inter-state coordination gaps:** Elephant ranges now span multiple states, but governance remains **state-centric**, creating management inefficiencies.
- **Human security dimension:** Rising HEC is both a **wildlife conservation issue and rural livelihood crisis**, requiring integrated policy response.

Conclusion

Human–elephant conflict in central India reflects deeper ecological stress caused by habitat fragmentation, unplanned development and climate variability. India must adopt a **landscape-level, multi-state strategy** focusing on corridor restoration, climate-resilient habitats, community-based mitigation and science-driven monitoring. Balancing conservation with livelihood security will be crucial to prevent the crisis from escalating into a long-term human–wildlife confrontation.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Que. Developmental activities such as mining and infrastructure expansion have intensified human–wildlife conflicts in India. Discuss with reference to elephants. (150 Words, 10 Marks)

INDIA'S BID FOR FULL MEMBERSHIP OF THE IEA

Why in News: The International Energy Agency (IEA) has welcomed progress on India's request for full membership, which may require amendment of its founding charter.

Key Details

- India is currently an **associate member of the IEA since 2017** and seeks full membership.
- Full membership is restricted to **OECD countries**, creating a legal hurdle for India.
- The IEA is a key global body on **energy security, policy coordination, and energy transition**.
- Granting India full membership may require **amending the IEA's founding framework**.

International Energy Agency (IEA): Origin and Evolution

- **Creation after the 1973 Oil Crisis:** The IEA was established in **1974** by 17 OECD countries following the oil embargo during the **Yom Kippur War**, which exposed energy vulnerability of industrial economies.
- **Original Mandate – Energy Security:** Initially, the IEA focused on ensuring **stable oil supplies**, coordinating emergency responses, and reducing dependence on imported oil among member countries.
- **Expansion of Role:** Over time, the agency expanded into **clean energy transitions, climate policy, and energy data analytics**, reflecting changing global energy priorities.
- **Growing Global Influence:** Today, the IEA has **32 full members and several associate members**, collectively accounting for about **80% of global energy demand**.

Membership Structure and Legal Constraints

- **OECD Linkage Requirement:** The IEA's founding framework restricts full membership to **members of the OECD**, creating an institutional barrier for major emerging economies.
- **Associate Membership Model (2015):** To engage non-OECD countries, the IEA created an **associate member category**, allowing participation without voting rights.
- **India's Current Status:** India became an associate member in **2017**, gaining access to data, cooperation, and policy dialogue but **not decision-making power**.
- **Need for Charter Amendment:** For India to become a full member, the IEA must either **amend eligibility rules or create an exception**, which requires consensus among existing members.

India's Strategic Rationale for Full Membership

- **Voice in Global Energy Governance:** Full membership would allow India to **shape global energy rules**, especially on energy transition, fossil fuel security, and climate commitments.
- **Energy Security Imperative:** As the **world's third-largest energy consumer**, India seeks deeper integration with global energy coordination mechanisms.
- **Access to Advanced Data and Policy Tools:** The IEA maintains one of the **most comprehensive global energy databases**, useful for evidence-based policymaking.
- **Alignment with Climate Leadership:** India's initiatives like **LIFE (Lifestyle for Environment)** and renewable expansion align with IEA's evolving clean energy focus.

Strategic Importance of India for the IEA

- **Shift in Global Energy Demand:** When the IEA was formed, OECD countries dominated demand; today, **emerging economies drive most energy growth**, making India indispensable.
- **Enhancing IEA's Representativeness:** Including India would improve the agency's **global legitimacy and**

inclusiveness, reflecting contemporary energy realities.

- **Support from Major Members:** The United States and several partners have shown openness to India's inclusion, indicating geopolitical support.
- **Precedent Pressure from Other Countries:** Countries like **Brazil** are also seeking full membership, increasing momentum for institutional reform.

Challenges and Concerns

- **Legal and Institutional Rigidity:** Amending the founding charter requires **consensus among member states**, which can be politically complex.
- **OECD-IEA Institutional Link:** Some members may worry that diluting the OECD condition could **alter the character of the agency**.
- **Strategic Stock Obligations:** Full members must maintain **mandatory strategic oil reserves**, which may require additional infrastructure commitments.
- **Geopolitical Balancing:** Expanding membership to major emerging economies may reshape **energy geopolitics within the IEA framework**.

India-IEA Cooperation: Recent Developments

- **Formal Membership Request (2023):** India submitted its formal application in **October 2023**, intensifying diplomatic engagement.
- **Growing Analytical Collaboration:** The IEA has produced multiple **India-focused energy reports**, reflecting deepening partnership.
- **LiFE Initiative Recognition:** An IEA study estimated that global adoption of India's LiFE initiative could reduce emissions by **up to 2 billion tonnes by 2030**.
- **Ministerial-Level Support (2026):** The latest ministerial meeting in Paris welcomed progress on India's membership discussions.

Conclusion

India's full membership in the IEA would mark a significant shift in global energy governance toward greater inclusivity and realism. While legal and institutional hurdles remain, reforming the IEA framework to accommodate major emerging economies is increasingly necessary. For India, deeper engagement will strengthen energy security, enhance climate leadership, and amplify its voice in shaping the global energy transition architecture.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Que. The International Energy Agency (IEA) was originally established in response to:

- (a) Asian Financial Crisis
- (b) 1973 Oil Crisis
- (c) Kyoto Protocol
- (d) Paris Agreement

Answer: (b)

Descriptive Question

Que. Discuss the significance of India's bid for full membership in the International Energy Agency. What challenges lie ahead? (150 Words, 10 Marks)

FIRE-DETECTION ALGORITHM TO MONITOR STUBBLE BURNING

Why in News: ISRO is set to test an improved satellite algorithm during the rabi harvest to enhance year-round monitoring of stubble burning in north-western India.

Key Details

- The Commission for Air Quality Management (CAQM) has expanded monitoring of farm fires beyond the kharif season.
- ISRO has fine-tuned its satellite-based fire detection algorithm to address under-reporting of farm fires.
- Punjab, Haryana and UP-NCR generate about **28 million tonnes of paddy stubble annually**.
- Farm fires can contribute up to **40% of Delhi's winter PM2.5 pollution load** during peak periods.

Scale and Nature of the Stubble Burning Problem

- **Massive Crop Residue Generation:** Punjab, Haryana and western Uttar Pradesh together generate nearly **28 million tonnes of paddy stubble within a 30-day window**, creating disposal pressure on farmers.
- **Narrow Sowing Window:** Farmers have limited time between paddy harvesting and wheat sowing, often **10-20 days**, making burning the quickest field-clearing method.
- **Cost and Accessibility Constraints:** Alternatives such as Happy Seeder or Super SMS involve **high operational costs and limited machine availability**, especially for small and marginal farmers.
- **Persistence Despite Regulations:** Despite bans and penalties, stubble burning continues annually, indicating **structural rather than purely behavioural causes**.

Environmental and Health Impacts

- **Major Source of PM2.5:** Stubble burning releases fine particulate matter and toxic gases; during peak episodes it may contribute **up to 40% of Delhi's pollution load**.
- **Seasonal Pollution Spike:** Post-monsoon temperature inversion and calm winds trap pollutants, leading to **severe air quality deterioration in October-November**.
- **Long-Range Pollutant Transport:** **North-westerly winds** carry smoke from Punjab and Haryana into Delhi-NCR, demonstrating the trans-boundary nature of the problem.
- **Public Health Burden:** Elevated PM2.5 levels are linked to respiratory illnesses, cardiovascular diseases, and reduced life expectancy in north India.

Limitations of Existing Monitoring Mechanisms

- **Satellite Detection Gaps:** Ground teams reported mismatches between satellite fire counts and actual burnt areas, indicating **under-detection and over-estimation issues**.
- **Fixed Observation Windows:** Current monitoring relies on satellites like **Terra, Aqua (MODIS) and Suomi-NPP (VIIRS)** that pass at fixed times, missing fires lit later in the day.
- **Shift in Burning Patterns:** Studies show peak burning time shifted from **1:30 PM (2020) to around 5 PM (2024)**, reducing detection accuracy.
- **Policy Dependence on Incomplete Data:** Enforcement and compensation decisions based on imperfect data risk **policy misalignment and credibility issues**.

ISRO's Improved Algorithm: Key Features

- **Fine-Tuned Detection Model:** ISRO has modified its in-house algorithm to better distinguish between **active fires and residual burnt patches**.
- **Pilot during Rabi Harvest:** The new system will be tested during the **wheat harvesting season (March-May)** to assess year-round monitoring capability.
- **Integration with Ground Verification:** CAQM has directed district-level teams to conduct **farm mapping and field validation** to complement satellite data.
- **Towards Continuous Surveillance:** The move reflects a shift from seasonal to **all-year monitoring of farm fires**, recognising the persistent pollution baseline.

Institutional and Policy Response

- **Role of CAQM:** The statutory body has mandated **state-specific action plans** and stricter enforcement for wheat residue burning in 2026.
- **Crop Residue Management (CRM) Scheme:** The Union government provides subsidies for machines like **Happy Seeder, Super SMS, and mulchers** for in-situ management.
- **Promotion of Ex-situ Uses:** Policies encourage use of straw for **biomass energy, fodder, packaging material, and bio-CNG production**.
- **Supreme Court Oversight:** The issue has been repeatedly monitored by the Court, pushing agencies toward **technology-driven accountability**.

Structural Challenges in Eliminating Stubble Burning

- **Economic Rationality of Farmers:** Burning remains the **cheapest and fastest** method compared to mechanised alternatives.
- **Fragmented Landholdings:** Small farm sizes in north India reduce the **economic viability of expensive CRM machinery**.
- **Market Linkage Gaps:** Ex-situ solutions suffer from weak supply chains and **limited assured procurement of crop residue**.
- **Behavioural and Enforcement Limits:** Penal approaches alone have shown limited success without **viable economic alternatives**.

Conclusion

A technology upgrade in fire detection is a necessary but insufficient step. India needs a **multi-pronged strategy** combining accurate satellite monitoring, affordable residue management solutions, market creation for biomass, and cooperative federal action. Long-term success will depend on aligning environmental goals with farmers' economic incentives, thereby ensuring sustainable agriculture and cleaner air for the Indo-Gangetic plains.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. Consider the following statements regarding stubble burning monitoring:

1. MODIS and VIIRS satellites are used for farm fire detection.
2. Stubble burning contributes significantly to winter PM2.5 levels in Delhi-NCR.
3. Crop Residue Management scheme promotes only ex-situ solutions.

Which of the statements given above is/are correct?

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

Answer: (a)

Descriptive Question

Que. Stubble burning is both an environmental and an agrarian policy challenge. Discuss the role of technology and policy interventions in addressing it. (150 Words, 10 Marks)

USEPA – A VOICE FOR CLIMATE DENIALISM

Why in News: The United States Environmental Protection Agency (USEPA) has rolled back the Obama-era Endangerment Finding, signalling a major policy shift amid rising global climate concerns.

Key Details

- The US administration has weakened the **Endangerment Finding**, which earlier mandated regulation of greenhouse gases (GHGs).
- Limits on automobile emissions and support for electric vehicles (EVs) have been diluted.
- The move may allow rollback of emission norms for power plants and oil & gas sectors.
- The decision contrasts with the global trend toward stronger climate mitigation commitments.

Endangerment Finding & Legal Basis of Climate Regulation

- **What is the Endangerment Finding (2009):** The USEPA concluded that six key greenhouse gases threaten public health and welfare, enabling regulation under the US Clean Air Act.
- **Foundation of US Climate Policy:** It became the legal backbone for emission standards on automobiles,

power plants, and industrial sources during the Obama administration.

- **Scientific Consensus:** The finding relied on overwhelming evidence from bodies like the IPCC, which links rising GHG concentrations to global warming and extreme weather.
- **Implications of Rollback:** Weakening this finding undermines the regulatory authority of USEPA and may dilute legally enforceable climate safeguards.

Transport Sector & Emission Concerns

- **Largest Source of US Emissions:** Transportation contributes roughly **28–29% of total US GHG emissions**, making it the most critical sector for mitigation.
- **Scaling Back Auto Emission Norms:** Relaxed standards reduce pressure on automakers to improve fuel efficiency or transition toward low-emission vehicles.
- **Electric Vehicle Transition Slowdown:** Withdrawal of EV subsidies may slow adoption despite earlier growth under incentive-based policies.
- **Global Climate Impact:** Given the US is the **second-largest emitter**, weaker transport policies could significantly affect global emission trajectories.

Fossil Fuel Push vs Renewable Transition

- **Support for Fossil Fuels:** The policy shift signals renewed confidence in oil, gas, and coal, potentially locking in high-carbon infrastructure.
- **Threat to Power Sector Decarbonisation:** Removal of limits on power plant emissions may reverse progress made toward cleaner electricity generation.
- **Global Renewable Momentum:** Worldwide renewable capacity additions hit record highs in recent years, led by solar and wind expansion.
- **Risk of Carbon Lock-in:** Continued fossil investment increases the risk of stranded assets and makes achieving **net-zero targets** more difficult.

Climate Denialism & Political Economy

- **Rise of Climate Skeptic Narratives:** Climate denialism often questions scientific consensus, delaying policy action despite strong empirical evidence.
- **Communication Failure of Green Policies:** In many developed countries, climate policies were perceived as costly, enabling political backlash.
- **Equity and Just Transition Issues:** Lack of adequate support for workers and industries affected by decarbonisation has weakened public support.
- **Policy Polarisation:** Climate change has increasingly become a partisan issue in the US, affecting long-term policy stability.

Global Climate Governance Implications

- **Contradiction with Paris Agreement Goals:** Weakening domestic regulation undermines efforts to limit warming to **1.5°C above pre-industrial levels**.

- **Impact on Climate Leadership:** As a historical major emitter, US policy shifts influence global ambition and climate finance flows.
- **Signal to Developing Countries:** Rollbacks in developed nations may weaken the principle of **Common but Differentiated Responsibilities (CBDR)**.
- **Multilateral Momentum Continues:** Despite setbacks, many countries and subnational actors continue to strengthen climate commitments and renewable deployment.

Relevance for India

- **Competitiveness of Clean Energy:** Policy uncertainty in developed countries may create opportunities for India in renewable manufacturing and green technology.
- **Trade and Carbon Border Measures:** Divergent climate policies could affect future carbon border taxes and green trade regimes.
- **India's Balanced Approach:** India continues to pursue growth with sustainability through initiatives like **National Solar Mission, Green Hydrogen Mission**, and updated NDCs.
- **Climate Diplomacy:** India may need to emphasise equity and climate justice more strongly in global negotiations.

Conclusion

The rollback of climate safeguards by the USEPA represents a significant moment in global climate politics. While it may provide short-term regulatory relief domestically, it risks undermining decades of scientific consensus and international cooperation. Sustained global climate action requires science-based policymaking, credible transitions to clean energy, and equitable burden-sharing. For countries like India, the episode underscores the need to balance development priorities with long-term climate resilience while strengthening multilateral climate governance.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. The “Endangerment Finding” in the United States is related to:

- (a) Nuclear safety regulation
- (b) Greenhouse gas regulation under environmental law
- (c) Biodiversity conservation
- (d) Ocean pollution control

Answer: (b)

WILL NOT LET ANYONE TOUCH ARAVALLI: SUPREME COURT

Why in News: The Supreme Court refused to allow progress on the proposed Aravalli Zoo Safari Project, asserting that no activity will be permitted until a scientific and holistic assessment of the Aravalli range is completed.

Key Details

- The Supreme Court declined Haryana's request to submit a revised DPR for the Aravalli Zoo Safari Project.
- The Court emphasised that no intervention in the Aravalli range will be allowed without a scientific expert panel review.
- Earlier, the Court had kept in abeyance its order accepting the 100-metre height definition of Aravalli hills.
- Concerns were raised that redefining hills could open ecologically sensitive areas to mining and development.

Ecological Significance of the Aravalli Range

- **One of the Oldest Mountain Systems:** The Aravalli range is among the oldest fold mountain systems in the world, extending across Gujarat, Rajasthan, Haryana, and Delhi. Its degradation affects a large ecological zone in north-west India.
- **Natural Barrier Against Desertification:** The Aravallis act as a natural barrier preventing the eastward expansion of the Thar Desert. Their depletion can increase desertification risks in Haryana, Delhi, and western Uttar Pradesh.
- **Groundwater Recharge and Climate Regulation:** The range plays a crucial role in groundwater recharge and maintaining micro-climatic balance in the NCR region. Loss of forest cover can intensify heat waves and water scarcity.
- **Biodiversity Hotspot:** It supports diverse flora and fauna, including leopards and various endemic species. Fragmentation through mining and infrastructure threatens habitat continuity.

Legal and Constitutional Framework for Environmental Protection

- **Article 48A (Directive Principles):** The State is mandated to protect and improve the environment and safeguard forests and wildlife.
- **Article 51A(g) (Fundamental Duty):** Citizens have a duty to protect and improve the natural environment.
- **Article 21 – Right to Life:** The Supreme Court has expanded Article 21 to include the right to a clean and healthy environment.
- **Environmental Protection Act, 1986:** Provides the legal framework for environmental regulation and empowers authorities to restrict industrial and developmental activities.
- **Role of the Central Empowered Committee (CEC):** The CEC assists the Supreme Court in forest and wildlife matters, especially in monitoring compliance with environmental norms.

Issue of Definition and Regulatory Implications

- **100-Metre Height Definition Controversy:** A government committee proposed defining Aravalli hills as landforms with elevation of 100 metres or more above local relief. Activists argue this may exclude smaller hills from protection.

- **Mining Concerns:** If hills below 100 metres are excluded, they may become vulnerable to mining and commercial exploitation, particularly in Haryana and Rajasthan.
- **Precautionary Principle:** The Court's refusal reflects the precautionary principle, which requires preventive action in the face of environmental uncertainty.
- **Holistic Ecosystem Approach:** The Court emphasised that Aravalli does not start or end in one state; therefore, ecological decisions must consider the entire range.

Development vs Environmental Conservation Debate

- **Zoo Safari Project Proposal:** The Haryana government reduced the proposed project area from 10,000 acres to 3,300 acres, arguing it would promote eco-tourism.
- **Concerns of Ecological Disturbance:** Infrastructure development, roads, and tourist facilities may fragment habitats and disturb fragile ecosystems.
- **Sustainable Development Principle:** Indian environmental jurisprudence balances economic growth with ecological preservation, ensuring that development does not compromise future generations.
- **Judicial Environmentalism:** The Supreme Court has historically intervened in matters such as mining bans, forest conservation, and pollution control to uphold environmental rights.

Role of Judiciary in Environmental Governance

- **Public Interest Litigation (PIL):** Environmental issues often reach the Court through PILs, reflecting judicial activism in ecological matters.
- **Expert-Based Decision Making:** The Court's insistence on an independent expert body highlights the need for scientific evidence in policy decisions.
- **Federal Environmental Governance:** Since Aravalli spans multiple states, coordinated inter-state and Union-level approaches are necessary.
- **Judicial Oversight vs Executive Discretion:** The case illustrates tensions between state development initiatives and judicial oversight for environmental protection.

Conclusion

The Aravalli issue underscores the need for a **scientific, transparent, & ecosystem-based regulatory framework**. Clear definitions, inter-state coordination, and strict enforcement of environmental laws are essential. Development projects must undergo rigorous Environmental Impact Assessments (EIA) and adhere to the precautionary and sustainable development principles. Protecting the Aravallis is not merely a regional concern but vital for ecological stability in northern India.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. The precautionary principle in environmental governance implies:

- (a) Development should be prioritised over conservation
- (b) Preventive action should be taken even in absence of full scientific certainty
- (c) Polluters should compensate affected persons
- (d) Forests should be privatised

Answer: (b)

Descriptive Question

Que. Discuss the ecological significance of the Aravalli range & analyse the challenges in balancing development and environmental protection in India. (150 Words, 10 Marks)

unsafe conditions, but enforcement remains inconsistent.

- **Regulatory Gaps:** Overlapping jurisdictions between **state authorities, tribal land rights, and central laws** create ambiguity in enforcement.
- **Sixth Schedule Complexity:** Meghalaya's autonomous district councils have control over land and resources, complicating **uniform implementation of mining laws**.
- **Weak Governance:** Limited administrative capacity and corruption allow illegal mining networks to **operate with impunity**.

Socio-Economic Drivers

- **Livelihood Dependence:** Thousands of families depend on coal mining for income, making bans difficult without **viable economic alternatives**.
- **Fragmented Ownership:** Small land parcels and multiple contractors lead to **diffused accountability**, making regulation challenging.
- **Informal Labour Market:** Workers are often unregistered, lacking safety nets, insurance, or legal protection, increasing vulnerability.
- **Patronage Networks:** Local political and economic interests often protect illegal operations, weakening enforcement mechanisms.

Environmental and Human Costs

- **Loss of Lives:** Frequent accidents like mine collapses and explosions highlight **severe occupational hazards**.
- **Water Pollution:** Acid mine drainage contaminates rivers, affecting **drinking water and agriculture** in surrounding areas.
- **Land Degradation:** Unregulated mining leads to **soil erosion, deforestation, and unstable landscapes**.
- **Social Issues:** Presence of **child labour, poor working conditions, and health hazards** reflects deep social concerns.

Supply Chain Challenges

- **Mixing with Legal Coal:** Illegal coal often enters formal markets through intermediaries, making **traceability difficult**.
- **Weak Monitoring Systems:** Lack of real-time tracking allows illegal coal transportation to go undetected.
- **Market Incentives:** High demand for coal ensures continued profitability of illegal mining despite risks.
- **Regulatory Evasion:** Traders and transporters exploit loopholes to **launder illegal coal into legal supply chains**.

Technological and Enforcement Measures

- **GPS Tracking:** Mandatory GPS devices on coal transport vehicles can ensure **route compliance and transparency**.
- **Satellite and Drone Monitoring:** Remote sensing technologies can identify illegal mining sites and monitor **environmental damage in real time**.

ILLEGAL MINING GOVERNANCE

Why in News: The **Meghalaya rat-hole mine blast (February 2026)** killing 18 workers has exposed persistent illegal mining, weak enforcement, and urgent governance challenges.

Key Details

- **Incident:** Explosion in an illegal rat-hole mine in Meghalaya led to **18 deaths**, highlighting unsafe mining practices.
- **Legal Status:** Rat-hole mining has been **banned since 2014 by the National Green Tribunal (NGT)**, yet continues.
- **Causes:** Lack of engineered supports, illegal operations, and poor monitoring lead to frequent accidents.
- **Socio-economic factors:** High dependence on coal livelihoods, weak enforcement, and informal labour systems sustain the practice.

Nature of Rat-Hole Mining

- **Primitive Mining Technique:** Rat-hole mining involves digging **narrow horizontal tunnels** into hillsides, often just large enough for one worker, making extraction extremely hazardous.
- **Geological Context:** Meghalaya has **thin coal seams and fragmented landholdings**, making large-scale mechanised mining difficult and encouraging small, informal operations.
- **Lack of Safety Infrastructure:** These mines lack **ventilation, structural support, and drainage systems**, increasing risks of collapse, flooding, and gas accumulation.
- **Prevalence in Northeast India:** Despite legal bans, rat-hole mining remains widespread due to **economic necessity and weak institutional oversight**.

Legal and Institutional Framework

- **NGT Ban (2014):** The National Green Tribunal prohibited rat-hole mining citing **environmental degradation and**

- **Strict Penalties:** Confiscation of coal, cancellation of licences, and prosecution of offenders can increase **cost of illegal operations**.
- **Targeting Intermediaries:** Investigation against traders and contractors through **blacklisting and auction bans** can disrupt the supply chain.

Economic Alternatives and Rehabilitation

- **Diversification of Livelihoods:** Promoting horticulture, tourism, and small-scale industries can reduce dependence on mining.
- **Skill Development:** Training programs can help workers transition to **formal sector employment**.
- **Public Works Programs:** Schemes like MGNREGA can absorb labour and provide **income security**.
- **Market Linkages and Credit:** Providing financial support and access to markets can encourage **sustainable economic activities**.

Labour and Governance Reforms

- **Formalisation of Labour:** Registering workers and ensuring safety standards can reduce exploitation.
- **Accountability Mechanisms:** Independent audits and rotation of officials in mining areas can curb corruption.
- **Community Participation:** Involving local communities in monitoring can enhance **social accountability**.
- **Balanced Approach:** Excessive enforcement without alternatives may push mining further underground, requiring **integrated policy design**.

Conclusion

The Meghalaya tragedy underscores that **legal bans alone are insufficient** without strong governance, technological monitoring, and socio-economic alternatives. A **multi-pronged strategy** combining enforcement, community participation, sustainable livelihoods, and labour reforms is essential to eliminate rat-hole mining while ensuring **justice, safety, and environmental sustainability**.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. Rat-hole mining, often reported from Meghalaya, involves which of the following?

- Vertical shafts drilled deep into the earth
- Horizontal tunnels barely large enough for one miner, dug into hillsides to extract coal
- Open-cast mining
- Hydraulic fracturing

Answer: (b)

Descriptive Question

Que. Discuss the challenges associated with illegal rat-hole mining in Meghalaya. Suggest a comprehensive strategy to address the issue. (150 Words, 10 Marks)

BOOST TO KASHMIR'S FLORAL TOURISM

Why in News: Researchers at **SKUAST-Kashmir** have successfully achieved **winter blooming of tulips**, enabling

alignment of flowering with peak demand cycles and boosting floral tourism.

Key Details

- Tulips were made to bloom in **December**, nearly four months ahead of their natural season.
- The breakthrough was achieved using **bulb programming and forcing techniques**.
- Around **3,000 out of 4,000 bulbs** bloomed successfully at SKUAST's experimental garden.
- The innovation has major implications for **floriculture, tourism, and Agri -entrepreneurship** in Kashmir.

Floriculture as a Sunrise Agricultural Sector

- **High-Value Agriculture:** Floriculture is a high-income, export-oriented segment of horticulture with rising demand for **cut flowers and ornamentals** in domestic and international markets.
- **Employment Generation:** The sector provides **year-round employment**, especially for women and small farmers, aligning with goals of inclusive rural development.
- **Tourism Linkages:** Flower-based tourism, such as tulip festivals, integrates **agriculture with services**, enhancing regional economies.
- **Policy Relevance:** Floriculture aligns with initiatives like **Doubling Farmers' Income**, agri-startups, and diversification away from cereal-centric farming.

Scientific Innovation: Bulb Programming and Forcing

- **Bulb Programming Technique:** It involves controlling temperature, light exposure, and planting schedules to regulate plant growth stages and flowering time.
- **Forcing Method:** Forcing manipulates environmental and chemical factors to induce flowering **outside the natural seasonal cycle**, ensuring off-season production.
- **Market-Oriented Production:** These techniques allow growers to target **high-demand periods** such as Christmas, New Year, and Valentine's Day.
- **Global Best Practices:** While widely used in the **Netherlands**, this is the first successful adaptation of the technology in **Kashmir's agro-climatic conditions**.

Boost to Kashmir's Floral Tourism

- **Extended Tourist Season:** Traditionally, tulips bloom from late March to April. Winter blooms can **extend the tourism calendar**, reducing seasonal concentration.
- **Economic Impact:** Srinagar's tulip garden recorded nearly **8 lakh visitors last year**, highlighting strong tourism potential.
- **Diversification of Attractions:** Off-season flowering can attract tourists during lean months, stabilising incomes for local businesses.
- **Replicable Success:** Earlier success with **autumn chrysanthemum blooms** demonstrates the scalability of such innovations.

Import Dependence and Bulb Propagation Challenge

- **Dependence on Imports:** Kashmir currently relies heavily on **tulip bulb imports from the Netherlands**, increasing costs and vulnerability.
- **Centre of Excellence Initiative:** SKUAST has established a **Centre of Excellence at Sagam (South Kashmir)** with support from the Dutch Embassy.
- **Progress in Propagation:** Bulb numbers increased from **1 lakh to 3–4 lakh within a year**, indicating early success in local propagation.
- **Strategic Importance:** Domestic bulb production enhances **self-reliance**, aligns with Atmanirbhar Bharat, and reduces foreign exchange outflow.

Role of Research Institutions and Entrepreneurship

- **University–Industry Linkage:** SKUAST’s research highlights the role of **agricultural universities** in applied innovation.
- **Need for Private Investment:** Large-scale adoption requires **entrepreneurs and startups** to commercialise the technology.
- **Skill and Technology Transfer:** Training farmers in controlled-environment agriculture is crucial for widespread impact.
- **Model for Other Regions:** Similar techniques can be adopted in other hill states to promote **Horti-tourism clusters**.

Conclusion

The winter blooming of tulips marks a significant convergence of **science, agriculture, and tourism**. Scaling up bulb propagation, encouraging private investment, and strengthening Agri-research extension can transform Kashmir into a **year-round floral tourism hub**. Such innovations demonstrate how climate-smart and market-aligned agriculture can enhance farmer incomes and regional development.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Que. Bulb programming and forcing techniques are primarily associated with:

- (a) Soil fertility enhancement
- (b) Off-season flowering of crops
- (c) Genetic modification
- (d) Pest resistance

Answer: (b)

DAL LAKE

Why in news: The J&K government shelved the **₹416.72-crore relocation-based** restoration plan and shifted to an **in-situ conservation approach**, recognising residents as part of the lake ecosystem.

Key Details

- J&K government shelved the **₹416.72-crore (2009) relocation-based Dal Lake restoration plan**.

- Earlier plan aimed to **shift 9,000 families**; only 1,808 rehabilitated; just **27% target achieved**.
- Dal Lake faces **severe pollution, sewage inflow, encroachment, weed growth, and biodiversity loss**.
- New policy adopts **in-situ conservation**, recognising dwellers as part of the ecosystem.
- ₹212.38-crore DPR (5 years) focuses on **STPs, sewerage treatment, dredging, and restoring water circulation**.

The Jammu and Kashmir government’s decision

- The **Jammu and Kashmir government** has shelved the **₹416.72-crore restoration and conservation plan** for Dal Lake in Srinagar.
- The decision was announced in the **J&K Assembly** in response to a question by National Conference (NC) legislator **Tanvir Sadiq**.
- The earlier plan (approved in 2009 under the Manmohan Singh government) aimed to restore the lake by **relocating around 9,000 Dal Lake dwellers**.
- It targeted issues such as:
 - ✓ **Shrinking lake area**
 - ✓ **Declining water quality**
 - ✓ **Uncontrolled effluent discharge**
 - ✓ **Population pressure**
- The government has now proposed an **in-situ conservation plan**, allowing residents to continue living on the lake.

What issues does Dal Lake face?

- Over the last four decades, **water quality has sharply declined** due to anthropogenic pressures.
- A 2022 survey by **Sher-e-Kashmir University of Agricultural Sciences and Technology (SKUAST)** highlighted:
 - ✓ **Severe pollution load**
 - ✓ **Encroachments in and around the lake**
 - ✓ **Invasive plant and animal species**
- **Untreated sewage** from point and non-point sources has significantly deteriorated water quality.
- Additional contributing factors:
 - ✓ **Deforestation and grazing**
 - ✓ **Agricultural activities**
 - ✓ **Land-use and land-cover changes in the catchment area**
 - ✓ **Reduced inflows and blocked internal water channels**, leading to poor water circulation
- **Nutrient enrichment** in water and sediments has caused:
 - ✓ Excessive **weed growth**
 - ✓ Altered **biodiversity**

What were the contours of the earlier proposal?

- In 2009, the ₹416.72 crore plan proposed relocating 9,000 families in the first phase to Bemina (Rakh-e-Arth colony) in Srinagar.

- Each family was offered:
 - ✓ A **plot of land**
 - ✓ ₹1.05 lakh for construction
 - ✓ ₹3.91 lakh as one-time compensation
- The re location site was:
 - ✓ **Low-lying and flood-prone**
 - ✓ Required **extensive land filling**
- A large portion of funds was spent on land filling, delaying the development of **basic infrastructure**.
- Over 17 years, only **1,808 families were rehabilitated**.
- According to the government:
 - ✓ The plan failed to produce **tangible outcomes**
 - ✓ Only **27% of conservation goals** were achieved

What new measures are proposed?

- In 2022, a **High-Level Committee** proposed an **in-situ conservation approach**.
- Dal Lake dwellers were described as an **integral part of the lake ecosystem**.
- The **J&K Lake Conservation and Management Authority (LCMA)** has been tasked with drafting a comprehensive in-situ conservation policy.
- Key measures include:
 - ✓ Concurrent relocation of leftover structures in priority hamlets
 - ✓ Identification of **58 hamlets**, with six to receive **two modular Sewage Treatment Plants (STPs)**
- Under the **Prime Minister's Development Package**, an **integrated management programme** for the Dal-Nigeen Lake ecosystem has been framed.
- A **Detailed Project Report (DPR)** prepared by IIT Roorkee proposes:
 - ✓ ₹212.38 crore expenditure over five years
 - ✓ Addressing sewerage issues in **28 internal hamlets**
 - ✓ Treatment of catchment inflows
 - ✓ Dredging of interior channels
 - ✓ Revival of internal water circulation and smoother navigation
- The project is currently awaiting **final approval from the Finance Department**.

Conclusion

The shelving of the **earlier relocation-based plan marks** a policy shift toward **in-situ conservation** of Dal Lake. While past efforts achieved limited success, the new approach **recognises residents as** stakeholders in the lake's ecosystem. Effective sewage treatment, habitat restoration, and improved water circulation will be crucial. Long-term success depends on balanced development, **sustained funding, and strong institutional implementation**.

EXPECTED QUESTIONS FOR UPSC CSE

PRELIMS MCQ

Que. With reference to Dal Lake, consider the following statements:

1. Dal Lake is located in Srinagar in the Kashmir Valley.
2. It is a freshwater lake fed by springs and inflows from the surrounding catchment area.

3. The lake is directly connected to the Arabian Sea through a natural outlet.
 4. Dal Lake is part of the larger Dal-Nigeen lake system.
- Which of the statements given above are correct?
- (a) 1 and 2 only
 - (b) 1, 2 and 4 only
 - (c) 2 and 3 only
 - (d) 1, 2, 3 and 4

Answer: (b)

Descriptive Question

Que. Dal Lake has been facing ecological degradation for decades. Examine the reasons behind the shelving of the recent restoration plan and its broader environmental implications. (250 Words, 15 Marks)

MACAQUES

Why in News: A viral story from a Japanese zoo about an abandoned baby **Japanese macaque (Punch)** highlighted the complex **social hierarchy and emotional dependence in macaque societies**.



About Macaques

- Macaques are a genus of Old-World monkeys belonging to the family **Cercopithecidae**.
- They are among the most widespread and diverse primate groups, with more than 20 species distributed mainly across Asia and parts of North Africa. They are highly adaptable and can survive in diverse ecological conditions.
- The **Japanese macaque, also known as the "Snow Monkey,"** is native to Japan and is famous for living in cold climates and bathing in hot springs.
- The **Rhesus macaque** is widely distributed in North India and Southeast Asia and is extensively used in medical and biomedical research.
- The **Lion-tailed macaque** is an endangered species **endemic to the Western Ghats of India**, recognized by its distinctive silver-white mane.
- The **Crested black macaque** is native to the **Indonesian island of Sulawesi** and is known for its dark crest and critically endangered status.

Social Behaviour and Hierarchy

- Macaques are **highly gregarious animals**, living in troops with a strict dominance hierarchy.
- Female dominance rank is **typically matrilineal, meaning daughters inherit rank close to that of their**

mothers. In some species, such as the Japanese macaque, the “youngest sister rule” operates, where the youngest daughter ranks higher than older sisters.

Male rank is usually determined by **alliances, physical strength, and fighting ability.** Males may migrate between troops.

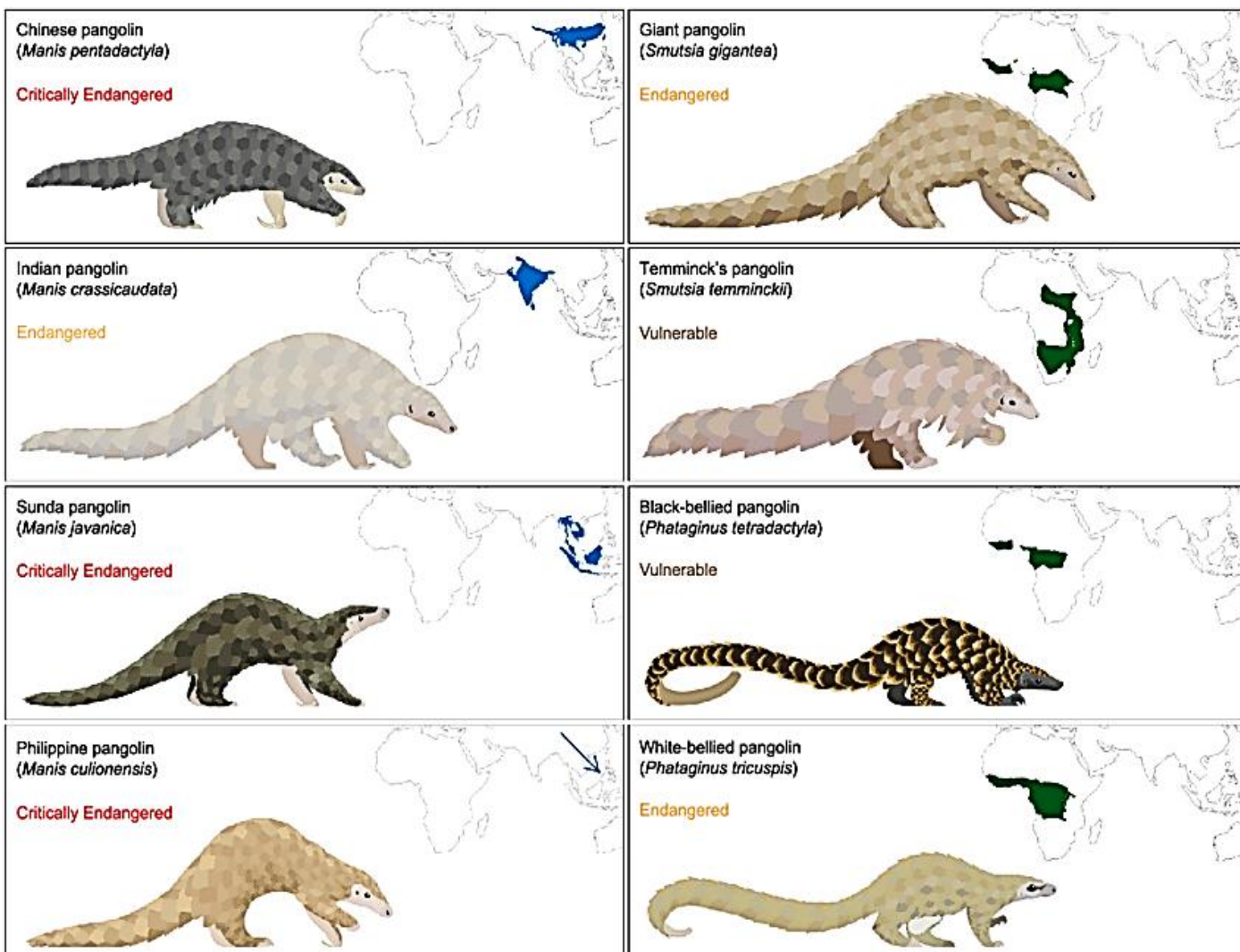
PANGOLINS

Why in News: CITES report revealed that over 500,000 pangolins were seized globally between 2016 and 2024.

About Pangolin

- Pangolins are mammals covered in **keratin scales**, the only such mammals on Earth.

- They feed on ants, termites, and larvae using their long sticky tongues.
- When threatened, they use **volvation** (rolling into a ball) to protect themselves with their armor-like scales.
- They are considered “**ecosystem engineers**” due to their role in soil aeration and pest control.
- There are **eight recognised species of pangolins globally**— four species are found in Africa (Black-bellied, White-bellied, Giant Ground, and Temminck’s Ground pangolins) and four **species are found in Asia** (Indian, Philippine, Sunda, and Chinese pangolins).



SCIENCE AND TECHNOLOGY

WATER SAFETY & MICROPLASTICS

Why in News: Rising scientific evidence of **microplastics and chemical leaching in bottled water** has raised serious public health and regulatory concerns in India.

Key Details

- Bottled water has become a **daily necessity** due to declining trust in municipal water supply.
- Studies in **Nagpur, Mumbai, and Andhra Pradesh** found microplastics in all sampled bottled water brands.
- Plastic bottles may leach **antimony and phthalates**, especially under heat exposure.
- Current regulations lack **specific standards for microplastics and long-term chemical exposure**.

Growing Dependence on Bottled Water

- **Shift from Luxury to Necessity:** Bottled water has transitioned from occasional use to a **daily consumption product**, especially in urban and semi-urban India due to water quality concerns.
- **Declining Trust in Public Supply:** Issues like contamination, poor infrastructure, and irregular supply have weakened confidence in **municipal water systems**, pushing consumers toward packaged water.
- **Perception of Safety and Hygiene:** Sealed bottles are widely perceived as **safe and purified**, despite limited awareness about non-visible contaminants like microplastics.
- **Expansion of Market Size:** India's bottled water industry has grown rapidly, reflecting increasing **consumer dependence and commercialization of basic resources**.

Emerging Scientific Concerns

- **Beyond Microbial Contamination:** Earlier concerns focused on bacteria and pathogens, but recent research highlights risks from **microplastics and chemical pollutants**.



- **Invisible Health Risks:** These contaminants are not detectable by taste or smell, making them **more dangerous and difficult to regulate**.

- **Global Scientific Consensus:** International studies increasingly confirm the presence of microplastics in drinking water, raising **global public health concerns**.
- **Long-Term Uncertainty:** The long-term effects on human health remain under-researched, but early findings indicate potential **toxic and hormonal impacts**.

Microplastics: An Invisible Contaminant

- **Definition and Presence:** Microplastics are particles **smaller than 5 mm**, widely detected in bottled water due to plastic degradation and packaging processes.
- **Empirical Evidence in India:** A Nagpur-based study found **72–212 particles per litre**, while similar contamination was reported in Mumbai and Andhra Pradesh.
- **Health Implications:** Smaller particles, including **Nano plastics**, can cross biological barriers, potentially entering the bloodstream and organs.
- **Regulatory Vacuum:** There are currently **no defined permissible limits** for microplastics in drinking water in India.
- **Source of Contamination:** Microplastics originate from **bottle material, caps, and environmental exposure during production and storage**.

Chemical Leaching from Plastic Bottles

- **Toxic Chemical Release:** Plastics can release chemicals like **antimony (used in PET bottles) and phthalates (plasticizers)** into water.
- **Role of Environmental Conditions:** Heat, sunlight, and prolonged storage accelerate **chemical leaching**, especially in tropical climates like India.
- **Health Risks:** Phthalates are linked to **endocrine disruption**, while antimony exposure may cause **toxicity over time**.
- **Limitations of Current Testing:** Regulations assess chemicals individually and in the short term, ignoring **cumulative and long-term exposure risks**.

Regulatory and Governance Gaps

- **Role of FSSAI:** Bottled water is regulated under the **Food Safety and Standards Authority of India (FSSAI)** framework.
- **Absence of Microplastic Standards:** Existing norms do not mandate **testing or permissible limits for microplastics**, creating a major policy gap.
- **Weak Enforcement Mechanisms:** Monitoring is inconsistent, particularly among **small and unorganized bottling units**, affecting quality assurance.

AI & EMPLOYABILITY TRANSITION

- **Fragmented Institutional Oversight:** Overlap between environmental and food safety regulations leads to **lack of accountability and coordination**.

Environmental and Public Health Linkages

- **Plastic Waste Crisis:** India generates significant plastic waste, with bottled water contributing to **single-use plastic pollution**.
- **Microplastic Cycle:** Plastic waste degrades into microplastics, contaminating **soil, water bodies, and eventually drinking water sources**.
- **Double Burden on Society:** Bottled water dependence creates both **health risks (contamination) and environmental degradation**.
- **Sustainable Development Concern:** This issue directly impacts **SDG 6 (Clean Water) and SDG 12 (Responsible Consumption and Production)**.

Towards Safer and Sustainable Alternatives

- **Strengthening Public Water Systems:** Improving municipal water quality and transparency can **restore public trust and reduce dependence on bottled water**.
- **Point-of-Use Filtration:** Household filtration systems and proper storage practices can **minimise contamination risks**.
- **Regulatory Reforms:** Introducing standards for **microplastics, cumulative chemical exposure, and regular testing** is essential.
- **Promoting Sustainable Packaging:** Encouraging **reusable bottles and eco-friendly materials** can reduce plastic waste.
- **Public Awareness and Behaviour Change:** Educating citizens about risks and alternatives is key to **reducing overdependence on bottled water**.

Conclusion

Bottled water in India can no longer be considered a completely safe alternative. The growing evidence of microplastics, chemical leaching, and regulatory shortcomings necessitates urgent reforms. Strengthening municipal water systems, updating safety standards, improving enforcement, and promoting sustainable practices are essential to ensure both **public health protection and environmental sustainability**.

Why in News: The **India AI Impact Summit 2026** highlighted the urgent need to align Artificial Intelligence adoption with **mass employability and inclusive growth in India**.

Key Details

- The summit, hosted by the **Ministry of Electronics and Information Technology (MeitY)**, focused on the **future of jobs in the AI era**.
- Experts emphasised **creativity, adaptability, and lifelong learning** over routine skills.
- India aims to build a **responsible, inclusive AI ecosystem** through multilateral cooperation.
- The debate on AI is shifting globally from **adoption to accountability and governance**.

Artificial Intelligence: Concept & Significance

- **Definition & Scope:** Artificial Intelligence refers to machines performing tasks requiring human intelligence such as learning, reasoning, and decision-making, transforming sectors like healthcare, governance, and education.
- **Driver of Economic Growth:** AI is expected to significantly contribute to GDP growth through productivity gains, automation, and innovation, making it a key pillar of the **digital economy**.
- **Integration with Emerging Technologies:** AI works alongside Big Data, IoT, and Cloud Computing, creating a **fourth industrial revolution ecosystem** with widespread socio-economic implications.
- **Global Strategic Importance:** Countries are competing in AI capabilities due to its role in **economic competitiveness, national security, and technological leadership**.



India AI Impact Summit 2026 & Policy Vision

- **Global South Leadership:** India hosted its first global AI summit, positioning itself as a leader in **inclusive and responsible AI governance** among developing nations.
- **Three Sutras – People, Planet, Progress:** These pillars emphasise **human-centric AI, sustainability, and innovation-led development**, aligning technology with societal welfare.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. Microplastics are defined as plastic particles:

- Larger than 5 mm
- Smaller than 5 mm
- Visible to the naked eye only
- Only found in oceans

Answer: (b)

Descriptive Question

Que. Highlight the regulatory and environmental challenges arising from India's growing bottled water consumption. (10 marks, 150 words)

- **Team India Approach:** The summit stressed collaboration among **government, industry, academia, and society**, ensuring AI adoption is broad-based and inclusive.
- **Alignment with National Initiatives:** It complements programmes like **IndiaAI Mission and Digital Public Infrastructure (DPI)** to scale AI solutions across sectors.

Impact of AI on Employment Structure

- **Automation of Routine Jobs:** Sectors like BPO, clerical work, and manufacturing face disruption as AI replaces **repetitive and rule-based tasks**, reducing low-skill job demand.
- **Decline of Mid-Skill Jobs:** Traditional middle-income roles are shrinking due to automation, creating a **“hollowing out” of the labour market**.
- **Transformation of IT Sector:** AI tools now handle coding, testing, and support functions, leading to **workforce restructuring in IT and outsourcing industries**.
- **Scale of Disruption:** Around **38% of India’s workforce may see skill changes by 2030**, the highest among BRICS nations, indicating large-scale labour transition.

Emerging Opportunities in AI Economy

- **Creation of New Job Roles:** AI is generating demand for **AI/ML engineers, data scientists, cybersecurity experts, and prompt engineers**, expanding high-skill employment.
- **High Growth Potential:** Estimates suggest **~4.7 million AI-related jobs by 2027**, reflecting rapid expansion of the digital economy.
- **Higher Productivity & Wages:** AI-driven jobs offer better salaries and productivity, contributing to **quality employment and economic upgrading**.
- **Entrepreneurship & Startups:** AI startups in health, agriculture, and mobility are creating **innovation-driven employment ecosystems**.

Changing Skill Requirements

- **Shift from Degree to Skills:** Employers increasingly value **practical skills, problem-solving, and adaptability** over traditional academic qualifications.
- **Importance of Creativity & Critical Thinking:** AI cannot easily replicate human creativity and systems thinking, making these skills **future-proof competencies**.
- **Lifelong Learning Paradigm:** Continuous upskilling is essential as technology evolves rapidly, requiring **dynamic education and training systems**.
- **Digital & AI Literacy:** Basic understanding of AI tools and digital platforms is becoming **essential across all professions**, not just tech roles.

AI in Governance & Social Sectors

- **Healthcare Transformation:** AI improves diagnostics, telemedicine, and preventive care, especially in rural areas with **doctor shortages (approx. 1:834 ratio)**.

- **Digital Public Infrastructure (DPI):** Platforms like Aadhaar and UPI enable large-scale AI deployment in **governance and service delivery**.
- **Agriculture & Rural Development:** AI supports crop prediction, weather forecasting, and precision farming, enhancing **farmer productivity and resilience**.
- **Smart Infrastructure & Mobility:** AI-based traffic systems and safety tools help reduce **road accidents (over 1.5 lakh deaths annually)**.

Ethical, Governance & Accountability Concerns

- **Data Privacy & Ownership:** Questions arise regarding **who owns data and how it is used**, especially with increasing digitisation.
- **Bias & Accuracy Issues:** AI models trained on biased datasets can produce **discriminatory or inaccurate outcomes**, particularly in diverse societies like India.
- **Digital Divide:** Unequal access to technology may widen socio-economic inequalities, creating **AI-driven exclusion risks**.
- **Shift to Accountability Debate:** Global discourse is moving from AI adoption to **regulation, auditability, and ethical governance frameworks**.

Government Initiatives for AI & Skilling

- **Future Skills PRIME:** A flagship programme by MeitY and NASSCOM to **reskill youth in emerging technologies including AI**.
- **Skill India Mission:** Integrates AI training into vocational education, linking **skills with employability in future sectors**.
- **SOAR Initiative:** Introduced by MSDE to promote **AI awareness among school students and teachers**, ensuring early exposure.
- **Industry Collaboration:** Partnerships with companies like IBM, Microsoft, and AWS support **training, internships, and curriculum development**.

Conclusion

Artificial Intelligence represents both a **challenge and an opportunity** for India. While automation may disrupt traditional jobs, it also opens pathways for **high-skill employment and innovation-led growth**. A coordinated “Team India” approach focusing on **reskilling, responsible AI governance, and inclusive digital infrastructure** is essential. By aligning AI with national priorities, India can emerge as a **global leader in ethical and inclusive AI development**.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQs

Que. With reference to Artificial Intelligence in India, consider the following:

1. It may reduce demand for routine jobs
2. It creates new high-skill employment opportunities
3. It has no impact on skill requirements

Which of the above are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only

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

Answer: (a)

Descriptive Question

Que. "Artificial Intelligence is transforming the nature of employment in India." Examine the challenges and opportunities associated with AI-driven labour market changes. (GS Paper III)

AI-POWERED DEVICES TO SPOT SIGNS OF CANCER

Why in News: Researchers from IITs showcased affordable AI-powered diagnostic devices for early cancer detection at the AI Impact Summit 2026.

Key Details

- IIT researchers have developed AI tools for **breast cancer, oral cancer, eye disease, and breath-based diagnostics**.
- The devices aim to improve **early detection, accuracy, and accessibility**, especially in resource-scarce settings.
- Tools such as **MammoX** and AI-enabled breath analysers are **non-invasive and cost-effective**.
- These innovations support India's push for **AI-driven healthcare transformation**.

AI in Healthcare: Emerging Transformational Tool

- Improving Diagnostic Accuracy:** Artificial Intelligence enables pattern recognition in medical data, helping detect diseases earlier than conventional methods. This is crucial as early cancer detection significantly improves survival rates.
- Reducing Human Error:** AI systems assist doctors by flagging abnormalities, thereby reducing oversight in radiology and pathology. Studies indicate that AI-assisted screening can lower diagnostic miss rates.
- Addressing Healthcare Workforce Gaps:** India faces a shortage of radiologists and specialists, particularly in rural areas. AI tools can support primary healthcare workers and reduce the urban-rural healthcare divide.
- Supporting Digital Health Mission:** AI-based diagnostics align with initiatives like the **Ayushman Bharat Digital Mission (ABDM)**, which aims to create an integrated digital health ecosystem.

MammoX: AI-Based Breast Cancer Screening

- Tackling Missed Diagnoses:** Nearly **20% of breast cancer cases** are missed in conventional radiology. MammoX analyses mammography scans and highlights suspicious regions for radiologists.
- Risk Stratification Feature:** The platform classifies patients into **high-risk & low-risk categories**, enabling prioritisation of critical cases and faster clinical decision-making.

- Integration with Hospital Systems:** MammoX retrieves data from **PACS** (Picture Archiving and Communication System), ensuring seamless workflow integration in hospitals.
- Collaborative Validation:** The tool is being validated in partnership with hospitals such as **Max Hospital, Saket**, enhancing clinical reliability and real-world applicability.

AI-Enabled Breath Analysers: Non-Invasive Diagnostics

- Principle of VOC Detection:** Human breath contains **volatile organic compounds (VOCs)** like ammonia, acetone, and formaldehyde, which can indicate disease conditions.
- Hand-Held and Affordable Design:** The device developed at IIT Kharagpur is portable and user-friendly, making it suitable for **mass screening and primary health centres**.
- Time-Series Signal Processing:** AI algorithms analyse breath signals to estimate gas concentrations, enabling **early disease detection without blood tests or imaging**.
- Potential Multi-Disease Application:** Beyond cancer, breath analysers can be used for **metabolic disorders, lung diseases, and infectious disease screening**, expanding their public health value.

Improving Accessibility in Resource-Scarce Settings

- Bridging Rural Healthcare Gaps:** Affordable AI devices can be deployed in **district hospitals and PHCs**, where advanced diagnostic infrastructure is limited.
- Cost-Effectiveness:** Non-invasive tools reduce dependence on expensive imaging and laboratory tests, lowering out-of-pocket expenditure for patients.
- Scalability for Mass Screening:** Portable AI devices enable **population-level screening programmes**, particularly important for cancers like breast and oral cancer in India.
- Supporting Preventive Healthcare:** Early detection shifts the system from **curative to preventive healthcare**, reducing long-term treatment burden.

Challenges and Concerns

- Data Privacy and Security:** AI systems rely on large health datasets, raising concerns regarding **patient consent, data protection, and cybersecurity**.
- Algorithmic Bias:** AI models trained on limited datasets may produce biased results across populations, necessitating **diverse and representative data**.
- Regulatory Approval:** Medical AI devices require robust validation and approval from bodies such as **CDSCO**, which can slow deployment.
- Doctor-AI Integration:** AI should augment, not replace, clinical judgment; proper training and trust-building among healthcare professionals is essential.

Relevance for India's Health and Innovation Ecosystem

- **Boost to MedTech Innovation:** IIT-led innovations strengthen India's position in **AI-driven medical technology** and support the Make in India initiative.
- **Alignment with National Health Goals:** These tools contribute to reducing the burden of **non-communicable diseases (NCDs)**, which account for over **60% of deaths in India**.
- **Global Competitiveness:** Affordable AI diagnostics from India can serve **Global South markets**, enhancing health diplomacy.
- **Interdisciplinary Research Push:** Collaboration between engineering institutes and hospitals reflects the growing importance of **translational research**.

Conclusion

AI-powered diagnostic devices developed by IITs represent a significant step toward **accessible, affordable, and accurate healthcare** in India. However, their large-scale deployment requires robust clinical validation, regulatory clarity, data protection safeguards, and integration with public health systems. If implemented responsibly, AI can become a cornerstone of India's preventive and precision healthcare ecosystem.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Que. AI-enabled breath analysers detect diseases primarily by analysing:

- (a) Blood glucose levels
- (b) Volatile organic compounds in breath
- (c) Body temperature
- (d) Oxygen saturation

Answer: (b)

3D LUNG MODELS & INDIA'S FIGHT AGAINST TUBERCULOSIS

Why in News: Researchers at **IISc Bengaluru** have developed a **3D lung tissue model** that significantly improves testing of tuberculosis (TB) drugs, offering new hope in India's TB elimination efforts.

Key Details

- IISc researchers created a **3D collagen-based lung model** that closely mimics the human lung microenvironment.
- The model shows realistic TB features such as **fat-laden immune cells and bacterial clusters**.
- It successfully demonstrated the efficacy of **Pyrazinamide**, which earlier lab models failed to replicate.
- The research is funded by **India Alliance (DBT-Wellcome Trust partnership)**.

Tuberculosis Burden in India

- **High Disease Load:** India accounts for one of the world's largest TB burdens, with **around 2.5-3 million cases annually**, making TB a major public health challenge.
- **Drug-Resistant TB Hotspot:** India is among the top contributors to **MDR-TB and Rifampicin-Resistant TB (RR-TB)** globally, complicating treatment and increasing mortality risks.
- **Economic and Social Impact:** TB disproportionately affects the working-age population, leading to **loss of productivity, healthcare costs, and social stigma**.
- **National Commitment:** Under the **National TB Elimination Programme (NTEP)**, India aims to eliminate TB by **2025**, ahead of the global SDG target of 2030.

Limitations of Existing TB Drug Testing Models

- **Planktonic Bacterial Cultures:** Basic drug testing on free-floating TB bacteria fails to capture **host-pathogen interactions** present in human lungs.
- **2D Cell Culture Models:** Flat mammalian cell cultures lack the **structural and mechanical complexity** of lung tissue, leading to poor prediction of drug efficacy.
- **Animal Models:** While useful, animal models such as mice often show **limited translation to human responses**, raising ethical and scientific concerns.
- **Regulatory Shift:** New frameworks like the **FDA Modernization Act 3.0 (USA)** and **New Drugs and Clinical Trials Rules (India)** encourage alternatives to animal testing.

Significance of the 3D Lung Model Developed by IISc

- **Realistic Lung Microenvironment:** The soft **collagen hydrogel** mimics lung tissue structure, providing biochemical and mechanical cues similar to human lungs.
- **Improved Disease Representation:** The model replicates **fat-filled immune cells and bacterial clusters**, key pathological features of TB seen in patients.
- **Accurate Drug Response:** It successfully demonstrated the action of **Pyrazinamide**, a first-line TB drug whose efficacy is poorly reflected in older models.
- **Scalable and Modular Design:** The system is **easy to reproduce, scalable, and suitable for long-term infection studies**, making it useful for drug screening.

Relevance for Drug-Resistant TB Research

- **Testing Against MDR/XDR-TB:** The model can potentially be used with **drug-resistant clinical TB isolates** to identify effective new drug combinations.
- **Understanding Granulomas:** Researchers aim to mimic **TB granulomas**, dense immune cell structures that restrict drug penetration and cause treatment failure.

- **Faster Drug Development:** Reliable pre-clinical testing can **reduce time, cost, and failure rates** before human clinical trials.
- **Strengthening Indigenous Research:** The innovation reflects India's growing capacity in **biomedical research and translational science**.

Linkages with Policy, Innovation, and SDGs

- **Health and SDGs:** Supports **SDG 3 (Good Health and Well-being)** by accelerating innovation against infectious diseases.
- **Atmanirbhar Bharat in Science:** Demonstrates indigenous R&D capability aligned with **self-reliance in health technologies**.
- **Public-Private and Global Collaboration:** Funding through **DBT-Wellcome Trust partnership** highlights the role of international scientific cooperation.
- **Ethical Research Practices:** Reduced dependence on animal testing aligns with **ethical and sustainable research norms**.

Conclusion

The IISc-developed 3D lung model marks a significant leap in TB research by bridging the gap between laboratory testing and real human disease conditions. By enabling accurate drug efficacy testing, including for drug-resistant TB, it strengthens India's fight against one of its most persistent public health challenges. Integrating such innovations with national TB programmes and regulatory reforms can accelerate progress toward **TB elimination** and reinforce India's leadership in affordable health innovation.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Que. The recently developed 3D lung model by IISc Bengaluru is significant because it:

1. Accurately mimics the human lung micro-environment for TB research
2. Helps test the efficacy of TB drugs like Pyrazinamide
3. Can potentially aid research on drug-resistant TB
4. Aligns with global regulatory shifts towards non-animal testing

Select the correct answer using the code below:

- (a) 1 and 2 only
- (b) 1, 2 and 3 only
- (c) 2 and 4 only
- (d) 1, 2, 3 and 4

Answer: (d)

PREVENTIVE HEALTHCARE & VACCINATION

Why in News: India has launched a nationwide **HPV vaccination drive for adolescent girls** to reduce cervical cancer burden and strengthen preventive public health systems.

Key Details

- India has initiated a **nationwide HPV vaccination programme** targeting **14-year-old girls** with a **single-dose schedule** as recommended by WHO.
- Vaccination will be administered at **designated government health facilities** with trained staff and **AEFI monitoring mechanisms**.
- HPV types **16 and 18 cause over 80% of cervical cancer cases** in India.
- In **2022**, India reported **127,526 cases and 79,906 deaths**, while screening coverage remains only **1.9%**.

Public Health Significance of HPV Vaccination

- **Preventive Healthcare Approach:** The HPV vaccine represents a shift from curative to **preventive healthcare**, aligning with India's focus on reducing disease burden before onset.
- **Reducing Mortality and Morbidity:** Cervical cancer is the **second most common cancer among women in India**, and vaccination can significantly reduce mortality rates over time.
- **Cost-effective Intervention:** Vaccination is more economical than long-term cancer treatment, reducing **healthcare expenditure and economic burden on families**.
- **Strengthening Universal Health Coverage:** The programme supports India's commitment to **Universal Health Coverage (UHC)** by ensuring equitable access to life-saving vaccines.

Scientific Basis and Preventive Value

- **HPV as Primary Cause:** Nearly all cervical cancer cases are caused by **persistent infection with high-risk HPV strains**, especially types 16 and 18.
- **High-risk Strain Coverage:** These two strains account for **over 80% of cases in India**, making targeted vaccination highly effective.
- **Global Evidence and Success:** Over **90 countries** have adopted HPV vaccination, showing significant declines in infection rates and cancer incidence.
- **Single-dose Strategy:** WHO's recommendation of a **single-dose schedule** improves feasibility, coverage, and compliance, especially in developing countries.

Burden of Cervical Cancer in India

- **High Disease Burden:** India contributes nearly **65% of cervical cancer cases in the South-East Asia region**, indicating a serious public health challenge.
- **Alarming Mortality Data:** In 2022, there were **79,906 deaths**, reflecting late detection and inadequate preventive care.
- **Low Screening Coverage:** Only **1.9% of women aged 30-49** have undergone screening, highlighting gaps in early diagnosis.
- **Socio-economic Impact:** The disease disproportionately affects **low-income & rural women**, worsening gender and health inequalities.

Implementation Strategy and Safety Mechanisms

- **Institutional Delivery Framework:** Vaccination is limited to **government health centres**, ensuring standardised procedures and controlled environments.
- **Trained Healthcare Workforce:** Administration is carried out by **trained medical officers and staff**, improving safety and efficiency.
- **AEFI Monitoring Systems:** Robust mechanisms for Adverse Events Following Immunisation (AEFI) ensure quick detection and response to any side effects.
- **Cold Chain Management:** Maintaining vaccine efficacy through **temperature-controlled storage and transport systems** is critical for programme success.

Challenges: Vaccine Hesitancy and Trust Deficit

- **Historical Concerns (2009–10 Trial):** Past controversies involving deaths during HPV trials created **public apprehension**, despite findings showing no direct vaccine link.
- **Rising Vaccine Hesitancy:** Globally, anti-vaccination sentiment has led to **resurgence of diseases like measles**, indicating risks for India as well.
- **Misinformation and Awareness Gap:** Lack of awareness and spread of misinformation can hinder **acceptance among parents and communities**.
- **Urban-Rural Divide:** Accessibility and awareness gaps are more pronounced in rural areas, affecting **equitable coverage**.

Governance and Policy Dimensions

- **Evidence-based Policymaking:** The programme reflects reliance on **scientific data and WHO guidelines**, strengthening policy credibility.
- **Inter-sectoral Coordination:** Effective implementation requires coordination between **health ministries, state governments, and local bodies**.
- **Alignment with National Health Mission:** It complements existing schemes like **NHM and immunisation programmes**, enhancing overall health infrastructure.
- **Gender-focused Intervention:** Targeting adolescent girls addresses **women's health inequities** and promotes gender-sensitive policymaking.

Way Forward

- **Strengthening Governance and Institutional Coordination:** Establish a unified command involving **state authorities, district councils, and central agencies** to remove jurisdictional ambiguity under the Sixth Schedule. Regular audits, accountability of officials, and time-bound enforcement can reduce administrative lapses.
- **Technology-Driven Monitoring:** Implement **GPS tracking for coal transport**, integrate **satellite imagery and drone surveillance**, and create real-time control rooms for monitoring illegal mining sites. Use digital platforms for **end-to-end traceability of coal supply chains**.

- **Strict Enforcement with Deterrence:** Increase the **economic cost of illegal mining** through seizure of coal, heavy penalties, cancellation of licences, and prosecution of offenders. Target **intermediaries and transporters** to break the illegal supply chain network.
- **Community Participation & Social Accountability:** Involve local communities through **vigilance committees**, incentivise reporting of illegal mining, and share a portion of penalties with local bodies. This will convert enforcement into a **collective responsibility**.
- **Sustainable Livelihood Alternatives:** Promote **horticulture, eco-tourism, handicrafts, and small-scale industries** with access to credit and markets. Expand schemes like **MGNREGA** and skill development programs to absorb displaced mining labour.
- **Labour Welfare & Formalisation:** Register workers, ensure **occupational safety standards**, and provide insurance and social security benefits. Encourage worker testimonies against illegal operators through **amnesty-based mechanisms**.
- **Environmental Restoration Measures:** Undertake **reclamation of mined areas**, treatment of acid mine drainage, afforestation, and water conservation projects to restore ecological balance.
- **Balanced Policy Approach:** Combine enforcement with rehabilitation to avoid pushing mining further underground. A **holistic strategy integrating economy, ecology, and equity** is essential for long-term sustainability.

Conclusion

India's HPV vaccination drive is a transformative step towards reducing cervical cancer burden through preventive healthcare. However, its long-term success depends on **transparent implementation, strong AEFI surveillance, robust cold chain systems, and enhanced public awareness**. Integrating vaccination with improved screening programmes and community engagement will be crucial in building **public trust and achieving measurable health outcomes**. This initiative not only saves lives but also strengthens India's commitment to **science-driven, inclusive public health governance**.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Que. Human Papillomavirus (HPV) is primarily associated with:

- (a) Lung cancer
- (b) Cervical cancer
- (c) Liver cancer
- (d) Breast cancer

Answer: (b)

Descriptive Question

Que. Discuss the significance of India's nationwide HPV vaccination programme in reducing cervical cancer burden. Highlight implementation challenges and measures needed to ensure transparency, safety, and public trust. (250 words, 15 marks)

FROZEN EMBRYO DONATION

Why in News: The Delhi High Court has issued notice on a PIL challenging provisions of the **Assisted Reproductive Technology (Regulation) Act, 2021**, which prohibit the donation of surplus frozen embryos for reproductive use.

Key Details

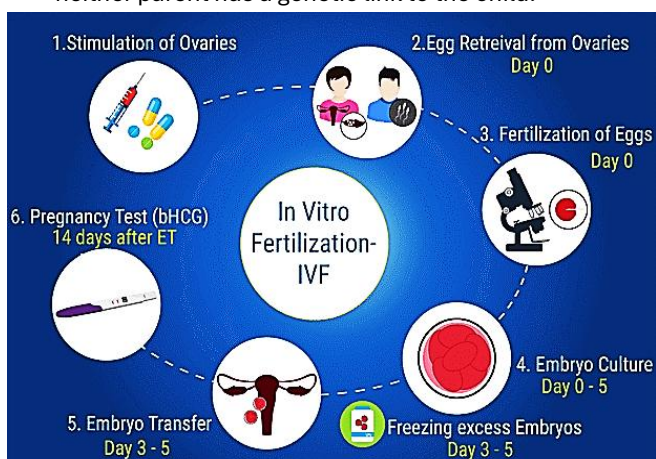
- The PIL questions mandatory destruction of viable frozen embryos despite mutual consent of donor and recipient couples.
- The ART Act, 2021 permits sperm and egg donation but bars embryo donation for reproductive purposes.
- Infertility affects **27–30 million couples in India**, making IVF and ART a significant public health issue.
- The plea invokes **Articles 14 and 21** of the Constitution, alleging arbitrariness and violation of decisional autonomy.

Assisted Reproductive Technology (ART): Concept and Evolution

- **Meaning of ART:** Assisted Reproductive Technology refers to medical procedures such as IVF, ICSI, and gamete donation that help individuals or couples achieve pregnancy when natural conception is not possible.
- **Growth of ART in India:** India has emerged as a major ART destination due to rising infertility, delayed marriages, lifestyle diseases, and medical tourism.
- **Ethical and Regulatory Need:** Absence of regulation earlier led to exploitation, unregulated clinics, and commodification of reproduction, necessitating statutory control.
- **International Practice:** Countries like the UK, Australia, and parts of the EU permit embryo donation under strict ethical and consent-based frameworks.

Assisted Reproductive Technology (Regulation) Act, 2021: Key Provisions

- **Regulation of Clinics and Banks:** The Act mandates registration of ART clinics and gamete banks, ensuring standardisation and accountability.
- **Permitted Donations:** Altruistic donation of sperm and oocytes is allowed, including “double donor IVF”, where neither parent has a genetic link to the child.



- **Embryo Storage Rules:** Surplus embryos may be cryopreserved for **up to 10 years**, after which they must be destroyed or donated for research.
- **Prohibition on Embryo Donation:** Clinics are barred from transferring frozen embryos to another couple for reproductive use, even with informed consent.

Frozen Embryos and IVF Practice: Medical Perspective

- **Creation of Surplus Embryos:** IVF cycles often generate multiple embryos to improve success rates; not all are implanted.
- **Medical Equivalence:** Frozen embryos, once thawed, are biologically equivalent to fresh embryos and are routinely used worldwide.
- **Cost and Accessibility:** IVF is expensive and requires multiple cycles, making embryo donation a potentially affordable alternative for infertile couples.
- **Current Legal Constraint:** Despite medical feasibility, Indian law treats frozen embryos as non-transferable for reproductive purposes.

Constitutional Issues Raised by the PIL

- **Article 14 – Right to Equality:** The plea argues that allowing fresh donor embryos but prohibiting frozen embryo donation creates an **arbitrary classification**.
- **Article 21 – Personal Liberty:** Reproductive choice, including decisions on parenthood through ART, falls within decisional autonomy protected under Article 21.
- **Double Standard Argument:** Genetic non-linearity is legally accepted in fresh donor IVF but rejected once embryos are frozen, despite biological similarity.
- **Judicial Scrutiny:** The Delhi High Court is examining whether such differentiation is constitutionally reasonable.

Ethical and Social Dimensions

- **Destruction vs Donation:** Mandating destruction of viable embryos while barring donation raises ethical concerns regarding wastage of life potential.
- **Infertility as a Public Health Issue:** With millions affected, embryo donation could widen reproductive options, especially for women unable to produce viable eggs.
- **Equity Concerns:** Wealthier couples may seek embryo donation abroad, while others remain constrained, deepening inequality.
- **Consent-Based Ethics:** The challenge emphasises voluntary, altruistic, and fully informed consent from both donor and recipient couples.

State Regulation vs Individual Autonomy

- **Justification for Regulation:** The state seeks to prevent misuse, commercialisation, and ethical violations in reproductive technology.
- **Limits of Paternalism:** Excessive restriction may undermine reproductive freedom and personal dignity.

- **Balancing Test:** The issue reflects the broader constitutional balance between **state interest, morality, and individual liberty**.
- **Judicial Role:** Courts often act as arbiters when statutory frameworks lag behind technological and social realities.

Conclusion

The frozen embryo donation debate highlights the tension between **technological advancement and regulatory conservatism**. A nuanced policy framework allowing **strictly regulated, consent-based embryo donation** could balance ethical safeguards with reproductive rights. Legislative reconsideration, guided by constitutional values, medical science, and social equity, is essential to ensure that ART law remains humane, rational, and inclusive. The case underscores the need for laws to evolve with changing realities while upholding dignity and choice.

OBESITY AS A CHRONIC DISEASE

Why in News: A recent multi-centre Indian study has urged that obesity be recognised as a **chronic disease**, projecting a sharp rise in prevalence by 2050.

Key Details

- A white paper by leading diabetologists predicts **17.4% of women & 12.1% of men in India may be obese by 2050**.
- Childhood obesity has risen sharply between **1990 and 2022**, raising long-term health concerns.
- Experts argue obesity involves **complex biological mechanisms**, not merely lifestyle choices.
- The study calls for **policy-level interventions and standardised treatment protocols**.

Obesity as a Chronic Disease

- **Medical Recognition:** Obesity is increasingly classified as a chronic disease because it involves **abnormal metabolic and hormonal processes** requiring long-term management, similar to diabetes or hypertension.
- **WHO Classification:** The World Health Organization included obesity in the **International Classification of Diseases (ICD) in 1948**, recognising its clinical significance, though policy attention remained limited for decades.
- **Beyond Lifestyle Narrative:** Experts emphasise that obesity is not merely due to overeating but results from **genetic, neurobiological, metabolic, and environmental factors**, necessitating a medicalised approach.
- **Need for Long-term Care:** Like other non-communicable diseases (NCDs), obesity requires **continuous monitoring, behavioural therapy, and sometimes pharmacological treatment**, rather than short-term dieting.

Rising Burden of Obesity in India

- **Projected Prevalence:** The study estimates that by **2050**, nearly **one in six Indian women and one in eight men** may be living with obesity, indicating a major public health transition.
- **Childhood Obesity Concern:** Among children aged **5–19 years**, prevalence increased from **around 0.1–0.2% in 1990 to over 3% in 2022**, amounting to nearly **12.5 million affected children**.
- **Gender Dimension:** Obesity is projected to be **10% higher among women**, partly due to hormonal changes, sedentary lifestyles, & socio-cultural factors.
- **Indian Phenotype Risk:** Indians often exhibit **abdominal obesity (“thin-fat” phenotype)**, meaning even individuals with normal BMI may carry high metabolic risk.

Biological and Health Implications

- **Metabolic Dysregulation:** Enlarged fat cells trigger **chronic inflammation and insulin resistance**, increasing the risk of type-2 diabetes, hypertension, and cardiovascular diseases.
- **Cancer Linkages:** Obesity-related cancers are rising; studies note about **30% increase in pancreatic and bladder cancers**, with higher risks of breast and uterine cancers in women.
- **Multi-system Impact:** Obesity contributes to **fatty liver disease, dyslipidaemia, sleep apnea, and osteoarthritis**, making it a systemic health disorder.
- **Economic Burden:** Health costs related to obesity—such as cardiac care, knee replacements, and cancer treatment—are projected to rise **17-fold globally by 2060**, stressing health systems.

Drivers of the Obesity Epidemic

- **Sedentary Lifestyle:** Work-from-home culture, long screen time, and reduced physical activity have significantly lowered daily energy expenditure, especially among urban youth.
- **Hedonic Hunger & Emotional Eating:** Pleasure-driven eating triggered by **stress, depression, and food cues** is emerging as a major behavioural factor behind weight gain.
- **Food Environment Changes:** Rapid growth of **food delivery apps, ultra-processed foods, and restaurant culture** has increased calorie-dense food consumption.
- **Sleep and Stress Factors:** Chronic sleep deprivation and high-stress lifestyles disturb **hormonal regulation of hunger (ghrelin and leptin)**, promoting overeating.

Policy and Public Health Gaps

- **Lack of Unified Guidelines:** India currently lacks a **standardised national protocol** for obesity screening, treatment, and monitoring in public health facilities.
- **Limited Institutional Focus:** Unlike diabetes or TB programmes, there is no dedicated nationwide **obesity control mission**, despite rising NCD burden.

- **Insurance and Treatment Barriers:** Obesity management, including counselling and medical therapy, is often **not adequately covered under health insurance**, limiting access.
- **School-level Prevention Deficit:** Nutrition education, physical activity mandates, and behavioural interventions in schools remain **uneven across states**.

Government Initiatives and Existing Framework

- **NPCDCS Programme:** The National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke include obesity as a **modifiable risk factor**.
- **Fit India Movement:** Launched in 2019, it promotes **physical activity and behavioural change**, though measurable impact on obesity is still evolving.
- **Eat Right India Campaign:** Led by FSSAI, it focuses on **healthy diets, food labelling, and reduction of trans fats**, indirectly targeting obesity.
- **POSHAN Abhiyaan:** While primarily addressing undernutrition, the programme increasingly recognises the **double burden of malnutrition**, including obesity.

Conclusion

India is witnessing a rapid nutrition and lifestyle transition that is fuelling an obesity epidemic. Recognising obesity as a chronic disease can help reduce stigma, improve early diagnosis, and strengthen health system response. A comprehensive strategy involving **standardised clinical guidelines, school-based prevention, food environment regulation, and insurance coverage** is essential. Addressing obesity today is critical to preventing a future surge in non-communicable diseases and associated economic burden.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Que. Which of the following best explains why obesity is increasingly classified as a chronic disease?

- It spreads through infection
- It involves long-term metabolic dysfunction
- It affects only lifestyle choices
- It is always genetically inherited

Answer: (b)

GENOME EDITING THERAPY

Why in News: A recent study published in Nature has introduced a novel genome-editing strategy (PERT) that can potentially treat multiple genetic disorders caused by nonsense mutations.

Key Details

- Researchers developed **PERT (Prime Editing-mediated Readthrough of premature termination codons)** to bypass faulty genetic signals.

- It enables cells to **ignore premature stop codons**, allowing complete protein formation.
- The approach is **gene-agnostic**, meaning it can target multiple diseases using a single strategy.
- It offers a **proof-of-concept for treating rare genetic disorders efficiently and cost-effectively**.

Genetic Disorders & Nonsense Mutations

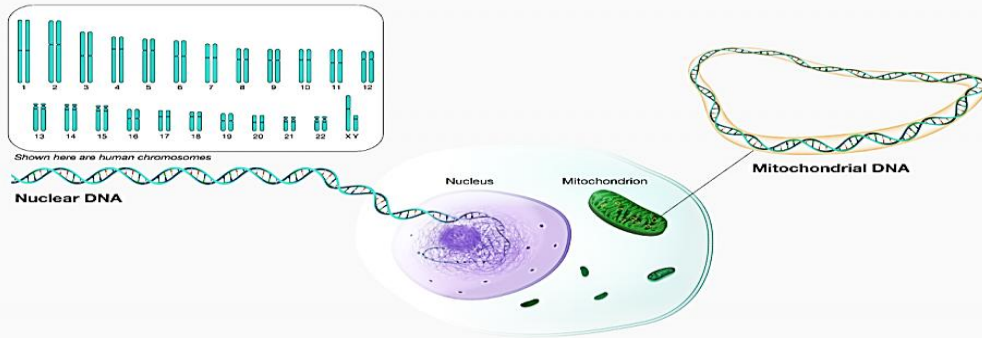
- **Nature of Genetic Disorders:** Genetic disorders arise due to **mutations or errors in DNA sequence**, affecting protein synthesis and cellular functioning. Examples include cystic fibrosis and Batten disease.
- **Concept of Nonsense Mutation:** A nonsense mutation introduces a **premature stop codon**, halting protein synthesis midway and producing incomplete, non-functional proteins.
- **Magnitude of the Problem:** Such mutations account for nearly **25% of all disease-causing genetic changes**, making them a major target for therapeutic intervention.
- **Impact on Human Health:** These mutations disrupt essential biological functions such as enzyme production and cellular repair, leading to **chronic and life-threatening diseases**.

Genome and Gene Expression

- **Definition of Genome:** The genome refers to the **complete set of DNA instructions** in a cell, comprising **23 pairs of chromosomes in humans** along with mitochondrial DNA.
- **Role in Development and Function:** It contains all information required for **growth, metabolism, immunity, and reproduction**, making it central to life processes.
- **Gene Expression Mechanism:** DNA is transcribed into RNA and translated into proteins; mutations disrupt this process, leading to **defective or absent proteins**.
- **Relevance in Disease:** Even a **single nucleotide change** can lead to major functional abnormalities, highlighting the precision required in genetic therapies.

Genome Editing Technologies

- **Concept and Mechanism:** Genome editing involves **targeted modification of DNA**, allowing scientists to cut, replace, or modify genetic sequences at specific locations.
- **Evolution of Technologies:** Early tools like **ZFN** and **TALEN** were complex, while **CRISPR-Cas9 (2009)** revolutionised the field with simplicity, speed, and precision.
- **Advantages of CRISPR:** It is **cost-effective, highly accurate, and scalable**, making gene editing accessible for research and therapeutic use.
- **Applications:** Genome editing is used in **medicine (gene therapy), agriculture (GM crops), and biotechnology**, demonstrating its multidisciplinary relevance.



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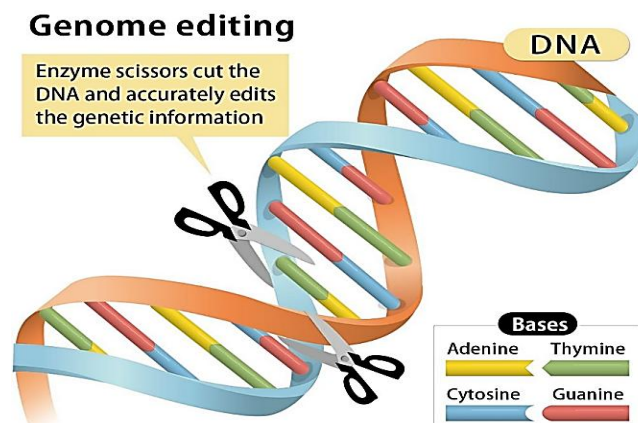
PERT: A Breakthrough Genome-Editing Strategy

- **Working Mechanism:** PERT modifies cellular machinery to **override premature stop signals**, enabling the ribosome to continue protein synthesis.

- **Gene-Agnostic Approach:** Unlike conventional therapies targeting specific genes, PERT works across **multiple genes affected by nonsense mutations**.
- **Efficiency and Innovation:** It uses **prime editing**, a refined form of CRISPR, which is more precise and reduces unintended mutations.
- **Significance for Rare Diseases:** It can potentially treat numerous rare disorders with a **single universal strategy**, reducing cost and time in drug development.

Gene Therapy: Concept and Types

- **Definition and Scope:** Gene therapy involves **modifying or replacing defective genes** to treat or cure diseases at their root cause.
- **Types of Gene Therapy:**
 - ✓ **Somatic Gene Therapy:** Targets body cells; changes are **not heritable** and affect only the patient.
 - ✓ **Germline Gene Therapy:** Targets reproductive cells; changes are **heritable**, raising ethical concerns.



The target gene is located within the bases of the DNA and that location is cut

- **Therapeutic Potential:** It offers long-term or permanent solutions for diseases like **cancer, genetic disorders, and viral infections**.
- **Limitations:** High cost, delivery challenges, and risk of unintended mutations remain key concerns.

Ethical, Regulatory and Policy Dimensions

- **Ethical Concerns:** Genome editing raises **issues** like **designer babies, genetic inequality, and misuse of technology**, especially in germline editing.

- **Regulatory Framework:** Countries have **strict** guidelines; in India, bodies like **ICMR and DBT** regulate gene therapy research and trials.
- **Safety and Risk Assessment:** Ensuring **precision, avoiding off-target effects**, and long-term **monitoring** are critical for clinical application.
- **Equity and Accessibility:** Advanced **therapies** must be made **affordable and accessible**, especially for rare disease patients in developing countries.

Conclusion

Genome editing technologies like CRISPR represent a **transformative shift in medical science**, offering hope for treating multiple genetic disorders through a unified approach. However, their application must be guided by **ethical safeguards, robust regulation, and equitable access**. A balanced approach integrating innovation with responsibility is essential to harness the full potential of genome editing for human welfare.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. Consider the following statements regarding genome editing:

1. CRISPR-Cas9 is a genome editing tool.

2. Nonsense mutations lead to premature termination of protein synthesis.

3. Germline gene therapy changes are not inherited.

Which of the statements are correct?

(a) 1 and 2 only

(b) 2 and 3 only

(c) 1, 2 and 3

(d) 1 only

Answer: (a)

Descriptive Question

Que. Discuss the significance of genome editing technologies in treating genetic disorders. Highlight the potential and challenges of recent innovations like CRISPR. (250 words, 15 marks)

DEFENCE AND SECURITY

BIG WIN FOR INTERNAL SECURITY, BUT NO TIME TO REST

Why in News: Recent security operations and mass surrenders indicate the **Left-Wing Extremism (LWE)/Maoist insurgency is nearing its end phase**, though vigilance remains essential.

Key Details

- Maoist influence has sharply reduced from **223 districts (2009–10)** to about **11 districts today**, with only three most affected.
- Senior Maoist leaders have been neutralised or surrendered, creating a **leadership vacuum**.
- Security forces aim to **eliminate the insurgency by March 2026** through coordinated operations.
- Experts caution against complacency and emphasise **tribal welfare and balanced development**.

Decline of Left-Wing Extremism

- **Sharp Geographic Contraction:** The LWE footprint has reduced dramatically from **223 districts across 20 states in 2010** to around **11 districts**, indicating sustained counter-insurgency success.
- **Leadership Decapitation:** Neutralisation and surrender of several **central committee and politburo members** have weakened organisational cohesion and strategic capability.
- **Mass Surrenders (2025 Data):** Over **1,400 surrenders in Chhattisgarh alone** and hundreds in Telangana and Maharashtra reflect declining morale and shrinking cadre strength.
- **Disintegration of Armed Wing:** The weakening of the People's Liberation Guerrilla Army (PLGA) suggests erosion of the Maoists' core military capacity.

Factors Behind the Government's Success

- **Firm Political Resolve:** Consistent policy priority by the Union government, including a **time-bound target (March 2026)**, ensured sustained administrative focus.
- **Intelligence-Based Operations:** Improved human and technical intelligence enabled **precision strikes**, reducing collateral damage and increasing operational efficiency.
- **Centre-State Coordination:** Joint operations, unified command structures, and better funding under the **Security Related Expenditure (SRE) scheme** improved outcomes.
- **Specialised Forces:** Units like Greyhounds and CoBRA battalions enhanced **jungle warfare capability**, addressing terrain-related disadvantages.

- **Developmental Interventions:** Schemes such as **Aspirational Districts Programme, road connectivity, mobile towers, and financial inclusion** reduced local support for Maoists.

Government Strategy Against LWE

- **SAMADHAN Doctrine:** The government's comprehensive strategy includes Smart leadership, Aggressive strategy, Motivation, Actionable intelligence, Dashboard-based KPIs, Harnessing technology, Action plan, and No access to financing.
- **Security and Development Approach:** India follows a **two-pronged strategy**—security operations to clear areas and development initiatives to hold and stabilise them.
- **Legal Framework:** Laws such as the **Unlawful Activities (Prevention) Act (UAPA)** and state-specific security laws provide the legal backbone for counter-insurgency.
- **Capacity Building of States:** Central assistance for police modernisation and fortified police stations has strengthened state-level responses.

Persisting Concerns and Risks

- **Possibility of Residual Insurgency:** Even weakened insurgent groups can regroup in **remote forested pockets**, especially in the tri-junction areas of central India.
- **Tribal Alienation:** Historical grievances relating to **land rights, displacement, forest access, and governance deficits** remain sensitive issues.
- **Development vs Environment Debate:** Expansion of mining and corporate projects in cleared areas may create **fresh socio-economic tensions** if not handled sensitively.
- **Urban Network Threat:** Maoist ideology may survive through **urban fronts and overground networks**, requiring continued intelligence vigilance.

Lessons from Past Internal Security Challenges

- **Punjab Insurgency Experience:** The decline of militancy in Punjab showed that premature complacency can allow **extremist revival narratives**.
- **Need for Good Governance:** Long-term peace depends not only on security success but also on **responsive administration and justice delivery**.
- **Winning Hearts and Minds:** International counter-insurgency experience shows that **community trust and inclusion** are decisive in sustaining peace.
- **Institutional Continuity:** Counter-insurgency gains must be institutionalised through **police reforms, infrastructure, and local empowerment**.

Conclusion

India appears close to a historic success in curbing Left-Wing Extremism, but the final phase requires calibrated vigilance. The focus must now shift from purely security-centric operations to **sustainable governance, tribal empowerment, and inclusive development**. Avoiding complacency, strengthening grassroots institutions, and balancing development with environmental and tribal rights will be crucial to ensure that the Maoist insurgency does not re-emerge.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Que. Left Wing Extremism in India has significantly declined but not disappeared. Examine the reasons for the recent success and outline the challenges ahead. (150 Words, 10 Marks)

DRONE GOVERNANCE & INNOVATION

Why in News: Government data (Feb 2026) highlights the **rapid expansion of India's regulated drone ecosystem** across governance, agriculture, infrastructure, and defence.

Key Details

- India has liberalised drone regulations through **Drone Rules, 2021** and subsequent amendments.
- Over **38,500 drones registered** and nearly **39,900 remote pilot certificates issued** (Feb 2026).
- Government initiatives like **SVAMITVA, Nam0 Drone Didi, and PLI Scheme** are driving adoption.
- Drones are increasingly used in **agriculture, disaster management, infrastructure monitoring, and defence**.

Drone Regulatory Framework & Reforms

- **Drone Rules, 2021 – Liberalisation:** The rules replaced restrictive regulations with a **trust-based, self-certification regime**, reducing approvals, forms, and compliance burden significantly.
- **Simplification of Procedures:** The number of forms was reduced (from ~25 to ~5), and fees were rationalised, encouraging **ease of doing business in drone sector**.
- **Airspace Management (Green Zones):** Large portions of Indian airspace were designated as **“green zones”** where drones can operate without prior permission, boosting commercial usage.
- **Certification Reform:** Traditional pilot licences were replaced by **Remote Pilot Certificates issued by DGCA**, enabling faster training and skill development.

Digital Governance & Institutional Mechanisms

- **Digital Sky Platform:** Acts as a **single-window system** for drone registration, flight permissions, and airspace management, ensuring transparency and real-time monitoring.
- **eGCA Platform:** Enables online services such as **pilot certification, licensing, and compliance**, reducing bureaucratic delays and improving governance efficiency.
- **Data-Based Governance:** By Feb 2026, over **38,500 drones registered**, reflecting rapid formalisation and growth of the drone ecosystem.
- **Regulatory Oversight:** DGCA ensures safety standards, while integration with **air defence and aviation systems** enhances national security coordination.

DIFFERENT TYPES OF DRONES



Surveillance and Reconnaissance Drones (ISR Drones):

These drones are primarily used for intelligence, surveillance, and reconnaissance purposes.

India currently has:

TARAS-BH-201
(Tactical Advanced Platform for Aerial Surveillance)
Rustom (developed by DRDO)
Heron (Israel)



Armed/Combat Drones (UCAVs):

Unmanned combat aerial vehicles (UCAVs) are capable of launching missiles or dropping bombs.

India has:

DRDO's Ghatak
(under development)
Heron TP (from Israel)



Loitering Munitions:

These drones are designed to loiter over a target area and strike when a target is identified.

India has:

Nagastra (made by Solar Industries and Zmotion)
Warmate (Polish origin)



Swarm Drones:

Multiple drones operate in coordination to overwhelm enemy defenses, DRDO and private firms are working on swarm drone technology.



Source: MIB

Manufacturing Ecosystem & Economic Incentives

- **PLI Scheme for Drones:** With an outlay of ₹120 crore, the scheme promotes domestic manufacturing of drones and components, supporting **Atmanirbhar Bharat**.
- **MSME & Start-up Boost:** Incentives encourage participation of **start-ups and MSMEs**, making India a potential global drone manufacturing hub.
- **Tax Rationalisation:** GST on drones reduced to **5%**, lowering operational costs and boosting adoption in commercial sectors like logistics and agriculture.
- **Global Competitiveness:** India aims to become a **drone hub by 2030**, reducing import dependence and enhancing export potential.

Capacity Building & Innovation Ecosystem

- **SwaYaan Programme:** Focuses on **skill development and training** in unmanned aircraft systems, creating a skilled workforce for future drone operations.
- **NIDAR Initiative:** The National Innovation Challenge promotes **R&D, autonomous drone development, and start-up incubation**.
- **Human Resource Development:** Nearly **39,900 remote pilot certificates issued**, indicating rapid expansion of trained manpower.
- **Innovation Ecosystem:** Collaboration between academia, industry, and government supports **cutting-edge drone technologies**.

Applications in Agriculture & Rural Development

- **Namo Drone Didi Scheme:** Provides drones to **Women SHGs**, promoting precision agriculture, reducing input costs, and enhancing rural livelihoods.
- **Precision Farming:** Drones enable **crop spraying, soil monitoring, and yield estimation**, improving productivity and sustainability.
- **SVAMITVA Scheme:** Drone mapping of **3.28 lakh villages** and creation of **2.76 crore property cards** reduces land disputes and improves access to credit.
- **Rural Transformation:** Enhances **digital land records, governance efficiency, and financial inclusion** in rural areas.

Infrastructure Monitoring & Governance

- **Highway Monitoring (NHAI):** Monthly drone recordings track project progress, ensuring **transparency, quality control, and dispute resolution**.
- **Railway Surveillance:** Drones are used for **inspection of tracks, bridges, and yards**, improving safety and reducing manual inspection risks.
- **Urban Planning:** Supports mapping, encroachment detection, and smart city planning through **real-time geospatial data**.
- **E-Governance Tool:** Drones enhance **evidence-based decision-making** in infrastructure and public policy.

Disaster Management & Internal Security

- **Disaster Response:** Drones provide **real-time aerial visuals** during floods, landslides, and earthquakes, enabling faster rescue operations.
- **NECTAR Initiative:** Special drones can carry heavy equipment and remain airborne longer, improving **search and rescue efficiency**.
- **Crowd Monitoring & Policing:** Used by agencies like RPF for **surveillance, crowd control, and prevention of illegal activities**.
- **Early Warning Systems:** Integration with sensors helps in **risk assessment and disaster preparedness**.

Defence & Strategic Applications

- **Border Surveillance:** Drones enhance monitoring of sensitive borders, improving **situational awareness and intelligence gathering**.
- **Precision Operations:** Used in missions like **Operation SINDOOR**, enabling targeted and low-risk operations.
- **Integration with Defence Systems:** Drones work with **radar networks and air defence systems** to protect critical infrastructure.
- **Future Warfare:** Increasing role in **autonomous warfare, swarm drones, and hybrid conflicts**.

Conclusion

India's drone ecosystem represents a convergence of **technology, governance, and economic growth**. To fully realise its potential, India must focus on **robust data protection laws, airspace management, indigenous innovation, and global competitiveness**. With the right policy push, drones can become a key pillar of **Digital India, Atmanirbhar Bharat, and smart governance**.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. Consider the following statements regarding India's drone ecosystem:

1. Digital Sky platform provides single-window clearance for drone operations.
2. SVAMITVA scheme uses drones for urban property mapping.
3. GST on drones has been reduced to promote adoption.

Which of the above is/are correct?

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

Answer: (b)

Descriptive Question

Que. Discuss the applications of drone technology in India and analyse the challenges in ensuring safe and inclusive drone governance. (250 Words, 15 Marks)

INDIA'S AVIATION IN NEED OF DATA-DRIVEN OVERSIGHT

Why in News: IndiGo's operational crisis in December 2025 triggered nationwide fare spikes, prompting government-imposed price **caps and a DGCA probe** into potential **market dominance abuse**, sparking debate on data-driven aviation regulation in India.

Key Details

- **IndiGo's December 2025 crisis** exposed structural gaps in India's aviation regulatory data systems.
- The government responded with **temporary fare caps** and DGCA sought fare data to probe possible market dominance abuse.
- India lacks a **systematic, long-term fare monitoring framework**, making it hard to distinguish demand spikes from anti-competitive pricing.
- The U.S. **10% ticket sampling model (DB1B)** shows how transparent fare data can strengthen oversight and competition analysis.
- A **data-first regulatory approach** would promote transparency, market discipline, and consumer protection without interfering with airline algorithms.

IndiGo Crisis and the Regulatory Wake-Up Call

- In **December 2025**, IndiGo, India's largest airline, faced an operational disruption that triggered a **sharp surge in airfares nationwide**.
- The episode exposed a structural concern: **India is becoming the world's third-largest aviation market without building the data systems needed to regulate it effectively**.
- The crisis highlighted the mismatch between **market expansion** and **regulatory data infrastructure**.

Immediate Regulatory Response

- The **Ministry of Civil Aviation** imposed **temporary fare caps** on domestic flights to protect consumers.
- The **Directorate General of Civil Aviation (DGCA)**, acting on inputs from the **Competition Commission of India**, sought **average fare data** from:
 - ✓ IndiGo
 - ✓ Air India
 - ✓ SpiceJet
 - ✓ Akasa(for the period December 1–15, 2025).
- ✓ The objective was to investigate potential **abuse of market dominance**.

Limitations of a Reactive Approach

- While emergency interventions provide **short-term passenger protection**, they do not address systemic regulatory gaps.
- Even after obtaining data, regulators may lack:
 - ✓ Continuous fare visibility
 - ✓ Analytical tools to study pricing trends

- Without a **consistent monitoring framework**, it becomes difficult to distinguish:
 - ✓ Legitimate demand-driven price increases
 - ✓ Anti-competitive or dominance-driven fare surges

Learning from the U.S. Aviation Data Model

- The crisis offers an opportunity to transform the DGCA from a **crisis responder** to a **proactive market regulator**.
- The United States provides a useful example through the **Bureau of Transportation Statistics (BTS)**.
- The BTS manages the **Airline Origin and Destination Survey (DB1B database)**.

Features of the DB1B System

- Collects a **10% random sample** of all domestic tickets sold quarterly (since 1995).
- Publishes **ticket-level data**, including:
 - ✓ Actual fares paid
 - ✓ Routes flown
 - ✓ Carrier details
- Creates a **long-term digital pricing trail**.
- Unlike DGCA (which mainly tracks passenger and freight volumes), DB1B enables **market behaviour monitoring**.

Why a 10% Sampling Framework Makes Sense for India

- A similar framework in India would:
 - ✓ Increase **transparency**
 - ✓ Enable systematic fare monitoring
 - ✓ Strengthen regulatory oversight
- Like a **speed camera on a highway**, the goal is not constant punishment but:
 - ✓ Encouraging compliance
 - ✓ Maintaining market discipline
 - ✓ Promoting long-term market hygiene

Impact of Transparency on Airline Pricing

- Public or regulatory scrutiny of fare data encourages airlines to:
 - ✓ Build **ethical guardrails** into pricing algorithms
 - ✓ Avoid opportunistic or algorithm-driven spikes
- It reduces the risk of:
 - ✓ Public backlash
 - ✓ Legal challenges (such as the ongoing PIL before the Supreme Court of India).

Research and Policy Benefits: The "Southwest Effect"

- Over 30 years of U.S. DB1B data have enabled academic research.
- Researchers identified the **"Southwest Effect"**:
 - ✓ When Southwest Airlines enters a new route:
 - Average fares decline
 - Passenger traffic increases
- A comparable Indian dataset could help regulators:
 - ✓ Study competitive behaviour across routes
 - ✓ Identify dominance patterns
 - ✓ Assess structural inefficiencies

How Data Can Detect Market Power

A structured dataset can allow regulators to:

- **Compare routes**
 - ✓ Higher fares on single-airline dominated routes may indicate market power.
- **Track entry and exit effects**
 - ✓ Fare rise after competitor exit
 - ✓ Fare drop after competitor entry
- **Assess peak-period pricing**
 - ✓ Disproportionate price hikes on routes where an airline has larger market share during holidays

Addressing Industry Concerns

- **Concern 1: Protection of Proprietary Algorithms**
 - ✓ Airlines argue revenue management systems are their “secret sauce.”
 - ✓ A 10% sample protects:
 - The “**how**” (algorithm logic)
 - While monitoring the “**what**” (actual fares charged).
- **Concern 2: Technical Burden**
 - ✓ A limited random sample imposes **minimal operational load**.
- **Concern 3: Risk of Price Coordination**
 - ✓ In the age of real-time scraping, airlines already track competitors’ prices.
 - ✓ Publishing data with a **quarterly delay** reduces risk of immediate fare alignment.

The Way Forward for DGCA

- Move beyond:
 - ✓ Ad hoc fare caps
 - ✓ Episodic investigations
- Adopt a **data-first regulatory framework**.
- Allow:
 - ✓ Algorithms to compete
 - ✓ Regulators and the public to monitor outcomes
- India’s aviation sector now requires **institutional transparency proportional to its market size**.

Conclusion

India’s aviation market cannot rely on reactive fare caps in moments of crisis. As the sector expands **rapidly**, **regulation** must evolve from episodic intervention to Data-Driven oversight. A transparent, structured fare-monitoring framework—such as a **10% ticket sampling model**—would strengthen competition, protect consumers, and ensure long-term market discipline without undermining innovation or proprietary airline systems.

INDIA’S DEFENCE SURGE

Why in News: The Union Budget 2026–27 has sharply increased India’s defence allocation, reigniting debate on whether the move reflects militarisation or strategic necessity.

Key Details

- India allocated a **record ₹7.85 lakh crore** for defence in Budget 2026–27, a **15.19% increase** over the previous year.
- **Capital outlay rose by 21.8%** to ₹2.19 lakh crore to accelerate military modernisation.
- Around **75% of modernisation funds** are earmarked for domestic procurement under **Atmanirbhar Bharat**.
- The surge is aimed at strengthening **credible deterrence amid a complex security environment**.

India’s Defence Budget Surge

- **Record Allocation:** The defence budget of ₹7.85 lakh crore (≈\$86.7 billion) marks India’s highest-ever spending, reflecting prioritisation of national security in fiscal planning.
- **Rise in Capital Expenditure:** Capital outlay increased to ₹2.19 lakh crore, focusing on acquisition of fighter aircraft, submarines, drones, and advanced surveillance systems.
- **Operational Preparedness:** Revenue expenditure of ₹3.65 lakh crore supports salaries, logistics, and maintenance, ensuring forces remain combat-ready after recent operational experiences.
- **Long-term Modernisation Push:** The spending pattern shows a shift from manpower-heavy defence to **technology-driven capability building**, consistent with modern warfare trends.

Strategic Logic of Deterrence

- **Deterrence vs Militarism:** Defence strengthening aims to **prevent conflict by raising the cost of aggression**, not to pursue expansionist ambitions.
- **Credible Capability Requirement:** Effective deterrence depends on material capability—modern platforms, surveillance, and rapid response—not merely diplomatic signalling.
- **Closing Preparedness Gaps:** Parliamentary committees and military leadership have repeatedly flagged shortages in fighter squadrons, air defence, and naval assets.
- **Insurance Against Coercion:** Underinvestment historically invites pressure from adversaries; therefore, enhanced spending acts as **strategic insurance**.

India’s Evolving Security Environment

- **China Challenge:** China has undertaken two decades of rapid military modernisation and hardened positions along the Line of Actual Control, highlighted by the **2020 Galwan crisis**.
- **Pakistan’s Risk Posture:** Pakistan’s strategy combines nuclear deterrence with conventional provocations, creating persistent instability along India’s western front.
- **Two-Front Contingency:** Growing China–Pakistan strategic coordination raises concerns about simultaneous pressure on India’s northern and western borders.

- **Expanding Maritime Theatre:** India's responsibilities in the Indian Ocean Region have increased amid rising great-power competition and sea-lane security concerns.

Atmanirbhar Bharat in Defence

- **Domestic Procurement Push:** Allocating nearly 75% of modernisation funds for indigenous sources aims to reduce import dependence and build strategic autonomy.
- **Boost to Defence Industrial Base:** Indigenous production of drones, missiles, aircraft components, and naval platforms supports job creation and technological capability.
- **Reduced External Vulnerability:** Dependence on foreign suppliers can create supply shocks during crises; indigenisation enhances reliability of defence supply chains.
- **Export Potential:** India's defence exports crossed ₹21,000 crore in recent years, indicating growing global competitiveness of domestic defence manufacturing.

Strategic Autonomy and Global Uncertainty

- **Unpredictable Global Order:** Shifts in major power policies and transactional geopolitics make over-reliance on external security guarantees risky.
- **Autonomy through Capability:** True strategic autonomy requires the ability to defend borders, protect sea lanes, and sustain conflict independently.
- **Regional Stability Role:** A militarily credible India contributes to balance of power in Asia and supports a stable Indo-Pacific order.
- **Not an Arms Race:** India's spending remains **defensive and gap-filling**, not aimed at parity with larger military powers.

Concerns and Challenges

- **Fiscal Trade-offs:** Higher defence spending must be balanced with social sector needs such as health, education, and infrastructure.
- **Efficiency of Procurement:** Delays in acquisition and cost overruns in defence projects remain persistent structural issues.
- **Need for Jointness and Reform:** Budget increases must be complemented by theatre commands, integration, and doctrinal modernisation.
- **Technology Absorption:** Simply buying platforms is insufficient; emphasis must be on **network-centric warfare, AI, cyber, and space capabilities**.

Conclusion

India's recent defence surge represents a **course correction toward credible deterrence**, not militaristic expansion. In an era of complex threats and uncertain geopolitics, strengthening military capability is essential for safeguarding sovereignty and sustaining strategic autonomy. Going forward, India must pair higher spending with defence reforms, indigenous innovation, and joint force

integration to ensure that capability translates into effective security outcomes. A secure India ultimately contributes to a more stable Asia.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. Which of the following best describes the concept of "credible deterrence"?

- (a) Increasing troop numbers alone
- (b) Preventing conflict by raising the cost of aggression
- (c) Avoiding defence expenditure
- (d) Relying solely on nuclear weapons

Answer: (b)

Descriptive Question

Que. "India's rising defence expenditure reflects strategic maturity rather than militarism." Examine in the context of India's security environment. (150 Words, 10 Marks)

MARITIME PARTNERSHIP STRENGTHENING

Why in News: Prime Minister Narendra Modi welcomed **Seychelles as a full member of the Colombo Security Conclave**, marking a significant step in India's maritime and regional security outreach in the Indian Ocean Region (IOR).

Key Details

- Seychelles was inducted as a **full member of the Colombo Security Conclave**, alongside India, Sri Lanka, Maldives, Mauritius, and Bangladesh.
- India and Seychelles adopted a **Joint Vision (SESEL)** and signed **seven MoUs** covering maritime, digital, health, and capacity-building cooperation.
- India announced a **Special Economic Package of \$175 million** for Seychelles.
- The visit coincided with **50 years of Seychelles' independence and bilateral diplomatic relations**.

Colombo Security Conclave: Strategic Significance

- **Regional Maritime Security Platform:** Established in **2011**, the Colombo Security Conclave promotes cooperation on maritime security, counter-piracy, terrorism, and transnational crimes in the Indian Ocean.
- **Expansion Reflecting IOR Priorities:** Inclusion of Seychelles as a full member strengthens the grouping's coverage of the **Western Indian Ocean**, a critical region for global trade and energy flows.
- **Indian Leadership Role:** India plays a coordinating role by providing surveillance, training, and information-sharing capabilities, aligning with its aspiration to be a **net security provider**.
- **Collective Security Approach:** The conclave complements bilateral mechanisms and reinforces **multilateral maritime governance** without formal military alliances.

India-Seychelles Maritime and Defence Cooperation

- **Maritime Surveillance and Capacity Building:** India has supported Seychelles with **coastal radar systems**,

patrol vessels, and training, enhancing its maritime domain awareness.

- **Countering Non-Traditional Threats:** Cooperation focuses on piracy, illegal fishing, drug trafficking, and maritime terrorism, which threaten **Sea Lines of Communication (SLOCs)**.
- **Western Indian Ocean Stability:** Seychelles' strategic location near key shipping routes makes it vital for maintaining peace and security in the region.
- **People-Centric Security Model:** Defence cooperation is complemented by humanitarian assistance, disaster relief, and civil capacity development.

Economic, Developmental and Digital Cooperation

- **Special Economic Package (\$175 million):** India announced a package comprising a **₹-denominated Line of Credit (\$125 million)** and grant assistance to support infrastructure, housing, mobility, and maritime security.
- **Digital Transformation:** An MoU on digital cooperation aims to share India's expertise in **e-governance, digital public infrastructure, and capacity-building**.
- **Health and Scientific Collaboration:** Agreements on pharmacopoeial cooperation and meteorological collaboration strengthen public health and climate resilience.
- **Tourism and Connectivity:** Improved air connectivity and growing Indian tourist inflows support Seychelles' tourism-driven economy.

Climate, Sustainability and Blue Economy

- **Joint Vision for Sustainability (SESEL):** The adopted vision integrates **economic growth, environmental protection, and maritime security**.
- **Ocean Observation and Marine Research:** Cooperation on ocean science and data-sharing enhances understanding of marine ecosystems and climate change impacts.
- **Renewable Energy and Climate Solutions:** India committed to supporting Seychelles in renewable energy and climate adaptation, aligning with global climate commitments.
- **Blue Economy Framework:** Sustainable use of ocean resources is prioritised for livelihoods, food security, and long-term ecological balance.

India's Indian Ocean Strategy (Static + Contemporary)

- **Vision MAHASAGAR:** Seychelles is a key pillar of India's **MAHASAGAR (Mutual and Holistic Advancement for Security and Growth Across Regions)** vision.
- **Neighbourhood First and SAGAR:** The partnership aligns with India's **SAGAR doctrine** and Neighbourhood First Policy, emphasising cooperation over competition.
- **Balancing Strategic Competition:** Strengthened ties help India counter extra-regional influence in the IOR while promoting inclusive regional order.

- **Democratic and Cultural Linkages:** Shared democratic values, historical ties & people-to-people connections underpin the strategic partnership.

Way Forward

- **Deepening Maritime Security Cooperation:** India and Seychelles should further institutionalise information-sharing, joint patrols, and coordinated surveillance under the Colombo Security Conclave to counter piracy, illegal fishing, drug trafficking, and emerging non-traditional maritime threats in the Western Indian Ocean.
- **Operationalising Blue Economy Collaboration:** Both countries can jointly develop sustainable fisheries, marine biotechnology, and ocean-based renewable energy projects, ensuring livelihood security while conserving marine ecosystems.
- **Strengthening Climate and Disaster Resilience:** Enhanced cooperation in climate adaptation, ocean observation, and early-warning systems will help Seychelles address sea-level rise and extreme weather, while positioning India as a key climate partner in the IOR.
- **Expanding Digital and Capacity-Building Partnerships:** Leveraging India's digital public infrastructure and training programmes for Seychelles' civil servants will support governance reforms, service delivery, and long-term institutional capacity.
- **Promoting Inclusive Regional Multilateralism:** India should use platforms like the Colombo Security Conclave, SAGAR, and MAHASAGAR to foster trust-based, non-exclusive cooperation among IOR littoral states, ensuring a free, secure, and sustainable Indian Ocean Region.

Conclusion

India–Seychelles relations exemplify a **comprehensive maritime partnership** that integrates security, development, climate action, and digital cooperation. Seychelles' inclusion in the Colombo Security Conclave strengthens regional stability and reinforces India's role as a responsible stakeholder in the Indian Ocean. Going forward, sustained multilateral engagement, capacity-building, and blue economy cooperation will be key to ensuring a peaceful, secure, and sustainable IOR.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQs

Que. The Colombo Security Conclave primarily focuses on:

- (a) Trade liberalisation
- (b) Maritime security cooperation
- (c) Climate negotiations
- (d) Defence alliances

Answer: (b)

NVS-02 SATELLITE FAILURE

Why in news: ISRO recently disclosed findings of the NVS-02 satellite failure, nearly a year after launch, raising questions about transparency, internal oversight, and institutional accountability within India's evolving space sector.

Key Details

- ISRO released a **limited press statement** on the NVS-02 satellite failure, instead of publishing the full technical report.
- The failure was caused by a **signal not reaching a critical oxidiser valve**, likely due to a **loose or faulty electrical connection**, affecting both primary and backup lines.
- The malfunction prevented the engine from firing, so the satellite **could not raise itself to the intended orbit**.
- ISRO claimed that corrective measures were implemented, demonstrated by the **successful LVM-3 M5 launch of GSAT-7R (Nov 2, 2025)**.
- However, concerns remain about **limited transparency**, with calls for clearer disclosure to strengthen public trust and institutional accountability.

Background and Initial Disclosure

- A **venerable institution facing allegations of opacity** attempted to respond with a gesture of transparency.
- The **Indian Space Research Organisation (ISRO)** made public the findings of a **technical committee report**.
- The committee was constituted to examine why the **NVS-02 satellite** failed to reach its intended orbit.
- The satellite had been launched aboard a **GSLV rocket on January 29, 2025**.
- Until recently, no formal explanation had been provided for the anomaly.
- However, instead of releasing the complete report, ISRO issued only an accompanying **press statement with limited details**.

Technical Findings of the Apex Committee

- An **'apex' committee** determined that a signal intended to activate a crucial valve in the engine's **oxidiser line** failed to reach its destination.
- This valve was essential for firing the engine required to raise the spacecraft to its designated orbit.
- The probable cause was identified as a **loose or failed electrical connection**.
- The malfunction impacted both the **primary and backup signal lines**, preventing transmission altogether.
- While the disclosed information is technically relevant, it appears primarily useful for **internal corrective measures**.

Corrective Measures and Subsequent Success

- ISRO stated that the lessons learned from the failure were **successfully implemented** in a later mission.
- On **November 2, 2025**, the **LVM-3 M5 launch vehicle** successfully placed **GSAT-7R**, India's heaviest communication satellite, into its intended orbit.
- This success indicated that corrective steps had been undertaken effectively.

Concerns Regarding Transparency

- Greater clarity and fuller disclosure were expected from the institution.
- When information is released nearly a year after an event, the emphasis should be on **clear illumination**, not reluctant declassification.
- ISRO should have explicitly clarified whether the issue arose from:
 - ✓ An oversight during assembly
 - ✓ Failures across inspection and quality control mechanisms
 - ✓ A manufacturing defect that evolved over time and went undetected

Need for Institutional Openness

- Greater openness would enhance **public trust and institutional credibility**.
- Transparency does not require assigning individual blame.
- Sensitive proprietary or strategic details can remain protected while still ensuring meaningful disclosure.
- Historically, publishing detailed **Failure Analysis reports** was routine practice.
- Recent trends, however, suggest growing **institutional insularity**.

Broader Context and Future Direction

- ISRO appears to have become more guarded following the back-to-back failures of **PSLV missions in January and May 2025**.
- Beyond technical investigations, another committee has been set up to examine **systemic issues** behind these failures.
- At a time when the **global space industry is undergoing rapid transformation and disruption**, ISRO must avoid retreating into isolation.
- Instead, it should embrace **structured transparency, institutional accountability, and reform-oriented governance**.
- When releasing information about an event a year later, the focus should be on **illumination, not reluctant declassification**
- ISRO should have clarified whether the issue resulted from:
 - ✓ An **oversight in assembly**
 - ✓ Failure at multiple levels of **inspection and quality control**
 - ✓ A **manufacturing anomaly** that developed over time and escaped detection

Conclusion

The **NVS-02 episode highlights** the need for greater institutional transparency in India's space programme. While corrective steps and subsequent mission success **demonstrate technical resilience**, limited public disclosure weakens confidence. In a rapidly evolving global space ecosystem, ISRO must combine scientific excellence with **structured openness**, robust quality control, and systemic reform to **strengthen credibility, accountability**, and long-term leadership.

EXPECTED QUESTION FOR UPSC CSE

Descriptive question

Que. Examine the importance of institutional transparency, accountability, and systemic reform in India's space programme. How can greater openness strengthen public trust without compromising strategic interests? (250 Words, 15 Marks)

SOCIAL ISSUES

HIV DRUG INNOVATION & PUBLIC HEALTH

Why in News: A recent study confirms that targeting the **HIV capsid protein with lenacapavir remains effective despite resistance**, marking a breakthrough in HIV treatment and prevention.

Key Details

- **Lenacapavir**, a capsid inhibitor, blocks HIV replication and requires only **two injections per year**.
- HIV develops resistance only by damaging its own **capsid structure**, reducing its survival ability.
- Countries like **Zimbabwe** have begun rollout of long-acting injectable PrEP.
- The drug shows **near 100% effectiveness in clinical trials**, improving adherence compared to daily pills.

HIV Structure & Capsid as Drug Target

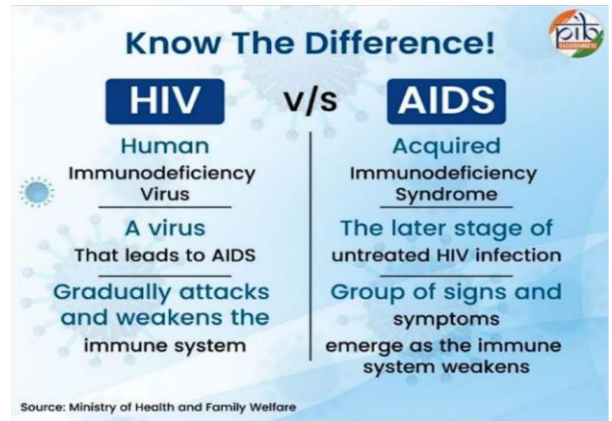
- **Role of Capsid Protein:** The capsid is a protein shell protecting HIV's genetic material and plays a critical role in viral replication inside host cells.
- **New Therapeutic Target:** Unlike earlier drugs targeting enzymes, capsid inhibitors act on **viral structure**, opening a new frontier in antiviral therapy.
- **Resistance Constraint:** Studies show HIV mutations to resist lenacapavir weaken the capsid itself, reducing viral fitness and survival.
- **Scientific Significance:** This confirms capsid as a **robust and sustainable drug target**, addressing long-standing issues of **resistance** in HIV therapy.

Evolution of HIV Treatment

- **Early Breakthrough – Zidovudine (1987):** The first HIV drug targeted reverse transcriptase but quickly became **ineffective** due to viral mutation.
- **Combination Therapy (ART):** Multiple drugs targeting reverse transcriptase, protease, and **integrase** improved survival and reduced viral load.
- **Shift to Long-Acting Drugs:** Lenacapavir represents a new class with **biannual dosing**, reducing dependency on daily medication.

- **Regulatory Milestone:** Approved by the **U.S. Food and Drug Administration**, it is the first capsid-based HIV inhibitor globally.

Public Health Significance of Lenacapavir

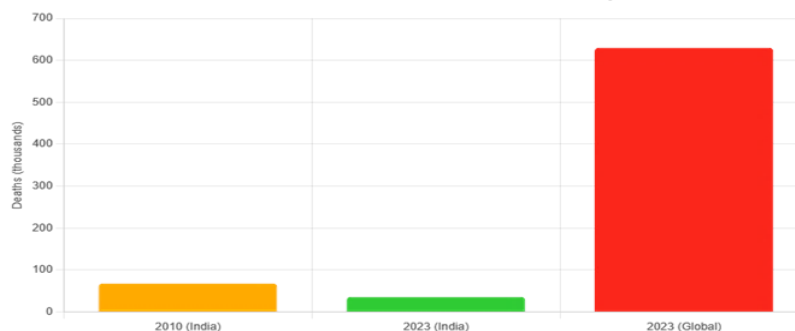


- **Improved Adherence:** Twice-yearly injections address a major challenge of **non-compliance in daily oral PrEP regimens**.
- **Prevention Tool (PrEP):** Acts as a **pre-exposure prophylaxis**, significantly reducing infection risk among high-risk populations.
- **Global Health Equity:** Rollout in countries like **Zimbabwe** highlights its importance in **high-burden, resource-limited settings**.
- **WHO & SDG Linkage:** Supports global efforts to achieve **SDG 3.3: End AIDS as a public health threat by 2030**.

HIV/AIDS: Key Concepts

- **Nature of Disease:** HIV attacks **CD4+ T cells**, weakening immunity and increasing vulnerability to **infections** like tuberculosis.
- **Progression to AIDS:** AIDS is the advanced stage of HIV infection, characterised by severe immune damage.
- **Modes of Transmission:** Spread through blood, semen, vaginal fluids, breast milk, and **mother-to-child transmission**.
- **No Cure, Only Control:** HIV is managed through **antiretroviral therapy (ART)**, which suppresses viral replication.

India's AIDS Deaths: Reduction and Global Comparison



HIV/AIDS Scenario in India

- **Declining Prevalence:** HIV prevalence reduced from **0.33% (2010) to 0.20% (2024)**, indicating effective interventions.
- **Global Comparison:** India's prevalence is **significantly** lower than the **global average of 0.7%**.
- **Contribution to Global Burden:** India accounts for only **about 5% of global new infections (2024)**.
- **Success Factors:** Expansion of testing, ART coverage, awareness campaigns, and stigma reduction initiatives.

National AIDS Control Programme (NACP)

- **Phased Evolution:** From **NACP I (1992) to NACP V (2021–26)**, the programme evolved from awareness to **comprehensive care**.
- **Key Interventions:** Targeted interventions for high-risk groups, ART expansion, and viral load monitoring.
- **Legal Framework:** HIV/AIDS (Prevention and Control) Act, **2017** ensures **non-discrimination and rights of patients**.
- **Current Goal:** Aligns with **SDG 3.3 to end AIDS by 2030** through sustained prevention and treatment.

Core Goals of NACP-V (2021–26)



GOAL

- 01** Reduce annual new HIV infections by 80% (from 2010 baseline)
- 02** Reduce AIDS-related mortalities by 80% (from 2010 baseline)
- 03** Eliminate vertical transmission of HIV and syphilis (mother-to-child)
- 04** Promote universal access to Quality STI/RTI services for at-risk and vulnerable populations
- 05** Eliminate HIV/AIDS-related stigma and discrimination

In operational targets, this includes aiming for 95-95-95 coverage: 95% of people at risk use prevention, 95% of HIV-positive know their status, 95% of those are on treatment, 95% of those achieve viral suppression.

Also, for pregnant and breastfeeding women living with HIV—ensuring suppressed viral to enable elimination of vertical transmission.

Source : National AIDS and STD Control Programme Phase-V (2021–26) Booklet

Challenges in HIV Control

- **Drug Resistance:** Continuous mutation of HIV remains a major barrier to **long-term treatment success**.
- **Stigma & Discrimination:** Social stigma reduces testing and treatment uptake, especially in rural areas.
- **Access Inequality:** **Availability** of advanced drugs like lenacapavir is limited in developing countries.
- **Funding Constraints:** Sustaining large-scale HIV programmes requires **consistent** financial and institutional support.

Conclusion

The discovery of capsid-targeting drugs like lenacapavir represents a **paradigm shift in HIV treatment and prevention**. However, scientific breakthroughs must be complemented by **equitable access, strong public health**

systems, and social awareness. India's progress under NACP demonstrates that a combination of **policy, technology, and community participation** is essential to eliminate HIV/AIDS as a public health threat.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. Consider the following statements about HIV:

1. It attacks CD4+ T cells of the immune system
2. It can be cured completely by antiretroviral therapy
3. It spreads through body fluids such as blood and semen

Which of the statements are correct?

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

Answer: (b)

Descriptive Question

Que. Recent advances in HIV treatment highlight the importance of innovation in public health. Discuss with reference to capsid-targeting drugs like lenacapavir. (150 Words, 10 Marks)

MISSING CHILDREN IN INDIA

Why in News: Recent Delhi Police data (January 2024–2026) shows **no major change in the number of missing children**, easing fears of a sudden surge but highlighting persistent structural concerns.

Key Details

- Around **1,700–1,800 persons go missing each January in Delhi**, with children forming a significant share.
- **430 children were reported missing in January 2026**, slightly lower than 2025 figures.
- The **12–18 age group accounts for nearly 90%** of missing children cases.
- Police data indicates **no involvement of organised trafficking gangs**, though untraced cases remain a concern.

Scale and Trend of Missing Children

- **Stable Numbers over Three Years:** Police records show missing children cases in Delhi have remained largely stable between **January 2024 (436), 2025 (436), and 2026 (430)**, indicating no abnormal spike.
- **Age-wise Distribution:** The **12–18 years category dominates**, with over **380 cases annually**, reflecting adolescent vulnerability rather than organised abduction.
- **Low but Critical Younger Age Group:** Children in the **0–8 years group are fewer in number (around 30 cases annually)** but carry higher risks of trafficking and illegal adoption.
- **Untraced Cases:** Though tracing rates have improved, untraced cases persist, especially among adolescents, demanding long-term monitoring.

Causes Behind Missing Children

- **Adolescent Voluntary Runaways:** Police assessments reveal most cases involve **elopement, romantic relationships, or voluntary leaving after family disputes**, particularly among girls aged 12–18.
- **Family and Social Stress:** Poverty, domestic conflict, single-parent households, and disputes over **mobile phones or personal demands** are recurring triggers.
- **Urban Vulnerability:** Migration, informal settlements, and weak community networks in cities like Delhi increase the likelihood of children going missing.
- **Digital Influence:** Social media exposure and online relationships increasingly shape adolescent behaviour, adding a modern dimension to the problem.

Legal and Institutional Framework

- **Juvenile Justice (Care and Protection of Children) Act, 2015:** Treats missing children as “**children in need of care and protection**”, mandating immediate police action.
- **Supreme Court Guidelines:** FIR registration in missing children’s cases is **mandatory**, and delays can invite disciplinary action.
- **Role of Child Welfare Committees (CWCs):** CWCs ensure rehabilitation, counselling, and reintegration of traced children.
- **Anti-Human Trafficking Units (AHTUs):** Dedicated police units address trafficking risks, especially for younger children.

Policing Measures and Administrative Response

- **Operation Talash:** Launched in **2022**, this Delhi Police initiative focuses on tracing missing persons using district-level squads and coordinated databases.
- **Standard Operating Procedures (SOPs):** Immediate alerts, field verification, CCTV analysis, and coordination with NGOs are followed in all child-related cases.
- **Priority to Vulnerable Groups:** Children aged **0–8 years** receive the **highest priority** due to higher trafficking risks.
- **Inter-State Coordination:** Missing children networks operate across states, recognising mobility and migration patterns.

Broader National Context

- **National Crime Records Bureau (NCRB) Data:** India reports **over 90,000 missing children annually**, with urban centres contributing a significant share.
- **Gender Dimension:** A higher proportion of missing adolescents are **girls**, raising concerns around safety, early marriage, and exploitation.
- **Not Always Criminal:** NCRB and police data show most cases are traced, reinforcing that missing does not always imply trafficking or crime.
- **Need for Preventive Approach:** The issue is increasingly seen as **social and developmental**, not merely law-and-order related.

Way Forward

- **Shift from Reactive to Preventive Approach:** While policing and tracing mechanisms have improved, long-term reduction in missing children cases requires preventive social interventions such as family counselling, school outreach, and early identification of at-risk adolescents.
- **Strengthen Family and Community Support Systems:** Local communities, Resident Welfare Associations (RWAs), Anganwadi workers, ASHAs, and school counsellors should be trained to identify early signs of distress, conflict, or runaway tendencies among children.
- **Enhanced School-Based Interventions:** Schools should integrate life-skills education, digital safety awareness, and emotional counselling to address adolescent issues related to peer pressure, relationships, and online influence.
- **Technology-Driven Tracking and Data Integration:** Real-time integration of police databases, AHTUs, railway police, and child protection portals (like TrackChild) should be strengthened for faster tracing and inter-state coordination.
- **Focused Attention on Vulnerable Age Groups:** Children in the **0–8 age group** should receive highest priority with rapid response teams, biometric documentation, and monitoring to prevent trafficking and illegal adoption.
- **Post-Tracing Rehabilitation and Reintegration:** Tracing alone is insufficient; psychological counselling, family mediation, and social rehabilitation must be ensured to prevent repeat incidents.
- **Inter-Departmental Coordination:** Effective convergence between police, women and child development departments, education authorities, NGOs, and juvenile justice institutions is essential for holistic child protection.
- **Public Awareness and Responsible Media Reporting:** Awareness campaigns should promote timely reporting of missing cases, while media must avoid sensationalism that may cause public panic.

Conclusion

While recent data suggests no alarming rise in missing children, **stability at high numbers is itself a concern**. A shift from reactive policing to **preventive social interventions** is essential. Strengthening family counselling, school-based awareness, digital safety education, and community vigilance can reduce voluntary runaways. Enhanced data integration, faster inter-state coordination, and psychosocial support for adolescents are critical to ensuring child safety in urban India.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. With reference to missing children in India, consider the following statements:

1. FIR registration in missing children cases is mandatory.
2. Most missing children cases are linked to organised trafficking networks.
3. Adolescents form the largest proportion of missing children.

Which of the above is/are correct?

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

Answer: (a)

Descriptive Question

Que. Evaluate the effectiveness of institutional mechanisms in addressing the problem of missing children in India. Suggest measures for improvement. (150 Words, 10 Marks)

- The judgment adopts a **rights-based, holistic approach**, recognising menstruation as a matter of **autonomy, dignity, and equality**, not charity.
- The Court observed that **bodily autonomy** is impossible without access to **functional toilets, clean water, affordable menstrual products, and safe disposal systems**.
- The Bench shifted responsibility squarely onto the **State**, calling for the removal of **stigma, stereotyping, and humiliation** faced by menstruating girls.
- The lack of facilities was termed “**menstrual poverty**”, which directly undermines **girls’ right to education** and places them at a disadvantage vis-à-vis boys and economically privileged students.

Directions Issued by the Court

- All **States & Union Territories** must ensure **functional, gender-segregated toilets** in every school.
- **Punitive measures** were prescribed for non-compliance.
- The **State will be held accountable** for lapses in government schools.
- **Private schools** may face **derecognition** if they fail to comply.

Ground Reality and Structural Gaps

- **NFHS-5** shows improvement in hygienic menstrual practices among women aged 15–24 years (77.3%), but **nearly one-fourth** still lack access.
- The problem reflects a deep **gendered inequity** in access to health infrastructure and resources.
- Government initiatives under **Swachh Bharat Abhiyan** have issued guidelines on menstrual hygiene management, but **implementation remains uneven and episodic**.
- **NGOs** have filled critical gaps, yet their efforts are **fragmented** and insufficient to dismantle entrenched **social stigma** at scale.
- The judgment offers a **historic opportunity** for systemic and sustained action.

Way Forward

- **Institutionalise menstrual hygiene** as a core public health and education priority, not a project-based intervention.
- Ensure **dedicated budgetary allocations** for menstrual products, sanitation infrastructure, and waste management.
- Integrate **menstrual health education** into school curricula to normalise conversations and reduce stigma.
- Strengthen **monitoring and accountability mechanisms** for schools across public and private sectors.
- Promote **inter-ministerial coordination** between health, education, sanitation, and women & child development departments.

MENSTRUAL HEALTH

Why in News: The Supreme Court expanded Article 21 to include menstrual health and hygiene, **directing States to ensure school sanitation facilities** and hold authorities accountable, marking a rights-based shift in addressing menstrual poverty and girls’ education.

Key Details

- **Supreme Court ruling** recognises **menstrual health and hygiene** as an integral part of the **right to life and dignity** under **Article 21**.
- Judgment adopts a **rights-based and holistic approach**, linking menstruation with **bodily autonomy, equality, and human dignity**.
- Court held that **autonomy cannot be exercised** without access to **functional toilets, clean water, menstrual products, and hygienic disposal systems**.
- Responsibility placed on the **State** to ensure universal access and eliminate **stigma, stereotyping, and humiliation** faced by menstruating girls.
- Lack of access termed “**menstrual poverty**”, which **restricts girls’ right to education** and violates equality with male students.
- **States and Union Territories** directed to provide **functional, gender-segregated toilets** in all schools.
- **Punitive action** prescribed for non-compliance.
- **Government schools:** State held directly accountable for failures.
- **Private schools:** May face **derecognition** for non-compliance.

Supreme Court Judgment on Menstrual Health

- The **Supreme Court** has expansively interpreted **Article 21** to include the **right to menstrual health and hygiene** as part of the **right to life and dignity**.

Conclusion

The Supreme Court's judgment marks a **transformative shift** from welfare to **rights-based governance** in menstrual health. By linking menstruation to **dignity, autonomy, and education**, it places an unequivocal duty on the State to act. With sustained policy commitment and social reform, **a period can end a sentence, not a girl's education.**

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Que. With reference to the **Supreme Court judgment on menstrual health**, consider the following statements:

1. The Court recognised menstrual health and hygiene as part of the **right to life and dignity under Article 21**.
2. The judgment placed the primary responsibility for ensuring menstrual hygiene facilities on **non-governmental organisations**.
3. Private schools may face **derecognition** for non-compliance with prescribed sanitation norms.

Which of the statements given above is/are correct?

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

Answer: (a)

MATERNITY BENEFIT ACT IS PROGRESSIVE

Why in News: The effectiveness of the **Maternity Benefit (Amendment) Act, 2017** is under discussion amid concerns about women's workforce participation and workplace support for new mothers.

Key Details

- The Maternity Benefit Act provides **26 weeks of paid maternity leave**, among the most generous globally.
- Despite legal protection, many women face **career stagnation and workplace bias after childbirth**.
- Lack of **affordable childcare infrastructure** remains a major structural barrier.
- Experts emphasise that **legal provisions must be complemented by organisational empathy and social support**.

Maternity Benefit Act: Legal Framework

- **Historical Background (1961 Act):** The Maternity Benefit Act, 1961 aims to regulate employment of women before and after childbirth and ensure paid leave, protecting maternal health and job security.
- **Key Amendments in 2017:** The amendment increased paid maternity leave from **12 weeks to 26 weeks** for women in establishments with 10 or more employees, aligning India with global welfare standards.

- **Coverage and Applicability:** The Act applies mainly to **formal sector wage-earning women**, leaving a large proportion of informal workers - who constitute over 90% of female workforce - outside effective protection.
- **Additional Provisions:** The law mandates **crèche facilities for establishments with 50+ employees** and allows work-from-home options where feasible.

Progressiveness in Global Context

- **Comparatively Generous Leave:** India's 26-week paid leave exceeds the **ILO minimum recommendation of 14 weeks**, placing India among countries with relatively strong statutory maternity protection.
- **Focus on Maternal and Child Health:** Extended leave supports **exclusive breastfeeding for six months**, which aligns with WHO recommendations and improves infant health outcomes.
- **Signal of Welfare Orientation:** The amendment reflects India's commitment to **gender-sensitive labour reforms** and women's empowerment under constitutional guarantees (Articles 14, 15, 42).
- **Limitations in Global Comparison:** Unlike many OECD countries, India lacks **universal parental leave and strong state-funded childcare**, reducing the real impact of the law.

Female Labour Force Participation Challenge

- **Declining Workforce Participation:** India's female labour force participation rate (FLFPR) remains around **37% (Periodic Labour Force Survey 2023-24)**, significantly below the global average.
- **Motherhood Penalty:** Studies show many women exit the workforce around childbirth due to **career breaks, workplace bias, and caregiving burden**.
- **Leaky Pipeline in Leadership:** While women excel in education and entry-level jobs, their presence declines sharply in **senior management and board positions**.
- **Economic Cost:** According to various estimates, improving women's participation could add **hundreds of billions of dollars to India's GDP**, making this both a social and economic issue.

Workplace Implementation Gaps

- **Compliance vs Acceptance:** Many private firms formally comply with the Act but indirectly penalise women through **role dilution, slower promotions, or hiring bias**.
- **Cost Burden on Employers:** Since maternity benefits are largely employer-funded in India, firms—especially MSMEs—sometimes perceive women employees as a **cost liability**.
- **Informal Sector Exclusion:** Women in agriculture, domestic work, and gig economy often lack access to paid maternity benefits despite being the majority workforce.
- **Organisational Culture Deficit:** Absence of flexible work, re-entry pathways, and supportive supervision reduces the effectiveness of statutory protections.

Childcare Infrastructure Deficit

- **Creche Provision Challenges:** Though mandated for firms with 50+ employees, implementation remains weak due to **cost, space, and monitoring issues**.
- **Affordable Childcare Gap:** Urban working mothers face shortage of reliable childcare, while rural areas rely heavily on **informal family support systems**.
- **Employment Opportunity Potential:** Formalising childcare services could create **large-scale employment for semi-skilled women**, especially under skill development programmes.
- **Quality and Regulation Concerns:** Without proper certification and monitoring, childcare services risk **safety and quality issues**, limiting parental trust.

Societal and Cultural Dimensions

- **Gendered Care Burden:** Motherhood in India is still viewed primarily as a woman's responsibility, leading to **unequal unpaid care work** distribution.
- **Rise of DINK Households:** The increase in "Double Income, No Kids" couples partly reflects **fear of career disruption among women**, not merely lifestyle choice.
- **Family Support Systems:** Laws cannot substitute for **shared domestic responsibility**, which is critical for sustaining women's careers.
- **Need for Empathy:** Emotional stress, guilt, and workplace perceptions often affect returning mothers, making **empathetic organisational behaviour essential**.

Conclusion

The Maternity Benefit Act is a progressive legislative step, but legal entitlements alone cannot ensure gender-equitable workplaces. India must move towards **shared parental responsibility, state-supported childcare, employer incentives, and cultural change**. Embedding empathy in workplace policies and family structures is crucial to prevent the silent exit of women from the workforce and to realise the constitutional vision of substantive equality.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. With reference to the Maternity Benefit (Amendment) Act, 2017, consider the following statements:

1. It increased paid maternity leave to 26 weeks.
2. It mandates crèche facilities for certain establishments.
3. It covers all women workers including the informal sector.

Which of the statements given above is/are correct?

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

Answer: (b)

Descriptive Question

Que. The Maternity Benefit Act is progressive but insufficient to ensure women's sustained workforce participation. Critically examine. (150 Words, 10 Marks)

ALARA PHILOSOPHY

Why in News: Recently, The U.S. Department of Energy has **eliminated the ALARA philosophy** from its directives and regulations, departing significantly from long-standing international practice.

Key Details

- The **linear no-threshold (LNT) model** and the **ALARA principle** have served as the conceptual and operational foundations of the **global radiation protection framework for many decades**.
- The **LNT model** is a risk estimation framework that says **any amount of ionising radiation, no matter how small, carries some risk of causing harm**, especially cancer.
 - ✓ In other words, there is no threshold below which radiation is considered completely risk-free. And the risk increases linearly with dose.
- **ALARA, short for "as low as reasonably achievable"**, is the operational philosophy of radiation protection.
 - ✓ The philosophy balances safety with feasibility, cost, and societal need, and its aim is to improve continuously, including better shielding, administrative procedures, and training.
 - ✓ ALARA aims to **reduce unnecessary exposure** using engineering controls and encourages a safety culture.
 - ✓ **Applied in:** Nuclear power plants, Medical imaging (X-rays, CT scans), Industrial radiography and Research laboratories.

AVOIDANT/RESTRICTIVE FOOD INTAKE DISORDER

Why in News: **ARFID (Avoidant/ Restrictive Food Intake Disorder)** is a mental health disorder which may look similar to picky eating.

Key Details

- **ARFID** is a type of **eating disorder** that is being increasingly recognised in the **global arena as a growing but treatable disorder**.
- Avoidant/restrictive food intake disorder (ARFID) is a condition that causes you to limit the **amount and type of food you eat**. It isn't the result of a distorted self-image or an attempt to lose body weight, which is common among other eating disorders.
- ARFID can cause you to:
 - ✓ Lose interest in eating.
 - ✓ Feel anxious about the consequences of eating, like choking on food or vomiting.

- ✓ Avoid foods that have an unwanted color, taste, texture or smell.
- It is treatable with appropriate professional support of mental health professionals, doctors & nutritionists and dietitians.

MENINGOCOCCAL DISEASE

Why in News: The Meghalaya government has sounded a high-level health alert after two Agniveer trainees at the Assam Regimental Centre in Shillong died from a suspected meningococcal infection.

Meningococcaemia Infection

- It is a serious bloodstream infection caused by *Neisseria meningitidis*, often presenting with fever, haemorrhagic rash, and rapid progression to septic shock.

- ✓ *Neisseria meningitidis* is a significant bacterial infection of the bloodstream manifesting as meningitis, septicaemia, or, more often, a combination of both.
- It spreads via respiratory droplets, with infants and adolescents being most vulnerable.
- Symptoms include high fever, headache, stiff neck, and rash, spreading through close contact.
- It is a severe, rapidly progressing disease which leads to life-threatening meningitis (infection of the lining of the brain) or meningococcaemia (blood poisoning).
- Prevention relies on vaccination and antibiotics for close contacts, while prompt diagnosis and treatment with antibiotics and supportive care are critical.

HISTORY AND CULTURE

TRIVENI KALA SANGAM AT 75

Why in News: Triveni Kala Sangam, one of India's most iconic cultural institutions, is celebrating **75 years of its establishment (1950–2026)** with a commemorative exhibition from **27 February to 15 March 2026**.

Key Details

- Founded in **1950** by classical dancer **Sundari Shridharani**, Triveni began as a small teaching institute in Delhi.
- It evolved into a major **multidisciplinary cultural complex** promoting music, dance, theatre, and visual arts.
- The present building was designed by **Joseph Stein** and inaugurated in **1963** by President **Dr S. Radhakrishnan**.
- The 75-year exhibition chronicles Triveni's journey as a **pillar of India's post-independence cultural ecosystem**.

Cultural Institutions in Post-Independence India

- **Nation-Building through Culture:** After Independence, India viewed culture as central to national identity, leading to the creation of institutions such as **Sangeet Natak Akademi (1952)**, **Lalit Kala Akademi (1954)**, and independent centres like Triveni.
- **Decentralised Cultural Growth:** Unlike state academies, Triveni emerged as a **civil society-led initiative**, reflecting the constitutional ideal of cultural freedom under **Article 29**.
- **Soft Power and Heritage Preservation:** Cultural institutions play a vital role in preserving **intangible cultural heritage**, later recognised globally through UNESCO conventions.
- **Urban Cultural Spaces:** Triveni represents the integration of culture within urban planning, aligning with the idea of cities as **cultural commons**.



Triveni Kala Sangam: Historical Evolution

- **Founding Vision (1950):** Sundari Shridharani established Triveni as a teaching space for Indian classical arts at a time when independent India was redefining its cultural identity.

- **Institutional Expansion:** Starting with only two students, Triveni gradually became a hub for **dance, music, theatre, and fine arts**, attracting practitioners from across the country.
- **Architectural Significance:** Designed by **Joseph Stein**, the Triveni complex is known for its **modernist architecture**, stone lattice screens, high ceilings, and green courtyards, blending aesthetics with functionality.
- **National Recognition:** Its inauguration by President **Dr S. Radhakrishnan** symbolised state recognition of culture as a public good.

Role in India's Artistic Ecosystem

- **Nurturing Young Talent:** Triveni provided early platforms to artists like **Arpana Caur**, enabling exposure, mentorship, and professional growth at a time when private galleries were limited.
- **Interdisciplinary Exchange:** The co-existence of music classes, dance rehearsals, theatre workshops, and art studios fostered **creative cross-pollination**.
- **Accessibility and Inclusion:** By not commercialising ticketed performances, Triveni maintained **public accessibility**, reinforcing the democratization of culture.
- **Link with National Institutions:** Artists from institutions like **National School of Drama** regularly engaged with Triveni, strengthening India's performing arts network.

State Support, Autonomy, and Cultural Policy

- **Government Facilitation:** Land allotment under **Jawaharlal Nehru's cultural promotion initiatives** reflects the early Indian state's commitment to arts without direct control.
- **Autonomy in Functioning:** Despite state support, Triveni retained **institutional independence**, ensuring artistic freedom and innovation.
- **Cultural Federalism:** Triveni complements national academies by functioning as a **non-state cultural anchor**, enriching India's plural cultural landscape.
- **Relevance to Cultural Policy Today:** Its model aligns with current discussions on public-private partnerships in culture & sustainable heritage management.

Triveni at 75: Contemporary Significance

- **Living Cultural Heritage:** Unlike static monuments, Triveni represents **living heritage**, continuously shaped by artists and audiences.
- **Urban Cultural Resilience:** Its survival amid urban pressures highlights the importance of **cultural spaces in rapidly urbanising cities**.

- **Exhibition as Historical Memory:** The 75-year exhibition documents institutional memory, contributing to **cultural historiography**.
- **Alignment with Constitutional Values:** Triveni embodies **freedom of expression (Article 19)** and cultural rights, reinforcing democracy through culture.

Conclusion

As India advances toward becoming a global cultural and creative economy, institutions like Triveni Kala Sangam offer a sustainable model of **artistic autonomy, inclusiveness, and public engagement**. Strengthening such institutions through supportive cultural policies, heritage-sensitive urban planning, and youth participation is essential. At 75, Triveni stands not merely as a cultural landmark, but as a **living testament to India’s civilisational continuity and democratic ethos**.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. Triveni Kala Sangam is associated with which of the following?

1. Promotion of multiple Indian art forms
2. Modernist architectural design by Joseph Stein
3. Post-independence cultural institution building

Which of the above-mentioned aspects is/are correct?

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

Answer: (d)

Descriptive Question

Que. Discuss the role of non-state cultural institutions like Triveni Kala Sangam in preserving and promoting India’s artistic heritage. (150 Words, 10 Marks)

MILITANT NATIONALISM & UNITY

Why in News: 18 February 2026 marks the 80th anniversary of the **Royal Indian Navy (RIN) Revolt of 1946**, highlighting its role in weakening British authority and symbolising national unity.

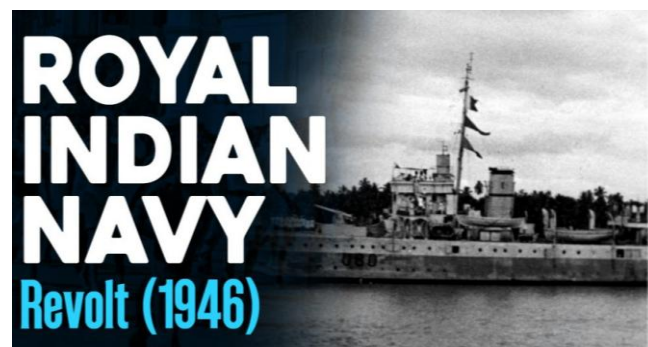
Key Details

- The RIN Revolt (1946) involved **over 20,000 naval ratings across 78 ships and 20 establishments**.
- It was triggered by **racial discrimination, poor conditions, and the INA trials**.
- The revolt showcased **rare Hindu-Muslim unity**, with multiple political flags raised together.
- Though suppressed, it **accelerated British withdrawal** and exposed cracks in colonial military control.

Background & Nature of the Revolt

- **Large-Scale Naval Uprising:** The revolt began at **HMS Talwar (Bombay)** and spread rapidly to **Karachi, Madras, Calcutta, and Vishakhapatnam**, involving over 20,000 ratings, indicating its pan-Indian character.

- **Military Dimension:** It was not merely a protest but an **armed insurrection**, where naval personnel seized ships, manned guns, and challenged British authority directly.
- **Spontaneous Yet Organised:** Though initially spontaneous, the formation of a **Naval Central Strike Committee** provided some coordination, reflecting emerging political consciousness.
- **Part of Wider Unrest (1945–46):** The revolt must be seen alongside **post-INA trial protests and labour strikes**, marking the final phase of intensified anti-colonial resistance.



Causes: Immediate & Structural Factors

- **Service Conditions & Discrimination:** Ratings faced **poor food, low wages, and racial abuse by British officers**, reflecting deep structural inequalities within colonial armed forces.
- **Impact of INA Trials:** The **Red Fort trials (1945)** of INA officers generated massive public sympathy, inspiring naval personnel with nationalist sentiments.
- **Political Awareness:** Exposure to nationalist ideas like **Quit India Movement (1942)** and **Azad Hind Fauj** increased political consciousness among soldiers.
- **Global Context (WWII Aftermath):** The end of World War II weakened Britain economically and militarily, emboldening colonial subjects to challenge imperial authority.

INA Factor & Nationalist Mobilisation

- **Symbol of Armed Resistance:** The **Indian National Army (INA)** under Subhas Chandra Bose popularised the idea of **militant struggle for independence**.
- **Red Fort Trials & Unity:** Trials of **Prem Sehgal (Hindu), Shah Nawaz Khan (Muslim), Gurbaksh Dhillon (Sikh)** symbolised national unity and triggered mass protests.
- **Broad Political Support:** Diverse groups—including Congress, Muslim League, Communists, and others—supported INA prisoners, creating **nationwide mobilisation**.
- **Slogan-Based Nationalism:** Slogans like “Jai Hind” and “Inquilab Zindabad” became rallying cries, influencing the naval ratings’ actions.

Hindu-Muslim Unity & Mass Participation

- **Symbolic Unity in Revolt:** Protesters hoisted flags of **Congress, Muslim League, and Communist Party together**, showcasing rare political unity.

- **Urban Mass Uprising:** In Bombay, **workers, students, and civilians** joined the revolt through strikes, hartals, and demonstrations.
- **Joint Community Action:** Hindus and Muslims participated together in protests, **despite rising communal tensions elsewhere in India.**
- **Socio-Economic Participation:** Closure of **mills, rail workshops, and factories** reflects the involvement of working-class populations.

British Response & Suppression

- **Use of Military Force:** The British deployed **army battalions, naval warships, and armoured vehicles** to suppress the revolt.
- **Violent Crackdown:** Indiscriminate firing on civilians and ratings led to **significant casualties**, reflecting colonial coercion.
- **Strategic Isolation:** The revolt was contained by isolating naval units and preventing coordination with the **army and air force.**
- **Political Intervention:** Leaders like **Sardar Patel and Muhammad Ali Jinnah** persuaded ratings to surrender, ensuring controlled de-escalation.

Significance in Freedom Struggle

- **Erosion of Military Loyalty:** The revolt showed that **Indian armed forces could no longer be relied upon by the British**, weakening colonial control.
- **Acceleration of Independence:** Occurring during critical negotiations, it **pressured Britain to expedite its withdrawal** from India.
- **Policy Concessions:** Led to steps such as **Cabinet Mission (1946)**, relaxation in INA trials, and withdrawal of Indian troops from overseas colonies.
- **Symbol of National Unity:** It demonstrated that **anti-colonial unity could transcend communal divisions**, even during a period of rising partition politics.

Limitations of the Revolt

- **Lack of Central Leadership:** Absence of strong political or military leadership limited coordination and long-term strategy.
- **Political Non-Support:** Major parties like Congress and Muslim League **did not endorse the revolt**, reducing its legitimacy.
- **Limited Spread:** The revolt remained largely confined to **naval units and select urban centres**, failing to become a nationwide armed uprising.
- **British Military Superiority:** Lack of heavy weapons and logistics made it impossible to sustain resistance against **well-equipped British forces.**

Constitutional & post-Independence Lessons

- **Civilian Supremacy Principle:** Political leadership's role in ending the revolt reinforced the idea that **military must remain under civilian control.**

- **Preference for Negotiated Transfer:** The episode highlighted limitations of violent uprisings when **constitutional negotiations were underway.**
- **Democratic Institutionalisation:** Post-independence India adopted a system ensuring **accountability of armed forces to elected government.**
- **Historical Legacy:** The revolt remains a reminder of **collective resistance and the importance of unity in nation-building.**

Conclusion

The RIN Revolt of 1946 was a decisive moment that exposed the fragility of British control over India's armed forces. Despite its limitations, it accelerated independence, demonstrated rare communal unity, and shaped post-independence civil-military relations. It remains a powerful symbol of the final surge of India's freedom struggle.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. The Royal Indian Navy Revolt of 1946 was primarily triggered by:

- Partition of India
- INA trials and poor service conditions
- Simon Commission
- Cabinet Mission

Answer: (b)

Descriptive Question

Que. "The Royal Indian Navy Revolt of 1946 was more than a mutiny; it symbolised the erosion of British authority." Analyze. (150 Words, 10 Marks)

HOYSALA TEMPLES

Why in News: Several lesser-known Hoysala-era temples (11th–13th century) in Karnataka are gaining renewed attention for their intricate carvings and unique star-shaped architecture.

Key Details

- Hoysala temples were built between **1050–1300 CE** under the Hoysala dynasty.
- They represent the **Vesara style**, blending **Nagara and Dravida** architectural traditions.



- Use of **soapstone (chloritic schist)** enabled extremely fine detailing in sculptures.
- Key temples like Chennakeshava Temple and Hoysaleswara Temple received **UNESCO World Heritage status in 2023**.

Historical Background & Dynastic Context

- **Hoysala Dynasty (11th–14th Century):** The Hoysalas ruled large parts of present-day Karnataka with capitals at **Belur and Halebidu**, promoting temple construction as a symbol of political legitimacy and devotion.
- **Cultural and Religious Patronage:** The dynasty supported **Shaivism, Vaishnavism, and Jainism**, reflected in temples dedicated to Shiva, Vishnu, and Jain Tirthankaras.
- **Economic Prosperity:** Flourishing trade centres like Javagal and Somanathapura enabled funding of large-scale temple projects, indicating a **strong agrarian and commercial economy**.
- **Continuity and Transition:** Hoysala architecture evolved from **Chalukyan influences** and later influenced **Vijayanagara architecture**, showing continuity in South Indian temple traditions.

Vesara Architecture: A Hybrid Style

- **Fusion of Styles:** Vesara architecture combines the **vertical emphasis of Nagara style** (North India) with the **pyramidal Dravida style** (South India), creating a balanced aesthetic.
- **Regional Innovation:** Unlike rigid classical forms, Vesara reflects **regional adaptability**, making Hoysala temples unique to Karnataka.
- **Decorative Dominance:** Unlike earlier temples focused on structure, Hoysala temples emphasised **ornamentation and surface detailing**.

Material & Construction Techniques

- **Use of Soapstone (Chloritic Schist):** This soft stone allowed artisans to carve **minute details like jewellery, hair strands, and fingernails**, unmatched in Indian temple architecture.
- **Durability and Finish:** The stone hardens over time, ensuring both **longevity and polish**, giving temples a metallic sheen.
- **Advanced Craftsmanship:** Artisans achieved **high precision symmetry**, reflecting advanced engineering and artistic skills.
- **Labour Organisation:** Construction involved **guilds of sculptors and architects**, indicating organised labour systems in medieval India.

Ground Plan & Structural Innovation

- **Stellate (Star-Shaped) Plan:** The most distinctive feature is the **star-shaped platform (jagati)**, increasing surface area for intricate carvings.
- **Multiple Shrine Types:** Temples were classified as **Ekakuta (single shrine), Dvikuta, Trikuta, and Panchakuta**, reflecting architectural diversity.

- **Elevated Platforms:** The jagati served both ritual and aesthetic purposes, allowing **circumambulation (pradakshina)**.
- **Comparison with Panchayatana Style:** Unlike the cruciform Panchayatana layout, Hoysala temples exhibit **complex geometric projections**.

Sculptural Excellence & Iconography

- **Narrative Friezes:** Outer walls depict **Ramayana, Mahabharata, and Puranic stories**, functioning as visual scriptures.
- **Madanikas (Celestial Figures):** Bracket figures represent **dance, beauty, and aesthetics**, showcasing cultural sophistication.
- **Horizontal Friezes:** Layers of elephants, horses, and mythical creatures symbolise **strength, speed, and cosmic order**.
- **Religious Plurality:** Sculptures reflect multiple traditions, highlighting **syncretism in medieval Indian society**.

Shikhara & Superstructure

- **Tiered Shikhara Design:** Towers are composed of **horizontal tiers and mouldings**, creating a rhythmic visual effect.
- **Miniature Shrines:** Repetition of smaller shrine motifs reflects **fractal-like architectural patterns**.
- **Integration with Base:** Unlike towering North Indian shikharas, Hoysala structures maintain **proportion with the base**.
- **Symbolism:** The structure represents **cosmic order and divine hierarchy**.

Important Hoysala Temples

- **Chennakeshava Temple:** Built by King Vishnuvardhana, dedicated to Vishnu; known for **intricate carvings and living temple tradition**.
- **Hoysaleswara Temple:** A grand Shiva temple known for **dense sculptural detailing and epic narratives**.
- **Keshava Temple:** A trikuta temple showcasing **symmetry and artistic perfection**.
- **Other Notable Sites:** Temples at Koravangala, Javagal, and Mandya highlight **regional diversity and experimentation**.

UNESCO Recognition & Contemporary Relevance

- **World Heritage Status (2023):** The “Sacred Ensembles of the Hoysalas” were inscribed by UNESCO, enhancing global recognition.
- **Tourism & Economy:** Increased attention boosts **cultural tourism and local livelihoods**.
- **Conservation Challenges:** Issues include **weathering, human interference, and lack of awareness**.
- **Cultural Diplomacy:** These sites strengthen India’s **soft power and global cultural identity**.

Conclusion

Hoysala temples represent the **zenith of medieval Indian temple architecture**, combining artistic brilliance with

engineering innovation. Their preservation requires **community participation, scientific conservation, and sustainable tourism policies**. Recognising them as living heritage ensures that India's cultural legacy continues to inspire future generations.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. Consider the following statements regarding Hoysala temples:

1. They are built using granite as the primary material
2. They follow a star-shaped ground plan
3. They represent a fusion of Nagara and Dravida styles

Which of the above are correct?

- (a) 1 and 2
- (b) 2 and 3
- (c) 1 and 3
- (d) All of the above

Answer: (b)

Descriptive Question

Que. Discuss the architectural features of Hoysala temples and examine their significance in the evolution of Indian temple architecture. (150 Words, 10 Marks)

DECOLONISATION & NATIONAL ICONS

Why in News: The Government announced replacing the statue of British architect Edwin Lutyens at Rashtrapati Bhavan with that of C. Rajagopalachari, symbolising a shift from colonial to indigenous legacy.

Key Details

- The statue of Edwin Lutyens, designer of Rashtrapati Bhavan, is being replaced by C. Rajagopalachari, the **first Indian occupant of the building as Head of State**.
- Rajagopalachari (Rajaji) was the **last Governor-General of India (1948–50)** and a prominent freedom fighter.
- The move reflects a broader trend of **decolonisation of public spaces and symbols**.
- It also highlights the recognition of **Indian personalities in nation-building narratives**.

Symbolism of Decolonisation in Public Spaces

- **Colonial Legacy vs Indigenous Assertion:** Replacing colonial figures with Indian icons reflects an effort to **redefine national identity** rooted in indigenous contributions rather than imperial legacy.
- **Cultural Nationalism and Memory Politics:** Public statues and monuments shape collective memory; such changes indicate a **reinterpretation of history and national priorities**.
- **Examples of Similar Initiatives:** Renaming **Rajpath to Kartavya Path**, removal of colonial symbols, and promotion of Indian heritage sites reflect this ongoing process.

Edwin Lutyens and Colonial Urban Planning

- **Architect of New Delhi:** Edwin Lutyens designed key landmarks like **Rashtrapati Bhavan, India Gate, North and South Blocks**, shaping imperial architecture in India.
- **Lutyens' Delhi Concept:** The area known as Lutyens' Delhi symbolises **British administrative dominance and imperial power structure**.
- **Architectural Significance:** His work combined **classical European styles with limited Indian elements**, representing colonial aesthetics.
- **Critical Perspective:** While architecturally significant, Lutyens' legacy is associated with **colonial authority rather than democratic representation**.

Rajagopalachari: Role in Freedom Struggle

- **Early Nationalist Engagement:** Inspired by Bal Gangadhar Tilak, Rajaji joined the Congress and actively participated in anti-colonial movements.
- **Salt Satyagraha Leadership:** He led the **Vedaranyam Salt March (1930)**, mirroring Dandi March, showcasing regional mobilisation.
- **Association with Mahatma Gandhi:** Rajaji was a close associate and played a key role in implementing Gandhian strategies in South India.
- **Social Reform Efforts:** Advocated **temple entry for Dalits**, contributing to social justice and equality in pre-independence India.

Rajaji's Constitutional and Political Contributions

- **Governor-General of India (1948–50):** He was the **only Indian to hold this position**, symbolising transition from colonial rule to Indian leadership.
- **C.R. Formula (1944):** Proposed a compromise between Congress and Muslim League to address the **Pakistan demand**, reflecting pragmatic politics.
- **Post-Independence Roles:** Served as **Home Minister** and contributed to early policy frameworks, including administrative consolidation.
- **Swatantra Party (1959):** Advocated **market economy and limited state intervention**, offering ideological diversity in Indian politics.

Economic and Administrative Vision

- **Critique of Centralised Planning:** Rajaji opposed excessive state control and supported **free enterprise and economic liberalism**.
- **Policy Measures as Chief Minister:** Decontrolled **foodgrain distribution**, promoting market efficiency and reducing state monopoly.
- **Contribution to Five-Year Planning:** Played a role in shaping early economic policies, balancing **state welfare and economic freedom**.
- **Contemporary Relevance:** His ideas resonate with current debates on **economic reforms and liberalisation**.

Literary and Intellectual Contributions

- **Sahitya Akademi Award (1958):** Awarded for his Tamil work Chakravarthi Thirumagan, a retelling of the Ramayana.
- **Promotion of Ethical Literature:** His writings aimed at **moral and cultural upliftment**, blending tradition with modern thought.
- **Public Intellectual Role:** Rajaji contributed to public discourse through journals like Vimochanam, influencing socio-political thinking.
- **Recognition:** Recipient of **Bharat Ratna (1954)**, highlighting his multifaceted contributions.

Republic, Memory, and Democratic Values

- **From Empire to Republic:** The shift from Lutyens to Rajaji symbolises India's journey from **colonial subjugation to democratic sovereignty**.
- **Recognition of Indian Agency:** Emphasises contributions of Indian leaders in shaping governance and constitutional values.
- **Public Participation in Nation-Building:** Reinforces the idea that the republic is sustained by **citizens and their historical legacy**.
- **Contemporary Debate:** Raises questions about balancing **heritage conservation with ideological reinterpretation**.

Conclusion

The replacement of Lutyens' statue with Rajagopalachari represents more than a symbolic change; it reflects India's evolving approach to **history, identity, and nation-building**. While acknowledging colonial contributions in architecture, prioritising indigenous leaders strengthens democratic values and national pride. A balanced approach preserving history while promoting inclusive narratives will ensure a more holistic understanding of India's past and future.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. Consider the following statements about C. Rajagopalachari:

1. He was the first Indian Governor-General of India.
2. He led the Vedaranyam Salt Satyagraha.
3. He founded the Swatantra Party.

Which of the above is/are correct?

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

Answer: (c)

Descriptive Question

Que. Evaluate the contributions of C. Rajagopalachari to India's freedom struggle and post-independence governance. (150 Words, 10 Marks)

GOVERNMENT SCHEMES

MILESTONE UNDER PM SURYA GHAR SCHEME

Why in News: Recently, the Prime Minister praised 30 lakh households adopting rooftop solar under the **PM Surya Ghar scheme**, marking a key clean energy milestone.

Note: Gujarat leads in adoption, followed by Maharashtra and Uttar Pradesh, with widespread participation across other states and UTs.

PM Surya Ghar: Muft Bijli Yojana (PMSG: MBY)

- The Government of India launched **PM Surya Ghar: Muft Bijli Yojana (PMSG: MBY)** in February, 2024.
- It aims to **achieve rooftop solar (RTS) installations** in one crore households in the residential sector by FY 2026-27 with an outlay of Rs 75,021 crore.
- The scheme allows **eligible households to install solar panels** via a national portal, promoting affordable clean energy.
- The scheme's easy financing options, including **collateral-free loans up to ₹2 lakh at a 6.75% subsidized interest rate** through 12 Public Sector Banks, have further accelerated adoption.

Eligibility

The household must be an Indian citizen.	The household must own a house with a roof that is suitable for installing solar panels.
The household must have a valid electricity connection.	The household must not have availed any other subsidy for solar panels.

Benefits:

- **Free Electricity for Households:** The scheme provides households with free electricity by installing subsidised rooftop solar panels, significantly reducing their energy costs.
- **Reduced Electricity Costs for the Government:** The scheme's widespread solar adoption is expected to save the government in electricity costs.
- **Increased Use of Renewable Energy:** The scheme encourages the adoption of renewable energy sources, contributing to a more sustainable and environmentally friendly energy mix in India.
- **Reduced Carbon Emissions:** The transition to solar energy under this scheme will help lower carbon emissions, supporting India's commitment to reducing its carbon footprint.

ROAD SAFETY & WELFARE GOVERNANCE

Why in News: The Government of India has launched the **PM RAHAT Scheme (2026)** to provide **cashless treatment to road accident victims**, aiming to reduce preventable fatalities.

Key Details

- Provides **cashless treatment up to ₹1.5 lakh** per road accident victim for **7 days**.
- Integrated with **112 Emergency Response Support System (ERSS)** for Golden Hour intervention.
- Implemented through **eDAR + TMS 2.0 digital platforms** ensuring seamless coordination.
- Funded via **Motor Vehicle Accident Fund (MVAf)** with insurance and government support.

Road Safety Crisis in India

- **High Fatality Burden:** India records over **1.5 lakh road accident deaths annually** (MoRTH data), making it one of the highest globally, reflecting systemic gaps in road safety and trauma care.
- **Golden Hour Significance:** Studies indicate that **nearly 50% of deaths are preventable** if victims receive treatment within the first hour, highlighting the importance of rapid response.
- **Economic and Social Impact:** Road accidents lead to loss of productive workforce, pushing families into poverty and imposing a burden of nearly **3% of GDP** (World Bank estimates).
- **Regional and Infrastructure Gaps:** Rural areas and highways often lack **trauma centres and ambulance networks**, delaying critical care and increasing mortality.

Key Features of PM RAHAT Scheme

- **Universal Coverage:** Applicable to **all road accident victims on any category of road**, ensuring inclusivity irrespective of socio-economic status.
- **Cashless Treatment Provision:** Victims are entitled to **₹1.5 lakh treatment for 7 days**, removing financial barriers and ensuring immediate hospital admission.
- **Stabilisation Window:** Treatment support for **24–48 hours** depending on severity ensures initial life-saving care before further medical decisions.
- **Role of Good Samaritans (Rah-Veer):** Encourages bystanders to assist victims without legal or financial fear, aligning with existing Good Samaritan guidelines.

Technology-Driven Governance Model

- **Integration of Digital Platforms:** Combines **Electronic Detailed Accident Report (eDAR)** with **Transaction**

Management System (TMS 2.0) for end-to-end digital tracking.

- **Real-Time Coordination:** Ensures seamless linkage between **police, hospitals, and emergency services**, reducing delays in admission and treatment.
- **Accountability through Authentication:** Police verification within **24–48 hours** ensures authenticity while preventing misuse of public funds.
- **Efficient Claim Settlement:** Claims are processed and paid within **10 days**, enhancing trust among hospitals and ensuring uninterrupted services.

Institutional and Financial Framework

- **Motor Vehicle Accident Fund (MVAf):** A dedicated fund under the **Motor Vehicles Act, 1988 (amended 2019)** to finance treatment and compensation.
- **Insurance-Based Support:** In insured cases, costs are covered by **general insurance companies**, reducing fiscal burden on the government.
- **Government Support in Vulnerable Cases:** For **hit-and-run or uninsured vehicles**, the government provides funding, ensuring no victim is denied treatment.
- **Decentralised Governance: District Road Safety Committees** handle grievance redressal, ensuring accountability at the local level.

Constitutional and Governance Linkages

- **Right to Life (Article 21):** Ensuring timely medical care is part of the **fundamental right to life**, as upheld by the Supreme Court.
- **Directive Principles (Article 47):** The state's duty to improve public health is reflected in schemes like PM RAHAT.
- **Welfare State Approach:** The scheme reflects a **citizen-centric governance model**, prioritising vulnerable individuals in emergencies.
- **Cooperative Federalism:** Implementation involves coordination between **Centre, States, police, hospitals, and insurance agencies**.

Challenges and Concerns

- **Implementation Gaps:** Ensuring availability of **empanelled hospitals and trained trauma staff** across regions remains a challenge.
- **Awareness Deficit:** Lack of public awareness about **Good Samaritan protections and scheme benefits** may limit effectiveness.
- **Data and Monitoring Issues:** Real-time data integration and accuracy of accident reporting need strengthening.
- **Financial Sustainability:** Long-term funding through MVAf and insurance contributions must be ensured for scalability.

Significance for Road Safety Ecosystem

- **Strengthening Golden Hour Response:** Institutionalising emergency response can significantly reduce mortality rates.

- **Encouraging Responsible Citizenship:** Promotes bystander intervention through legal and financial safeguards.
- **Improving Healthcare Infrastructure:** Incentivises hospitals to participate in emergency care networks.
- **Towards SDG Goals:** Aligns with **SDG 3.6**, aiming to halve global deaths from road traffic accidents.

Conclusion

The PM RAHAT Scheme represents a **transformative step in integrating road safety with healthcare delivery**. However, its success depends on effective implementation, awareness generation, and strengthening trauma infrastructure. A holistic approach combining **safe roads, responsible driving, robust enforcement, and emergency care systems** is essential to significantly reduce road accident fatalities in India.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. With reference to the PM RAHAT Scheme, consider the following statements:

1. It provides cashless treatment to road accident victims.
2. It is funded entirely by the Union Budget.
3. It integrates eDAR and TMS platforms.

Which of the above are correct?

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

Answer: (b)

Descriptive Question

Que. Discuss the significance of the PM RAHAT Scheme in strengthening India's road safety and emergency healthcare system. Highlight challenges in its implementation. (250 Words, 15 Marks)

BHARAT-VISTAAR

Why in News: The Government launched **Bharat-VISTAAR**, an AI-based multilingual advisory platform, as announced in the Union Budget 2026–27 to digitally empower farmers.

Key Details

- Bharat-VISTAAR is an **AI-driven Digital Public Infrastructure (DPI)** for agriculture providing personalised advisory services.
- It offers **multilingual, voice and chat-based access** through mobile and helpline (155261).
- Integrates major schemes like **PM-KISAN, PMFBY, Soil Health Card, and Kisan Credit Card**.
- Aims to improve **productivity, market access, and grievance redressal** for farmers.

Digital Public Infrastructure (DPI) in Agriculture

- **Concept of DPI in Governance:** DPI refers to interoperable digital systems like Aadhaar, UPI, and

now agriculture platforms, ensuring **efficient service delivery and inclusion**. Bharat-VISTAAR extends DPI to agriculture.

- **Integration with AgriStack:** The platform builds on **AgriStack**, a digital ecosystem integrating farmer data, land records, and services, enabling **targeted and data-driven policymaking**.
- **Farmer-Centric Governance:** By acting as a **single digital gateway**, it reduces fragmentation of schemes and improves transparency in delivery.
- **Alignment with Digital India Mission:** Supports India's vision of **technology-driven governance**, bridging the digital divide in rural areas.

AI-Based Personalised Advisory System

- **Customised Farm-Level Advice:** Uses AI to provide **crop-specific, soil-specific, and climate-specific recommendations**, improving farm productivity and efficiency.
- **Real-Time Decision Support:** Integrates weather data (IMD), market prices, and ICAR research to offer **timely advisory on sowing, irrigation, and harvesting**.
- **Conversational AI Interface:** Farmers can interact through **voice or chat**, making it accessible even to semi-literate users.
- **24×7 Digital Agriculture Expert:** Round-the-clock availability ensures farmers receive **instant solutions**, reducing dependency on intermediaries.

Multilingual and Inclusive Access

- **Language Diversity:** Initially available in **Hindi and English**, with plans to expand to **11 languages**, ensuring regional inclusivity.
- **Voice-Based Helpline (155261):** Enables farmers without smartphones to access advisory via **simple voice calls**, addressing digital divide issues.
- **Accessibility for Marginal Farmers:** Small and marginal farmers, who constitute **over 85% of holdings (Agriculture Census)**, benefit from easy access to information.
- **Bridging Rural Digital Gap:** Promotes digital literacy and inclusion in rural India, aligning with **inclusive growth objectives**.

Integration of Government Schemes

- **Comprehensive Scheme Convergence:** Integrates schemes like **PM-KISAN (income support), PMFBY (insurance), Soil Health Card, and Kisan Credit Card** into one platform.
- **Benefit Tracking and Eligibility:** Farmers can check **scheme eligibility, application status, and payments**, improving transparency and accountability.
- **Credit and Infrastructure Support:** Links to **Agriculture Infrastructure Fund and Interest Subvention Scheme**, facilitating investment and affordable credit.

- **Irrigation and Mechanisation:** Supports schemes like **PM Krishi Sinchayee Yojana and Sub-Mission on Agricultural Mechanization**, promoting efficiency.

Market Linkages and Risk Reduction

- **Real-Time Mandi Prices:** Provides updated market rates, enabling farmers to **make informed selling decisions and avoid exploitation**.
- **Pest and Disease Alerts:** Early warning systems reduce crop losses, addressing one of the key risks in Indian agriculture.
- **Climate-Smart Agriculture:** Weather-based advisories help farmers adapt to **climate variability and extreme events**.
- **Income Stabilisation:** Integration with MSP-related schemes like **PM Annadata Aay Sanrakshan Abhiyan** supports price assurance.

Challenges and Concerns

- **Digital Divide:** Limited internet access and digital literacy in rural areas may restrict full utilisation of the platform.
- **Data Privacy and Security:** Collection of farmer data under AgriStack raises concerns regarding **data protection and misuse**.
- **Implementation Capacity:** Effective coordination between Centre, States, and institutions is required for seamless functioning.
- **Trust and Awareness:** Farmers may hesitate to adopt AI-based advisory without proper awareness and training.

Significance for Indian Agriculture

- **Enhancing Productivity:** Scientific and real-time advisory can improve yields and reduce input costs.
- **Doubling Farmers' Income Goal:** Better market access, reduced risks, and efficient practices contribute to income enhancement.
- **Reducing Information Asymmetry:** Empowers farmers with knowledge, reducing dependence on middlemen.
- **Promoting Sustainable Agriculture:** Encourages optimal use of inputs like fertilisers and water, supporting environmental sustainability.

Conclusion

Bharat-VISTAAR represents a major step towards **digital transformation of Indian agriculture**. To maximise its potential, the government must ensure **last-mile connectivity, digital literacy, data protection, and farmer awareness**. Strengthening institutional support and integrating local knowledge systems will make the platform more effective. Ultimately, such initiatives can make Indian agriculture **technology-driven, resilient, and farmer-centric**.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. With reference to Bharat-VISTAAR, consider the following statements:

1. It is an AI-based agricultural advisory platform.
2. It integrates schemes like PM-KISAN and PMFBY.
3. It is accessible only through smartphones.

Which of the statements given above is/are correct?

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

Answer: (a)

Descriptive Question

Que. Discuss the role of Digital Public Infrastructure in transforming Indian agriculture. Examine the significance of Bharat-VISTAAR in this context. (150 Words, 10 Marks)

INDIA'S PRAHAAR POLICY

Why in News: The Ministry of Home Affairs has unveiled 'PRAHAAR', India's first comprehensive National Counter-Terrorism Policy, marking a shift to a proactive, intelligence-led approach.

Key Details

- PRAHAAR adopts a 'zero tolerance' policy against terrorism with a **whole-of-government and whole-of-society approach**.
- It is based on **seven pillars** including prevention, response, capacity building, human rights, and international cooperation.
- Focuses on **modern threats** such as cyber-terrorism, drones, and crypto-financing.

- Aims to create a **uniform counter-terror architecture across states** with enhanced coordination.

Shift to Proactive Counter-Terrorism Doctrine

- **From Reactive to Preventive Approach:** Earlier, India's response was largely post-incident; PRAHAAR emphasizes **prevention through intelligence-led policing**, reducing attack probability.
- **Zero Tolerance Policy:** The doctrine ensures that **every act of terrorism and its support system is criminalised**, sending a strong deterrence signal.
- **Whole-of-Government Strategy:** Integrates central agencies, state police, intelligence units, and armed forces into a **coordinated national framework**.
- **Doctrine-Based Framework:** Unlike earlier fragmented measures, PRAHAAR provides a **structured national policy**, similar to global best practices in counter-terrorism.

Intelligence-Led Prevention Mechanism

- **Role of Multi Agency Centre (MAC):** Ensures **real-time intelligence sharing** among central and state agencies, improving early detection of threats.
- **Joint Task Force on Intelligence (JTFI):** Facilitates **coordinated intelligence analysis**, reducing inter-agency gaps and duplication.
- **Disruption of Terror Ecosystem:** Focus on dismantling **Over Ground Worker (OGW) networks, funding channels, and logistics support systems**.
- **Technology Integration:** Use of **AI, big data, and surveillance tools** to track suspicious patterns, especially in cyber and financial domains.

The PRAHAAR Strategy: 7 Pillars for Global Security



Response and Institutional Framework

- **Local Police as First Responders:** Strengthens grassroots capacity, ensuring **immediate action before central forces intervene**.
- **Role of Specialized Forces:** Agencies like **NSG and CAPFs** provide elite intervention, particularly in high-risk terror incidents.
- **National Investigation Agency (NIA):** Ensures **professional investigation and high conviction rates**, enhancing deterrence.
- **Standard Operating Procedures (SOPs):** Uniform SOPs across states ensure **consistency, speed, and coordination** in crisis response.

Capacity Building and Modernisation

- **Standardisation Across States:** Seeks to create **uniform anti-terror structures**, reducing disparities in state capabilities.
- **Role of BPR&D:** Provides **training, research, and modernization inputs** to police forces.
- **Advanced Technology Adoption:** Focus on **drone interception, cyber forensics, and CBRNED preparedness**.
- **Skill Development:** Emphasis on **specialised training for urban warfare, cyber threats, and intelligence analysis**.

Human Rights and Rule of Law Framework

- **Constitutional Safeguards:** Ensures counter-terror measures align with **Fundamental Rights and due process**.
- **Legal Framework Integration:** Laws like **UAPA (1967), PMLA (2002), and new criminal codes (2023)** form the backbone of legal action.
- **Judicial Oversight:** Multi-level redressal from **District Courts to Supreme Court** prevents misuse of power.
- **Global Norms Compliance:** Aligns with international standards like **Universal Declaration of Human Rights (1948)**.

De-radicalisation and Social Intervention

- **Addressing Root Causes:** Focus on **socio-economic vulnerabilities and ideological indoctrination** that fuel terrorism.
- **Graded Response Mechanism:** Differentiates between **vulnerable youth and hardened terrorists**, ensuring balanced action.
- **Community Engagement:** Involves **NGOs, religious leaders & civil society** to counter extremist narratives.
- **Prison Reforms:** Prevents radicalisation within prisons by **segregating hardened ideologues from vulnerable inmates**.

International Cooperation and Global Alignment

- **Mutual Legal Assistance Treaties (MLATs):** Facilitate **evidence sharing and cross-border investigations**.
- **Extradition Treaties:** Help in **bringing fugitives to justice**, denying safe havens.

- **Role in Global Forums:** India actively engages in **UN mechanisms to designate terrorists and shape global norms**.
- **Countering Transnational Terrorism:** Addresses global networks like **ISIS and Al-Qaeda**, which operate across borders.

Emerging Terror Threats in India

- **State-Sponsored Terrorism:** Persistent cross-border threats, especially in **border regions like Jammu & Kashmir**.
- **Crime-Terror Nexus:** Increasing collaboration between **terror groups and organised crime networks**.
- **Cyber and Digital Threats:** Use of **dark web, encrypted apps, and cryptocurrencies** for recruitment and funding.
- **CBRNED Risks:** Potential use of **chemical, biological, radiological, nuclear, and digital tools** by terrorists.

Implementation Challenges

- **Federal Coordination Issues:** 'Police' and 'Public Order' are State subjects, leading to **centre-state friction**.
- **Capacity Gaps:** State police lack **funding, training, and advanced infrastructure**.
- **Civil Liberties Concerns:** Strict laws may lead to **misuse, prolonged detention, and low conviction rates**.
- **Inter-Agency Silos:** Lack of seamless coordination among agencies may hinder **real-time response efficiency**.

Conclusion

PRAHAAR represents a **transformational shift in India's internal security architecture**, integrating prevention, response, and resilience. Its success depends on **strengthening federal coordination, enhancing technological capacity, and balancing security with civil liberties**. A citizen-centric and rule-based approach will ensure that India's counter-terrorism strategy remains both effective and democratic.

EXPECTED QUESTION FOR UPSC CSE

Descriptive Question

Que. Discuss how India can balance counter-terrorism measures with the protection of fundamental rights in light of the PRAHAAR strategy. (150 Words, 10 Marks)

'RAH-VEER' SCHEME

Why in News: The Delhi government is going to implement the Centre's '**Rah-Veer**' scheme to motivate citizens to assist seriously injured road accidents.

'Rah-Veer' scheme

- The scheme, aligned with the **Good Samaritan Rules under the Motor Vehicles (Amendment) Act, 2019**.
- It provides **legal protection and financial incentives** to encourage prompt humanitarian action.
- **Features:** citizens who help seriously injured road accident victims within the “golden hour” will receive a ₹25,000 cash reward.
 - ✓ A district-level committee will evaluate cases, and the reward will be directly transferred to beneficiaries' bank accounts.
 - ✓ Additionally, 10 outstanding Rah-Veers annually will receive ₹1 lakh and a certificate.
- It aims to overcome citizens' hesitation to assist accident victims due to legal or procedural fears.

STATE INNOVATION MISSION (SIM)

Why in News: Atal Innovation Mission (AIM) under NITI Aayog, launched the first **State Innovation Mission (SIM)** in Tripura.

State Innovation Mission (SIM)

- SIM anchored under AIM 2.0, serves as a long-term institutional mechanism to strengthen state innovation ecosystems through policy support, capacity building, partnerships, and context-driven interventions, advancing the vision of Viksit Bharat through innovation-led development.
- Under this initiative, key interventions include institutionalising SIM under Tripura Institution for Transformation (TIFT), inauguration of T-NEST (Tripura – Nurturing Entrepreneurship and Startups) as a dedicated incubation facility, launch of a District Innovator Fellowship to scale grassroots innovation, and support for transforming Agartala into an AI-enabled city.

IMPORTANT REPORTS

GLOBAL MIND HEALTH 2025 REPORT

Why in News: The Global Mind Health 2025 Report, released by Sapien Labs, highlights a significant mental health crisis among young adults in India and reveals a sharp generational divide in mind health outcomes.

About the Report

- Formerly known as the **Mental State of the World Report**, it is published under the **Global Mind Project**.
- The study assesses emotional, social, cognitive and functional capacities required to manage life, work and relationships, using the **Mind Health Quotient (MHQ)** as a composite indicator.
- The study identifies **four key drivers** behind declining youth mental health:
 - ✓ Weakening family bonds
 - ✓ Decline in spirituality
 - ✓ Early exposure to smartphones
 - ✓ High consumption of ultra-processed foods.

Key Findings

- **Global Trends:**
 - ✓ Young adults in economically developed countries show poorer mind health outcomes compared to those in less developed regions. Countries such as **Japan, Taiwan, Hong Kong, the UK and China** ranked lower, while several sub-Saharan African nations like **Ghana, Nigeria, Zimbabwe, Kenya and Tanzania** performed relatively better.
 - ✓ Notably, **Finland** ranks high in happiness but not proportionately in mind health, suggesting that life satisfaction and mental resilience are distinct measures.
- **India's Position:**
 - ✓ **Age 18–34:** Ranked 60th globally with an MHQ score of 33.

- ✓ **Age 55+:** Ranked 49th globally with an MHQ score of 96.

GENDER EQUALITY GAP

Why in News: The **World Bank's Women, Business and the Law 2026 report** highlights a major global gap between legal provisions for women's equality and their actual implementation.

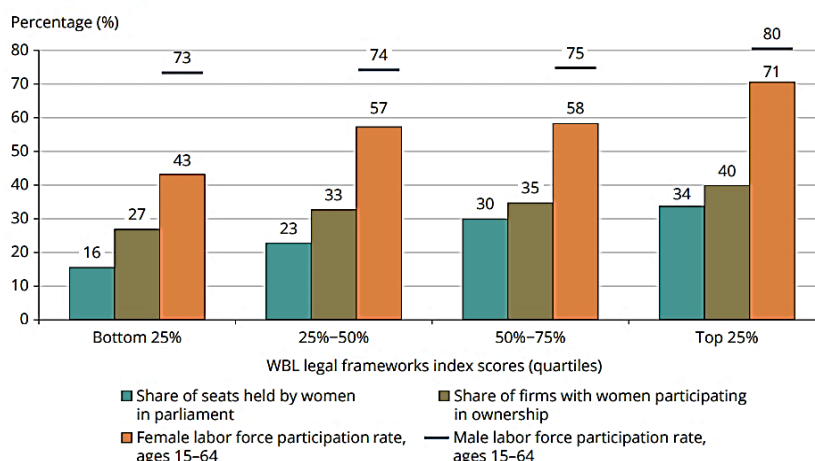
Key Details

- The report evaluates **190 economies** on women's economic opportunities using the **WBL 2.0 framework**.
- There is a sharp gap between **laws (67.9 score)** and **support systems (47.3) & enforcement (53.4)**.
- Only **4% of women globally** live in economies with near-complete legal equality.
- Closing gender gaps could boost **global GDP by over 20%** in the next decade.

Women, Business and the Law (WBL) Framework

- **Comprehensive Measurement Tool:** The WBL report is a flagship World Bank initiative assessing how laws impact women's economic participation across **190 economies**, making it a key global benchmark.
- **Three-Pillar Approach (WBL 2.0):** It evaluates **Legal Frameworks (laws), Supportive Frameworks (policies), and Enforcement Perceptions**, ensuring a holistic understanding beyond legislation.
- **Shift from De Jure to De Facto Equality:** The inclusion of enforcement perception reflects a move from **legal equality on paper to real-world outcomes**, aligning with governance and SDG indicators.
- **Relevance for Policy-Making:** Governments use WBL data to design reforms in **labor laws, entrepreneurship, and financial inclusion**, making it significant for comparative policy analysis.

FIGURE ES.1 Equality laws are associated with more women working, owning businesses, and participating in politics, as well as a reduced gender gap in labor force participation



Global Status of Women's Economic Equality

- **Significant Implementation Gap:** While the global legal score is **67.9**, supportive systems (47.3) and enforcement (53.4) lag behind, highlighting weak institutional capacity.
- **Limited High-Performing Economies:** Only **4% of women** live in countries scoring above 90, indicating that comprehensive gender equality remains rare.
- **Reform Momentum:** Over **68 economies enacted 113 reforms** in recent years, showing increasing recognition of gender equality as a policy priority.
- **Regional Variations:** Regions like **Sub-Saharan Africa** are leading in reforms, while others lag due to socio-cultural and institutional barriers.

Key Areas of Concern

(A) Safety and Legal Protection

- **Weak Enforcement Mechanisms:** Although laws against harassment exist in many countries, **80% fail in effective enforcement**, exposing women to continued vulnerability.
- **Institutional Deficit:** Lack of **special courts, police units, and helplines** reduces accessibility to justice, particularly in developing economies.

(B) Childcare and Care Economy

- **Childcare Deficit:** Less than **50% of economies provide financial support** for childcare, while low-income countries have only **1% of required mechanisms**.
- **Impact on Workforce Participation:** The absence of affordable childcare leads to the “**motherhood penalty**”, forcing women out of employment.

(C) Financial Inclusion and Entrepreneurship

- **Credit Access Barriers:** Despite legal rights, only **half of economies ensure equal access to credit**, limiting women-led entrepreneurship.
- **Structural Biases:** Cultural norms and financial discrimination hinder women's ability to secure loans, affecting economic independence.

(D) Monitoring and Data Deficiency

- **Lack of Gender Data:** Most countries lack **gender-disaggregated data systems**, making it difficult to track policy effectiveness.
- **Weak Accountability:** Without proper monitoring, laws like **equal pay provisions** remain largely symbolic.

(E) Legal Gaps in Basic Rights

- **Restrictions in Certain Regions:** In parts of the world, laws still restrict women's **mobility, employment, and marital rights**, reflecting incomplete legal reform.
- **Slow Reform Process:** Socio-cultural resistance and political constraints delay reforms, especially in traditional societies.

Economic and Developmental Implications

- **Boost to Global GDP:** Closing gender gaps in labor force participation could increase **global GDP by over 20%**, highlighting economic stakes.
- **Demographic Dividend Utilisation:** With nearly **600 million girls entering the workforce this decade**, gender equality is crucial for harnessing human capital.
- **Link with Sustainable Development Goals:** The issue directly relates to **SDG 5 (Gender Equality)** and impacts poverty reduction, health, and education outcomes.
- **Inclusive Growth:** Women's participation enhances productivity, innovation, and **equitable economic development**.

Best Practices from Global Experiences

- **Integrated Policy Approach:** Countries aligning laws with **budgets and enforcement agencies** show better outcomes in gender equality.
- **Care Economy Support:** Nations providing **paid parental leave and childcare subsidies** report higher female workforce participation.
- **Gender-Responsive Procurement:** Policies supporting **women-led enterprises in public procurement** promote inclusive entrepreneurship.
- **Specialised Safety Mechanisms:** Dedicated police units and legal aid systems improve **women's access to justice and safety**.

Indian Context

- **Legal Framework Strength:** India has enacted laws like **Maternity Benefit Act, POSH Act (2013), Equal Remuneration Act**, promoting gender equality.
- **Persistent Challenges:** Issues such as **low female labour force participation (~25–30%)**, wage gaps, and safety concerns persist.
- **Government Initiatives:** Schemes like **Beti Bachao Beti Padhao, Stand-Up India, PM Matru Vandana Yojana** aim to empower women economically.
- **Way to Improve Ranking:** India needs stronger enforcement, better childcare infrastructure, and enhanced financial inclusion to improve outcomes.

Way Forward

- **Bridge Implementation Gap:** Focus on **institutional capacity, funding, and governance mechanisms** to translate laws into action.
- **Invest in Care Infrastructure:** Expand affordable childcare and reduce unpaid care work to boost women's workforce participation.
- **Ensure Financial Inclusion:** Strengthen credit access and eliminate gender bias in financial systems.
- **Strengthen Safety Ecosystem:** Establish **24/7 helplines, fast-track courts, and specialised police units**.
- **Promote Data-Driven Governance:** Use **gender-disaggregated data** for monitoring and targeted policy interventions.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Que. The Women, Business and the Law Report is released by:

- (a) IMF
- (b) UNDP
- (c) World Bank
- (d) WTO

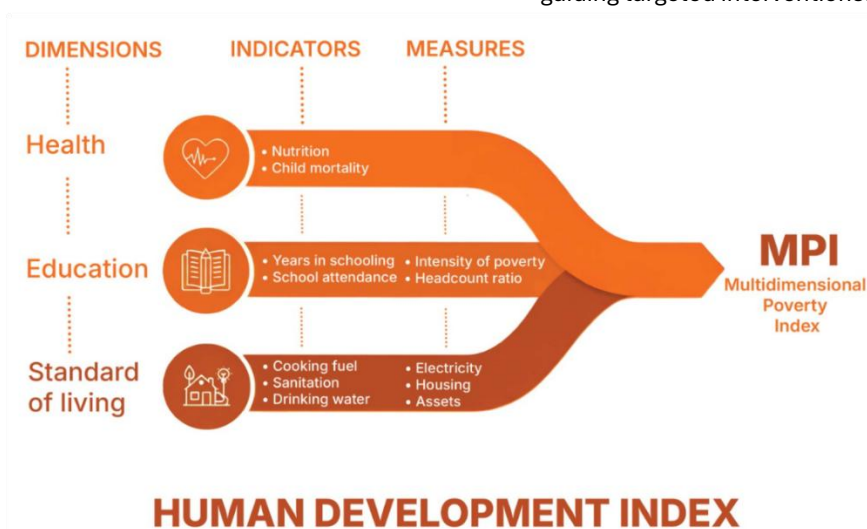
Answer: (c)

HUMAN DEVELOPMENT INDEX (HDI)

Why in News: The latest Human Development Report highlights India's improving HDI rank while drawing attention to persistent inequalities in health, education, and income.

Key Details

- The **Human Development Index (HDI)** is released annually by the United Nations Development Programme.



Components of HDI

- **Health Dimension (Life Expectancy):** Measured by life expectancy at birth, reflecting **nutrition, healthcare access, and living conditions**. India improved from **58.6 years (1990) to ~72 years (2023)**.
- **Education Dimension:** Includes **mean years of schooling (6.2 years)** and expected years of schooling, indicating **human capital formation and skill development**.
- **Standard of Living (GNI per capita):** Measures income adjusted for **Purchasing Power Parity (PPP)**, capturing real access to goods and services.
- **Balanced Development Indicator:** All three dimensions are equally weighted, ensuring **no single factor dominates development assessment**.

Calculation Methodology of HDI

- **Dimension Index Calculation:** Each component is normalized using minimum and maximum values (e.g., life expectancy range **20–85 years**).

- It measures development based on **health, education, and standard of living**, not just income.
- India's HDI improved to **0.685 (2023)**, ranking **130th globally**.
- Inequality-adjusted HDI shows a **~31% loss** in India due to disparities.

Concept of Human Development

- **Shift from GDP to Human Welfare:** Traditional indicators like GDP measure economic output, but HDI focuses on **people's capabilities and quality of life**, making development more inclusive.
- **Capability Approach:** Propounded by Amartya Sen, development is seen as expansion of **freedom, choices, and opportunities**, not merely income growth.
- **Human-Centric Development Model:** HDI evaluates whether people can **live long, acquire knowledge, and enjoy a decent life**, aligning with welfare economics.
- **Policy Relevance:** Governments use HDI to **identify gaps in social sectors** like education and health, guiding targeted interventions.

- **Use of Geometric Mean:** HDI uses the **geometric mean**, ensuring that poor performance in one dimension cannot be fully compensated by another.
- **Income Adjustment via Logarithm:** Logarithmic transformation of income reflects **diminishing marginal utility of income**.
- **Composite Index:** Final HDI value ranges from **0 to 1**, allowing cross-country comparison and ranking.

Classification of Countries

- **Very High HDI (0.800+):** Developed countries with strong human development indicators such as Norway and Switzerland.
- **High HDI (0.700–0.799):** Emerging economies with improving social indicators.
- **Medium HDI (0.550–0.699):** Includes India, reflecting **moderate progress but persistent gaps**.
- **Low HDI (<0.550):** Least developed countries facing severe deprivation in basic capabilities.

India's HDI Performance

- **Long-Term Improvement:** India's HDI rose from **0.434 (1990) to 0.685 (2023)**, showing a **48% increase**, driven by health, education, and income growth.
- **Sectoral Gains:** Life expectancy increased, schooling years improved, and **GNI per capita rose from \$2,000 to ~\$9,000 (PPP)**.
- **Regional Disparities:** States like **Kerala and Goa** perform better, while **Bihar and Jharkhand** lag, indicating uneven development.
- **Global Position:** India ranks **130th out of 193 countries**, highlighting the need for faster social sector progress.

Inequality and Related Indices

- **Inequality-Adjusted HDI (IHDI):** Reflects loss due to inequality; India loses **around 31%**, showing uneven access to resources.
- **Gender Inequality Index (GII):** India ranks **108th**, with female labour participation below **30%**, indicating gender gaps.
- **Multidimensional Poverty Index (MPI):** Measures overlapping deprivations in health, education, and living standards.
- **Policy Implication:** These indices highlight that **average progress can hide deep inequalities**.

Government Initiatives for Improving HDI

- **Health Sector:** Ayushman Bharat provides **health coverage to 10 crore families**, improving access to healthcare.
- **Education Reforms:** National Education Policy 2020 focuses on **quality learning, skill development, and inclusivity**.
- **Income and Livelihood Support:** Schemes like PM-KISAN and Skill India aim to **enhance income and employment opportunities**.
- **Women Empowerment & Digital Access:** Beti Bachao Beti Padhao and Digital India promote **gender equality and technological inclusion**.

Significance of HDI

- **Holistic Measure of Development:** Captures **social and economic dimensions**, unlike GDP alone.
- **Global Comparability:** Enables comparison across countries and regions, helping policymakers assess progress.
- **Focus on Human Welfare:** Shifts policy discourse from **economic growth to human well-being**.
- **Guiding Public Policy:** Identifies weak sectors, enabling **targeted policy interventions**.

Challenges and Limitations

- **Oversimplification:** A single index may **mask regional and social disparities** within countries.
- **Data Limitations:** Time lag and data quality issues may affect accuracy, especially in developing nations.
- **Exclusion of Key Dimensions:** Does not include **environmental sustainability, governance, or informal economy**.
- **Comparability Issues:** Methodological changes can make comparisons across years difficult.

Emerging Dimensions & Future Relevance

- **Technology and AI:** Digital inclusion and artificial intelligence are shaping future human development outcomes.
- **Climate Change Impact:** Environmental risks affect health, livelihood, and education, demanding integration with HDI.
- **Sustainable Development Goals (SDGs):** HDI aligns with SDGs like **SDG 3 (Health), SDG 4 (Education), and SDG 10 (Inequality)**.
- **Need for Granular Data:** District-level HDI and data disaggregation will improve policy precision.

Conclusion

India must focus on **quality education, healthcare equity, and inclusive economic growth** to improve HDI sustainably. Addressing inequality, strengthening social infrastructure, and integrating environmental sustainability will ensure holistic human development. HDI should evolve to capture emerging challenges while continuing to guide policy towards improving people's lives.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. The Human Development Index includes which of the following dimensions?

- (a) Health, Education, Income
- (b) Inflation, GDP, Employment
- (c) Trade, Industry, Agriculture
- (d) Poverty, Inequality, Governance

Answer: (a)

Descriptive Question

Que. Critically examine the limitations of HDI and suggest measures to make it a more comprehensive indicator of development. (150 Words, 10 Marks)

PERSONALITIES IN NEWS

MAHARSHI DAYANAND SARASWATI

Why in News: The Prime Minister paid tributes to **Maharshi Dayanand Saraswati** on his birth anniversary, highlighting his contributions to social reform and Indian nationalism.

Key Details

- Born on February 12, **1824 at Tankara (Gujarat)** as Mool Shankar, he became a leading reformer of 19th century India.
- Founded the **Arya Samaj** in 1875 to promote Vedic values and social reforms.
- Advocated “Back to the Vedas”, monotheism, and rejection of social evils like caste discrimination and child marriage.
- His works like Satyarth Prakash and institutions like DAV schools contributed to education and nationalism.

Historical Background & Life

- **Colonial Context of 19th Century:** India during the 19th century witnessed **social stagnation, caste rigidities, and colonial domination**, which led to the rise of reform movements like Brahmo Samaj and Arya Samaj.
- **Early Life and Transformation:** Born as Mool Shankar in a Brahmin family, he questioned idol worship early and later became a disciple of **Swami Virajananda**, shaping his Vedic outlook.
- **Quest for Truth:** His spiritual journey was driven by rational inquiry and rejection of blind faith, leading him to reinterpret Hinduism based on **Vedic authority**.
- **Reformist Leadership:** He emerged as a key leader of socio-religious reform, combining **scriptural reinterpretation with social activism**.

Core Philosophy & Teachings

- **Back to the Vedas:** He emphasized returning to the **Vedas as the ultimate source of knowledge**, considering them infallible and universally relevant.
- **Monotheism (One God):** He rejected polytheism and idol worship, advocating belief in **one formless, omnipotent God**, aligning with rational spirituality.
- **Rejection of Ritualism:** He opposed meaningless rituals, priestly dominance, and superstitions, promoting a **simplified and rational religion**.
- **Equality and Social Justice:** He strongly opposed caste discrimination and untouchability, promoting equality based on **merit and karma rather than birth**.

Social Reform Contributions

- **Women Empowerment:** He supported **women’s education, widow remarriage**, and opposed practices like child marriage, contributing to gender reform.

- **Opposition to Untouchability:** He condemned untouchability as un-Vedic and worked towards integrating marginalized communities into mainstream society.
- **Shuddhi Movement:** He introduced the concept of **reconversion (Shuddhi)**, allowing people to return to Hinduism, strengthening social cohesion.
- **Educational Reforms:** Promoted modern and Vedic education, laying the foundation for institutions that blended **traditional knowledge with modern science**.

Arya Samaj & Institutional Impact

- **Foundation of Arya Samaj (1875):** Arya Samaj aimed to reform Hindu society by promoting **truth, knowledge, and social equality**.
- **DAV Movement:** Inspired by his ideas, followers established the **Dayanand Anglo-Vedic (DAV) institutions**, combining Western education with Vedic values.
- **Spread of Education:** The first DAV school was set up in **Lahore (1886)** under Mahatma Hans Raj, leading to a nationwide educational network.
- **Social Mobilization:** Arya Samaj played a significant role in **social awakening, national consciousness, and reform movements**.



Contribution to Indian Nationalism

- **Concept of Swaraj:** He is credited with using the term **Swaraj (self-rule)** in 1875, later popularized by leaders like **Bal Gangadhar Tilak** and **Mahatma Gandhi**.
- **Cultural Nationalism:** His emphasis on Vedic heritage instilled **pride in Indian culture**, countering colonial narratives of inferiority.
- **Influence on Freedom Movement:** Arya Samaj members actively participated in nationalist activities, contributing to the **freedom struggle**.
- **Intellectual Awakening:** His ideas encouraged critical thinking, self-respect, and resistance against colonial domination.

Writings & Intellectual Legacy

- **Satyarth Prakash:** His most famous work, it critically examined religious practices and advocated **truth, rationality, and reform**.
- **Other Works:** Sanskar Vidhi and Yajurved Bhashyam focused on rituals and Vedic interpretation.
- **Global Recognition:** American thinker **Andrew Jackson Davis** referred to him as the “Son of God,” reflecting his global influence.

- **Enduring Legacy:** His teachings continue to influence education, social reform, and religious thought in modern India.

Conclusion

Maharshi Dayanand Saraswati's ideas remain relevant in addressing contemporary challenges like **social inequality, gender injustice, and religious intolerance**. Strengthening education, promoting rational thinking, and upholding constitutional values can further his vision of an egalitarian society. His life underscores the importance of reform rooted in tradition yet aligned with modernity.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. With reference to Maharshi Dayanand Saraswati, consider the following:

1. He founded the Arya Samaj in 1875
2. He supported idol worship
3. He advocated women's education
4. He introduced the concept of Shuddhi

Which of the statements are correct?

- (a) 1, 3 and 4
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 4

Answer: (a)

Descriptive Question

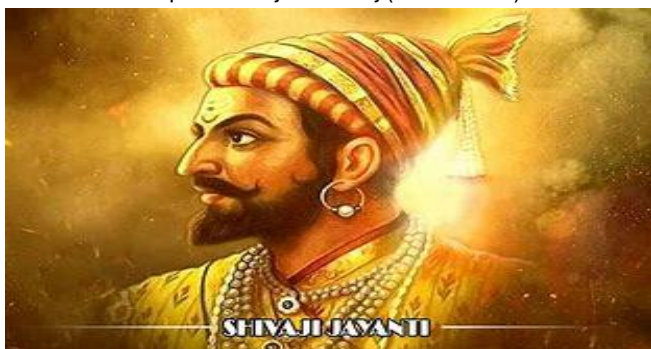
Que. Examine how the teachings of Maharshi Dayanand Saraswati contributed to the growth of Indian nationalism. (150 Words, 10 Marks)

CHHATRAPATI SHIVAJI MAHARAJ JAYANTI 2026

Why in News: Chhatrapati Shivaji Maharaj Jayanti (19 February 2026) marks the 395th birth anniversary of the founder of the Maratha Empire and revives discourse on indigenous governance and Swarajya.

Key Details

- Celebrated annually on **19 February**, marking the birth of Chhatrapati Shivaji Maharaj (1630–1680).



- Known for establishing **Hindavi Swarajya (self-rule)** and resisting Mughal dominance.
- Recognised for **guerrilla warfare tactics (Ganimi Kava)** and administrative reforms.
- Celebration popularised during freedom struggle by Bal Gangadhar Tilak.

Historical Background & Rise of Maratha Power

- **Birth and Early Life:** Shivaji Maharaj was born in 1630 at Shivneri Fort and was deeply influenced by his mother Jijabai, who instilled values of courage and dharma.
- **Foundation of Maratha Empire:** He laid the foundation of the Maratha state in western India, challenging the dominance of the Mughals and Deccan Sultanates.
- **Coronation (1674):** Crowned at Raigad Fort, he assumed the title "Chhatrapati", symbolising sovereign authority and indigenous kingship.
- **Vision of Swarajya:** His concept of Swarajya emphasised political independence, cultural identity, and ethical governance free from foreign domination.

Military Strategy & Warfare Innovations

- **Guerrilla Warfare (Ganimi Kava):** Shivaji pioneered hit-and-run tactics, surprise attacks, and terrain-based warfare, enabling smaller forces to defeat larger armies.
- **Battle of Pratapgad (1659):** Defeated Afzal Khan decisively, showcasing strategic brilliance and psychological warfare using tools like the **Wagh Nakh**.
- **Strategic Fort Network:** Controlled over 300 forts such as Sinhagad Fort and Pratapgad Fort, ensuring territorial security and military mobility.
- **Naval Power Development:** Established a strong navy with coastal forts like Sindhudurg Fort, earning recognition as the **Father of the Indian Navy**.

Administrative System & Governance

- **Ashtapradhan Mandal:** A council of eight ministers ensured efficient governance, including portfolios like finance, foreign affairs, and military administration.
- **Revenue Reforms:** Introduced direct tax collection from cultivators, reducing exploitation by intermediaries and ensuring agrarian stability.
- **Promotion of Indigenous Languages:** Replaced Persian with Marathi and Sanskrit in administration, promoting cultural identity and accessibility.
- **Efficient Bureaucracy:** Maintained strict discipline, accountability, and merit-based appointments in governance.

Social & Cultural Policies

- **Religious Tolerance:** Despite being a Hindu ruler, he respected all religions and protected places of worship, reflecting inclusive governance.
- **Women's Protection:** Strict codes prohibited harassment of women, even during warfare, showcasing progressive social ethics.
- **Cultural Revival:** Promoted indigenous traditions, festivals, and cultural practices as part of state-building.
- **Public Welfare Orientation:** Governance focused on justice, fairness, and welfare of common people.

Role in Freedom Struggle & Nationalism

- **Symbol of Resistance:** Shivaji became a symbol of resistance against foreign rule during British India.

- **Tilak's Mobilisation:** Bal Gangadhar Tilak popularised Shivaji Jayanti in 1870 to inspire nationalist sentiments.
- **Cultural Nationalism:** His legacy was used to foster unity, pride, and political consciousness among Indians.
- **Modern Political Relevance:** Continues to inspire leadership, governance models, and debates on federalism and decentralisation.

Economic & Maritime Vision

- **Trade and Commerce:** Encouraged trade through secure routes and ports, strengthening regional economy.
- **Maritime Security:** Built naval bases to protect western coastline from foreign invasions and piracy.
- **Fort-Based Economy:** Forts acted as administrative, military, and economic centres ensuring regional control.
- **Agrarian Stability:** Balanced taxation ensured sustainability of agriculture and rural economy.

Contemporary Relevance

- **Good Governance Model:** His administration reflects principles of transparency, accountability, and decentralisation relevant for modern governance.
- **Internal Security Lessons:** Guerrilla warfare strategies provide insights into modern asymmetric warfare.
- **Cultural Integration:** Promotes unity while respecting diversity—core to Indian polity.
- **Leadership Ethics:** Emphasis on duty, discipline, and welfare aligns with civil services values.

Way Forward

- **Incorporating Indigenous Governance Models:** Shivaji's administrative principles can guide decentralisation and grassroots governance reforms.
- **Strengthening Maritime Security:** His naval vision is relevant for India's modern **Blue Economy and coastal security strategies**.
- **Promoting Ethical Leadership:** Civil services training should integrate values like integrity, accountability, and public welfare.
- **Cultural Awareness & Education:** Greater emphasis on historical figures like Shivaji can strengthen national identity and civic responsibility.

Conclusion

Chhatrapati Shivaji Maharaj's legacy transcends history, offering a timeless model of **Swarajya, governance, and leadership**. His vision of an inclusive, just, and self-reliant state remains highly relevant for modern India. Shivaji Jayanti is not merely a commemoration but a reminder of India's rich political heritage and its enduring democratic aspirations.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. Consider the following about Shivaji Maharaj:

1. He introduced Persian as the administrative language
2. He established a strong naval force
3. He introduced Ashtapradhan Mandal

Which of the statements are correct?

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

Answer: (c)

Descriptive Question

Que. Discuss the administrative and military innovations of Chhatrapati Shivaji Maharaj and their relevance in modern governance. (150 Words, 10 Marks)

REMEMBERING LALA LAJPAT RAI

Why in News: The Prime Minister paid tribute to Lala Lajpat Rai on his birth anniversary (28 January), highlighting his contributions to India's freedom struggle.

Key Details

- Lala Lajpat Rai (1865–1928), popularly known as **Punjab Kesari**, was a prominent nationalist leader.
- He was part of the famous **Lal-Bal-Pal trio** along with Bal Gangadhar Tilak and Bipin Chandra Pal.
- He played a key role in political, social, and economic nationalism, including founding institutions and organisations.
- He died following injuries sustained during a **lathi charge while protesting against the Simon Commission (1928)**.



Early Life & Ideological Foundations

- **Birth and Education:** Born on **28 January 1865 in Punjab**, he studied law at Lahore, which shaped his understanding of colonial legal systems and governance.
- **Influence of Arya Samaj:** Inspired by Swami Dayananda Saraswati, he adopted reformist ideas such as social equality and Vedic revivalism.
- **Social Reform Orientation:** He supported **education for all, including lower castes**, and emphasized social upliftment as a prerequisite for political freedom.

- **Nationalist Ideology:** His thought combined **cultural nationalism with political assertiveness**, laying the foundation for extremist politics in India.

Role in Indian National Movement

- **Extremist Leadership:** He was a leading figure of the **extremist faction in the Indian National Congress**, advocating **Swaraj, Swadeshi, and boycott** of British goods.
- **Lal-Bal-Pal Trio:** Along with Tilak and Pal, he mobilised mass participation and gave the freedom struggle a **more aggressive and assertive direction**.
- **Congress Leadership (1920):** He presided over the **Calcutta Special Session (1920)**, marking a crucial phase during the Non-Cooperation Movement.
- **Trade Union Movement:** He was elected President of the **All-India Trade Union Congress (AITUC)** in 1920, linking nationalism with labour rights.

Institutional and Organisational Contributions

- **Servants of the People Society (1921):** Founded to promote **social service, education, and nation-building**, it continues to function even today.
- **Economic Nationalism:** Played a key role in establishing **Punjab National Bank (1894)**, promoting indigenous financial institutions.
- **International Advocacy:** Founded the **Indian Home Rule League of America**, spreading awareness about India's freedom struggle globally.
- **Educational Initiatives:** Supported the **Dayanand Anglo-Vedic (DAV) institutions**, promoting modern education rooted in Indian values.

Literary Contributions and Intellectual Thought

- **Major Works:** Authored books like **Unhappy India**, **Young India**, and **England's Debt to India**, critically analysing colonial exploitation.
- **Economic Critique of Colonialism:** Highlighted how British policies drained India's wealth, contributing to early **economic nationalism**.
- **Journalism:** Founded **'The People'** journal and contributed to **The Tribune**, using media as a tool for nationalist awakening.
- **Biographical Works:** Wrote on leaders like **Mazzini and Garibaldi**, drawing parallels between global and Indian nationalist movements.

Protest against Simon Commission (1928)

- **Background:** The Simon Commission was opposed due to **absence of Indian representation**, symbolising colonial disregard.
- **Leadership in Protest:** Lajpat Rai led a **peaceful protest in Lahore**, demonstrating commitment to non-violent resistance.
- **Lathi Charge Incident:** He suffered severe injuries during police action, reflecting the **repressive nature of colonial rule**.

- **Martyrdom and Impact:** His death in 1928 became a rallying point, inspiring revolutionaries like **Bhagat Singh** and intensifying the freedom struggle.

Values and Legacy

- **Courage and Sacrifice:** His fearless opposition to British rule exemplifies **moral courage and patriotism**.
- **Perseverance:** Despite imprisonment and exile, he continued to contribute to the nationalist cause.
- **Integration of Reform and Nationalism:** He combined **social reform, economic nationalism, and political activism**, making his approach holistic.
- **Enduring Relevance:** His ideas on **self-reliance, institutional development, and national pride** remain relevant in contemporary India.

Way Forward

- **Promoting Constitutional Nationalism:** Integrate the values of leaders like Lajpat Rai into civic education to strengthen democratic participation.
- **Strengthening Indigenous Institutions:** Encourage economic self-reliance through support for domestic enterprises, echoing his vision.
- **Balancing Reform and Growth:** Focus on inclusive development by combining social reform with economic progress.
- **Preserving Historical Legacy:** Incorporate contributions of freedom fighters into academic discourse and public awareness.

Conclusion

Lala Lajpat Rai was not merely a freedom fighter but a visionary who integrated **nationalism, social reform, and institutional development**. His life reflects the spirit of sacrifice and leadership that shaped India's independence. Remembering him is not just an act of tribute but a reminder of the values required to sustain and strengthen the Indian republic.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. Consider the following statements regarding Lala Lajpat Rai:

1. He was associated with the extremist faction of the Indian National Congress.
2. He founded the Servants of the People Society.
3. He opposed the Simon Commission.

Which of the above are correct?

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

Answer: (d)

Descriptive Question

Que. Discuss the role of Lala Lajpat Rai in the Indian national movement and examine his contributions beyond politics. (150 Words, 10 Marks)

CHANDRA SHEKHAR AZAD

Why in News: India paid tributes to Chandra Shekhar Azad on his **95th martyrdom day (27 February 2026)**, highlighting his role in revolutionary nationalism.

Key Details

- Born in **1906 in Alirajpur (Madhya Pradesh)**, Azad emerged as a key revolutionary leader.
- Initially influenced by Mahatma Gandhi, he later shifted to militant nationalism after the withdrawal of the Non-Cooperation Movement.
- Played a major role in the **Kakori Conspiracy (1925)** and formation of **HSRA (1928)**.
- Martyred on **27 February 1931** at Alfred Park, Allahabad, upholding his vow of never being captured alive.



Early Life & Ideological Formation

- **Birth and Background:** Born as Chandra Shekhar Tiwari in **1906 in Bhabra (Alirajpur)**, he grew up in modest conditions, which shaped his resilience and nationalist outlook.
- **Influence of Non-Cooperation Movement (1921):** Inspired by Mahatma Gandhi, he joined the movement at a young age, marking his entry into mass politics.
- **Origin of the Name 'Azad':** After arrest, he declared his name as "Azad," father as "Swatantra," and residence as "Jail," symbolising defiance against colonial authority.
- **Shift After Chauri Chaura Incident:** The withdrawal of the movement in 1922 led to disillusionment, pushing him towards revolutionary methods.

Revolutionary Nationalism & Organisations

- **Association with HRA:** Azad joined the **Hindustan Republican Association (HRA)** led by Ram Prasad Bismil, focusing on armed struggle.
- **Formation of HSRA (1928):** Along with Bhagat Singh, he reorganised HRA into the **Hindustan Socialist Republican Association (HSRA)** with a socialist vision.
- **Role as Military Strategist:** Azad served as the **chief strategist**, planning operations and ensuring secrecy within the organisation.
- **Adoption of Socialist Ideology:** HSRA aimed not only at independence but also at establishing a **just and egalitarian society**, reflecting global ideological influences.

Key Revolutionary Activities

- **Kakori Conspiracy (1925):** Azad played a crucial role in raising funds through the train robbery to support revolutionary activities. He successfully evaded arrest.
- **Assassination of John Saunders (1928):** In retaliation for the death of Lala Lajpat Rai, Azad and his associates targeted British officer Saunders in Lahore.
- **Use of Pseudonym 'Balraj':** HSRA pamphlets were issued under this name, symbolising collective revolutionary leadership and anonymity.
- **Underground Activities:** After the **Central Assembly Bombing (1929)**, Azad operated secretly, coordinating revolutionary actions across regions.

Final Sacrifice & Legacy

- **Martyrdom (1931):** Surrounded by British police at Alfred Park, Allahabad, Azad fought bravely and ultimately **shot himself to avoid capture**, fulfilling his vow.
- **Symbol of Courage:** His life exemplifies **fearlessness, sacrifice, and commitment to freedom**, inspiring generations of youth.
- **Impact on Freedom Movement:** Revolutionary actions intensified nationalist sentiments and complemented mass movements led by moderates.
- **Memorialisation:** Alfred Park was later renamed **Chandrashekhar Azad Park**, preserving his legacy in public memory.

Revolutionary Nationalism

- **Complement to Gandhian Methods:** Revolutionary nationalism acted as a parallel stream, creating pressure on colonial authorities alongside non-violent movements.
- **Youth Mobilisation:** Leaders like Azad and Bhagat Singh inspired **student and youth participation**, strengthening the freedom struggle.
- **Global Influences:** Ideas of socialism and anti-imperialism influenced organisations like HSRA, reflecting international ideological currents.
- **Debate on Means vs Ends:** Raises critical questions on the use of violence in achieving political objectives, relevant for ethical and historical analysis.

Way Forward

- **Balanced Historical Understanding:** Recognise both **non-violent and revolutionary contributions** to present a holistic view of the freedom struggle.
- **Promoting Constitutional Values:** Channel revolutionary zeal into **democratic participation, rule of law, and nation-building**.
- **Youth Engagement:** Inspire youth through stories of sacrifice to promote **responsible citizenship and leadership**.
- **Preservation of Heritage:** Strengthen awareness through **education, museums, and public discourse** on revolutionary history.

Conclusion

Chandra Shekhar Azad remains a powerful symbol of **revolutionary nationalism and fearless resistance**. His life underscores that India's freedom struggle was a **multi-dimensional movement**, where both constitutional and revolutionary approaches contributed to independence. His legacy continues to inspire commitment towards justice, freedom, and national integrity.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. Chandra Shekhar Azad was associated with which organisation?

- (a) Indian National Army
- (b) Hindustan Socialist Republican Association
- (c) Swaraj Party
- (d) Ghadar Party

Answer: (b)

Descriptive Question

Que. Examine the role of revolutionary nationalists like Chandra Shekhar Azad in India's freedom struggle. How did they complement the mainstream national movement? (150 Words, 10 Marks)

MISCELLANEOUS

MISSION FOR AATMANIRBHARTA IN PULSES

Why in News: The roadmap for the **Mission for Aatmanirbharta in Pulses** was finalised at a research centre in Madhya Pradesh to achieve self-sufficiency in pulses.

Key Details

- Announced in **Union Budget 2025–26**, launched in **October 2025** with an outlay of **₹11,440 crore**.
- Aims to achieve **self-sufficiency in pulses by 2030–31**.
- Focus on key crops: **Tur (Arhar), Urad, and Masoor**.
- Emphasises **production enhancement, assured procurement, and seed traceability**.

Pulses: Nutritional & Economic Significance

- **Protein Security in India:** Pulses provide **20–25% of protein intake** in Indian diets, making them essential for addressing **protein-energy malnutrition**, especially among poorer sections.
- **Low Consumption Gap:** Per capita availability remains below the recommended **85 grams/day**, indicating a gap in nutritional security despite rising production.
- **Income Source for Farmers:** Pulses are largely grown by **small and marginal farmers**, offering income diversification and resilience in rainfed agriculture.
- **Role in Food Security:** Inclusion of pulses in schemes like **PDS and Mid-Day Meals** enhances both caloric and nutritional security in India.

Production Trends & Import Dependence

- **Rising Production but Persistent Gap:** Production increased by **31% (2013–14 to 2024–25)**, yet demand outpaces supply due to population growth and dietary shifts.
- **High Import Dependence:** India imported **47.38 lakh tonnes in 2023–24**, exposing farmers to global price volatility and draining foreign exchange.
- **Declining Share in Food Basket:** Pulses' share declined from **16% (1950)** to about **8% (2022–23)** due to policy bias towards cereals.
- **Future Demand Pressure:** Demand is projected to reach **~39 million tonnes by 2050**, requiring sustained growth of **~2.2% annually**.

Mission for Aatmanirbharta in Pulses: Key Features

- **Time-bound National Mission:** The scheme spans **2025–26 to 2030–31**, targeting **self-reliance in pulses production** with a structured policy framework.

- **Expansion of Cultivation Area:** Plans to increase area by **35 lakh hectares**, raising total area to **310 lakh hectares** to bridge the supply gap.
- **Production Target:** Aims to increase production to **350 lakh tonnes**, ensuring long-term food and nutritional security.
- **Focus Crops Strategy:** Special emphasis on **Tur, Urad, and Masoor**, which face maximum supply shortages and high import dependence.

Institutional & Operational Mechanisms

- **SATHI Portal (Digital Governance):** Ensures **seed traceability, certification, and quality control**, improving transparency and access to quality seeds for farmers.
- **Assured Procurement Mechanism:** Government guarantees **100% procurement** through agencies like **NAFED and NCCF**, stabilising farmer incomes.
- **PM-AASHA Integration:** Procurement is linked with **price support schemes**, reducing market uncertainty and distress sales.
- **Cluster-Based Development:** Promotes region-specific interventions, improving efficiency, economies of scale, and crop specialisation.

Value Chain & Infrastructure Development

- **Pulse Processing Infrastructure:** Plan to establish **1,000 pulse mills**, promoting local processing and reducing post-harvest losses.
- **Subsidy Support:** Government provides **₹25 lakh per unit**, encouraging private participation and rural industrialisation.
- **Seed-to-Market Approach:** Decentralised seed distribution ensures timely availability and better regional adaptability.
- **Farmer Incentives:** Farmers receive **₹10,000 per hectare support** and seed kits, promoting adoption of best practices.

Agronomic & Environmental Importance of Pulses

- **Nitrogen Fixation:** Pulses enrich soil fertility by fixing atmospheric nitrogen, reducing dependence on chemical fertilisers.
- **Climate-Resilient Crops:** Require **low water (25–60 cm rainfall)** and are suitable for dryland farming, making them ideal for climate adaptation.
- **Cropping System Benefits:** Promote **intercropping and crop diversification**, improving farm productivity and sustainability.
- **Low Carbon Footprint:** Pulses contribute to **sustainable agriculture** and align with global climate commitments.

NITI Aayog Recommendations & Reforms

- **One Block–One Seed Village:** Strengthens seed systems through **FPOs and cluster-based seed hubs**, ensuring quality inputs.
- **Utilisation of Rice Fallows:** Bringing fallow land under pulses can significantly increase production without expanding cultivated area.
- **Dietary Integration:** Promotes pulses in welfare schemes to boost demand and address **hidden hunger**.
- **Technology & Innovation:** Encourages **short-duration and climate-resilient varieties**, along with digital monitoring systems.

Challenges in Pulses Sector

- **Low Productivity:** Pulses yield is lower compared to cereals due to limited technological adoption and poor irrigation.
- **Price Volatility:** Fluctuating prices discourage farmers from cultivating pulses consistently.
- **Policy Bias:** Historical focus on rice and wheat under MSP and procurement policies reduced pulses' importance.
- **Fragmented Value Chain:** Lack of storage, processing, and marketing infrastructure leads to inefficiencies.

Conclusion

Achieving **Aatmanirbharta in pulses** requires a multi-dimensional approach focusing on **productivity enhancement, assured procurement, technological innovation, and demand creation**. Strengthening value chains, integrating pulses into nutrition programmes, and promoting climate-resilient farming will ensure both **farmer welfare and national food security**. The mission reflects a shift towards **balanced agriculture and sustainable development** in India.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Que. Consider the following statements about pulses:

1. Pulses improve soil fertility through nitrogen fixation.
2. India is the largest producer of pulses globally.
3. Pulses require high rainfall exceeding 100 cm.

Which of the statements are correct?

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

Answer: (a)

Descriptive Question

Que. Despite being the largest producer, India remains dependent on imports of pulses. Analyse the challenges and suggest measures to achieve self-sufficiency. (150 Words, 10 Marks)

BHARAT GI

Why in News: Recently, 'Bharat GI' was unveiled at India AI impact summit.

About Bharat GI

- It is a **national umbrella initiative** to showcase **India's unique GI products to the globe**.
- **Launched by:** Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of commerce.
- **Benefits:** provides **stronger international recognition, premium positioning, and market access** for Indian artisans and farmers.

OL CHIKI SCRIPT

Why in News: President of India inaugurated the centenary celebrations of the ol chiki script.

About Ol Chiki Script

- Developed in **1925** by **Raghunath Murmu**, specifically for the **Santhali language**.
- **Transitioned Santhali from oral to written tradition.**
 - ✓ Before Ol Chiki, Santhali was written using Roman, Bengali, Odia, Devanagari script.

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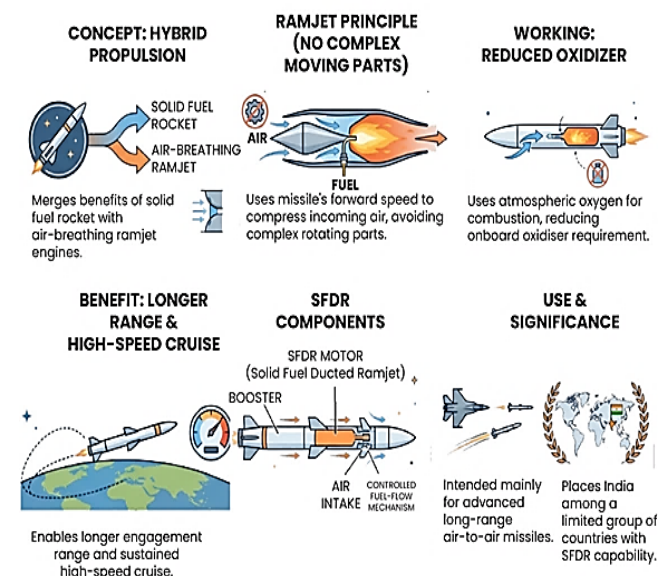
About Santhali Language

- Belongs to **Austroasiatic language family**.
- **Spoken in:** Jharkhand, Odisha, West Bengal, Assam, Bihar and parts of Nepal & Bangladesh
- Included in the 8th Schedule via **92nd Constitutional Amendment Act, 2003**.

SOLID FUEL DUCTED RAMJET TECHNOLOGY

Why in News: DRDO has carried out successful demonstration of Solid Fuel Ducted Ramjet (SFDR) technology from the Integrated Test Range (ITR), Chandipur, Odisha.

ABOUT SOLID FUEL DUCTED RAMJET TECHNOLOGY



SOLID WASTE MANAGEMENT (SWM) RULES, 2026

Why in News: SWM Rules, 2026, notified by MoEFCC under the Environment Act, 1986, superseded 2016 rules and mandate stricter segregation in urban and rural areas, effective 1st April 2026.

Key Details

- **Four-Stream Segregation at Source:** Mandatory segregation into Wet, Dry, Sanitary, and Special Care waste; with composting/bio-methanation, Material Recovery Facilities, secure storage, and authorised disposal respectively.
- **Polluter Pays Principle:** Environmental compensation for non-compliance; guidelines by Central Pollution Control Board (CPCB), enforcement by SPCBs/PCCs.
- **Bulk Waste Generators (BWGs):** Defined as entities with $\geq 20,000$ sq m area, $\geq 40,000$ L/day water use, or ≥ 100 kg/day waste; contribute $\sim 30\%$ of waste.

- ✓ **India generates ~ 1.85 lakh tonnes/day** of solid waste (CPCB, 2023–24).
- ✓ **Centralised Online Portal** will track waste (Generation \rightarrow Collection \rightarrow Disposal), replacing physical reporting.
- **Extended BWG Responsibility (EBWGR):** BWGs must process wet waste on-site or obtain a responsibility certificate.
- **RDF Mandate:** Industries to raise RDF use from 5% to 15% in six years to support circular economy (cement/WtE).
- **Landfill Restrictions:** Only non-recyclable & inert waste allowed; higher fees for unsegregated waste.
- **Legacy Waste:** Time-bound biomining & bioremediation with quarterly reporting.
- **Hilly and Island Areas:** Local bodies may levy user fees on tourists and regulate inflow based on waste capacity.
- **Institutional Mechanism:** State-level committees chaired by the Chief Secretary to oversee implementation.

Daily MCQs from The Hindu & Indian Express

(February 2026)

DAILY MCQs PRACTICE

Que 1. Which of the following statements are correct in respect of Inflation?

1. Inflation refers to a sustained increase in the general price level of goods and services in an economy.
2. Cost-push inflation arises due to an increase in input costs such as wages, fuel, or raw materials.
3. A moderate level of inflation is always harmful for economic growth.

Select the answer using the code given below:

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

Que 2. Consider the following statements:

Statement 1: Gross Fixed Capital Formation (GFCF) represents investment in fixed assets such as machinery, equipment, infrastructure, and buildings in an economy.

Statement 2: An increase in GFCF indicates capacity expansion and is a key driver of long-term economic growth.

Which one of the following is correct in respect of the above statements?

- (a) Both statement 1 and Statement 2 are correct and statement 2 explains statement 1
- (b) Both statement 1 and Statement 2 are correct and statement 2 does not explain statement 1
- (c) Statement 1 is correct, but Statement 2 is incorrect
- (d) Statement 2 is correct, but Statement 1 is incorrect

Que 3. Consider the following statements with reference to India's fiscal strategy and growth outlook in the context of the recent Union Budget:

1. The Budget seeks to balance near-term global uncertainty by maintaining fiscal prudence while pursuing structural policy reforms.
2. Achieving India's medium-term public debt targets depends not only on the Centre's fiscal consolidation but also on the fiscal discipline of States.
3. Public sector capital expenditure is projected to accelerate in the coming years due to expanding fiscal space and higher absorptive capacity.
4. A sustained increase in private sector investment is essential as public capex faces constraints from fiscal consolidation and capacity limits.

Which of the statements given above is/are incorrect?

- (a) 1 only
- (b) 3 only
- (c) 2 and 4 only
- (d) None

Que 4. The growing trend of egg freezing and fertility budgeting among urban Indian women, as discussed in recent reports, primarily highlights which of the following issues?

- (a) Increasing medical tourism and commercialisation of healthcare
- (b) Intersection of women's reproductive health, economic autonomy, and gaps in health insurance coverage
- (c) Declining fertility rates due to genetic factors alone
- (d) Replacement of public healthcare by private fertility clinics

Que 5. Which of the following statements are correct in respect of Wetlands (Conservation and Management) Rules, 2017?

1. Wetlands are notified by the Central Government based on recommendations of the National Wetlands Committee.
2. Reclamation, setting up of industries, and permanent construction are prohibited activities within notified wetlands.
3. River channels, paddy fields, and man-made water bodies used for drinking water purposes are excluded from the definition of wetlands.

Select the answer using the code given below:

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

Que 6. Consider the following statements:

Statement I: The University Grants Commission (UGC) plays a crucial role in maintaining standards of higher education in India.

Statement II: The UGC is empowered to allocate and disburse grants to universities and colleges across the country.

Statement III: The UGC functions as a statutory body established under an Act of Parliament.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I
- (b) Both Statement II and Statement III are correct but only one of them explains Statement I
- (c) Only one of the Statements II and III is correct and that explains Statement I
- (d) Neither Statement II nor Statement III is correct

Que 7. The ongoing US lawsuit against WhatsApp alleging breach of end-to-end encryption has relevance for India primarily because it may impact which of the following legal and regulatory frameworks?

- (a) Enforcement of sedition laws under the Bharatiya Nyaya Sanhita
- (b) Validity of the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021
- (c) Interpretation of the Right to Freedom of Speech under Article 19(1)(a)
- (d) Application of preventive detention laws in cyberspace

Que 8. Consider the following statements with reference to India's infrastructure financing and maritime development initiatives:

1. The Government of India is promoting greater use of Public-Private Partnership (PPP) models in infrastructure projects to improve construction quality and long-term maintenance of assets.
2. Under the Hybrid Annuity Model (HAM), project risk is shared between the government and the private developer rather than being borne entirely by either party.
3. India's low share of export-import cargo carried by Indian-owned ships leads to significant foreign exchange outgo on freight and vessel leasing.
4. Promotion of coastal shipping and multimodal connectivity involving rail, road, and ports is aimed at reducing India's overall logistics costs.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Que 9. Which of the following statements are correct in respect of the Lok Sabha Speaker?

1. The Speaker of the Lok Sabha is elected by the members of the Lok Sabha from among themselves.
2. The Speaker presides over the joint sitting of the Lok Sabha and the Rajya Sabha.
3. The Speaker has the power to decide whether a Bill is a Money Bill or not.

Select the answer using the code given below:

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

Que 10. Consider the following statements:

Statement I: The International Cricket Council (ICC) is the global governing body responsible for the administration and development of international cricket.

Statement II: The ICC frames playing conditions, organises major international tournaments, and oversees the application of the Laws of Cricket at the international level.

Statement III: The ICC functions as an apex body to promote cricket worldwide through its full, associate, and affiliate member nations.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I
- (b) Both Statement II and Statement III are correct but only one of them explains Statement I
- (c) Only one of the Statements II and III is correct and that explains Statement I
- (d) Neither Statement II nor Statement III is correct

Que 11. With reference to Employment Linked Incentives (ELI) announced by the Government of India, consider the following statements:

1. The objective of ELI is to encourage job creation by providing incentives linked to new employment generated in the private sector.

2. Delays in obtaining Cabinet approval and operationalising the scheme have affected the timely rollout of ELI.
3. The effectiveness of ELI in generating net new employment outcomes is yet to be conclusively demonstrated.

Which of the statements given above are correct?

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

Que 12. A reduction in import tariffs by the United States on Indian goods is most likely to lead to which one of the following outcomes for India in the short run?

- (a) Increase in India's current account deficit
- (b) Improvement in India's merchandise trade balance
- (c) Rise in fiscal deficit due to export incentives
- (d) Depreciation of the Indian rupee

Que 13. Which of the following statements are correct in respect of Motion of Thanks in the Lok Sabha?

1. The Motion of Thanks is moved after the President's Address to Parliament.
2. Amendments to the Motion of Thanks can be moved and debated in the Lok Sabha.
3. Defeat of the Motion of Thanks in the Lok Sabha amounts to a vote of no-confidence against the Council of Ministers.

Select the answer using the code given below:

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

Que 14. Consider the following statements:

Statement 1: The post of Deputy Chief Minister is not mentioned in the Constitution of India.

Statement 2: The appointment of a Deputy Chief Minister is based on political and administrative convenience of the State government.

Which one of the following is correct in respect of the above statements?

- (a) Both statement 1 and Statement 2 are correct and statement 2 explains statement 1
- (b) Both statement 1 and Statement 2 are correct and statement 2 does not explain statement 1
- (c) Statement 1 is correct, but Statement 2 is incorrect
- (d) Statement 2 is correct, but Statement 1 is incorrect

Que 15. Consider the following statements:

1. The National Security Council Secretariat (NSCS) coordinates India's strategic and security policy inputs related to cross-border terrorism.
2. The Indus Waters Treaty is a bilateral agreement brokered by the World Bank between India and Pakistan.
3. The South Asian Association for Regional Cooperation (SAARC) was established through a multilateral treaty signed in 1985.
4. The Unlawful Activities (Prevention) Act (UAPA), 1967 empowers the Government of India to designate organisations as terrorist organisations.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two

- (c) Only three
- (d) All four

Que 16. Consider the following statements regarding Carbon Capture, Utilisation and Storage (CCUS):

1. CCUS technologies aim to capture carbon dioxide emissions from industrial processes and either store them underground or convert them into useful products.
2. Transitioning all industrial sectors to renewable electricity is sufficient to completely eliminate carbon dioxide emissions, making CCUS unnecessary.
3. India has announced a net-zero emissions target to be achieved by 2050.
4. CCUS technologies are particularly relevant for industries like cement and steel where carbon emissions are intrinsic to the production process.

How many of the statements given above are incorrect?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Que 17. Consider the following statements with reference to missing children in India, as reflected in recent Delhi Police data:

1. The number of missing children in the 12–18 years age group has shown a sharp and continuous rise over the last three years.
2. Children in the 0–8 years age group are considered the most vulnerable due to higher risks of trafficking and illegal adoption.
3. Police investigations have revealed the involvement of organised criminal gangs in most cases of missing children.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Que 18. Consider the following statements regarding the Ayushman Bharat – Pradhan Mantri Jan Arogya Yojana (PM-JAY):

Statement I: PM-JAY has played a pivotal role in mitigating catastrophic health expenditure and reducing out-of-pocket (OOP) spending for the bottom 40% of India's population.

Statement II: Comprehensive financial protection through insurance naturally bridges the gap in healthcare quality and ensures seamless continuity of care across primary, secondary, and tertiary levels.

Which of the statements given above is/are correct?

- (a) Both Statement I and Statement II are correct
- (b) Both Statement I and Statement II are incorrect
- (c) Statement I is correct but Statement II is incorrect
- (d) Statement I is incorrect but Statement II is correct

Que 19. Consider the following statements:

Statement I: The National Human Rights Commission can inquire into complaints of human rights violations by public servants.

Statement II: NHRC has the power of a civil court while conducting inquiries.

Statement III: NHRC can recommend compensation or other relief to victims of human rights violations.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I
- (b) Both Statement II and Statement III are correct but only one of them explains Statement I
- (c) Only one of the Statements II and III is correct and that explains Statement I
- (d) Neither Statement II nor Statement III is correct

Que 20. Which of the following is a strategic advantage of Sodium-ion technology for India?

- (a) India has large lithium reserves
- (b) Sodium is abundantly available in seawater
- (c) Sodium mining requires advanced technology
- (d) Sodium batteries eliminate need for recycling

Que 21. Which of the following statements are correct in respect of Monetary Policy Committee (MPC)?

1. The Governor of the Reserve Bank of India is the ex-officio Chairperson of the MPC.
2. Each member of the MPC has one vote.
3. In case of a tie, the Chairperson has a casting vote.

Select the answer using the code given below:

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

Que 22. Consider the following statements:

Statement I: The China–Pakistan Economic Corridor (CPEC) enhances China's strategic and economic access to the Indian Ocean region.

Statement II: CPEC connects China's Xinjiang region to Pakistan's Gwadar Port through a network of roads, railways, and pipelines.

Statement III: Gwadar Port provides China with an alternative route that bypasses the Strait of Malacca for energy imports.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I
- (b) Both Statement II and Statement III are correct but only one of them explains Statement I
- (c) Only one of the Statements II and III is correct and that explains Statement I
- (d) Neither Statement II nor Statement III is correct

Que 23. Consider the following statements in the context of Artificial Intelligence and employment trends in India:

1. The adoption of AI-driven automation is likely to affect entry-level routine coding and maintenance roles more than high-end strategic positions.
2. Addressing the employment impact of advanced AI systems requires coordinated efforts by policymakers, educational institutions, and industry leaders.

Which of the statements given above are correct?

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

- (c) Both 1 and 2
- (d) Neither 1 nor 2

Que 24. Consider the following statements with reference to the RBI Governor's remarks on the Indian economy amid global unrest:

1. India's economic resilience is attributed to strong domestic demand, robust services activity, and improving manufacturing performance.
2. Urban consumption recovery is expected to weaken due to GST rationalisation and tighter monetary policy.
3. High capacity utilisation, accelerating bank credit, and government-led infrastructure spending are likely to support investment activity.
4. Global economic growth in 2026 is projected to be weaker due to restrictive financial conditions and reduced fiscal support.

How many of the statements given above are incorrect?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Que 25. Consider the following statements with reference to India's recent trade agreements with the EU and the US:

1. Under the EU FTA, India has secured market access for more than 99% of its exports to the EU by trade value.
2. The issue of Carbon Border Adjustment Mechanism (CBAM) is relevant in India-US trade negotiations but not in India-EU negotiations.
3. Both the EU and US trade agreements aim to protect India's sensitive sectors such as agriculture and dairy.
4. The interim trade framework with the US is intended to serve as a stepping stone towards a full Bilateral Trade Agreement.

How many of the statements given above are incorrect?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) None

Que 26. Consider the following statements with reference to "Disturbed Areas" laws as discussed in the context of Rajasthan's proposed legislation:

1. Such laws empower the state administration to regulate or scrutinise the transfer of immovable property in notified areas to prevent distress sales.
2. The underlying rationale of these laws is primarily to address economic inequality arising from rapid urbanisation.
3. These laws reflect a shift from regulating specific unlawful acts to assessing perceived threats to public order based on demographic patterns.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Que 27. Consider the following statements:

Statement I: The Kaladan Multi-Modal Transit Transport Project aims to provide an alternative connectivity route between mainland India and the North-Eastern states.

Statement II: The project connects Kolkata Port to Sittwe Port in Myanmar by sea and then uses the Kaladan River and road network to reach Mizoram.

Statement III: The project reduces India's dependence on the Siliguri Corridor for access to the North-East.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I
- (b) Both Statement II and Statement III are correct but only one of them explains Statement I
- (c) Only one of the Statements II and III is correct and that explains Statement I
- (d) Neither Statement II nor Statement III is correct

Que 28. Which of the following is not a constitutional power of the Prime Minister?

- (a) Advising the President
- (b) Chairing Cabinet meetings
- (c) Dissolving Lok Sabha independently
- (d) Allocation of portfolios

Que 29. Which of the following statements are correct in respect of Article 19 of the Constitution of India?

1. Article 19 guarantees six fundamental freedoms to all citizens of India.
2. Reasonable restrictions on these freedoms can be imposed by the State.
3. Foreign nationals are also entitled to the freedoms under Article 19.

Select the answer using the code given below:

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

Que 30. Consider the following statements:

Statement 1: The Sustainable Development Goals (SDGs) were adopted by all United Nations Member States in 2015.

Statement 2: They form part of the 2030 Agenda for Sustainable Development.

Which one of the following is correct in respect of the above statements?

- (a) Both statement 1 and Statement 2 are correct and statement 2 explains statement 1
- (b) Both statement 1 and Statement 2 are correct and statement 2 does not explain statement 1
- (c) Statement 1 is correct, but Statement 2 is incorrect
- (d) Statement 2 is correct, but Statement 1 is incorrect

Que 31. Consider the following statements with reference to India-Malaysia relations:

1. India and Malaysia elevated their bilateral relationship to a Comprehensive Strategic Partnership in 2024.
2. Cooperation between India and Malaysia has expanded into areas such as semiconductors, digital economy, and fintech.

3. India–Malaysia ties are also viewed as relevant for strengthening India’s engagement with ASEAN and BIMSTEC frameworks.

Which of the statements given above are correct?

- (a) Only one
(b) Only two
(c) All three
(d) None

Que 32. Consider the following statements with reference to parliamentary functioning in India:

1. The President’s Address to Parliament outlines the broad policy agenda of the government for the coming year.
2. The Lok Sabha Speaker has the authority to regulate debates and decide on the admissibility of motions in the House.
3. The Opposition in Parliament has no constitutional role in ensuring executive accountability.

Which of the statements given above are correct?

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

Que 33. Which of the following statements are correct in respect of the Secretary-General of the Lok Sabha?

1. The Secretary-General is the chief administrative officer of the Lok Sabha.
2. The Secretary-General is appointed by the Speaker of the Lok Sabha.
3. The Secretary-General is a member of Parliament by virtue of the office.

Select the answer using the code given below:

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

Que 34. Consider the following statements:

Statement I: Hindustan Aeronautics Limited plays a critical role in strengthening India’s indigenous defence aerospace capability.

Statement II: HAL is engaged in the design, development, manufacture, and maintenance of aircraft, helicopters, and aero-engines.

Statement III: HAL supplies major platforms such as fighter aircraft and helicopters to the Indian Armed Forces.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I
(b) Both Statement II and Statement III are correct but only one of them explains Statement I
(c) Only one of the Statements II and III is correct and that explains Statement I
(d) Neither Statement II nor Statement III is correct

Que 35. Consider the following statements regarding the leadership dynamics within the Indian National Congress during the freedom struggle:

1. Mahatma Gandhi preferred a model of collective leadership within the Congress rather than concentration of power in a single leader.
2. Jawaharlal Nehru lacked mass appeal and was primarily dependent on organisational backing within the Congress.
3. Sardar Vallabhbhai Patel enjoyed greater organisational support, while Nehru had wider popular acceptance among the masses.
4. Gandhi was opposed to Jawaharlal Nehru emerging as his political successor due to ideological differences.

How many of the statements given above are correct?

- (a) Only one
(b) Only two
(c) Only three
(d) All four

Que 36. Black carbon emissions from shipping in the Arctic region are a cause of concern primarily because they:

- (a) Deplete stratospheric ozone and increase ultraviolet radiation over polar regions
(b) Reduce the albedo of snow and ice, accelerating regional warming and ice melt
(c) Directly increase ocean salinity, affecting thermohaline circulation
(d) Cause acidification of polar waters through sulphur deposition

Que 37. Which of the following statements are correct in respect of Consumer Price Index (CPI) in India:

1. The CPI is used by the Reserve Bank of India as the primary indicator for monetary policy decisions.
2. The CPI base year has been revised from 2012 to 2024 to reflect changing consumption patterns.
3. The CPI measures only food price inflation.

Select the answer using the code given below:

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

Que 38. Consider the following statements:

Statement 1: The Household Consumption Expenditure Survey (HCES) 2023–24 was conducted by the National Statistical Office (NSO).

Statement 2: The survey collects data on household consumption of goods and services in both rural and urban areas.

Which one of the following is correct in respect of the above statements?

- (a) Both statement 1 and Statement 2 are correct and statement 2 explains statement 1
(b) Both statement 1 and Statement 2 are correct and statement 2 does not explain statement 1
(c) Statement 1 is correct, but Statement 2 is incorrect
(d) Statement 2 is correct, but Statement 1 is incorrect

Que 39. Consider the following statements with reference to trade diplomacy and India–US relations:

1. Trade negotiations are often influenced by national security considerations in addition to economic factors.

- The US–India Civil Nuclear Agreement was preceded by detailed parliamentary discussion in India.
- India withdrew from the Regional Comprehensive Economic Partnership (RCEP) citing concerns related to domestic economic interests.
- The President of India is constitutionally required to make statements in Parliament on all major international trade agreements.

How many of the statements given above are correct?

- Only one
- Only two
- Only three
- All four

Que 40. The concept of a ‘mass driver’, sometimes discussed in the context of lunar missions, primarily refers to:

- A propulsion system that uses chemical fuel for deep-space travel
- An electromagnetic system designed to launch objects into space without conventional rockets
- A gravity-assist manoeuvre using the Moon’s orbit
- A nuclear-powered engine for interplanetary missions

Que 41. Which of the following statements are correct in respect of Dal Lake:

- It is a freshwater lake fed by springs and inflows from the surrounding catchment area.
- The lake is directly connected to the Arabian Sea through a natural outlet.
- Dal Lake is part of the larger Dal–Nigeen lake system.

Select the answer using the code given below:

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

Que 42. Consider the following statements:

Statement I: Article 25 guarantees freedom of conscience and the right to freely profess, practice and propagate religion.

Statement II: The State can impose reasonable restrictions on this right in the interest of public order, morality and health.

Statement III: The State can regulate or restrict secular activities associated with religious practices.

Which one of the following is correct in respect of the above statements?

- Both Statement II and Statement III are correct and both of them explain Statement I
- Both Statement II and Statement III are correct but only one of them explains Statement
- Only one of the Statements II and III is correct and that explains Statement I
- Neither Statement II nor Statement III is correct

Que 43. Consider the following statements regarding the Kochi-Muziris Biennale and Marina Abramović:

- The Kochi-Muziris Biennale is an international contemporary art exhibition held in Kerala.
- Marina Abramović is globally known for her contributions to performance art.

- The Marina Abramović Institute primarily works for the preservation and promotion of classical Indian dance forms.
- The Kochi-Muziris Biennale focuses exclusively on traditional Indian art forms.

How many of the statements given above are correct?

- Only one
- Only two
- Only three
- All four

Que 44. Consider the following statements regarding the World Health Organization (WHO):

- The United States has traditionally been one of the largest contributors to WHO’s budget.
- WHO’s funding structure makes it vulnerable to political decisions of major donor countries.
- The World Health Assembly functions as the executive body of the WHO.

Which of the above statements are correct?

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

Que 45. Consider the following statements:

- The Bangladesh Nationalist Party (BNP) secured a simple majority in the 13th Jatiya Sangsad elections.
- Jamaat-e-Islami emerged as the single largest party in the Bangladesh Parliament.
- Stability in Bangladesh is considered strategically important for India’s eastern security architecture.

How many of the statements given above are correct?

- Only one
- Only two
- All three
- None

Que 46. Consider the following statements regarding the U.S. Environmental Protection Agency (USEPA) and the Endangerment Finding:

- The Endangerment Finding mandates the USEPA to regulate greenhouse gases based on scientific evidence of harm to public health and the environment.
- In the United States, the power generation sector is the largest source of greenhouse gas emissions.
- Repealing the Endangerment Finding can potentially weaken regulations on emissions from power plants and the oil and gas sector.

Which of the statements given above is/are incorrect?

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

Que 47. Consider the following statements:

Statement I: The United Nations was established after World War II to promote international cooperation and prevent future conflicts.

Statement II: The UN Charter was signed in 1945 in San Francisco.

Statement III: The United Nations replaced the League of Nations.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I
- (b) Both Statement II and Statement III are correct but only one of them explains Statement I
- (c) Only one of the Statements II and III is correct and that explains Statement I
- (d) Neither Statement II nor Statement III is correct

Que 48. Consider the following with reference to BRICS Summit:

1. The BRICS grouping originally consisted of Brazil, Russia, India, China, and South Africa.
2. The BRICS Summit is held annually among member countries.
3. The New Development Bank (NDB) was established under the BRICS framework.

How many of the above is/are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Que 49. Consider the following statements regarding refurbished medical devices in India:

1. Refurbished medical devices are used equipment restored to their original operating condition and typically sold at lower cost.
2. India currently has a dedicated regulatory pathway under the Medical Devices Rules, 2017 specifically governing refurbished medical devices.
3. Imports of certain high-end used medical equipment have been permitted subject to stringent conditions and technical inputs from the Central Drugs Standard Control Organisation (CDSCO).

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Que 50. Consider the following statements regarding the use of Artificial Intelligence (AI) in healthcare:

1. In low-resource settings, inaccuracies in AI systems can have disproportionately higher risks due to weaker health infrastructure.
2. The major barrier to AI adoption in developing countries is primarily the lack of user technical proficiency.
3. Unsupervised AI tools in mental health can potentially create psychological dependency among vulnerable users.
4. Concerns around AI are increasingly shifting from usability to issues of ownership, governance, and accountability.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Que 51. Consider the following statements:

Statement I: The Election Commission of India decides the recognition of political parties and allots election symbols.

Statement II: Only the Election Commission of India has the power to disqualify the Members of Parliament.

Statement III: The Election Commission of India does not conduct elections to the office of the Vice-President of India.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I
- (b) Both Statement II and Statement III are correct but only one of them explains Statement I
- (c) Only one of the Statements II and III is correct and that explains Statement I
- (d) Neither Statement II nor Statement III is correct

Que 52. Consider the following statements:

1. The Indian Council of Agricultural Research (ICAR) is an autonomous organization under the Ministry of Agriculture and Farmers Welfare.
2. ICAR is responsible for coordinating, guiding and managing research and education in agriculture and allied sectors in India.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Que 53. Which of the following statements are correct in respect of Real Estate Investment Trusts (REITs)?

1. REITs pool money from investors to invest primarily in income-generating real estate assets.
2. REITs in India are regulated by the Reserve Bank of India (RBI).
3. REITs are required to distribute a major portion of their net distributable cash flows to unit holders.

Select the answer using the code given below:

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

Que 54. Consider the following statements:

Statement I: A well-developed corporate bond market reduces excessive dependence of companies on bank financing.

Statement II: Corporate bonds allow companies to raise long-term funds directly from investors.

Statement III: Banks are the only source of long-term finance for companies in an economy.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I
- (b) Both Statement II and Statement III are correct but only one of them explains Statement I
- (c) Only one of the Statements II and III is correct and that explains Statement I
- (d) Neither Statement II nor Statement III is correct

Que 55. Consider the following statements regarding climate governance in India:

1. India's climate action framework includes measures related to air quality management, urban transport, and biodiversity conservation.
2. India's Nationally Determined Contributions (NDCs) under the Paris Agreement are automatically enforceable in domestic courts as binding law.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Que 56. With reference to the future of RuPay and Unified Payments Interface (UPI), consider the following statements:

1. The government-backed study emphasises that the future growth of UPI and RuPay will rely significantly on value-added services.
2. The report states that UPI has already eliminated major infrastructure and reliability challenges in India.
3. Integrating services such as micro-credit, insurance, and loyalty programmes can deepen financial inclusion through digital payments.
4. The incentive scheme for promoting RuPay debit cards and low-value BHIM-UPI transactions has seen increased government payouts in recent years.

How many of the statements given above are incorrect?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) None

Que 57. Which of the following statements are correct in respect of Generative Artificial Intelligence (GenAI)?

1. GenAI can create new content such as text, images, audio, and code based on training data.
2. GenAI models are typically trained using unsupervised or self-supervised learning techniques.
3. GenAI systems only retrieve pre-existing data and cannot generate novel outputs.

Select the answer using the code given below:

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

Que 58. Consider the following statements:

Statement I: The Enforcement Directorate (ED) is responsible for enforcing laws related to money laundering and foreign exchange violations in India.

Statement II: The ED administers the Prevention of Money Laundering Act (PMLA), 2002.

Statement III: The ED functions under the Department of Revenue in the Ministry of Home Affairs.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I

- (b) Both Statement II and Statement III are correct but only one of them explains Statement I
- (c) Only one of the Statements II and III is correct and that explains Statement I
- (d) Neither Statement II nor Statement III is correct

Que 59. Consider the following statements regarding recent AI innovations showcased at the India AI Impact Expo 2026:

1. Inya VoiceOS developed by Gnani.ai is a multilingual voice-to-voice foundational AI model.
2. Stellarview's road safety system depends on sending vehicle data to foreign cloud servers for processing.
3. Eka.care platform uses AI tools to help doctors manage patient health records digitally.

Which of the statements given above is/are incorrect?

- (a) 1 only
- (b) 2 only
- (c) 1 and 3 only
- (d) None

Que 60. The repeal of the "Endangerment Finding" (2009) by the United States is considered significant primarily because it:

- (a) Removes the constitutional mandate of the United States to participate in global climate agreements
- (b) Weakens the legal basis for regulating greenhouse gas emissions within the United States
- (c) Immediately reverses the global transition towards renewable energy
- (d) Prohibits individual US states from pursuing their own climate policies

Que 61. Which of the following statements are correct in respect of Kashmir Valley?

1. It lies between the Pir Panjal Range and the Greater Himalayas.
2. The Jhelum River flows through the valley.
3. It is separated from Ladakh by the Zaskar Range.

Select the answer using the code given below:

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

Que 62. Consider the following statements:

Statement I: The International Labour Organization promotes social justice and internationally recognized labour standards.

Statement II: It functions on a unique tripartite structure involving governments, employers, and workers.

Statement III: It was established in 1945 as a specialised agency of the United Nations.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I
- (b) Both Statement II and Statement III are correct but only one of them explains Statement I
- (c) Only one of the Statements II and III is correct and that explains Statement I
- (d) Neither Statement II nor Statement III is correct

Que 63. Consider the following statements regarding fiscal federalism in India:

1. Cesses and surcharges collected by the Union government are not part of the divisible pool shared with states.
2. The Finance Commission is constitutionally mandated to recommend the distribution of tax revenues between the Union and the States.
3. The share of states in the divisible pool has been fixed permanently at 41% by the Constitution.

Which of the above statements are correct?

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

Que 64. Consider the following statements regarding the Great Nicobar mega infrastructure project:

1. The project aims to develop Great Nicobar Island into a combined economic and defence hub.
2. The proposed transshipment port at Galathea Bay lies within an ecologically sensitive area known for leatherback turtle nesting.
3. The entire Great Nicobar Island falls outside the notified biosphere reserve area.
4. The project involves diversion of more than 100 sq km of forest land.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Que 65. Consider the following statements regarding the transfer and early release of foreign prisoners between India and Bangladesh:

1. The transfer of sentenced prisoners between India and Bangladesh is governed by a bilateral agreement signed in 2010.
2. Under such agreements, the receiving country alone decides on premature release without any role of the sentencing country.
3. The Delhi High Court directed communication of its order through the Union Ministries for implementation under the bilateral arrangement.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Que 66. Consider the following statements regarding India-Bangladesh relations in the context of recent political developments in Bangladesh:

1. The Bangladesh Nationalist Party (BNP) secured more than two-thirds of the directly elected parliamentary seats in the recent election.
2. Issues such as Teesta water sharing and cross-border security cooperation continue to influence India-Bangladesh bilateral ties.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Que 67. Consider the following statements:

Statement I: The United Nations Security Council has primary responsibility for the maintenance of international peace and security.

Statement II: It can impose sanctions and authorize the use of force.

Statement III: Its resolutions under Chapter VII of the UN Charter are binding on all member states.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I
- (b) Both Statement II and Statement III are correct but only one of them explains Statement I
- (c) Only one of the Statements II and III is correct and that explains Statement I
- (d) Neither Statement II nor Statement III is correct

Que 68. The General Data Protection Regulation (GDPR) is a law enacted by which of the following?

- (a) United Nations
- (b) United States
- (c) European Union
- (d) OECD

Que 69. Consider the following statements regarding the recent AI integration in Indian Railways:

1. The Centre for Railway Information Systems (CRIS) is the technological arm of Indian Railways responsible for embedding AI into railway applications.
2. The RailMadad platform uses artificial intelligence to classify and prioritise passenger complaints.
3. The RailOne application uses AI to predict the confirmation probability of waiting list tickets.
4. The Coach Mitra service is primarily designed to optimise freight loading through AI-based analytics.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Que 70. Consider the following statements regarding India's first nationwide childhood cancer survivorship registry (C2S cohort):

1. The registry tracks children only after they have completed cancer treatment and are declared in remission.
2. The five-year overall survival rate reported by the study is around 94.5%.
3. The study concludes that most childhood cancer survivors in India do not face any significant long-term health complications.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Que 71. Consider the following statements:

Statement I: DIKSHA is a national digital platform aimed at supporting school education in India.

Statement II: It provides e-content, teacher training modules, and QR-coded textbooks for learners and teachers.

Statement III: It is developed and managed by the Reserve Bank of India.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I
- (b) Both Statement II and Statement III are correct but only one of them explains Statement I
- (c) Only one of the Statements II and III is correct and that explains Statement I
- (d) Neither Statement II nor Statement III is correct

Que 72. Consider the following with reference to PM eVIDYA:

- 1. It aims to promote digital education through multiple modes of access.
- 2. It is implemented by the Ministry of Electronics and Information Technology.
- 3. It includes community radio and podcasts for educational outreach.

How many of the above is/are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Que 73. Which of the following statements are correct in respect of International Emergency Economic Powers Act?

- 1. It was enacted in 1977 to regulate the President's emergency economic powers.
- 2. It explicitly authorizes the President to impose tariffs and customs duties.
- 3. It allows the President to regulate economic transactions during a declared national emergency.

Select the answer using the code given below:

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

Que 74. Consider the following statements:

Statement 1: Pax Silica refers to a global order shaped by dominance in semiconductor manufacturing and digital supply chains.

Statement 2: Control over advanced chip production and critical minerals enhances a nation's geopolitical influence in the modern era.

Which one of the following is correct in respect of the above statements?

- (a) Both statement 1 and Statement 2 are correct and statement 2 explains statement 1
- (b) Both statement 1 and Statement 2 are correct and statement 2 does not explain statement 1
- (c) Statement 1 is correct, but Statement 2 is incorrect
- (d) Statement 2 is correct, but Statement 1 is incorrect

Que 75. Consider the following statements regarding the recent US tariff developments:

- 1. Section 122 of the US Trade Act of 1974 allows the US President to impose temporary tariffs without prior Congressional approval.
- 2. The International Emergency Economic Powers Act (IEEPA) tariffs imposed earlier were struck down by the US Supreme Court.
- 3. Section 232 of the Trade Expansion Act of 1962 permits the United States to impose tariffs on national security grounds.
- 4. After the recent developments, India's effective tariff exposure to the US is expected to remain permanently higher than China's.

Which of the statements given above are correct?

- (a) 1, 2 and 3 only
- (b) 1 and 4 only
- (c) 2 and 3 only
- (d) 1, 2, 3 and 4

Que 76. In the context of the recent white paper on obesity in India, why is obesity increasingly being classified as a chronic disease rather than merely a lifestyle condition?

- (a) Because obesity is primarily determined by genetic inheritance and cannot be modified
- (b) Because it involves complex metabolic and neurobiological processes requiring long-term medical management
- (c) Because it affects only urban populations with sedentary lifestyles
- (d) Because it is officially recognised as a communicable disease by global health agencies

Que 77. Which of the following statements are correct in respect of Large Language Models (LLMs)?

- 1. They are trained on vast amounts of text data to predict the next word in a sequence.
- 2. They inherently understand information in the same way humans do.
- 3. They use transformer-based neural network architectures.

Select the answer using the code given below:

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

Que 78. Consider the following with reference to physical features of Brazil:

- 1. The Amazon Basin covers a significant portion of northern Brazil.
- 2. The Brazilian Highlands lie mainly in the eastern part of the country.
- 3. The Andes Mountains run through central Brazil.

How many of the above is/are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Que 79. The recent NCERT revision reflects which of the following historiographical shifts in explaining India's independence?

- (a) From nationalist interpretation to Marxist interpretation
- (b) From single-leader explanation to multi-factor explanation
- (c) From colonial interpretation to subaltern interpretation
- (d) From economic interpretation to cultural interpretation

Que 80. Consider the following statements regarding the International Energy Agency (IEA):

- 1. The International Energy Agency was established in 1974 in the aftermath of the global oil crisis.
- 2. Full membership of the IEA is open to all major energy-consuming countries irrespective of their OECD status.
- 3. India currently participates in the IEA as an associate member without decision-making rights.
- 4. All associate members of the IEA are required to maintain mandatory strategic oil reserves similar to full members.

Which of the statements given above are incorrect?

- (a) 4 only
- (b) 1 and 3 only
- (c) 2, 3 and 4 only
- (d) 2 and 4 only

Que 81. Which of the following statements are correct in respect of Fundamental Rights?

- 1. They are enshrined in Part III of the Constitution.
- 2. They are justiciable in nature.
- 3. They are borrowed entirely from the British Constitution.

Select the answer using the code given below:

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

Que 82. Consider the following statements:

Statement 1: The Chief Justice of India acts as the administrative head of the Supreme Court.

Statement 2: The Chief Justice of India has the power to allocate cases and constitute benches of the Supreme Court.

Which one of the following is correct in respect of the above statements?

- (a) Both statement 1 and Statement 2 are correct and statement 2 explains statement 1
- (b) Both statement 1 and Statement 2 are correct and statement 2 does not explain statement 1
- (c) Statement 1 is correct, but Statement 2 is incorrect
- (d) Statement 2 is correct, but Statement 1 is incorrect

Que 83. Consider the following statements regarding India's Artificial Intelligence (AI) ecosystem:

- 1. A majority of AI deployments in India currently rely on proprietary foreign models accessed through APIs.
- 2. The India AI Mission's budget allocation has been criticised as insufficient compared to global investments in AI.
- 3. Most GPU computing power used by Indian AI start-ups is devoted to training new foundational models rather than inference.

Which of the statements given above are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only

(c) 1 and 3 only

(d) 1, 2 and 3

Que 84. A sustained increase in crude oil import dependence in India is most likely to directly worsen which of the following macroeconomic indicators?

- (a) Current Account Balance
- (b) Gross Domestic Product growth rate
- (c) Agricultural output
- (d) Human Development Index

Que 85. Consider the following statements regarding India's recent defence expenditure trends:

- 1. The increase in defence allocation has been driven largely by higher capital outlay aimed at military modernisation.
- 2. A substantial proportion of the modernisation budget has been earmarked for domestic procurement under the Atmanirbhar Bharat initiative.
- 3. The rise in defence spending primarily reflects India's intention to pursue expansionist military objectives in the region.
- 4. Strengthening operational readiness and logistics has also been a focus through enhanced revenue expenditure.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Que 86. Consider the following statements regarding strategic dynamics in West Asia:

- 1. The Strait of Hormuz is a critical maritime chokepoint affecting global energy security.
- 2. Iran's asymmetric warfare doctrine relies significantly on proxies, missiles, and drone capabilities.
- 3. The Indo-Pacific strategic pivot requires sustained American military prioritisation away from West Asia.

Which of the above statements are correct?

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

Que 87. Consider the following statements:

Statement I: The Food Safety and Standards Authority of India (FSSAI) is responsible for regulating and supervising food safety standards in India.

Statement II: FSSAI was established under the Food Safety and Standards Act, 2006.

Statement III: FSSAI lays down science-based standards for food products and regulates their manufacture, storage, distribution, sale, and import.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I
- (b) Both Statement II and Statement III are correct but only one of them explains Statement I
- (c) Only one of the Statements II and III is correct and that explains Statement I
- (d) Neither Statement II nor Statement III is correct

Que 88. Elections to the Lok Sabha are held on the basis of:

- (a) Proportional Representation
- (b) Single Transferable Vote
- (c) First-Past-The-Post System
- (d) List System

Que 89. Consider the following statements regarding accountability mechanisms for judges of the higher judiciary in India:

- 1. Judges of the Supreme Court can be removed only through a process of impeachment by Parliament.
- 2. The initiation of impeachment requires a fixed minimum number of Members of Parliament.
- 3. An independent constitutional body exclusively investigates complaints against higher judiciary judges.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Que 90. Consider the following statements:

- 1. Scandium is classified as a rare earth element and is used in next-generation semiconductor technologies.
- 2. Rare earth export controls can become instruments of geopolitical leverage in international trade relations.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Que 91. Consider the following statements:

Statement I: I2U2 is emerging as a strategic Mini lateral platform focused on economic and technological cooperation in West Asia.

Statement II: It promotes joint investments in areas such as food security, renewable energy, water, and infrastructure.

Statement III: It functions as a formal military alliance with a collective defence clause similar to NATO.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement II and Statement III are correct and both of them explain Statement I
- (b) Both Statement II and Statement III are correct but only one of them explains Statement
- (c) Only one of the Statements II and III is correct and that explains Statement I
- (d) Neither Statement II nor Statement III is correct

Que 92. Consider the following with reference to Mutual Funds:

- 1. Mutual Funds pool money from multiple investors and invest in diversified securities.
- 2. The Net Asset Value (NAV) of a mutual fund is calculated daily for open-ended schemes.
- 3. Mutual Funds in India are regulated by the Reserve Bank of India (RBI).

How many of the above is/are correct?

- (a) Only one
- (b) Only two

- (c) All three
- (d) None

Que 93. Consider the following statements regarding the Finance Commission in India:

- 1. The Finance Commission is a Constitutional body constituted by the President every five years or at such earlier time as he considers necessary.
- 2. It recommends the distribution of tax revenues only between the Union and the States.
- 3. Since the 10th Finance Commission, specific grants have been recommended for the empowerment of local governments (Panchayats and Municipalities).
- 4. The 15th Finance Commission recommended that a portion of grants to Million-Plus cities be "performance-linked" based on air quality and service level benchmarks.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Que 94. Consider the following statements regarding the Pakistan–Afghanistan tensions:

- 1. The Tehreek-i-Taliban Pakistan (TTP) aims to overthrow the Pakistani state and establish an Islamic caliphate.
- 2. The Durand Line, drawn in 1893, is fully accepted by Afghanistan as the international boundary with Pakistan.
- 3. Pakistan initially viewed the Afghan Taliban's return to power in 2021 as strategically beneficial.
- 4. The Afghan Taliban primarily rely on conventional air power superiority over Pakistan in any potential conflict.

Which of the statements given above are incorrect?

- (a) 1 and 2 only
- (b) 2 and 4 only
- (c) 1 and 3 only
- (d) 3 and 4 only

Que 95. Consider the following with reference to o BrahMos:

- 1. It is a supersonic cruise missile developed jointly by India and Russia.
- 2. It can be launched from land, sea, air, and submarine platforms.
- 3. It operates at hypersonic speeds exceeding Mach 5.

How many of the above is/are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Que 96. Costa Rica is bordered by which two countries?

- (a) Nicaragua and Panama
- (b) Honduras and Guatemala
- (c) Colombia and Ecuador
- (d) Mexico and Belize

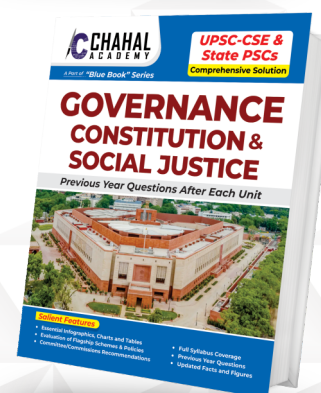
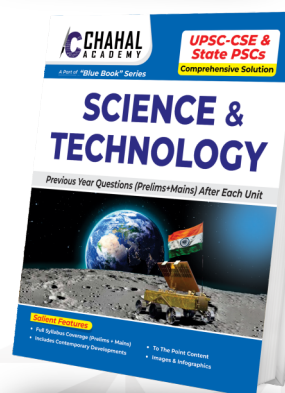
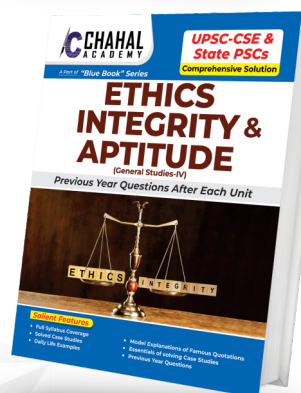
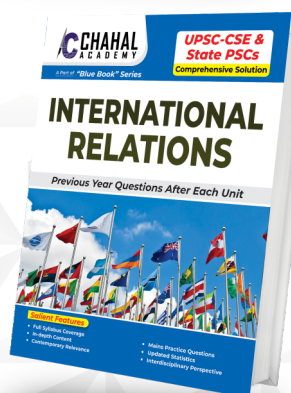
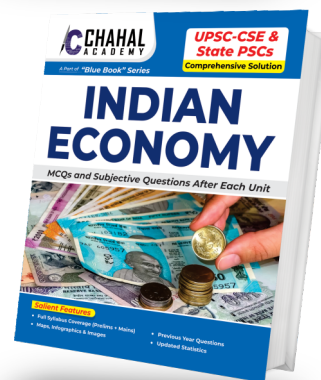
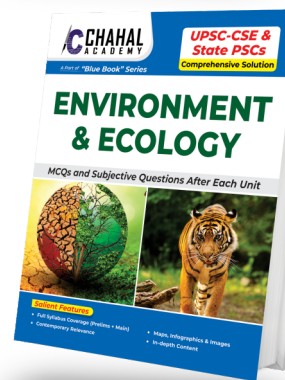
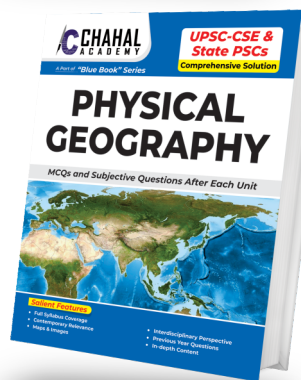
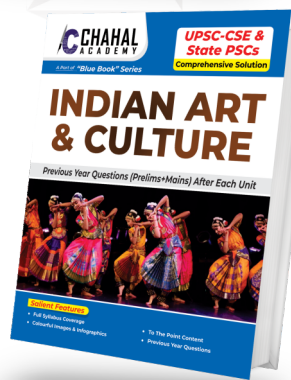
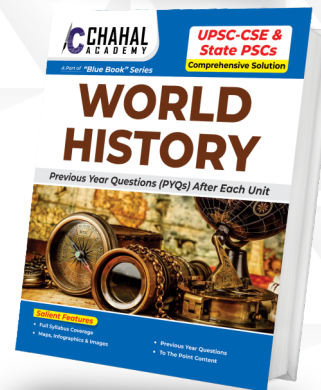
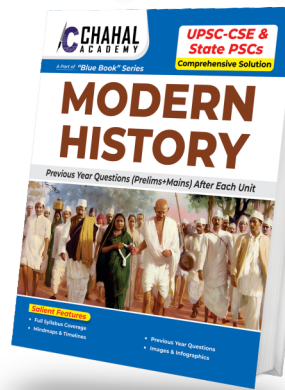
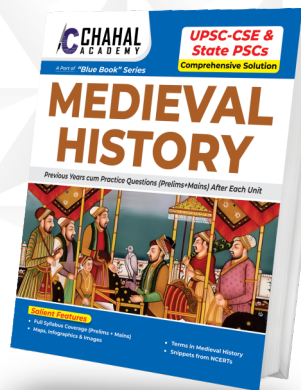
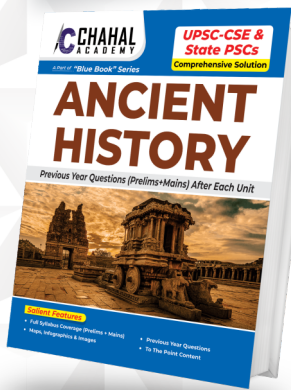
ANSWER KEY

Q1.	a	Q2.	a	Q3.	b	Q4.	b	Q5.	b
Q6.	a	Q7.	b	Q8.	d	Q9.	d	Q10.	a
Q11.	d	Q12.	b	Q13.	d	Q14.	a	Q15.	d
Q16.	b (2 & 3 only)	Q17.	a (2 only)	Q18.	c	Q19.	a	Q20.	b
Q21.	d	Q22.	a	Q23.	c	Q24.	b (2 & 4 only)	Q25.	a
Q26.	b (1 & 3 only)	Q27.	a	Q28.	c	Q29.	a	Q30.	a
Q31.	c	Q32.	a	Q33.	a	Q34.	a	Q35.	b (1 & 3 only)
Q36.	b	Q37.	a	Q38.	b	Q39.	c (1, 2 & 3 only)	Q40.	b
Q41.	c	Q42.	a	Q43.	b (3&4 only)	Q44.	a	Q45.	b (1 & 3 only)
Q46.	b	Q47.	a	Q48.	c	Q49.	b (1 and 3 only)	Q50.	c (1, 3 & 4 only)
Q51.	d	Q52.	c	Q53.	c	Q54.	c	Q55.	a
Q56.	a	Q57.	a	Q58.	c	Q59.	b	Q60.	b
Q61.	d	Q62.	c	Q63.	a	Q64.	c (1, 2 & 4 only)	Q65.	b (1 & 3 only)
Q66.	c	Q67.	a	Q68.	c	Q69.	c (1, 2 & 3 only)	Q70.	b (1 & 2 only)
Q71.	c	Q72.	b (1 & 3 only)	Q73.	c	Q74.	a	Q75.	a
Q76.	b	Q77.	c	Q78.	b (1 & 2 only)	Q79.	b	Q80.	d
Q81.	a	Q82.	a	Q83.	a	Q84.	a	Q85.	c (1, 2 & 4 only)
Q86.	d	Q87.	a	Q88.	c	Q89.	b (1 & 2 only)	Q90.	c
Q91.	c	Q92.	b (1 & 2 only)	Q93.	c (1, 3, & 4 only)	Q94.	b	Q95.	b (1 & 2 only)
Q96.	a								

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