Current Affairs

Connect Civils RAS

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Integrated (Pre + Mains + Interview) Current Affairs Monthly Magazine

January 2026

Focus on Answer Writing

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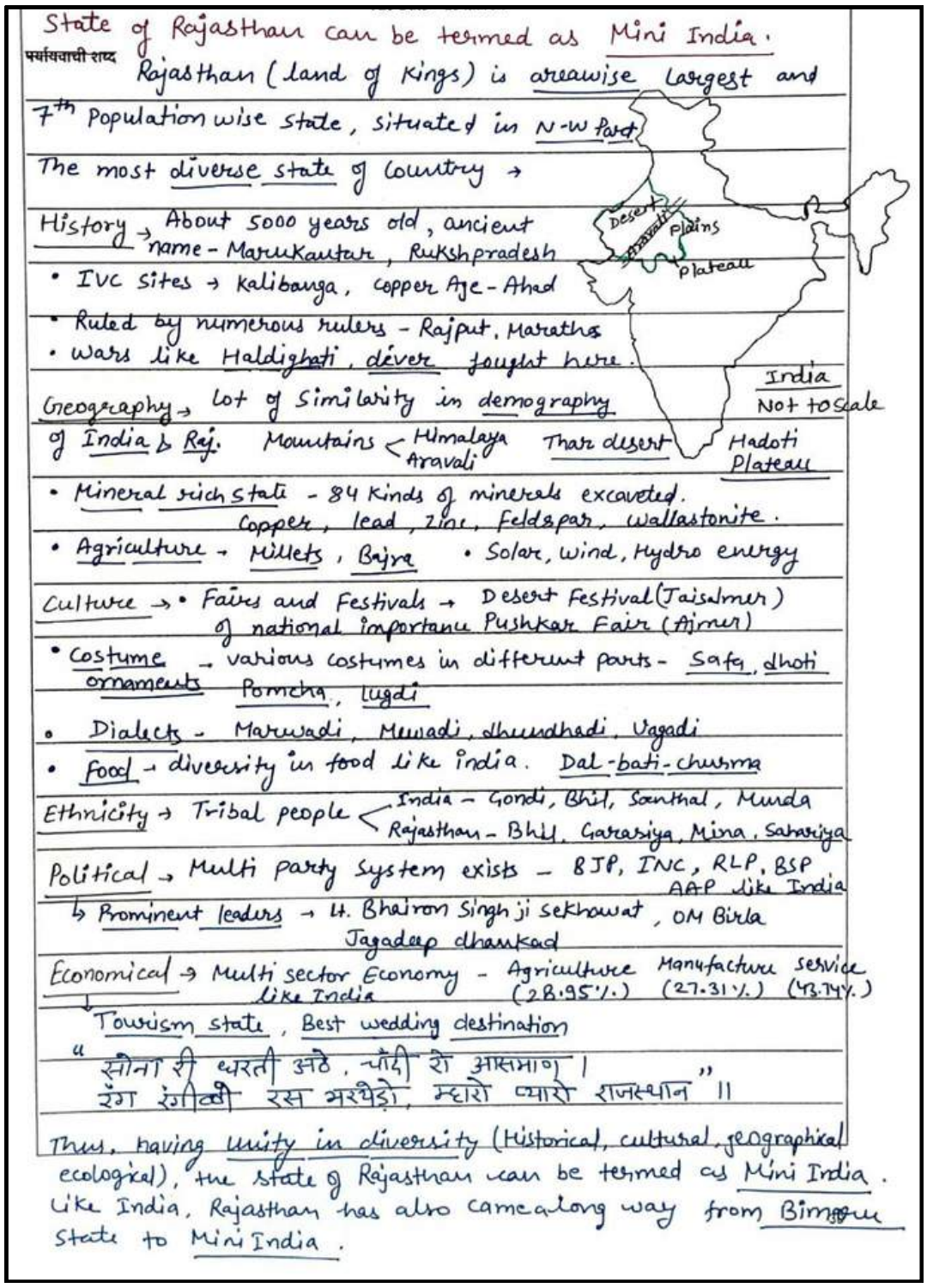


State of Rajasthan can be termed as Mini India.

पर्यायवाची शब्द

Rajasthan (land of Kings) is areawise Largest and 7th Population wise state, situated in N-W Part

The most diverse state of country →

History → About 5000 years old, ancient name - Marukantar, Rukshpradesh
- IVC sites → Kalibanga, copper Age - Ahad
- Ruled by numerous rulers - Rajput, Marathas
- Wars like Haldighati, dever fought here.

Geography → lot of Similarity in demography of India & Raj. Mountains < Himalaya, Aravali; Thar desert; Hadoti Plateau

India Not to scale — Desert, Aravali, Plains, Plateau

- Mineral rich stati - 84 Kinds of minerals excavated. Copper, lead, Zinc, Feldspar, Wallastonite.
- Agriculture → Millets, Bajra
- Solar, wind, Hydro energy

Culture →
- Fairs and Festivals → Desert Festival (Jaisalmer) of national importance Pushkar Fair (Ajmer)
- Costume → various costumes in different parts - Safa, dhoti ornaments Pomcha, Lugdi
- Dialects - Marwadi, Mewadi, Dhundhadi, Vagadi
- Food - diversity in food like India. Dal-bati-churma

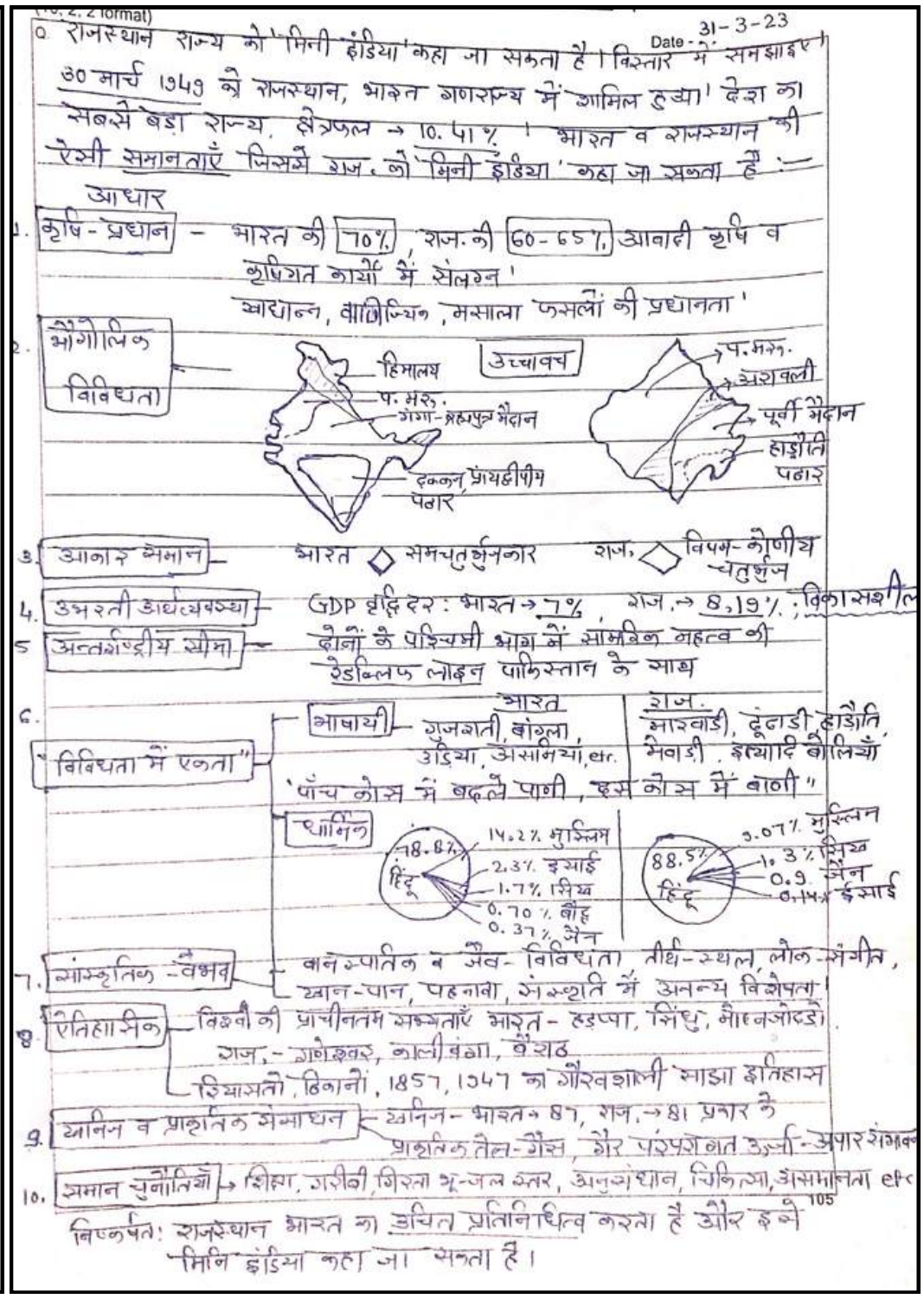
Ethnicity → Tribal people < India - Gondi, Bhil, Santhal, Munda; Rajasthan - Bhil, Garasiya, Mina, Sahariya

Political → Multi party System exists - BJP, INC, RLP, BSP AAP like India
↳ Prominent leaders → 11. Bhairon Singh ji sekhawat, OM Birla, Jagadeep dhankad

Economical → Multi sector Economy - Agriculture (28.95%) Manufacture (27.31%) service like India (43.74%)
↳ Tourism state, Best wedding destination

"सोना री धरती अठे, चाँदी रो आसमाण।
रंग रंगीली रस भरयेड़ो, म्हारो प्यारो राजस्थान" ॥

Thus, having unity in diversity (Historical, cultural, geographical ecological), the state of Rajasthan can be termed as Mini India. Like India, Rajasthan has also came along way from Bimaru State to Mini India.



Date - 31-3-23

Q. राजस्थान राज्य को 'मिनी इंडिया' कहा जा सकता है। विस्तार में समझाइए।

30 मार्च 1949 को राजस्थान, भारत गणराज्य में शामिल हुआ। देश का सबसे बड़ा राज्य, क्षेत्रफल → 10.41%। भारत व राजस्थान की ऐसी समानताएँ जिससे राज. को 'मिनी इंडिया' कहा जा सकता है :—

1. कृषि - प्रधान — आधार — भारत की 70%, राज. की 60-65% आबादी कृषि व कृषिगत कार्यों में संलग्न। अनाज, बागिच्चिन, मसाला फसलों की प्रधानता।
2. भौगोलिक विविधता — हिमालय, उच्चावच, प.भरुा., गंगा-ब्रह्मपुत्र मैदान, दक्कन प्रायद्वीपीय पठार, अरावली, पूर्वी मैदान, हाड़ौती पठार
3. आनुपातिक समानता — भारत ◇ समचतुर्भुजनुमा; राज. ◇ विषम-कोणीय चतुर्भुज
4. उभरती अर्थव्यवस्था — GDP वृद्धि दर: भारत → 7%, राज. → 8.19%; विकासशील
5. अन्तर्राष्ट्रीय सीमा — दोनों के पश्चिमी भाग में सामरिक महत्व की रेडक्लिफ लाइन पाकिस्तान के साथ
6. "विविधता में एकता" — भारत: भाषायी — गुजराती, बांग्ला, उड़िया, असमिया, etc.; राज.: मारवाड़ी, ढूंढाड़ी, हाड़ौती, मेवाड़ी, इत्यादि बोलियाँ। "पाँच कोस में बदले पानी, दस कोस में बानी"। धार्मिक — हिंदू 88.5%, मुस्लिम 9.07%, सिख 1.3%, जैन 0.9%, ईसाई 0.14%; हिंदू 78.8%, मुस्लिम 14.2%, ईसाई 2.3%, सिख 1.7%, बौद्ध 0.70%, जैन 0.37%
7. सांस्कृतिक वैभव — वनस्पतिक व जैव-विविधता, तीर्थ-स्थल, लोक-संगीत, खान-पान, पहनावा, संस्कृति में अनन्य विशेषता
8. ऐतिहासिक — विश्व की प्राचीनतम सभ्यताएँ भारत - हड़प्पा, सिंधु, मोहनजोदड़ो। राज. - गणेश्वर, कालीबंगा, बैराठ। रियासतों, ठिकानों, 1857, 1947 का गौरवशाली साझा इतिहास
9. खनिज व प्राकृतिक संसाधन — खनिज - भारत → 87, राज. → 81 प्रकार के प्राकृतिक तेल-गैस, और परंपरागत ऊर्जा - अपार संभावना
10. समान चुनौतियाँ → शिक्षा, गरीबी, गिरता भू-जल स्तर, अनुसंधान, चिकित्सा, असमानता etc.

निष्कर्षतः राजस्थान भारत का उचित प्रतिनिधित्व करता है और इसे मिनि इंडिया कहा जा सकता है।

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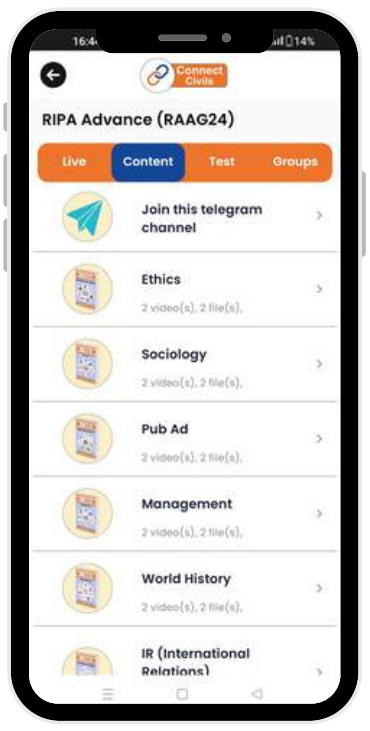

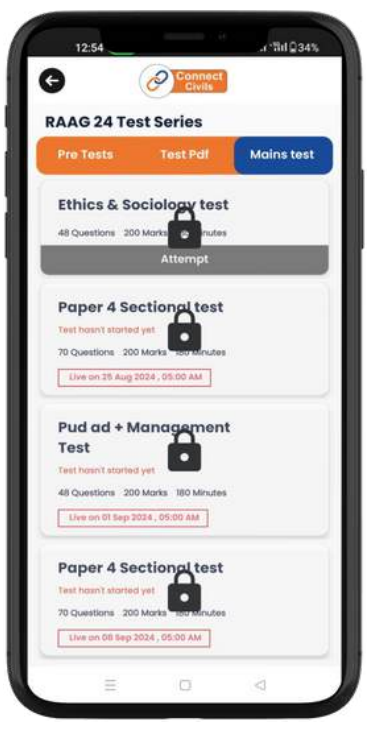

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Polity

Topic 1 - Law on Suspension of Sentence

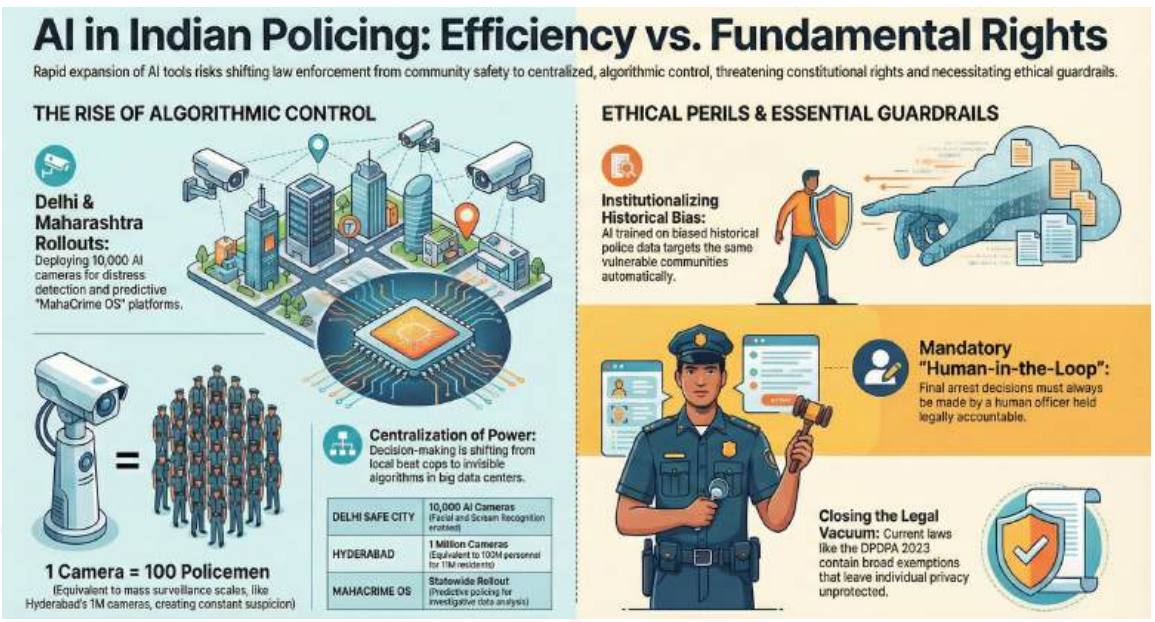
Syllabus	Polity and Constitution | Fundamental Rights
Context	The recent Supreme Court stay on the Delhi High Court's order - which had suspended the life sentence of Kuldeep Singh Sengar in the Unnao rape case - has reignited the debate over the appropriate standards for suspending sentences, particularly in serious criminal matters.
What is the issue	❖ Suspension of sentence means temporarily stopping the execution of the punishment during appeal. ❖ The conviction remains valid unless overturned; only the punishment is paused. ❖ It protects the right to appeal, but frequent use in grave crimes raises concerns about victim safety and loss of deterrence.
When suspension is granted	❖ **In short or fixed-term sentences:** Usually allowed because appeal delays may make the right to appeal meaningless if the convict completes the sentence. ❖ **In life imprisonment and heinous offences:** ➢ Treated as an exception, not the rule. ➢ Courts must assess seriousness, manner of crime, social impact, and chances of acquittal. ❖ **When there is a prima facie legal error:** If the judgment shows serious procedural or legal mistakes, suspension may prevent miscarriage of justice. ❖ **On humanitarian grounds:** Terminal illness, extreme old age, or grave medical condition can justify suspension, but only if public safety is not harmed. ❖ **Due to prolonged incarceration with a delayed appeal:** Rarely considered, and not a standalone ground in life sentence cases.
Legal Basis and Guiding Principles	❖ **Governing Law:** Rooted in Section 389 of the CrPC (now Section 430 of the BNSS, 2023). ❖ **Nature:** It is a discretionary power of the court, not an automatic right for the appellant. ❖ A significantly stricter benchmark must be applied for serious crimes.
Important court rulings	❖ **Bhagwan Rama Shinde Gosai (1999):** Encouraged suspension in short-term cases but mandated caution and restraint for grave offences. ❖ **Shivani Tyagi (2024):** In sexual offences, long imprisonment alone cannot justify suspension. ❖ **Chhotelal Yadav (2025):** In life sentence cases, suspension only when a clear legal error indicates possible acquittal.

Challenges	❖ **Undermined Deterrence:** The temporary release of convicts in serious cases weakens the law's deterrent power. ❖ **Victim/Witness Risk:** It increases the potential for intimidation of victims and key witnesses. ❖ **Inconsistency:** Lack of uniform standards leads to varying decisions across different courts. ❖ **Influence:** Legal loopholes can be exploited by powerful or politically connected offenders to avoid rigorous treatment. ❖ **Erosion of Public Trust:** Relief for high-profile convicts damages public confidence in the justice system.
Way Forward	❖ **Stricter Burden of Proof:** Mandate strong evidence for high probability of acquittal before suspension in life sentence cases. ❖ **Victim-Centric Approach:** Balance accused's rights with victim's vulnerability. ❖ **Legislative Reform:** Amend laws to prevent misuse of power by influential individuals. ❖ **Judicial Efficiency:** Expedite appeals in serious cases to minimize the need for sentence suspension. ❖ **Uniform Guidelines:** The Supreme Court should establish clear, binding standards for all subordinate courts.
Conclusion	Suspension of sentence is a necessary safeguard for appeals, but in heinous and life-imprisonment cases it must remain a rare exception. Victim safety, deterrence, and public confidence should outweigh routine leniency, supported by clearer laws and faster appellate justice.

Topic 2 - The Perils of Integrating AI in Police Operations

Syllabus	Polity and Governance
Context	The rapid adoption of AI in policing, seen in projects like **Delhi's Safe City** and **Maharashtra's MahaCrime OS**, raises serious concerns for rights, accountability, and democratic governance.
Current AI Use in Indian Policing	❖ **Safe City Project (Delhi):** 10,000 AI-enabled cameras with facial recognition and distress detection. ❖ **MahaCrime OS AI (Maharashtra):** Predictive policing platform to identify crime hotspots and analyse investigation data. ❖ **Surveillance Drones:** Used for crowd control and traffic monitoring, replacing large on-ground deployments. ❖ **Data Backends:** Systems like CCTNS feed decades of crime data to train AI models.

Key Ethical and Administrative Concerns	❖ **Centralisation of Power:** Decisions shift from local officers to opaque algorithm-driven control rooms, weakening human discretion. ❖ **Excessive Surveillance:** AI cameras multiply police presence, creating a constant "suspect society." ❖ **Historical Bias:** AI trained on biased past data risks institutionalising caste, religious, or community profiling. ❖ **Erosion of Fundamental Rights:** Easy tracking of protests can chill dissent and freedom of expression. ❖ **Lack of Transparency:** No statutory AI policing manual; algorithmic decisions remain a black box.
Challenges in the 2026 Landscape	❖ **Accuracy vs Human Cost:** Errors in facial recognition have led to wrongful detention, as seen in past cases. ❖ **Legal Vacuum:** DPDPA 2023 gives broad exemptions to law enforcement, weakening privacy safeguards. ❖ **Presumption of Guilt:** Predictive policing treats routine movement as suspicious data, reversing the innocence principle.
Way Forward	❖ **Statutory Framework:** Enact dedicated laws for AI in policing with mandatory safety tests and transparency norms. ❖ **Human-in-the-Loop:** AI should assist, not decide; final authority must rest with accountable human officers. ❖ **Algorithmic Audits:** Independent audits to identify and correct caste, gender, or religious bias. ❖ **Police Reforms:** Amend laws like the Criminal Procedure (Identification) Act to ensure proportional data collection. ❖ **Rights-Based Deployment:** Align AI use with constitutional guarantees of privacy, dignity, and liberty.
Conclusion	AI can support policing, but without safeguards, it risks turning governance into digital authoritarianism; trust, transparency, and constitutional values must guide every technological step.



Topic 3 - NATGRID and the Architecture of Surveillance	
Syllabus	Governance
Context	The expansion of the National Intelligence Grid-including its linkage with the National Population Register and wider State police access-has revived debates on privacy, oversight, and proportional surveillance.
What is NATGRID?	❖ Technology-enabled intelligence-sharing platform created post-26/11 to break information silos. ❖ Acts as secure middleware enabling authorised agencies to query multiple databases in real time without holding the data.
Key Features	❖ **Data Access:** Connects 21 categories of data, including travel, banking, telecom metadata, identity records, and assets. ❖ **User Base:** Access is provided to select central agencies and has been extended to State police at the Superintendent of Police (SP) level. ❖ **Security & Categorization:** Queries are classified into three sensitivity tiers: non-sensitive, sensitive, and highly sensitive. ❖ **Analytical Tools:** Utilizes AI for advanced analytics, including entity resolution and pattern linking.
Successes So Far	❖ **NPR integration:** Enables household and lineage-based identity verification at a population scale. ❖ **Operational scale:** ~45,000 queries/month; shifts intelligence from episodic to real-time support. ❖ **The Crime and Criminal Tracking Networks and Systems (CCTNS) linkage:** Instant access to FIRs across 14,000+ police stations, improving Centre–State coordination. ❖ **AI enablement (GANDIVA):** Cuts suspect-linking time from days to minutes in terror-finance and organised crime cases. ❖ **State access expansion:** Strengthens last-mile policing intelligence beyond counter-terrorism.
Recent Expansions	❖ **Population Data Validation:** Deeper NPR integration supports faster and more comprehensive cross-dataset identity validation. ❖ **Routine Investigative Use:** SP-rank access has positioned NATGRID as a common, daily tool for investigations. ❖ **Accelerated Probes:** AI automation speeds up the linking process, though this carries the increased risk of errors.
Challenges and Concerns	❖ **Legislative lacuna:** Operates via executive orders; no statute defines limits or accountability.

	❖ **Proportionality risk:** Access to sensitive data without FIR may breach necessity standards. ❖ **Algorithmic bias:** Reported false positives in facial recognition risk misidentification. ❖ **DPDP exemptions:** Weaken the correction and grievance rights for citizens. ❖ **Function creep:** Drifting from counter-terrorism to routine cases dilutes the purpose limitation.
Way Ahead	❖ **Parliamentary oversight:** Standing Committee on Intelligence to audit scope, logs, and compliance. ❖ **Judicial authorisation:** Warrants for "highly sensitive" data (banking, tax). ❖ **Data minimisation:** Time-bound retention with automatic deletion for cleared individuals. ❖ **Algorithmic accountability:** Bias audits, explainability, and human-in-the-loop safeguards. ❖ **Privacy-preserving cooperation:** Secure protocols for Interpol/foreign data sharing without raw data exposure.
Conclusion	NATGRID has improved intelligence efficiency, but rapid expansion without statutory guardrails risks normalising mass surveillance; law-bound oversight and proportionality are essential to balance security with liberty.

Topic 4 - Judicial Removal

Syllabus	Polity | Judiciary
Context	The 2025 removal notice against a Madras High Court judge has drawn attention to structural deficiencies in India's system for removing judges, highlighting the tension between judicial accountability and procedural discretion.
What is Judicial Removal?	❖ **Definition:** The constitutional mechanism for removing a sitting Supreme Court or High Court judge before their retirement. ❖ **Terminology:** While often colloquially termed "impeachment," the Constitution correctly refers to it as "removal." ❖ **Exclusive Grounds:** A judge can only be removed for **proven misbehaviour or incapacity.**
Constitutional Framework	❖ **Supreme Court Judges:** ➢ **Article 124(4):** Defines the grounds (misbehaviour/incapacity) and the required special majority for removal. ➢ **Article 124(5):** Grants Parliament the power to legislate the detailed procedure for investigation.

	❖ **High Court Judges:** ➢ **Article 217(1)(b):** Stipulates the same removal process as for Supreme Court judges. ➢ **Article 218:** Extends the application of Article 124(4) and (5) to High Courts.
Initiation and Inquiry Conditions	❖ **Initiation Threshold (Notice Requirement):** A motion must be signed by either 100 Members of Parliament (Lok Sabha) or 50 MPs (Rajya Sabha). ❖ **Judicial Standards (Scope of Misbehaviour):** This standard broadly includes corruption, lack of integrity, and deliberate abuse of office. ❖ **Inquiry Committee:** If the motion is admitted, an investigation is conducted by a committee comprising a Supreme Court judge, a High Court Chief Justice, and an eminent jurist. ❖ **Voting Requirement for Passage:** The motion must be supported by: ➢ A majority of the total membership of the House, **AND** ➢ Two-thirds of the members present and voting in *each* House of Parliament.
Procedure of Removal	❖ **Motion Submission:** The notice is formally submitted to the Presiding Officer (Speaker of Lok Sabha or Chairman of Rajya Sabha). ❖ **Admission Decision:** The Presiding Officer determines whether to **accept (admit) or reject** the motion. ❖ **Investigation:** If admitted, the Inquiry Committee investigates the charges. ❖ **Parliamentary Approval:** Both Houses debate and pass the motion with the required special majority. ❖ **Presidential Order:** The President issues the final removal order after the motion is passed by Parliament.
Flaws in the Current Framework	❖ **Arbitrary Admission Power:** The presiding officer can reject a valid motion without detailed reasoning. ❖ **Political Bottleneck:** The speaker/Chairman's political position may influence decisions. ❖ **Undefined "Misbehaviour":** No constitutional definition; open to subjective interpretation. ❖ **Procedural Opacity:** Admission scrutiny happens behind closed doors without transparency. ❖ **Lapse Loophole:** Rejection at the admission stage kills the process entirely, regardless of evidence.

Topic 5 - Election Commission of India	
Syllabus	Polity | Legislation
Context	The **Election Commission of India (ECI)** recently affirmed to the Supreme Court of India that **Article 324** of the Constitution grants it complete authority over the preparation and maintenance of electoral rolls. This includes the power to conduct a **Special Intensive Revision (SIR)**.
About Election Commission of India	❖ ECI is an independent constitutional body responsible for free, fair, and credible elections. ❖ Ensuring that only eligible Indian citizens are enrolled as voters is a core constitutional duty. ❖ Maintenance of electoral roll purity is central to democratic legitimacy.
Constitutional Provisions Related to ECI	❖ **Article 324:** ➢ Grants ECI superintendence, direction, and control over elections and electoral rolls. ➢ Constitutional basis for actions like SIR. ❖ **Article 325:** ➢ Provides for a single general electoral roll per constituency. ➢ Prohibits discrimination in voter inclusion on religion, race, caste, sex, etc. ❖ **Article 326:** ➢ Establishes adult suffrage. ➢ Restricts voting rights to Indian citizens aged 18+, subject to lawful disqualifications. ❖ **Article 327:** ➢ Empowers Parliament to legislate on elections, but subject to Article 324. ➢ Preserves ECI's operational autonomy. ❖ **Article 328:** ➢ Allows State legislatures to make election laws where Parliament has not acted, within constitutional limits.
Significance of ECI's Constitutional Duty	❖ Protects electoral integrity by preventing the inclusion of ineligible persons. ❖ Upholds citizenship-based franchise as a democratic foundation. ❖ Balances ECI autonomy with legislative oversight, limiting executive interference.

Topic 6 - Corporate Political Funding in India

Syllabus	**Polity | ECI**
Context	After the **Supreme Court of India** scrapped the Electoral Bond Scheme in February 2024, corporate political funding has become sharply concentrated.
What is Corporate Political Funding	❖ Financial contributions from companies to political parties via legal methods, including direct donations and electoral trusts (and previously, electoral bonds). ❖ This funding significantly influences electoral outcomes, campaign reach, media narratives, and party structures.
Key Data and Trends	❖ In FY25, the ruling party received **over 80%** of total reported corporate and institutional donations. ❖ Major opposition parties received only **single-digit shares**. ❖ Donations through electoral trusts **tripled** after electoral bonds were struck down. ❖ Distribution remains skewed due to donor risk-aversion and proximity to political power.

Evolution of Funding Mechanisms:

Phase	Characteristics	Impact
Pre-2017	Primarily cash donations below disclosure limits.	High opacity and black money concerns.
2013-Present (Electoral Trusts)	Introduced donor disclosure via pooled disbursement.	Limited adoption initially; now growing.
2018–2024 (Electoral Bonds)	Permitted anonymous, unlimited corporate donations through SBI.	Increased formalisation but eliminated voter transparency.
Post-2024	Shift back to direct donations and electoral trusts.	Increased concentration and political pressure dynamics.

Challenges	❖ **Financial Asymmetry:** Large funding disparities distort fair electoral competition. ❖ **Quid Pro Quo Risks:** Corporations favour ruling parties for policy benefits and contracts. ❖ **Fear-Driven Compliance:** Regulatory and investigative pressure discourages funding for opposition parties. ❖ **Weak Transparency:** Electoral trusts disclose donors but hide the crucial link between the donor and the recipient party. ❖ **Erosion of Democratic Parity:** Money power overwhelms ideology, leadership, and grassroots mobilisation.

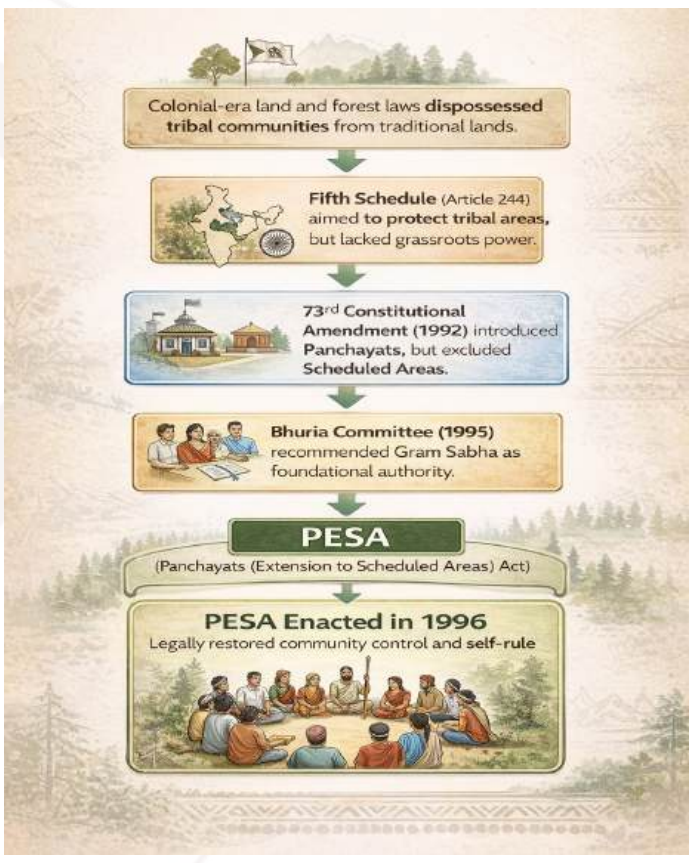
Way Forward: Reforms for Democratic Finance	❖ **Blind Pool Funding Model** ➢ Corporate donations are pooled under an independent constitutional authority. ➢ Distribution based on objective criteria like vote share or seats contested. ❖ **Financial Parity:** Implement caps or equalised distribution limits to ensure a level playing field. ❖ **Enhanced Transparency:** Mandate aggregate disclosure with audited formulas for allocation, while maintaining donor anonymity safeguards. ❖ **Empowered Oversight:** Grant the **Election Commission of India** statutory authority to audit and impose penalties for violations. ❖ **Reduce Campaign Costs:** Strictly enforce spending ceilings and regulate digital political advertising.
Conclusion	India's electoral challenge today is not a scarcity of funds but **excessive concentration**. Transparent, parity-oriented reforms are essential to restore competitiveness, credibility, and democratic balance in political finance.

Topic 7 - Why SIR Verification Needs to Be Completely Digitised

Syllabus	Polity | Election Commision
Context	Ongoing SIR 2.0 has exposed voter distress and procedural delays, highlighting a gap between EC's digital capacity (ECINet) and paper-based verification on the ground.
What is SIR Verification Digitisation?	❖ Shift from manual field inquiries and physical hearings to an end-to-end digital workflow. ❖ **Key Mechanism:** Uses ECINet for secure backend document cross-verification, audit trails, and final approvals. ❖ **Voter Experience:** Allows online document submission with instant status updates via SMS/Email, eliminating the need for physical appearances.
Key Features of Special Intensive Revision (SIR) 	SIR aims to ensure the integrity and inclusivity of the electoral rolls: ❖ **Roll Cleaning:** Systematic removal of duplicate, shifted, or deceased voters. ❖ **Inclusion:** Registration of newly eligible and previously left-out voters. ❖ **Error Correction:** Rectifying long-standing errors, particularly issues like non-mapped voters from the 2002–04 rolls. ❖ **Data Capture:** Collecting updated demographic and residency information via Enumeration Forms (EFs). ❖ **Accountability:** ECINet provides complete audit trails, tracking every application from submission to final decision.

Why Digital SIR is Necessary	❖ **Accuracy & Integrity:** Digital cross-checks reduce human error and improve data reliability. ❖ **Citizen-Centric:** Removes the burden of physical summons, long queues, and repeated in-person hearings. ❖ **Conflict Resolution:** Quickly resolves discrepancies like non-mapped voters through online document uploads. ❖ **Legal Protection:** Prevents forcing wrongly deleted voters to file a Form 6 (registration form), mitigating legal risks under BNS 2023. ❖ **Trust and Transparency:** Real-time application tracking and instant acknowledgments foster public confidence.
Challenges in SIR 2.0	❖ **Legacy Data Dependence:** Rolls based on 2002–04 manual data, with weak verification, continue to affect accuracy. ❖ **Data Mismatches:** Large discrepancies across records (e.g., Panchayat vs SIR rolls). ❖ **Digital Divide:** Elderly, rural, and vulnerable voters may struggle without assistance. ❖ **Institutional Resistance:** Preference for coercive manual hearings over streamlined digital processes. ❖ **Mass Deletions Risk:** Allegations of large-scale deletions without adequate notice or verification.
Way Forward	❖ **Proactive Communication:** Notify applicants instantly about status (accepted/flagged) via SMS and EPIC-linked accounts. ❖ **Backend Integration:** Link ECINet with government databases for automatic authentication (KYC-like verification). ❖ **Hybrid Support Model:** Use BLOs to assist digitally illiterate voters at home or kiosks. ❖ **Process Correction:** Allow restoration without forcing Form 6 to avoid legal jeopardy. ❖ **Real-time Draft Rolls:** Update rolls continuously as digital verification concludes.
Conclusion	A fully digitized SIR is the key to achieving robust electoral integrity while upholding citizen dignity. By effectively leveraging technology, voter verification can be made inclusive, transparent, accurate, and trust-based.

Topic 8 - Central Vigilance Commission (CVC)	
Syllabus	Indian Polity | Statutory Body
Context	**Shri Praveen Vashista, IPS (Bihar cadre, 1991 batch),** took oath on 16 January 2026, highlighting the role of CVC in fighting corruption.
What is CVC?	❖ India's supreme body for vigilance and integrity. ❖ Dedicated to promoting accountability and transparency in public administration. ❖ Formed based on the recommendations of the Santhanam Committee. ❖ **Established:** 1964, via an executive resolution. (**Statutory Status:** Granted in 2003).
Composition and Structure	❖ **Members:** Consists of a Central Vigilance Commissioner and a maximum of two Vigilance Commissioners. ❖ **Appointment:** Appointed by the President of India. ❖ **Tenure:** Four years or until the age of 65, whichever comes first. ❖ **Structure:** ➢ Comprises a Secretariat, technical wing, and inquiry wing. ➢ Maintains a network of Chief Vigilance Officers (CVOs) within various government departments.
Jurisdiction	❖ Covers Group A officers and All India Services members. ❖ Extends to Public Sector Undertakings (PSUs), banks, LIC, and the RBI. ❖ Supervises the Central Bureau of Investigation (CBI) in cases related to corruption. ❖ Handles cases referred by the Lokpal.
Key Functions	❖ Supervises the entire vigilance framework (vigilance machinery). ❖ Conducts inquiries into corruption complaints. ❖ Provides advisory support to government departments. ❖ Monitors progress on CBI-related cases. ❖ Offers protection to whistle-blowers.

Topic 9 - PESA Act implemented in Jharkhand after 25 years	
Syllabus	Polity and Constitution | Local Self Government
Context	Jharkhand notified its PESA Rules in January 2026, twenty-five years after its formation, fulfilling a constitutional commitment to extend tribal self-governance to its Fifth Schedule areas.
What is PESA	❖ PESA, enacted on December 24, 1996, extends the Panchayati Raj system to the Fifth Schedule areas, currently covering 10 states, including Jharkhand. ❖ Its core principle is the recognition of the **Gram Sabha** (village assembly) as the supreme authority in tribal villages, granting it governance control over land, forests, water, and community resources.
Key Provisions of PESA	❖ The Gram Sabha is the ultimate decision-making body in village affairs. ❖ The Act mandates respect for customary law, culture, and traditions. ❖ Grants rights over minor forest produce, community lands, and water bodies. ❖ Requires mandatory consultation with the Gram Sabha before any land acquisition. ❖ **Regulatory Power:** Empowers the Gram Sabha to regulate local markets, money-lending activities, and liquor sales. ❖ The Gram Sabha is responsible for selecting beneficiaries of government schemes. 
Impact and Achievements	❖ **Decentralization:** Formalizes tribal self-rule, reducing reliance on bureaucratic control. ❖ **Resource Management:** Enables Gram Sabhas to effectively manage local resources and forest produce. ❖ **Economic Benefit:** Improved incomes for tribals by eliminating middlemen in the forest produce trade. ❖ **Land Protection:** Strengthens the community's role in safeguarding land ownership. ❖ **Inclusivity:** Institutionalizes the participation of women in village-level decision-making.

Implementation Hurdles	❖ **State Dilution:** Restrictive or inadequate rules notified by several states have weakened PESA. ❖ Government bureaucracy frequently disregards the resolutions passed by Gram Sabhas. ❖ **Consent Bypass:** Projects (mining/infrastructure) often proceed without mandated Gram Sabha consent. ❖ **Oversight Inaction:** Governors and Tribal Advisory Councils rarely exercise their power to intervene. ❖ **Awareness Gap:** Low levels of legal and digital awareness among tribal communities hinder effective use of the Act.
Way ahead	❖ **Empowerment:** Provide Gram Sabhas with necessary funds, technical support, and staff. ❖ **Integration:** Link PESA's provisions with the Forest Rights Act and relevant court judgments. ❖ **Legal Force:** Make Gram Sabha consent legally binding on all state actions. ❖ **Redressal:** Establish specialized grievance redress bodies within Scheduled Areas. ❖ **Oversight:** Encourage social audits and monitoring by civil society organizations.
Conclusion	❖ PESA embodies the constitutional promise of self-rule for India's tribal communities. Jharkhand's delayed move will be significant only if it translates into authentic power for the Gram Sabhas, moving beyond mere symbolism.

Topic 10 - India Emerges as a Global Cooperative Powerhouse

Syllabus	Polity | Devolution of Powers to Local Levels
Context	The year **2025** has been designated as the **International Year of Cooperatives**. India is positioned as a global frontrunner, driven by the guiding principle of “Sahkar Se Samriddhi” (Prosperity through Cooperation).
Key Data on Indian Cooperatives	❖ **Global Share:** India accounts for nearly 27% of the world's cooperatives. ❖ **Scale:** There are approximately 8.5 lakh registered societies, with 6.6 lakh functioning actively. ❖ **Reach:** With nearly 32 crore members, the movement encompasses almost 98% of all rural households. ❖ **Financial Strength:** 1,457 urban cooperative banks hold assets of ₹7.38 trillion and deposits of ₹5.84 trillion. ❖ **Women's Empowerment:** Close to 10 crore women are linked through SHGs within the cooperative structure. ❖ 15 Indian cooperatives are ranked in the prestigious Global Top 300 list.

The Role of Cooperatives in India's Development

Area of Impact	Contribution	Example/Mechanism
Financial Inclusion	Provides credit at the grassroots level.	Primary Agricultural Credit Societies (PACS) offer short-term loans to farmers and are being computerized and linked with NABARD for transparent credit flow.
Market Efficiency	Enhances farmers' bargaining power and market access.	Cooperatives aggregate small farmers' produce. **Amul** successfully connects millions of milk producers to national and global markets.
Food Security	Minimizes post-harvest losses and strengthens the supply chain.	Local storage facilities are established. 112 PACS now manage godowns with a collective capacity of 68,702 Metric Tons under the national grain storage plan.
Sustainable Livelihoods	Promotes diverse income-generating activities.	Support is provided for dairy, fisheries, and organic farming. The National Cooperative Organics Ltd (NCOL) aids organic farmers under the **"Bharat Organics"** brand.
Affordable Services	Delivers essential services directly to the community.	PACS are transforming into multi-service centers. Over 800 PACS operate **Janaushadhi Kendras**, providing low-cost medicines.

Reforms and Initiatives

- ❖ A ₹2,925 crore project is underway to computerize PACS with Enterprise Resource Planning (ERP) software in 14 languages.
- ❖ New **national-level multi-state cooperative societies** have been established for specialized functions:
  - ➢ National Cooperative Exports Limited (NCEL) for exports
  - ➢ National Cooperative Organics Limited (NCOL) for organic produce
  - ➢ Bharatiya Beej Sahakari Samiti Limited (BBSSL) for quality seeds.
- ❖ **White Revolution 2.0** aims to increase milk procurement by 50% within five years.
- ❖ Cooperative surcharge has been reduced from 12% to 7%.
- ❖ Model Bye-laws now allow PACS to undertake over 25 new activities.

Challenges	❖ **Regional Imbalance:** Strong in Maharashtra and Gujarat, weak in the North-East. ❖ **Infrastructure Gaps:** Lack of storage, computers, and connectivity. ❖ **Governance Issues:** Weak professional management and instances of nepotism hinder efficiency. ❖ **Financial Weakness:** Low capital base and high Non-Performing Assets (NPAs). ❖ **Skill Shortage:** Lack of trained cooperative professionals.
Conclusion	India's cooperative movement is a proven model for inclusive and equitable growth. Continued reforms, coupled with a focus on technology and professionalization, position the sector to lead the world in cooperative-based development.

Topic 11 - Consumer Protection Act, 2019	
Syllabus	Polity | Legislation
Context	The **Central Consumer Protection Authority** penalised a coaching institute for misleading UPSC advertisements. The action highlights strict enforcement under the Consumer Protection Act, 2019.
What is the Act	❖ **Purpose:** A comprehensive legal framework designed to safeguard consumer rights and effectively combat unfair trade practices. ❖ **Replacement:** Superseded the older Consumer Protection Act, 1986. ❖ **Core Goals:** ➢ To shield consumers from defective goods/services and false or misleading advertisements. ➢ To ensure accountability across manufacturers, service providers, and advertisers.
Key Features	❖ **Central Consumer Protection Authority (CCPA):** Powers to investigate, penalise, and stop misleading advertisements. ❖ **Broad Definition of Misleading Ads:** Encompasses not only false claims but also concealment of facts and exaggerated promises. ❖ **Product liability:** Fixes liability for harm from defective goods or deficient services. ❖ **Enhanced Consumer Rights:** Recognises rights to information, choice, redressal, and awareness. ❖ **E-commerce Regulation:** Extends regulatory oversight to digital advertisements and online platforms. ❖ **Faster redressal:** E-filing, mediation cells, and clearer jurisdiction of commissions.
Significance	❖ Provides crucial protection for aspirants and parents against fraudulent coaching institute claims. ❖ Promotes truthful advertising and transparency in the digital economy.

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Topic 1 - India–Bangladesh Ganga Water Sharing Treaty (1996)	
Syllabus	International Relations | Bi-lateral Relations
Context	With the treaty set to expire in December 2026, India and Bangladesh are preparing for renewal talks.
What is it?	❖ Bilateral agreement governing sharing of the Ganga River's waters at Farakka during the dry season. ❖ Signed on **12 December 1996** for 30 years.
Key features	❖ **Ten-day allocation formula:** Based on historical flows (1949–1988). ❖ **Emergency Protocol:** In the event the flow drops below 50,000 cusecs, the treaty mandates emergency consultations between the two countries. ❖ **Joint Committee:** Monitors flows and submits annual reports. ❖ **Review clause:** Every five years.
Significance	❖ Guarantee dry-season water supply to Bangladesh. ❖ Maintains salinity control for Bhagirathi–Hooghly and Kolkata Port. ❖ Cornerstone of India–Bangladesh cooperation on transboundary rivers.

Topic 2 - Iranian Conundrum	
Syllabus	International Relations
Context	Iran's current widespread unrest, marked by recurring protests (2017, 2019, 2022-2023), stems from a deep economic crisis (hyperinflation, unemployment, poverty) exacerbated by geopolitical tensions and international sanctions, revealing a major crisis of confidence in the government.
What is the Iranian conundrum?	❖ This refers to Iran's recurring cycle of economic collapse, political legitimacy crises, and sustained external pressure. ❖ While short-term repression temporarily controls dissent, the fundamental structural issues continue to generate new crises. ❖ Key drivers include international sanctions, rampant inflation, ineffective governance, and a concentration of power in institutions outside of elected bodies.
Historical Roots of Instability	Iran’s history shows a long-standing tension between state control and social aspirations: ❖ **Constitutional Movement (1905–1911):** Focused on demanding a parliament and constitution, but democracy was undermined by the monarchy and foreign interference.

	❖ **Pahlavi Era (1925–1979):** Marked by rapid modernisation and Westernisation, which also led to increased economic inequality and political repression. ❖ **Mossadegh and the 1953 Coup:** Oil nationalisation challenged Western powers, resulting in a CIA–MI6-backed coup that fostered profound distrust of foreign intervention. ❖ **Islamic Revolution (1979):** Overthrew the monarchy, fueled by grievances over inequality, dictatorship, and foreign control, establishing the current Islamic Republic under clerical dominance. ❖ **Post-1979 Pattern:** Significant protests (2009, 2019, 2022, and 2025–26) highlight the permanent tension between the ruling structure and public aspirations.
Current Power Structure	Real power in Iran is diffused across elected and unelected institutions: ❖ **Supreme Leader:** The ultimate authority, controlling the military, judiciary, media, security, and holding the final say on foreign and nuclear policy. ❖ **Deep State (Unelected):** ➢ **IRGC (Islamic Revolutionary Guard Corps):** Controls security, a significant part of the economy, and regional operations. ➢ **Bonyads:** Large business entities operating without public accountability. ❖ **Clerical Bodies (Unelected):** ➢ **Guardian Council:** Vets election candidates and can reject laws deemed inconsistent with Islamic principles. ➢ **Assembly of Experts:** Responsible for appointing the Supreme Leader. ➢ **Expediency Council:** Mediates disputes between institutions. ❖ **Elected Institutions:** ➢ **President:** Manages the daily administration. ➢ **Parliament:** Makes laws, though they are subject to review and potential overruling by clerical bodies.
Meaning of current protests	❖ **Economic:** Currency collapse led to increased costs for necessities (food, fuel), severely affecting the middle class and traders. ❖ **Political:** It reflects the inability of elected leaders to implement meaningful reforms, confirming that real power resides with unelected entities. ❖ **Social:** Youth, women, and urban populations are demanding dignity and a voice. Repression only intensifies public anger instead of resolving underlying issues.
Implications	❖ **For India:** ➢ Iran’s instability can lead to oil price volatility, affecting India's inflation and current account deficit. ➢ Increases risk for Indian workers in West Asia. ➢ Connectivity projects (Chabhar project, INSTC) with Iran face heightened uncertainty. ➢ Developments carry domestic resonance within India’s Shia community.

	❖ **For the World:** ➢ Tensions in the Strait of Hormuz threaten global energy supply. ➢ Iran remains a central flashpoint in the US-led sanctions regime. ➢ External pressure tends to stiffen the Iranian security establishment's response
Conclusion	Iran's current unrest signals a deeper structural crisis rooted in a lack of currency trust, limits on governance, and continuous external pressure. Until the government achieves economic stabilisation and opens up political space, the cycle of protest and repression is likely to persist.

Topic 3 - Monroe Doctrine

Syllabus	International Relations | World Order
Context	The U.S. action against Venezuela and the capture of its president have been justified by Donald Trump by invoking the **Monroe Doctrine**, a 19th-century U.S. policy, now being revived in contemporary geopolitics.
About Monroe Doctrine	❖ U.S. foreign policy principle declaring the **Western Hemisphere as the exclusive U.S. sphere of influence**. ❖ Any **external (especially European) intervention** in the Americas is treated as a hostile act. ❖ Based on the idea of **separate political spheres** for Europe and the Americas. ❖ **Origin and background** ➢ **Proclaimed:** 2 December 1823, by **President James Monroe** (5th U.S. President). ➢ Initially framed as a **defensive doctrine** to prevent European recolonisation in the Americas.
Core principles	❖ **No New Colonization:** Europe was barred from establishing new colonies in the Americas. ❖ **Non-Interference:** External intervention was to be viewed as a threat to U.S. security. ❖ **Reciprocal Restraint:** The U.S. pledged not to interfere in European internal affairs or colonies. ❖ **Separate Spheres:** Formal political separation between European and American systems.
Transformation – Roosevelt Corollary (1904)	❖ Introduced by **Theodore Roosevelt**. ❖ Claimed the U.S. right to **intervene in Latin American countries** to maintain stability and prevent European involvement. ❖ Shifted the doctrine from **defensive protection → proactive interventionism**. ❖ Turned the Monroe Doctrine into a tool for **U.S. regional dominance**.

Link to Venezuela crisis (2026)	• U.S. action against Venezuela and the capture of President **Nicolás Maduro** were justified as a "modern Monroe Doctrine". • **U.S. Argument:** Intervention is warranted due to **instability and the presence of rival powers** in the region. • **Criticism:** Critics have labeled this a form of **neo-imperialism**, seeing it as a revival of historical U.S. interventionism in Latin America (e.g., Cuba, Haiti, Nicaragua, Dominican Republic).
Significance	❖ Shapes U.S. hemispheric strategy and geopolitical behaviour. ❖ Symbol of **hegemonic regional control** rather than cooperative security. ❖ Continues to influence U.S. policy in Latin America even in the 21st century.

Topic 4 - Neo-Colonialism	
Syllabus	**World History | IR**
Context	Recent US actions and "transition" rhetoric in Venezuela have revived debate on neo-colonialism. It refers to control without formal annexation through force, sanctions, and political engineering.
What is Neo-colonialism	❖ Indirect domination of sovereign states through economic, political, and security leverage. ❖ It operates by shaping a state's real policy choices using tools like: debt and trade dependence, corporate control, sanctions, and regime influence. ❖ Crucially, it achieves policy control without requiring territorial rule.
Origin	❖ Emerged after decolonisation when powers retained influence through finance and security ties. ➢ **Cold War logic:** Promoting friendly regimes and orchestrating coups. ➢ **Global capitalism:** Deepening dependence through conditional lending.
Neo-colonialism in South America	❖ **Commodity Dependence:** Economies rely on single-commodity exports (e.g., oil, copper), leading to fiscal crisis after price crashes (Chile 1970s, Venezuela 2014+). ❖ **Foreign Corporate Control:** Foreign firms dominate key sectors like mining/oil, resulting in profit outflows (Bolivia 2003 Gas War resistance; Chile 1971 nationalization). ❖ **Regime and Policy Engineering:** External powers historically shaped domestic politics (Cold War, Chile 1973 coup → reversed nationalist policies, Brazil 1964 coup → led to long military rule). ❖ **Security Leverage:** Cooperation replaced direct colonial rule as a control tool (Operation Condor coordinated repression). ❖ **Debt and Policy Control:** Dependence on foreign capital (1982 debt crisis) led to IMF-mandated austerity and limited industrial growth (the "lost decade").

Challenges of Neo-colonialism	❖ **Erosion of sovereignty** through debt and market pressure. ❖ **Inequality and elite capture** under externally aligned regimes. ❖ **Democratic backsliding** via coups and coercive politics. ❖ **The resource curse** is reinforced by export dependence. ❖ **Instability** from sanctions and interventions.
Modern Neo-colonialism	❖ Sanctions and control over global financial networks. ❖ Dependence on technology and supply chains. ❖ Debt conditionality and ratings pressure. ❖ Investment treaties that restrict national regulation. ❖ Control over media and narrative influence.
Implications	❖ **For South America:** Increased political volatility and economic churn. ❖ **For Global Order:** Weakening of UN norms and a rise in power politics. ❖ **For Development:** Policy instability and delayed social progress.
Conclusion	Neo-colonialism represents **rule without visible rule**, substituting flags with strategic leverage. True sovereignty requires robust measures: diversified economies, strong regional cooperation, and a global commitment to restraint on coercion.

Topic 5 - BRICS India 2026 Logo	
Syllabus	International Relations
Context	India has launched the BRICS India 2026 logo and website as it prepares to chair BRICS in 2026. The year also marks 20 years of the BRICS grouping.
Theme and Symbolism of the Logo	The design is rooted in the Indian national flower, the Lotus, embodying: ❖ Resilience, unity, and renewal. ❖ The philosophy of Vasudhaiva Kutumbakam (the world is one family). ❖ **Key Design Elements:** ➢ **Lotus Shape:** Represents India's civilisational identity. ➢ **Namaste Hands:** Signify dialogue and respect. ➢ **Five Petals:** Symbolize the five member nations: Brazil, Russia, India, China, and South Africa. ➢ **Balanced Design:** Reflects the principle of unity in diversity.
Significance of India's Chairmanship	❖ **Global Leadership:** Projects India's role in the Global South. ❖ **Core Focus:** Promotes a people-centric and development-oriented agenda for BRICS. ❖ **Priorities:** Aligns with India's own focus on resilience, innovation, cooperation, and sustainability.

Topic 6 - BRICS Plus Naval Exercise – "Will for Peace 2026"	
Syllabus	International Relations
Context	India has skiped the BRICS Plus naval exercise. It reflects India's strategic caution against security signalling within an economic bloc.
What is the BRICS Plus Naval Exercise?	❖ **Exercise:** Host-led, non-institutionalised naval drill (outside the formal BRICS framework). ❖ **Host:** South Africa (off Simon's Town, Cape Town). ❖ **Active Participants:** China, Russia, Iran, UAE, South Africa. ❖ **Non-participants:** India, Brazil (opted out of active role). ❖ **Theme:** Safety of key shipping lanes and maritime economic activities. ❖ **Features:** Maritime security, counter-terrorism, anti-sea strike, SAR operations, China-led coordination, participation of sanctioned states (Russia, Iran). ❖ **Significance:** ➢ Shows internal BRICS divergence on security. ➢ Raises concerns about militarisation of an economic forum. ➢ Reinforces India's strategic autonomy. ➢ Highlights India's reluctance to mix economic and military alignments.

Topic 7 - India's Minerals Diplomacy	
Syllabus	International Relations
Context	India is reshaping its mineral strategy after the National Critical Mineral Mission (2025) and China's rare-earth export controls, to secure minerals for clean energy, industry, and strategic autonomy.
What is Minerals Diplomacy?	❖ Using foreign partnerships and mineral clubs to secure **lithium, cobalt, and rare earths.** ❖ Covers the **full chain: mining, refining, and manufacturing.** ❖ Reduces supply risks from geopolitics and trade wars. ❖ **Links mineral policy with foreign policy and national security.** ❖ Focuses on long-term contracts, joint ventures, and shared processing.
Status of India's Minerals	❖ **Copper refining increased by 43.5% in early FY26**, showing a revival of smelting. ❖ India is **100% import dependen**t for 10 critical minerals like **lithium and cobalt**. ❖ **2nd in aluminium and 3rd in iron ore production** globally (2025). ❖ GSI has taken up 368+ exploration projects in the last 3 years. ❖ ₹34,300 crore allocated under NCMM till 2031. ❖ Lithium reserves have been identified in J&K, but commercial mining will take time.

Why India Needs It	❖ The 500 GW clean energy target and EV push need a huge lithium supply. ❖ Reduce China's control over rare-earth and battery material processing. ❖ Access modern refining, separation, and recycling technologies. ❖ Protect industries from global price swings and supply shocks. ❖ Build fair partnerships with Global South mineral-rich nations. ❖ Support Make in India and green manufacturing goals.
Key Initiatives	❖ **National Critical Mineral Mission 2025**: 7-year mission for mineral security. ❖ **Mines and Minerals (Amendment) Act 2025**: Centre auctions 24 strategic minerals. ❖ KABIL: Overseas mining in Argentina, Chile, and Africa. ❖ Mineral Security Partnership with the US, the EU, and allies. ❖ ₹1,500 crore recycling scheme for urban mining. ❖ Bilateral mineral pacts with Australia, Japan, and Namibia.
Challenges	❖ Weak midstream capacity: India lacks advanced refining and separation plants. ❖ Strong global competition: Chinese firms dominate bidding with state support. ❖ Policy risks abroad: Resource nationalism and contract changes. ❖ Trade barriers: Subsidies like the US IRA favour local producers. ❖ ESG pressure: Indian mining must meet global standards. ❖ Financing problem: High cost and slow returns scare private investors. ❖ Long timelines: 10–15 years from discovery to production.
Way Forward	❖ Build value chains with **Australia, Canada, Africa, and Latin America**. ❖ Use NCMM funds to reduce private investor risk. ❖ Set up domestic refineries and battery-material plants. ❖ Partner with the US, Japan, and the EU for technology. ❖ Expand recycling and battery recovery. ❖ Improve ESG and transparency. ❖ Post mineral experts in key embassies. ❖ Speed up clearances without harming the environment.
Conclusion	India's minerals diplomacy is becoming proactive and strategic, and its success will depend on converting partnerships into real mines, refineries, and strong long-term supply chains.

Topic 8 - Pax Silica Initiative	
Syllabus	International Relations | Initiatives
Context	The US announced India will be invited to join Pax Silica, a tech-security partnership.
About Pax Silica Initiative	❖ **US-led** tech-security partnership launched in **2025** to secure the global supply chain for critical technologies (silicon, chips, AI, critical minerals). ❖ **Scope:** Covers the entire supply chain, from mineral extraction to advanced AI chips. ❖ **Principles:** Operates on a **"trusted partners only"** basis to mitigate espionage risks and coordinates efforts against economic coercion. ❖ **Goal:** Promotes long-term investment in fabs/processing units and aims to reduce reliance on hostile suppliers, forming a powerful tech bloc. ❖ **Members:** Japan, South Korea, Singapore, Netherlands, UK, Israel, UAE, and Australia. ❖ **Partners:** Taiwan, the EU, Canada, and the OECD. ❖ **India:** Invited to join, a significant boost for its semiconductor and AI ambitions.

Topic 9 - Spain Joins Indo-Pacific Oceans Initiative (IPOI)	
Syllabus	International Relations
Context	Spain has formally joined the Indo-Pacific Oceans Initiative (IPOI).
About IPOI?	❖ A non-treaty, voluntary framework dedicated to maritime cooperation. ❖ The focus is on practical collaboration rather than military alliances. ❖ Launched by India at the 2019 East Asia Summit in Bangkok, based on the **SAGAR doctrine**. ❖ **Goal:** To foster a rules-based, open, and free Indo-Pacific region, balancing security, development, and environmental sustainability at sea.
Key Features	❖ Built around **Seven Pillars**: Maritime Security, Ecology, Resources, Capacity Building, Disaster Management, Science & Technology, and Trade & Connectivity. ❖ **Flexible Participation:** Member countries voluntarily choose pillars to lead. ❖ **Key Focus Areas:** Enhancing Maritime Domain Awareness and developing resilient infrastructure.
Significance	❖ Bolsters the IPOI's credibility through wider European involvement. ❖ Affirms India's pivotal role in setting the agenda for the Indo-Pacific. ❖ Promotes a spirit of inclusive multilateralism.

Topic 10 - Gaza Peace Board	
Syllabus	International Relations
Context	USA has extended an invitation to India to join the proposed **Gaza Peace Board** (also referred to as the "Board of Peace").
What is the Gaza Peace Board?	❖ A **US-led international initiative** designed to shape the post-war (Israel-Hamas war) governance, security transition, and reconstruction of Gaza, operating outside of established multilateral frameworks like the United Nations. ❖ **Proposed by:** Proposed by **US President Donald Trump**, who is slated to be the **inaugural Chairman** with significant veto power. ❖ **Membership:** Invitations have been extended to India, Egypt, Jordan, Türkiye, Canada, Argentina, and approximately 60 other nations.
Functions	❖ Oversee technocratic Palestinian administration (NCAG). ❖ Monitor the ceasefire and transition from Hamas rule. ❖ Coordinate reconstruction, investment, and public services. ❖ Act as a political and financial decision-making body.
Significance	❖ **Alternative Architecture:** It signals the creation of a new, US-centric conflict-resolution and governance architecture, bypassing existing global institutions. ❖ **Sovereignty Concerns:** Operating outside traditional frameworks raises questions regarding the concentration of power and potential impacts on Palestinian sovereignty.

Topic 11 - UNESCO Media and Information Literacy (MIL) Alliance	
Syllabus	International Relations
Context	The election of the first Global Board marks a major governance milestone for UNESCO's Media and Information Literacy Alliance.
What is the MIL Alliance?	❖ A global collaborative network coordinated by UNESCO. ❖ Focuses on promoting media and information literacy. ❖ Aims to counter disinformation, misinformation, and hate speech. ❖ **Launched:** 2013 in Abuja, Nigeria; **Relaunched:** 2025 with the Cartagena Declaration. ❖ **Composition:** Coordinated by UNESCO's MIL Unit, with over 300 organizations and 180 experts from 100+ countries. ❖ **Aim:** Build societal resilience against information disorders and influence MIL policy/practice. ❖ **Key Functions:**

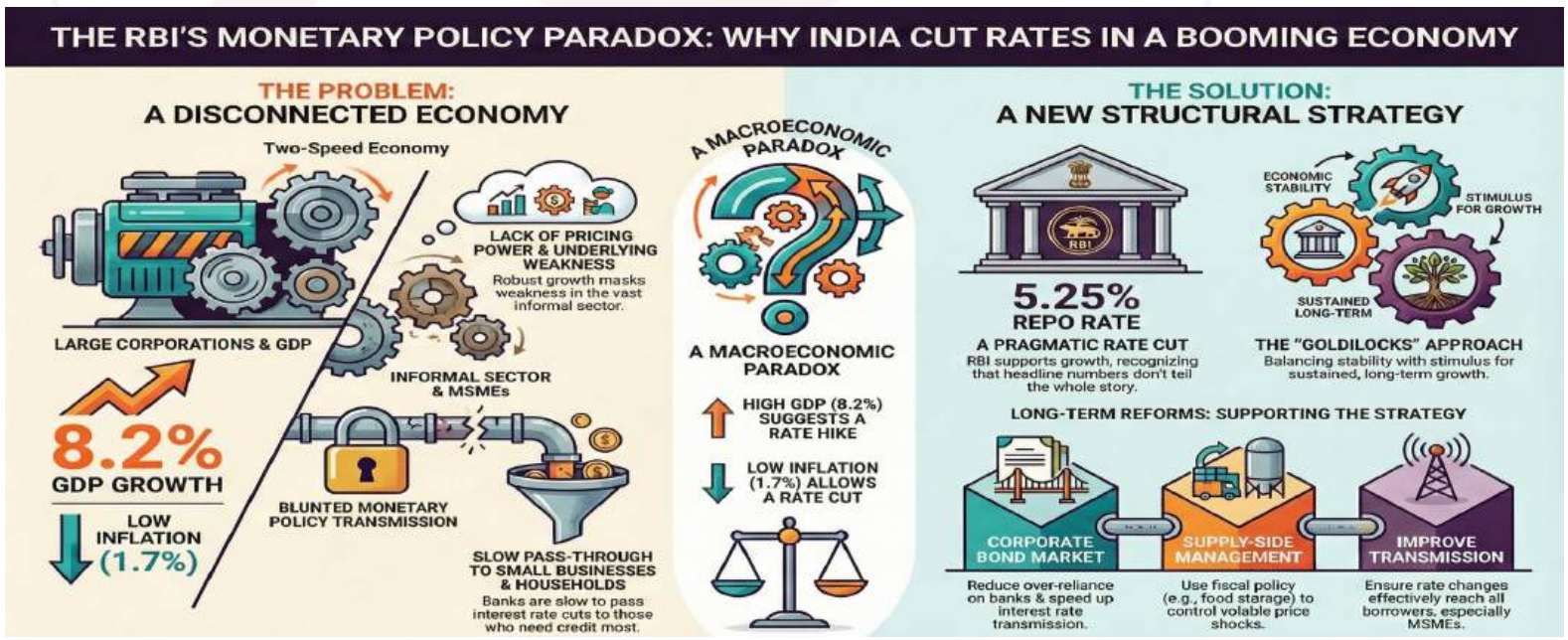
	➢ **Global Board:** Main decision-making and coordination body. ➢ **Policy Support:** Provides expert input to MIL policies. ➢ **Knowledge Sharing:** Facilitates exchange of research and best practices. ➢ **Platform Development:** Improves the MIL Alliance platform. ➢ **Structured Growth:** Supports new chapters with monitoring and reporting.

Topic 12 - World Health Organization	
Syllabus	International Relations
Context	The U.S. formally withdrawing from the WHO raises concerns over weakened global health governance and pandemic preparedness.
About WHO	❖ It is a UN specialized agency dedicated to global public health. ❖ Functions: coordinating disease control, setting health standards, and organizing emergency responses. ❖ Established on April 7, 1948, its headquarters is in Geneva. ❖ Played key roles in smallpox eradication and global health crises.
Core Functions	❖ Providing global health leadership and coordinating emergency responses. ❖ Setting international health standards (e.g., ICD, health regulations). ❖ Promoting Universal Health Coverage (UHC). ❖ Conducting data collection and surveillance.
Significance of Withdrawal	❖ **For WHO:** Loss of ~18% funding; necessitating program cuts. ❖ **For Global Health:** A weakened global surveillance system and diminished capacity for crisis response. ❖ **For the U.S.:** Reduced international influence and limited access to critical global health data.

Economy

Topic 1 - Monetary Policy Shift

Syllabus	Indian Economy | Monetary Policy
Context	RBI cut the repo rate by 25 bps to 5.25% despite 8.2% GDP growth and 1.7% inflation. This signals a shift from rigid inflation targeting to a more growth-supportive, pragmatic approach.
What is the Shift	❖ Move from strict neoclassical inflation targeting to structuralist, growth-sensitive policy. ❖ Focus on supporting demand, credit flow, and the informal sector. ❖ Recognises that high growth can hide weak demand and credit stress.
Macroeconomic Paradox	❖ **Growth Signal:** 8.2% growth suggests the economy is overheating and needs a rate hike. ❖ **Inflation Signal** ➢ 1.7% inflation gives technical space for a rate cut. ➢ Low inflation is mainly due to the base effect and supply-side actions. ❖ **RBI's Choice** ➢ Prioritised sustaining growth over fear of a temporary inflation rise. ➢ Accepted that aggregate growth masks sectoral weakness.
Structural Issues in the Economy	❖ **Two-Speed Economy:** ➢ The economy is bifurcated: ■ Large firms exhibit strong growth and pricing power, ■ While the informal sector and small firms struggle with a lack of pricing power and limited credit access. ➢ The informal sector is highly sensitive to high interest rates. ➢ Structural reforms (GST, Udyam, DPI) are slowly integrating the informal sector.



	❖ **Weak Monetary Transmission:** ➢ Rate cuts do not fully or quickly translate to lower lending rates. ➢ Large firms access capital markets, while MSMEs and households depend on banks, facing high lending floors. ➢ Banks are slow to cut rates (downward stickiness) and remain cautious due to Non-Performing Assets (NPAs) and capital constraints.
RBI's Rationale and Key Dimensions	The decision was driven by: 1. **Pragmatism over Theory:** Prioritizing growth support over strict inflation rules. 2. **Welfare:** Providing relief to MSMEs and borrowers managing debt. 3. **Institutional Reality:** Acknowledging that interest rates cannot effectively control inflation caused by food and fuel supply shocks. 4. **Global Alignment:** Maintaining India's competitiveness to attract global investment.
The Way Forward: Need for Coordinated Policy	Monetary policy alone cannot solve structural and supply-side problems, as weak credit often stems from tight bank standards rather than just low demand. The RBI's rate cut is intended to inject easy liquidity to encourage lending. For better policy effectiveness, the following steps are crucial: ❖ Develop a robust corporate bond market to improve rate transmission. ❖ Enhance the effectiveness of the External Benchmark-Linked Lending Rate (EBLR) so that MSMEs benefit more quickly. ❖ Align small savings rates with market rates. ❖ Use fiscal policy tools, such as investing in storage, irrigation, and supply chains, to manage food and fuel inflation.
Conclusion	Achieving the goal of a high-growth Viksit Bharat requires a balanced and coordinated policy approach, where the RBI supports credit while the government addresses structural bottlenecks.

Topic 2 - Banking in India 2024–25 Report	
Syllabus	Indian Economy | Banking & Finance
Context	RBI's 2024–25 report shows a resilient banking system with multi-decadal low NPAs, strong balance-sheet growth, and a policy push for safer, more inclusive finance.
About the Report	❖ Annual RBI flagship review of banks and NBFCs. ❖ Covers performance, risks, regulation, payments, technology, inclusion, and consumer protection. ❖ Ends withan overall systemic soundness assessment.

Key Highlights and Performance	❖ **Financial Health:** The banking sector is exceptionally sound. The Gross NPA (GNPA) ratio is at a multi-decadal low of around 2.1%. ❖ **Growth:** Scheduled Commercial Banks (SCBs) are experiencing strong double-digit growth in both deposits (12–13%) and credit (14–16%). ❖ **Capital Buffers:** Capital-to-Risk-Weighted Assets Ratio (CRAR) is healthy, standing above 16%, significantly exceeding the Basel III norm of 11.5%. ❖ **Financial Inclusion:** The Financial Inclusion Index has improved to 67.0, with a major push for digital services. 514 districts are now fully digitally enabled.
Key Initiatives	❖ **PRAVAAH Portal:** A unified system for regulatory submissions. ❖ **Unified Lending Interface (ULI):** Designed for faster and safer credit delivery, currently including 64 lenders. ❖ **Responsible AI:** The FREE-AI framework promotes responsible use of Artificial Intelligence. ❖ **Risk-Based Deposit Insurance:** A new system replacing the earlier approach. ❖ **Digital Inclusion:** Focused efforts on district-level digital payment inclusion.
Key Challenges	❖ **Consumer Grievances:** A rise in complaints, particularly concerning loans and digital services. ❖ **Security Risks:** Increasing cyber fraud and persistent security challenges. ❖ **AI Concerns:** Issues related to AI opacity, bias, and privacy. ❖ **Credit Stress:** Potential stress observed in certain unsecured retail credit segments. ❖ **Inclusion Gap:** The challenge of converting access to banking services into meaningful financial inclusion.
Way Ahead	❖ **Quality-First Growth:** Prioritizing the quality of credit expansion. ❖ **Stronger Consumer Protection:** Enhancing grievance redressal mechanisms. ❖ **Governance:** Implementing board-level governance for technology and AI. ❖ **Cybersecurity:** Adopting a 'cybersecurity-by-design' approach. ❖ **Financial Literacy:** Expanding educational programs for vulnerable populations.
Conclusion	Indian banking is currently in a phase of significant strength, supported by low NPAs, ample capital buffers, and expanding balance sheets. Sustaining this momentum and achieving inclusive growth depends critically on safe technology adoption, strong consumer protection, and balancing financial stability with innovation.

Topic 3 - Small Industries Development Bank of India (SIDBI)	
Syllabus	Indian Economy | Banking
Context	The government has approved a ₹5,000 crore equity infusion into SIDBI to strengthen MSME credit flow.
What is SIDBI?	❖ Principal financial institution in India dedicated to the development and financing of the MSME sector. ❖ It is also responsible for coordinating the various institutions involved in MSME lending. ❖ **Establishment:** Created in April 1990 via an Act of Parliament. ❖ **Status:** An All India Financial Institution (AIFI) regulated by the Reserve Bank of India (RBI). ❖ **Headquarters:** Lucknow. ❖ **Core Functions** ➢ **Financial Support:** ■ **Refinance:** Offers low-cost funds to banks/SFBs/NBFCs for onward lending. ■ **Direct Credit:** Provides loans to MSMEs for capital expenditure and working capital. ■ **Venture Funding:** Supports startups/growth-stage firms with venture debt and capital. ■ **Collateral-free Lending:** Uses digital platforms and data for credit without physical collateral. ➢ **Developmental Role:** ■ **Microfinance:** Channels funds to MFIs to support micro-enterprises. ■ **Ecosystem Development:** Operates platforms (e.g., Udyami Mitra) for handholding and guidance to MSMEs.

Topic 4 - Ministry of Statistics and Programme Implementation	
Syllabus	Indian Economy | GDP
Context	The Ministry of Statistics and Programme Implementation has unveiled a new logo and mascot to modernise its institutional identity and strengthen public trust in official data.
What is it? 	❖ **Ministry of Statistics and Programme Implementation (MoSPI)** is the nodal ministry for official statistics in India. ❖ Responsible for data collection, compilation, analysis, and dissemination to support evidence-based policymaking. ❖ **Aim** ➢ Promote **"Data for Development"** by making statistics accessible, relatable, and trustworthy.

	➢ Improve public participation in surveys and enhance transparency and accuracy in the statistical system.
Key features	❖ **New logo:** ➢ **Ashoka Chakra:** Symbol of truth, transparency, and good governance. ➢ **Rupee symbol:** Highlights the role of statistics in economic planning. ➢ **Numerical elements & growth bar:** Reflect modern data systems and progress driven by evidence. ➢ **Colour palette (saffron, white, green, deep blue):** Growth, sustainability, stability, and knowledge. ❖ **Mascot – "सांख्यिकी":** ➢ Citizen-centric character to simplify complex statistical concepts. ➢ To be used in surveys, awareness drives, education, digital platforms, and public events.

Topic 5 - State-led Capital Spending	
Syllabus	Indian Economy |Fiscal Federalism
Context	While state governments have spearheaded India's post-pandemic growth through robust capital expenditure, **sustaining this momentum** is becoming increasingly difficult as **borrowing relaxations unwind**, and several states breach the **3% fiscal deficit** norm.
What is it?	❖ Capital spending by States on **roads, irrigation, power, health, education, and urban infrastructure**. ❖ Unlike revenue spending, capex **creates assets**, raises long-term productivity, and **crowds in private investment**.
Key trends (FY2021–FY2025)	❖ **Rapid capex expansion:** Combined capex of 28 States grew at **18.5% CAGR**, reaching ~₹8.4 trillion. ❖ **Central support:** Driven by GST compensation loans (₹2.6 trillion) and **50-year interest-free capex loans** (₹3.7 trillion). ❖ **Borrowing flexibility:** Extra **0.5–1.1% of GSDP** borrowing allowed under Union relaxations and 15th FC. ❖ **Reform-linked headroom:** Power sector reforms unlocked ~₹1.3 trillion extra borrowing.
Current spending pattern	❖ **Surge in cash transfers:** Women-centric transfers rose from ₹120 bn (FY23) to ₹1.5 tn (FY26). ❖ **Expenditure switching:** Revenue deficits held near **0.5% of GSDP** by retiring older subsidies.

	❖ **Uneven capex:** States like Maharashtra/Gujarat maintain capex >3.5% of GSDP; others rely on Central assistance. ❖ **Borrowing cap constraint:** Spending anchored to **Article 293(3)** approvals. ❖ **Fiscal capacity divide:** States with **Tax/GSDP >8%** (e.g., TN, Karnataka) fund welfare without breaching 3% FD.
Challenges	❖ **End of interest-free loans:** Phasing out of Central capex loans risks a funding gap for rural infrastructure. ❖ **Sticky revenue expenditure:** Cash transfers become obligatory, squeezing discretionary capex (<20% of receipts). ❖ **Rising interest burden:** High-debt States (Punjab, Rajasthan) spend **>20% of revenue** on debt servicing. ❖ **Reform-linked borrowing hurdles:** Power reforms tied to extra headroom face political resistance. ❖ **Execution inefficiencies:** Cost overruns of **15–20%** reduce value-for-money in irrigation/roads.
Expectations from the 16th Finance Commission	❖ **Flexible borrowing limits:** Shift from uniform 3% to **performance-linked 3–4%** based on debt capacity. ❖ **Institutionalised capex support:** Convert ad-hoc loans into **formula-based grants**, especially for green infra. ❖ **Fiscal buffers:** Allow "banking" unused borrowing for downturns. ❖ **Welfare accounting clarity:** Distinguish **merit goods** from non-merit freebies to avoid fiscal penalties. ❖ **GST transition support:** New mechanism as GST compensation cess expires (2022–26).
Way ahead	❖ **Focus on high-multiplier assets:** Roads/bridges (multiplier ~2.5x) over cash transfers (~0.9x). ❖ **Strengthen PFMS adoption:** Real-time tracking, Just-in-Time releases, and reduced idle cash. ❖ **Sunset clauses for welfare:** Periodic audits and income-based graduation to limit fiscal leakage. ❖ **Boost non-tax revenue:** Modernise mining auctions, user charges to cut 35% reliance on the Centre. ❖ **Medium-term fiscal frameworks:** Three-year rolling budgets to improve predictability for private contractors.
Conclusion	State-led capex has been a powerful growth engine, but sustaining it requires a balanced framework that combines flexible borrowing, efficient execution, and prudent welfare design.

Topic 6 - Roadmap for Green Transition of MSMEs	
Syllabus	Indian Economy | MSME
Context	NITI Aayog's roadmap lays out a 10-year plan to green India's MSMEs, aligning growth with climate goals and the Viksit Bharat 2047 vision.
What is the Roadmap?	❖ Strategic action plan to decarbonise 6.9 crore MSMEs over 10 years. ❖ Focuses on **Energy Efficiency, Green Electricity, and Alternative Fuels**. ❖ Proposes a National Project Management Agency (NPMA) for coordinated implementation.
Key Trends and Data on MSMEs	❖ **Economic Backbone:** Contribute ~30% to GDP and ~45.7% of exports. ❖ **Employment Engine:** Employ over 25 crore people. ❖ **Emissions Footprint:** ~135 million tonnes CO_2e emitted in 2022. ❖ **Energy Use:** Consume over 25% of industrial energy. ❖ **Cluster-Based Nature:** Operates across 140+ industrial clusters, some producing up to 80% of specific goods.
Need for Green Transition	❖ **Global Market Access:** Compliance needed to face measures like the EU's CBAM (from 2026). ❖ **Climate Resilience:** MSMEs are highly exposed to climate shocks and disruptions. ❖ **Cost Savings & Profitability:** Green tech reduces energy bills with a payback in 1–5 years. ❖ **Regulatory Compliance:** BRSR and value-chain emission reporting raise compliance pressure. ❖ **National Climate Targets:** MSME energy demand may rise 50% by 2030, making low-carbon growth essential.
Initiatives Supporting Green Transition	❖ **ADEETIE Scheme:** Promotes energy-efficient upgrades with financial and technical support. ❖ **GIFT Scheme:** Provides concessional finance for green MSME projects. ❖ **SPICE Initiative:** Encourages circular economy in plastics and electronics. ❖ **ZED Certification:** Promotes quality manufacturing with minimal environmental impact. ❖ **Rooftop Solar Push:** Proposal to extend solar subsidies to micro-enterprises.
Challenges	❖ **Finance Constraints:** Limited collateral and high risk perception restrict green lending. ❖ **Technology Awareness Gap:** Very few MSMEs measure emissions or know green solutions. ❖ **Fragmented Supply Chains:** Scattered units struggle to adopt uniform clean fuels. ❖ **High Upfront Costs:** Green machinery capex often exceeds micro-enterprise turnover.

	❖ **Trust Deficit:** Low confidence in ESCO and Pay-as-You-Save models.
Way Ahead	❖ **NPMA Operationalisation:** Central agency to manage clusters, subsidies, and execution. ❖ **Demand Aggregation:** Pool MSME demand to lower the costs of green technologies. ❖ **Climate Sister Impact Fund:** Dedicated hybrid fund for concessional green capital. ❖ **Standardised MRV:** Simple tools to track and certify emission reductions. ❖ **Regulatory Impact Assessment:** Ensure climate rules do not overburden small enterprises.
Conclusion	A structured green transition of MSMEs is critical for India's climate goals and global competitiveness, and with targeted finance, institutional support, and technology access, MSMEs can drive a resilient and inclusive green industrial future.

Topic 7 - Inclusion of Women in India's Green Economy	
Syllabus	Indian Economy |Green Economy | Women & Vulnerable Sections
Context	India's USD 30 trillion ambition for 2047 hinges on a green transition that is job-rich and inclusive; without mainstreaming women across green value chains, growth risks becoming unequal and extractive.
What is it?	❖ Integrating women as workers, entrepreneurs, and leaders across **energy transition**, **circular economy**, and **bio-economy & nature-based solutions (NbS)**. ❖ Focus on **income generation, productivity, and leadership**, not just participation. ❖ Ensures green growth is **equitable, job-intensive, and resilient**.
Key trends	❖ **Participation gap:** Women's LFPR ~41.7% vs men ~78.8%, constraining green growth. ❖ **Productivity dividend:** Closing the gender gap increases productivity. A mere 1% increase in gender diversity in formal manufacturing → **2.9% rise** in **labour productivity**. ❖ **Energy transition:** Women are 32% of the global renewable energy workforce but are underrepresented in STEM, technical, and leadership roles. ❖ **Rooftop Solar Disparity:** Only 11% female workers in Indian rooftop solar, with near-zero involvement in construction, commissioning, and O&M. ❖ **Circular Economy Wage Gap:** Female waste-pickers (49% of the total) earn about 33% less than male counterparts for the same work. ❖ **Intersectional vulnerability:** Dalit/Adivasi women are overrepresented in the most hazardous, informal recycling jobs. ❖ **Bio-economy & Natural-based Solutions (NbS):** Women are relegated to low-value, labour-intensive work, while men dominate higher-value activities.

Opportunities for inclusion	❖ **Micro-Enterprises:** Solarisation of Self-Help Group (SHG) units (e.g., food processing) reduces drudgery and costs, facilitating scale. ❖ **Drone-led green farming:** *Namo Drone Didi* scheme empowers women as providers of precision services in climate-smart farming. ❖ **Nature-Based Livelihoods:** Women-led millet revival initiatives link biodiversity restoration with solar processing and control over income. ❖ **Green factories:** All-women EV plants mainstream women into advanced clean manufacturing.
Key challenges	❖ **Technical exclusion:** Safety, mobility, and male-dominated cultures block field-based solar roles. ❖ **Climate vulnerability:** Heatwaves erase incomes of informal green workers; insurance gaps persist. ❖ **Credit constraints:** Lack of land titles/collateral limits access to green finance for women enterprises. ❖ **Market barriers:** SHGs face certification, logistics, and digital access hurdles.
Way ahead	❖ **Climate insurance:** Parametric heat insurance for quick, predictable payouts. ❖ **Skill Development:** Establish women-focused green certification programs with assured job placement linkages. ❖ **Asset ownership:** Women-registered rooftop solar under PM Surya Ghar to boost control and credit access. ❖ **Circular formalisation:** Municipal contracts for women waste-pickers to ensure dignified, secure green jobs.
Conclusion	India's green transition must be explicitly **women-led, not women-adjacent**. Unlocking women's productivity across the energy, circularity, and NbS sectors is fundamentally an economic strategy, not merely a welfare measure.

Topic 8 - India's Renewable Energy Transition	
Syllabus	Indian Economy | Geography | Renewable Energy
Context	India's renewable energy transition has entered a new phase where system reform-grids, markets, and distribution-matters more than adding new solar and wind capacity.
What is it?	❖ India's shift from **coal-dominated power** to a **low-carbon electricity system** based on solar, wind, hydro, and storage. ❖ Now focused on **grid integration, tariff reform, and market design** to ensure reliability and affordability alongside decarbonisation.
Key trends	❖ **Rapid capacity expansion:** Installed solar and wind capacity has crossed **180 GW**, placing India among global renewable leaders.

	❖ **Cost competitiveness:** Solar and wind tariffs are **cheaper than new coal**, strengthening the economic logic of clean energy. ❖ **Smart grid foundations:** About **49 million smart meters** installed, enabling time-of-day (ToD) tariffs and demand-side management. ❖ **Geographical mismatch:** Renewable generation is concentrated in western and southern states, while demand is higher in urban–industrial belts elsewhere.
Current Indian status	❖ **Time-of-Day tariffs:** Differential peak–off-peak pricing is mandated by states, but behavioural responses remain limited without automation. ❖ **Renewable curtailment:** Solar and wind power are often backed down due to **grid congestion, poor forecasting, and rigid PPAs**. ❖ **Limited power market depth:** Only **7–9% of electricity** is traded on exchanges; most remains locked in long-term contracts. ❖ **DISCOM reforms with stress:** Schemes like **UDAY and RDSS** improved metering and infrastructure, but revenue recovery remains weak.
Challenges	❖ **DISCOM financial stress:** AT&C losses around **16%** and tariff under-recovery restrict investment in modern grids and flexibility. ❖ **Misaligned tariff design:** Volumetric tariffs fail to recover fixed network costs, penalising efficiency and rooftop solar adoption. ❖ **Cross-subsidy dependence:** Industrial and commercial users subsidise others; their migration to open access erodes DISCOM finances. ❖ **Limited demand flexibility:** ToD tariffs alone cannot shift load without smart appliances, automation, and coordinated response. ❖ **Fragmented wholesale markets:** Long-term PPAs and self-scheduling prevent **least-cost national dispatch** of renewables.
Way ahead	❖ **Prioritise distribution reform:** Incentivise DISCOMs for **reliability, loss reduction, and efficiency**, not sales volume. ❖ **Dynamic tariffs with automation:** Link ToD pricing with **smart appliances, EV charging control, and automated demand response**. ❖ **Nationwide MBED:** Implement market-based economic dispatch to use the **cheapest power first**, lowering system costs. ❖ **Integrate captive power:** Bringing captive generation into markets will boost liquidity, flexibility, and competition. ❖ **Redefine DISCOM role:** Transform DISCOMs into **active system operators** managing demand, flexibility, and grid stability.
Conclusion	India's renewable future now hinges on system intelligence rather than capacity addition. Distribution reform, flexible markets, and smart demand management will determine whether surplus green power becomes a national strength or a persistent bottleneck.

Topic 9 - India Becomes World's Largest Rice Producer	
Syllabus	Indian Economy | Agriculture
Context	**India** has **overtaken China** to become the **world's largest rice producer**, reinforcing its role as a global food security anchor.
Rice Production	❖ India becomes the **No.1 rice producer globally**. ❖ **Global ranking** ➢ **1st:** India (2024-25: 150.18 million tonnes) ➢ **2nd:** China (2024-25: 145.28 million tonnes). ❖ **Major Rice-Producing States (2023–24):** The top three states, collectively contributing over 34% of the production, are: ➢ **Telangana:** 16.63 MT (~12.17%) ➢ **Uttar Pradesh:** 15.72 MT (~11.50%) ➢ **West Bengal:** 15.12 MT (~11.06%). ➢ Other key states: Andhra Pradesh, Punjab, Odisha, Bihar, Chhattisgarh, Tamil Nadu, Assam.
Geographical Basis of Rice Production	❖ **Favorable Climate:** Hot and humid monsoon conditions across the east, south, and northeast. ❖ **Fertile Land:** The riverine plains and delta regions of the Ganga–Brahmaputra, Krishna, Godavari, and Cauvery. ❖ **Irrigation Infrastructure:** Extensive canal and tube-well networks in low-rainfall areas. ❖ **Adaptable Farming:** Terrace farming methods in hilly regions.
Significance	❖ Strengthens India as a **global food grain stabiliser**. ❖ Enhances **export capacity** and influence on global rice markets. ❖ Supports **food security diplomacy** for importing countries. ❖ Confirms India's **high-buffer food economy** status.

Govt Schemes

Topic 1 - 25th Anniversary of Pradhan Mantri Gram Sadak Yojana (PMGSY)

Syllabus	Economy | Rural Dvelopment | Government Schemes
Context	PMGSY completed **25 years in December 2025**, marking a landmark in rural connectivity and infrastructure-led inclusion. The scheme has transformed access to markets, education, and healthcare across rural India.
About PMGSY	❖ A **centrally sponsored scheme** to provide **all-weather road connectivity** to eligible, previously unconnected rural habitations. ❖ Integrates villages with markets, schools, and health facilities. ❖ **Launched:** 25 December 2000. ❖ **Implementing Ministry:** Ministry of Rural Development.
Key Features	❖ **Phased approach** ➢ **PMGSY-I:** Universal connectivity to unconnected habitations. (Thresholds: 500+ in plains; 250+ in hills/NE/tribal) ➢ **PMGSY-II:** Upgradation and consolidation of existing rural roads. (Target: 50,000 km). ➢ **PMGSY-III:** Concentrated on strengthening through-routes (linking Gramin Agricultural Markets, High Schools, Hospitals). ➢ **PMGSY-IV (2024–29):** Planned to connect an additional 25,000 habitations via 62,500 km of roads. ❖ **Scale and coverage:** Over **8.25 lakh km** of roads sanctioned; approx **95%** completed by December 2025. ❖ **Technology-led monitoring:** OMMAS (Online Management, Monitoring & Accounting System), e-MARG, GPS tracking, and geo-tagged inspections. ❖ **Quality assurance:** Three-tier monitoring mechanism involving State and National Quality Monitors. ❖ **Sustainability:** Use of innovative and climate-resilient construction materials, including waste plastic, fly ash, and bio-bitumen.
Significance	❖ **Economic Empowerment:** ➢ Improve farm-to-market access, leading to better price realization for farmers. ➢ **15% rise** in non-agricultural employment (World bank). ❖ **Social Inclusion:** Enhance access to education (10% increase in girls' school enrollment - World Bank), healthcare, and various welfare services in remote areas.

Topic 2 - Atal Pension Yojana (APY)	
Syllabus	Government Schemes | Economy | Rural development
Context	The Union Cabinet has extended the Atal Pension Yojana (APY) until 2030-31, reinforcing its commitment to providing old-age income security, especially for unorganised sector workers.
About Atal Pension Yojana (APY)	❖ **Nature:** A voluntary, government-backed pension scheme. ❖ **Target Group:** Primarily focused on workers in the unorganised sector. ❖ **Goal:** To ensure income security and dignity in old age, while promoting financial inclusion and long-term savings. ❖ **Launch Date:** 9 May 2015. ❖ **Administration & Implementation:** Administered by the Pension Fund Regulatory and Development Authority (PFRDA) and implemented through banks and post offices.
Core Features	❖ **Guaranteed Benefit:** Provides a guaranteed monthly pension after the age of 60, ranging from ₹1,000, ₹2,000, ₹3,000, ₹4,000, to ₹5,000. ❖ **Eligibility:** Open to all Indian citizens aged 18 to 40 who possess a bank or post office account. ❖ **Contribution:** Contributions are automatically deducted (auto-debit) until the subscriber turns 60. ❖ **Family Security:** The scheme provides security to the family: the spouse continues to receive the pension upon the subscriber's death, and the nominee receives the accumulated corpus thereafter. ❖ **Tax Rule Update:** Individuals who are income-tax payers are ineligible for new enrolment in APY after October 2022.

Topic 3 - Aadhaar Mascot 'Udai (उदय)'	
Syllabus	Government Schemes
Context	UIDAI has launched the Aadhaar mascot 'Udai' to make Aadhaar services more accessible, relatable, and citizen-friendly for over a billion residents.
About Aadhaar Mascot 'Udai'	❖ Official resident-facing communication companion of Aadhaar. ❖ Designed to simplify understanding of Aadhaar-related services and rights. ❖ **Organisation Involved:** Unique Identification Authority of India (UIDAI). ❖ **Aim** ➢ Simplify and humanise Aadhaar communication. ➢ Enhance citizen trust and participation. ➢ Improve accessibility across literacy, language, and digital divides. 

Key Features	❖ **People-centric communication:** Explains complex Aadhaar processes in a friendly manner. ❖ **Wide service coverage:** Updates, authentication, offline verification, and selective data sharing. ❖ **Participatory creation:** Selected via an open national contest (875 entries). ❖ **Inclusive outreach:** Designed for multilingual and diverse user groups.

Topic 4 - PANKHUDI Portal	
Syllabus	Government Schemes
Context	PANKHUDI portal streamlines **Corporate Social Responsibility (CSR)** and voluntary partnerships to improve outcomes for women and children through a single digital platform.
What is PANKHUDI?	❖ An integrated, single-window digital platform for CSR and voluntary contributions under the **Ministry of Women and Child Development (MWCD)**. ❖ Enables transparent proposal tracking and outcome monitoring. ❖ **Aim** ➢ Strengthen coordination and transparency in social sector partnerships. ➢ Improve service delivery for women and children.
Key Features	❖ Unified CSR interface for all stakeholders (individuals, NGOs, corporates, etc.). ❖ Focuses on priority themes: Nutrition, health, ECCE, child protection, and women's safety. ❖ **Mission convergence:** Supports Poshan 2.0, Mission Vatsalya, and Mission Shakti. ❖ Provides end-to-end transparency: Online registration, approvals, and real-time tracking. ❖ **Coverage:** Anganwadis, Child Care Institutions, and One Stop Centres.

Topic 5 - Pro-Active Governance and Timely Implementation (PRAGATI)	
Syllabus	Government Schemes
Context	Land acquisition has emerged as the single largest bottleneck in infrastructure development, accounting for 35% of project delays, the Cabinet Secretary said after the 50th PRAGATI meeting.
About PRAGATI Portal	❖ **PRAGATI** is a centralised, ICT-enabled platform for **project monitoring, grievance redressal, and programme implementation**. ❖ Launched on **25 March 2015** under the Prime Minister's leadership.

	❖ **Aim** ➢ Ensure **timely execution** of key infrastructure and development projects. ➢ Resolve **Centre–State and inter-ministerial coordination issues**. ➢ Promote **e-transparency, accountability, and outcome-based governance**.
Key Features	❖ **Three-tier architecture:** Connects PMO, Union Secretaries, and State Chief Secretaries on one platform. ❖ **Monthly PM-chaired reviews:** High-level political oversight through video conferences for time-bound decisions. ❖ **Digital–GIS integration:** Real-time data, geo-spatial mapping, and visuals to track progress and identify bottlenecks. ❖ **Unified data dashboard:** Integrates CPGRAMS, PMG, and MoSPI databases, reducing silos. ❖ **Escalation mechanism:** Unresolved issues move to higher and PM-level review for decisive action. ❖ **Digital follow-up:** All directions tracked till closure, ensuring accountability.
Significance	❖ Reviewed **3,300+ projects** worth about **₹85 lakh crore**; resolved **7,156 issues**. ❖ Accelerated completion of long-pending legacy projects. ❖ Strengthens **cooperative federalism** by aligning Centre and States on a common platform.

Topic 6 - E-Bill System for fertiliser subsidies	
Syllabus	Government Schemes
Context	The Union Government has launched an integrated e-Bill System to digitally process fertiliser subsidies worth about ₹2 lakh crore.
What is it?	❖ An end-to-end digital platform for submission, processing, tracking, and payment of fertiliser subsidy bills. ❖ Replaces the earlier manual, paper-based workflow. ❖ **Ministry involved:** Ministry of Chemicals and Fertilizers ❖ **Aim** ➢ Ensure timely, transparent, and accountable subsidy disbursal. ➢ Strengthen financial control, auditability, and efficiency.
Key Features	❖ **End-to-end digital workflow:** No physical bills or manual handling. ❖ **Online claim submission:** Real-time filing and tracking by fertiliser companies. ❖ **Centralised reporting:** Continuous monitoring of subsidy expenditure. ❖ **Built-in financial controls:** Rule-based validation and compliance checks. ❖ **Tamper-proof audit trail:** Complete digital logs for accountability. ❖ **FIFO processing:** Predictable, uniform bill clearance. ❖ **Faster payments:** Enables timely weekly subsidy releases.

Significance	❖ Enhances transparency in one of India's largest subsidy programmes. ❖ Reduces fraud, delays, and discretion through automation. ❖ Improves the ease of doing business for fertiliser companies.

Topic 7 - PLI Scheme for White Goods (Air Conditioners & LED Lights)

Syllabus	Government Schemes
Context	The fourth round of the PLI Scheme for White Goods marks renewed momentum in strengthening India's domestic manufacturing ecosystem.
About PLI Scheme for White Goods	❖ The Central sector scheme offers incentives on incremental domestic sales. ❖ **Launched:** FY 2021–22 (till FY 2028–29). ❖ **Implementing Ministry:** Ministry of Commerce and Industry. ❖ **Monitoring Body:** Empowered Group of Secretaries (EGoS). ❖ Targets the manufacturing of key components for Air Conditioners and LED lights. ❖ Aims to reduce import dependence and deepen value addition.
Target Segments	❖ **Air Conditioners:** ➢ **High-value components:** Compressors, copper tubes, aluminium foils. ➢ **Low-value components:** PCB assemblies, BLDC motors, service valves. ➢ **Sub-assemblies:** Indoor and Outdoor Units (IDUs & ODUs). ❖ **LED Lights** ➢ **Core components:** LED chip packaging, ICs, resistors, fuses. ➢ **Other components:** Drivers, modules, engines, and mechanical parts.
Key Features	❖ **Incentive Rate:** 4%–6% on incremental sales. ❖ **Base Year:** FY 2019–20. ❖ **Incentive Period:** 5 years + 1-year gestation. ❖ **Eligibility:** Greenfield and brownfield investments only. ❖ **Thresholds:** Mandatory investment and sales targets. ❖ **Priority:** Core components and large-scale investments. ❖ **Fiscal Discipline:** Fund-limited, Cabinet-approved outlay.
Coverage and Impact	❖ **Total Outlay:** ₹6,238 crore. ❖ **Beneficiaries:** 85 companies across four rounds. ❖ **Expected Investment:** ~₹11,198 crore. ❖ **Expected Production:** ~₹1.9 lakh crore. ❖ **Employment:** Significant direct and indirect job creation.

Topic 8 - Electronics Components Manufacturing Scheme (ECMS)	
Syllabus	Government Schemes
Context	The **Electronics Components Manufacturing Scheme (ECMS)** is a significant policy initiative by the Indian government aimed at addressing the weakest link in the country's electronics sector: **components manufacturing**. The goal is to drive large-scale domestic production and reduce reliance on imports.
What is it?	❖ **ECMS** is a flagship incentive scheme to promote domestic production of **electronic components, sub-assemblies, and capital equipment**. ❖ **Implementing Body: Ministry of Electronics and Information Technology (MeitY)**. ❖ **Approval Year:** Approved by the Union Cabinet in **2024**. ❖ **Total Financial Outlay: ₹22,919 crore**.
Key features	❖ **Incentive structure:** Combination of turnover-linked (for 6 years including 1-year gestation), capex-based (for 5 years), and hybrid incentives to offset India's cost disabilities. ❖ **Target segments:** ➢ Printed Circuit Boards (PCBs) ➢ Camera modules ➢ Copper-Clad Laminates (CCL) ➢ Polypropylene films ➢ Electronics manufacturing capital equipment ❖ **Performance-linked payouts:** Incentives tied to incremental production and employment, favouring early movers. ❖ **Strategic localisation targets:** ➢ Achieve **100%** of domestic demand for CCL. ➢ Target a **20%** domestic share for PCBs. ➢ Target a **15%** domestic share for camera modules. ❖ **Ecosystem approach:** Complements the PLI Scheme for Electronics and the India Semiconductor Mission.
Recent development	❖ MeitY approved **22 additional projects**, involving **₹41,863 crore of investment**, signalling strong industry response and scale-up momentum.
Significance	❖ **Value-chain strengthening:** Addresses component manufacturing, the biggest bottleneck in India's electronics ecosystem. ❖ **Higher Domestic Value Addition (DVA):** Moves India beyond assembly toward deeper integration with Global Value Chains (GVCs). ❖ **Jobs and innovation:** Expected to create **~91,600 direct jobs** and stimulate indigenous R&D and capital equipment manufacturing. ❖ **Strategic resilience:** Reduces vulnerability to global supply shocks and import dependence.

Topic 9 - District-Led Textiles Transformation (DLTT) Plan	
Syllabus	Government Schemes
Context	The Ministry of Textiles has unveiled the **District-Led Textiles Transformation (DLTT)** initiative, a strategic initiative designed to catalyze inclusive and sustainable growth across India's textile landscape.
About DLTT Plan?	❖ District-level, data-driven strategy for textile sector transformation. ❖ Categorises districts based on capability and potential. ❖ **Ministry:** Ministry of Textiles. ❖ **Aim** ➢ Promote inclusive, export-oriented, and sustainable textile growth. ➢ Strengthen MSMEs and formalise the textile workforce.
Key Features	❖ **Data-driven scoring:** Based on exports, the MSME ecosystem, and the workforce. ❖ **Champion Districts:** Mega CFCs, Industry 4.0, advanced logistics, export linkages. ❖ **Aspirational Districts:** Skilling, certification, SHGs, cooperatives, and raw material banks. ❖ **Purvodaya Focus:** Special push for Eastern & North-Eastern India. ❖ **Collaborative model:** Convergence of government, industry, and academia.
Significance	❖ Moves India up the textile value chain. ❖ Boosts MSMEs and women-led enterprises. ❖ Accelerates regional and aspirational district development.

Topic 10 - Export Promotion Mission (EPM)	
Syllabus	Government Scheme | Economy
Context	The Reserve Bank of India (RBI) has issued operational guidelines for extending interest subvention on export credit under Niryat Protsahan, bringing exporters under the Export Promotion Mission (EPM).
What is EPM?	❖ National framework integrating financial and non-financial export support. ❖ Focus on MSMEs, first-time exporters, and labour-intensive sectors. ❖ **Key Details** ➢ **Announced:** Union Budget 2025–26. ➢ **Duration:** 2025–26 to 2030–31. ➢ **Nodal Agency: Directorate General of Foreign Trade**(DGFT).

	❖ **Structure** ➢ **Niryat Protsahan:** Interest subvention (RBI-backed), credit guarantees, and export finance. ➢ **Niryat Disha:** Quality certification, branding, logistics, and market access.
Key Features	❖ **Financial Support:** Includes a ₹20,000 crore Credit Guarantee Scheme. ❖ **Platform:** An end-to-end digital platform managed by DGFT. ❖ **Targeting:** Strategy based on sectoral and district-specific requirements.

History

Topic 1 - 2,000-year-old Labyrinth Discovery

Syllabus	Art and Culture
Context	Archaeologists have discovered a **2,000-year-old circular stone labyrinth** in **Boramani grasslands**, Solapur district, Maharashtra. The find highlights India's role in ancient global trade networks during the Satavahana period.
What is the Discovery	❖ A large circular stone labyrinth made of carefully laid concentric stone circuits. ❖ **Period:** Dated to **1st-3rd century CE**, associated with the **Satavahana dynasty**. ❖ **Key Features:** ➢ Largest circular labyrinth in India (approx. 50 ft × 50 ft). ➢ Contains 15 concentric stone circuits (highest recorded in India). ➢ **Form:** Circular layout, unlike the square labyrinth at **Gedimedu** in **Tamil Nadu**. ➢ **Setting:** Located in open grassland, not near settlements, temples, or forts. ❖ **Regional Context:** Similar labyrinths found in Sangli, Satara, and Kolhapur, suggesting a regional trade network in western Maharashtra linking Deccan inland routes to the Arabian Sea. ❖ **Global Significance:** ➢ Circular design resembles motifs on ancient Roman coins from Crete (Greece). ➢ Possibly served as navigational markers or symbolic signposts for traders. ➢ Reinforces India's role in ancient global commerce (Indo-Roman Trade/Satavahana).
Other Similar Structure	❖ **Minoan Circular Labyrinth (Crete, Greece)**: Discovered atop **Papoura Hill** (near Kastelli) in **2024.**

Topic 2 - Tirukkural

Syllabus	Art and Culture
Context	The Prime Minister recently honored **Thiruvalluvar** on Thiruvalluvar Day, urging citizens to engage with his work, the **Tirukkural**, for its enduring lessons on ethical and social conduct.
About Thiruvalluvar	❖ A celebrated Tamil poet-philosopher, believed to be associated with the Sangam/post-Sangam era (dates are debated, roughly 300 BCE–600 CE). ❖ He is widely revered across South India as a foundational moral and ethical teacher.

Key Contributions and Ideas (The Tirukkural)	❖ His work provides a framework of practical ethics for personal life, societal relations, and governance. ❖ He championed principles for a just and effective rule, encompassing administration and public welfare. ❖ His teachings emphasize core virtues such as truthfulness, compassion, non-violence, and self-control.
About Tirukkural	❖ The Tirukkural is a classic work of Tamil literature, traditionally ascribed to the poet **Thiruvalluvar**. ❖ This text is composed of 1,330 memorable, concise couplets, known as ***kurals***. Its content is organized into three major sections or books: ➢ **Aram (Virtue/Ethics):** Focuses on ethical conduct and righteousness. ➢ **Porul (Wealth/Polity):** Deals with governance, economics, and public life. ➢ **Inbam (Love):** Covers aspects of personal life and love. ❖ The couplets address a wide range of human experience, including family life, societal responsibilities, leadership principles, and justice. ❖ **Significance:** Often referred to as the **"Tamil Veda"** due to its universal and secular ethical principles, the Tirukkural holds immense importance as: ➢ A fundamental source of ethical guidance for public and personal life. ➢ A cornerstone of Tamil cultural identity. ➢ One of the most frequently translated works in the Tamil language.

Topic 3 - Haka Dance	
Syllabus	Ancient History | Art and Culture
Context	The Māori haka recently drew global attention after being performed as a protest gesture in **New Zealand**. Also, Māori kapa haka delegation performed the Haka at the **Medaram Sammakka-Saralamma tribal shrine** in **Mulugu, Telangana**.
About Haka Dance	❖ **Haka** is a traditional **posture dance** of the **Māori people** of Aotearoa (New Zealand). ❖ Combines **vigorous movements**, **chanting (waiata)**, **stamping**, **slapping**, and **facial expressions** (e.g., protruding tongue, wide eyes). ❖ Symbolizes **strength, unity, pride, challenge, protest**, triumph of life over death and **ancestral connection**. ❖ **Mythological origin**: Linked to **Tāne-rore**, son of the sun god **Tama-nui-te-rā** and summer goddess **Hine-raumati** - his dance is seen in shimmering air on hot days. ❖ **Key Contributors** ➢ **Te Rauparaha** of Ngāti Toa composed the famous haka Ka Mate. ➢ Māori iwi act as custodians of diverse haka traditions.

Topic 4 - Somnath Temple	
Syllabus	Art and Culture
Context	Prime Minister highlighted the thousand-year survival of the Somnath temple as a symbol of India's indomitable spirit, marking the **Somnath Swabhiman Parv (1026–2026)**.
About Somnath Temple	❖ One of the **12 Jyotirlingas of Lord Shiva**, revered as the "Eternal Shrine". ❖ Located in **Prabhas Patan**, Gujarat, on the Arabian Sea coast, near the Triveni Sangam (Kapila, Hiran, Saraswati rivers). ❖ Represents spiritual centrality and cultural endurance in Indian history.
Historical Resilience	❖ Ancient origins, mentioned in Puranic texts. ❖ Though attacked by Mahmud of Ghazni in **1026 CE** and subsequently destroyed repeatedly during the medieval era, it was rebuilt by rulers like Kumarapala and the Chudasama kings. ❖ Famed for its **cycle of resilience**, having been destroyed and rebuilt **six times**.
Architectural Style	❖ Built in the **Chaulukya (Solanki) style**, featuring a tall **shikhara**, detailed stone carvings, and a sanctum for the Jyotirlinga. ❖ An inscription highlights the uninterrupted alignment from the temple's southern arrow to the South Pole.
Modern Revival (Post-Independence)	❖ Reconstruction initiated by **Vallabhbhai Patel** (1947–51). ❖ Architect: **Prabhashankar Sompura,** used traditional techniques. ❖ Inaugurated by **Rajendra Prasad** on 11 May 1951. ❖ **Administration:** Managed by the **Somnath Trust**, chaired by Shri Narendra Modi.

Topic 5 - Savitribai Phule	
Syllabus	Modren Indian History | Personalities
Context	The Prime Minister paid tributes to Savitribai Phule on her birth anniversary.
About Savitribai Phule 	❖ **Savitribai Phule (1831–1897)** was India's first woman teacher of modern education, a poet, and an early feminist thinker. ❖ She believed education was central to dignity, equality, and social transformation. ❖ **Early life:** Born in **Naigaon, Maharashtra**; married **Jyotirao Phule**, her intellectual partner. ❖ **Education and Training** ➢ Learned reading and writing under Jyotirao Phule's guidance. ➢ Completed formal teacher training in **Ahmednagar and Pune**, qualifying as a teacher in **1847**, rare for women of that era.

Key contributions	❖ **Girls' education pioneer:** Co-founded India's first girls' school at **Bhidewada, Pune (1848)**; helped establish **18 schools** for girls and marginalised communities. ❖ **Reform for the oppressed:** Set up shelters for widows, destitute women, and child brides; campaigned against child marriage, caste discrimination, and untouchability. ❖ **Institution building:** Key force behind **Satyashodhak Samaj**, promoting equality and reformist marriages without priests or dowry. ❖ **Public service with courage:** Faced social hostility daily and served plague victims during the **1897 epidemic**, sacrificing her life.
Significance	❖ Laid the foundations of **women's education, social justice, and inclusive reform** in India. ❖ Her legacy continues through institutions, commemorations, and ongoing debates on equality and access to education.

Topic 6 - Swami Vivekananda	
Syllabus	Indian Modern History | Personalities
Context	Swami Vivekananda's birth anniversary, 12 January, is celebrated as National Youth Day in recognition of his profound impact on India's spiritual and national consciousness.
 **Early Life and Intellectual Foundation**	❖ Born Narendranath Datta in Kolkata on 12 January 1863. ❖ His upbringing blended traditional Indian values with a modern, Western education. ❖ From his student days, he displayed a keen interest in philosophy, history, and rational thought. ❖ He challenged unquestioning belief, directly questioning religious authorities about their personal experience of God. ❖ He held a strong conviction that a robust character requires both mental discipline and physical strength
Evolution of His Mission	❖ He embraced **monkhood not as an escape but as a path** to devoted service to humanity. ❖ His philosophy, encapsulated in the mantra **"Atmano mokshartham jagat hitaya cha" (For one's own salvation and the welfare of the world)**, connected personal enlightenment with social service. ❖ Following the death of Ramakrishna in 1886, he organized his fellow monks, an effort that grew into the Ramakrishna Mission. ❖ His travels across India as a wandering monk exposed him to widespread poverty, ignorance, and a pervasive lack of self-confidence. ❖ He passionately rallied the youth with the inspirational call: "**Arise, awake and stop not till the goal is reached.**"

Socio-Religious Contributions	❖ He presented Vedanta as a universal philosophy relevant to all people. ❖ He taught the principle of unity in truth, asserting that it is expressed in diverse ways. ❖ He was a strong advocate for inter-faith harmony and tolerance across religions. ❖ He redefined religion as practical ethics rather than mere rituals. ❖ He systematically explained the four paths of Yoga: Karma (action), Bhakti (devotion), Jnana (knowledge), and Raja (meditation). ❖ He promoted the synthesis of India's ancient spiritual wisdom with modern scientific thinking. ❖ **Global Impact (1893):** Historic address at Chicago Parliament of Religions; introduced Indian philosophy to the West; advocated for religious pluralism; restored Indian self-respect.
Key Literary Works	❖ **Raja Yoga**: Focuses on the practice of meditation and control of the mind. ❖ **Karma Yoga**: Explores the philosophy of selfless action. ❖ **Lectures from Colombo to Almora**: Addresses themes of national resurgence and development. ❖ **Interpretations of the Gita**: Provides commentary on the sacred text for contemporary life.
Modern Relevance and National Youth Day	❖ Celebrated every year on 12 January as National Youth Day. ❖ His life inspires youth towards the development of confidence, leadership, and entrepreneurship. ❖ He viewed service, education, and disaster relief not just as social good but as a spiritual imperative. ❖ His vision of 'unity in diversity' remains perfectly aligned with India's constitutional principles.

Topic 7 - Parbati Giri

Syllabus	Modren Indian History | Personalities
Context	The Prime Minister of India paid tribute to Parbati Giri on her birth centenary. Parbati Giri was a freedom fighter and social reformer known for her lifelong service to the marginalised.
Key Highlights of Her Life	❖ **Early Life & Inspiration:** ➢ Born in Bargarh, Odisha, in 1926. ➢ Influenced by Gandhian philosophy and the nationalist movement led by the Congress party. ❖ **Role in the Freedom Struggle:** ➢ She participated in the **Individual Satyagraha in 1940**. ➢ She was highly active in the **Quit India Movement of 1942**, which led to her imprisonment for nationalist activities.

	➢ She earned the title **"Banhi Kanya"** (Daughter of Fire) for her fierce patriotism. ❖ **Social Service & Reforms:** Following independence, Parbati Giri focused on social welfare: ➢ She organized **relief work during the 1951 Odisha famine**. ➢ Her work included **prison reforms** and efforts toward **leprosy eradication**. ➢ She provided dedicated service for **tribal welfare**. ❖ **Awards & Recognition:** ➢ The Government of India recognized her exemplary service with an award in **1984**. ➢ She received an **Honorary Doctorate from Sambalpur University in 1988**.

Topic 8 - Netaji Subhas Chandra Bose	
Syllabus	Modren Indian History | Personalities
Context	Parakram Diwas–2026 commemorates Netaji Subhas Chandra Bose, whose revolutionary nationalism reshaped India's freedom struggle through courage, sacrifice, and uncompromising patriotism.
About Netaji Subhas Chandra Bose?	❖ Revolutionary nationalist leader who advocated complete independence through assertive and military means. ❖ Believed freedom could not be achieved through constitutional gradualism alone.
Early Life	❖ Born on 23 January 1897 in Cuttack, Odisha. ❖ Educated at Presidency College and Scottish Church College. ❖ Cleared the ICS exam (1920) but resigned to join the freedom movement.
Contribution to the Freedom Movement	❖ **Radical Congress Leadership:** Congress President in 1938 (Haripura) and 1939 (Tripuri). ❖ **Vision for 'Purna Swaraj':** Demanded immediate and complete independence, firmly rejecting the notion of dominion status. ❖ **Economic Planning:** Established the National Planning Committee (1938), promoting a vision for state-led industrialization. ❖ **Ideological Split (Tripuri Crisis):** The Tripuri crisis highlighted differences with Gandhian non-violence. ❖ **Forward Bloc:** Formed in 1939 to mobilise youth, workers, and left-wing forces.
Exile and Armed Struggle	❖ **The Great Escape (1941):** His daring escape internationalized India's fight for freedom. ❖ **Strategic Alliance:** Sought support from Axis powers (Germany and Japan) as a strategic means to achieve independence. ❖ **Indian National Army (INA):** Revitalized and reorganized the INA to launch a direct military challenge against the British Empire.

	❖ **Provisional Government of Free India (Azad Hind Government - 1943):** Established the first government-in-exile, complete with its own currency, courts, and diplomatic recognition. ❖ **Military Impact:** The INA's campaigns significantly damaged the perception of British military invincibility.
Last Days and Legacy	❖ His reported death in a plane crash on **18 August 1945** remains a subject of controversy. ❖ His powerful rallying cry was, "Give me blood, and I will give you freedom." ❖ The subsequent INA trials inadvertently weakened the foundations of British authority in India. ❖ His birth anniversary, **23 January**, is officially celebrated as **Parakram Diwas (Day of Valour).**

Topic 9 - Narsapuram Lace Craft	
Syllabus	Art and Culture | GI Tag
Context	The Narsapuram Lace Craft, a traditional livelihood primarily led by women, has recently gained renewed attention after being highlighted by the Prime Minister in Mann Ki Baat.
About Narsapuram Lace Craft	❖ A handmade crochet lace created using fine cotton threads and a single crochet hook. ❖ **Centres**: Narsapur, Palacole, Razole, Amalapuram (West Godavari & Konaseema districts). ❖ Recognized as a **Geographical Indication (GI)** craft of Andhra Pradesh. ❖ **History:** ➢ Introduced in **1844** by **European missionaries.** ➢ Flourished during the **Satavahana-linked Godavari region trade networks**.
Key characteristics	❖ **Materials:** Artisans use a variety of yarns, including cotton, silk, rayon, and synthetic materials. ❖ **Technique:** The entire process is manual, involving the looping and stitching of yarns with different-sized crochet hooks. ❖ **Designs:** Intricate floral, paisley, and geometric motifs. ❖ **Products:** Used to create items such as garments, linen, doilies, stoles, and wall hangings.
Initiatives	❖ **NABARD Support**: Five-year revival programme with training in advanced lace designs. ❖ **Lace Park, Seetharampuram**: Re-activated as a hub for training, production, and international trade.

Science and Technology

Topic 1 - Mpemba Effect	
Syllabus	Science | Physics
Context	The Mpemba effect is a phenomenon that contradicts everyday experience: under specific conditions, **hot water can freeze more quickly than cold water.**
What is it?	❖ **A Counterintuitive Phenomenon:** It challenges the common belief that colder objects will always cool and freeze faster than warmer ones. ❖ Named after Erasto Mpemba (1969), though observed since ancient times.
Proposed Explanations (How it Works)	❖ **Evaporation:** The hotter water evaporates more rapidly, reducing its total mass and leaving less water to freeze. ❖ **Gas Expulsion:** Heating drives out dissolved gases, which can alter the water's freezing properties. ❖ **Enhanced Convection:** Stronger internal circulation (convection currents) in hot water can lead to a more efficient and rapid loss of heat. ❖ **Supercooling differences:** Hot water may freeze at a higher temperature than cold water. ❖ **Environmental interaction:** The characteristics of the container holding the hot water might improve overall heat transfer and cooling efficiency.
Scientific Importance	❖ It provides a real-world example of complex non-equilibrium behaviour and phase transitions in physics. ❖ Improves climate and cryosphere models of ice formation. ❖ Useful in industrial freezing, food processing, and materials science. ❖ Demonstrates how supercomputing can resolve long-standing scientific puzzles.

Topic 2 - Greenwald Limit	
Syllabus	Science & Technology | Nuclear Fusion
Context	China's **EAST (Experimental Advanced Superconducting Tokamak) fusion reactor** achieved a significant milestone by maintaining super-hot plasma at a density **65% higher** than the theoretical **Greenwald density limit**.
Understanding Fusion Power	Fusion power mimics the processes occurring in the sun, where hydrogen atoms fuse to form helium, releasing energy.

The Greenwald Density Limit and Tokamaks	❖ Fusion energy generation requires extremely high plasma density, temperature, and confinement. No solid container can hold this. ❖ Scientists use **Tokamaks** (donut-shaped magnetic vessels) that use powerful magnetic fields to trap the hot gas (Plasma) needed for fusion. ❖ **The Greenwald Limit:** ➢ It represents the theoretical highest plasma density a tokamak can sustain. Historically, attempting to cross this limit has led to plasma collapse and instability, hindering efficient fusion. ➢ Calculated based on the plasma current and the reactor's size. ❖ **Why is this Important?** ➢ For decades, the Greenwald limit has posed a major obstacle, preventing the use of higher fuel densities needed for more efficient fusion reactions. ❖ **The Achievement:** The Chinese team used **Tungsten walls coated with Lithium** to absorb impurities and stabilize the plasma, effectively breaking this limit without a crash. ❖ **Implications:** ➢ This challenges the belief that the Greenwald limit is a fixed ceiling, supporting the concept of "**density-free**" operation for more efficient fusion power. ➢ This finding is critical for the **ITER project (France)**, suggesting the massive reactor can operate at higher, more efficient densities.
ITER (International Thermonuclear Experimental Reactor)	❖ Located in **Cadarache, Southern France**. ❖ A global mega-project (World's largest tokamak) to prove fusion feasibility (Net Energy Gain → Q ≥ 10). ❖ **Members:** India, USA, Russia, China, EU, Japan, S. Korea. ❖ **India's Role:** Providing the Cryostat (world's largest fridge) and cooling systems.

Topic 3 - AILA (Artificially Intelligent Lab Assistant	
Syllabus	Science & Technology | AI
Context	Researchers at the **Indian Institute of Technology Delhi** have developed AILA (Artificially Intelligent Lab Assistant).
About AILA	❖ Developed by **IIT Delhi** (with Denmark and Germany). ❖ An **autonomous AI-powered laboratory assistant** that designs, conducts, and interprets real-world scientific experiments without continuous human input. ❖ Directly controls instruments like the Atomic Force Microscope (AFM), not just analyzes data.

	❖ **Aim:** Automate complex experiments, reduce human effort, and accelerate discoveries (materials science, experimental physics). ❖ **Key Features:** ➢ Real-time decision-making and parameter adjustment. ➢ End-to-end workflow (design, run, analyze, results). ➢ High efficiency: Reduces experiments from a full day to **7–10 minutes**. ➢ Adaptive intelligence: Learns from outcomes to improve.

Topic 4 - Tensor Processing Unit (TPU)	
Syllabus	Science & Technology | AI
Context	The launch of newer TPUs like **Ironwood** reflects the growing demand for **specialised AI hardware** amid the global artificial intelligence boom.
What is a TPU?	❖ A custom **Application-Specific Integrated Circuit (ASIC)** designed by **Google** for accelerating **machine learning and deep neural networks**. ❖ First deployed internally in **2015**; available via **Google Cloud** since 2018.
How It Works	❖ Uses large **matrix-multiply units (MXUs)** for massive parallel computation. ❖ Optimised for **matrix-heavy AI workloads** like training LLMs. ❖ **Data Flow:** High-bandwidth memory facilitates rapid data transfer.
Key Features	❖ **128×128 ALU arrays** for large-scale matrix operations. ❖ **High throughput** for long training runs. ❖ **SparseCores** for recommendation and embedding models. ❖ Optimised for **TensorFlow, JAX, PyTorch**. ❖ **Energy-efficient** compared to general-purpose chips.
TPU vs Other Processors (CPU/GPU)	❖ **Vs. CPU:** TPUs are vastly superior for ML tasks due to their architecture built for parallel matrix computation. ❖ **Vs. GPU:** TPUs are more specialized, offering higher efficiency and lower operational overhead specifically for AI workloads.

Topic 5 - Chips to Start-up (C2S) Programme	
Syllabus	Government Scheme | Science & Technology | ICT
Context	Over **1 lakh** individuals have enrolled ubder **C2S Programme** in chip design training, with approximately 67,000 trained so far.
What is the C2S Programme?	❖ National initiative (launched in 2022 by Ministry of Electronics and Information Technology) to build industry-ready chip design talent. ❖ Focuses on hands-on training, R&D, and fabrication exposure.

	❖ **Aim** ➢ Create a strong pipeline of skilled chip designers. ➢ Enable hands-on chip fabrication and IP creation. ➢ Promote start-ups and self-reliance in semiconductors.
Key Features	❖ **Outlay:** ₹250 crore over 5 years. ❖ **HR Targets:** Train 200 PhDs, 7,000 M.Tech (VLSI), 8,800 M.Tech (related streams), and 69,000 B.Tech students. ❖ **Infrastructure:** Access to shared EDA tools, HPC, FPGA boards, and SMART labs. ❖ **Exposure:** Shared wafer runs via SCL, Mohali; Design enablement via **National ChipIN Centre** (C-DAC, Bengaluru). ❖ **Outcomes:** Start-up incubation, patents, IP cores, ASICs, and SoCs. ❖ **Linkages:** Training with global EDA and semiconductor companies.

Topic 6 - BSNL launches Voice over WiFi (VoWiFi)	
Syllabus	Science & Technology | ICT
Context	BSNL has rolled out Voice over WiFi services nationwide, enabling seamless calling over Wi-Fi networks.
What is VoWiFi?	❖ **Voice over WiFi (VoWiFi)** allows users to make and receive calls and SMS over Wi-Fi instead of mobile towers. ❖ Works via **IMS (IP Multimedia Subsystem)** using the same mobile number and default dialer.
How it works	❖ **Wi-Fi connection:** Phone connects to home/office/public Wi-Fi. ❖ **SIM authentication:** Secure login using the SIM card. ❖ **Internet routing:** Voice is converted to data packets and transmitted online. ❖ **Seamless handover:** Automatic switch to cellular (VoLTE) if Wi-Fi weakens.
Key features	❖ **IMS-based service:** Smooth handover between Wi-Fi and cellular networks. ❖ **No extra apps or charges:** Treated like normal voice calls. ❖ **Indoor & low-signal support:** Works in basements, offices, and remote areas. ❖ **Wide device compatibility:** Supported on most VoWiFi-enabled smartphones. ❖ **Network offloading:** Reduces congestion on mobile towers.
Benefits	❖ Reliable calling without a mobile signal. ❖ Better and more stable call quality. ❖ Secure communication with SIM-based encryption.

Topic 7 - Bio-bitumen	
Syllabus	Science & Technology | Bio-Technology
Context	**India become first country to commercially produce bio-bitumen for road construction**, advancing green infrastructure.
About bio-bitumen	❖ **Nature:** It is a bio-based alternative to traditional petroleum bitumen, which is used as a road binder. ❖ **Production Source:** It is primarily manufactured from agricultural residue, such as rice straw. ❖ **Involved Institutions:** ➢ Council of Scientific and Industrial Research ➢ CSIR-CRRI (Delhi) and CSIR-IIP (Dehradun)
Key Features	❖ **Performance:** It has successfully cleared performance tests for rutting, cracking, moisture resistance, and overall durability. ❖ **Application:** It can safely replace 20-30% of fossil bitumen in road mixtures. ❖ **Validation:** The material has been successfully field validated on a trial stretch of NH-40 in Meghalaya.
Significance	❖ **Economic Impact:** Reduces fossil fuel imports (estimated at ₹25,000–30,000 crore annually). ❖ **Environmental Benefits:** ➢ It helps curb stubble burning by utilizing farm waste. ➢ It reduces lifecycle emissions, supporting cleaner highways. ➢ It contributes to the circular economy by converting agricultural waste into a high-value infrastructure input. ❖ **Cost-Effectiveness:** It offers lower costs and a longer road life.

Topic 8 - Solar Radiation Storm	
Syllabus	Space Science
Context	The strongest solar radiation storm in over two decades has highlighted Earth's vulnerability to space weather events.
What are Solar Radiation Storms?	❖ Occurs when high-energy charged particles from the Sun hit Earth. ❖ Mainly involves fast-moving protons.
How it Forms	❖ Triggered by powerful X-class solar flares. ❖ Often linked with Coronal Mass Ejections (CMEs). ❖ Particles reach Earth within minutes to hours.

Measurement and Classification	❖ National Oceanic and Atmospheric Administration (NOAA) classifies these storms on an S1–S5 scale. ❖ Based on the proton flux (energy ≥10 MeV) measured by GOES satellites. ❖ For context, S4 storms are exceptionally rare, with the last one occurring in 2003.
Impacts on Earth	❖ **Space Safety:** Higher radiation risk to astronauts. ❖ **Aviation:** Disruption of GPS and radio communications, particularly on polar flight paths. ❖ **Satellites:** Potential damage to electronic systems and navigation errors. ❖ **Power Grids:** Risk of transformer damage. ❖ **Auroras:** Visibility of the Northern and Southern Lights significantly extended beyond the polar regions.

Topic 9 - White Dwarf System	
Syllabus	Science & Technology | Space
Context	The NASA Imaging X-ray Polarimetry Explorer (IXPE) mission has successfully provided unprecedented internal details of the binary star system EX Hydrae through X-ray polarization observations.
Key Features of EX Hydrae	❖ **Binary System:** It consists of a dense white dwarf actively drawing matter (accreting) from a companion star. ❖ **Stellar Remnant:** The white dwarf is the extremely dense core remaining after a Sun-like star went through its planetary nebula phase. ❖ **Extreme Matter:** It packs a Sun-like mass into an Earth-sized volume, supported against collapse by **electron degeneracy pressure**. ❖ **X-ray Emission:** The superheated gas falling onto the white dwarf releases high-energy X-rays. ❖ **Magnetic Flow:** The accreting gas is channeled along the white dwarf's **magnetic field lines**.
Scientific significance	❖ Polarisation data revealed the height of gas columns and surface reflection of X-rays. ❖ Validates theories of accretion, magnetism, and extreme matter physics.

Topic 10 - Polar Satellite Launch Vehicle (PSLV)	
Syllabus	Science & Technology | Space Technology
Context	ISRO's PSLV-C62 failed due to an anomaly in the third stage, the second consecutive failure after PSLV-C61 in May 2025. This has raised concerns about the reliability of India's workhorse rocket.
About PSLV	❖ **Third-generation** Indian launch vehicle for Polar and Sun-Synchronous Orbits. ❖ Launches earth observation, navigation, and communication satellites. ❖ **First** Indian launch vehicle to be equipped with **liquid stages**. ❖ **4 stage** ➢ **PS1:** Solid first stage with strap-on boosters for liftoff. ➢ **PS2:** Liquid stage with Vikas engine for controlled thrust. ➢ **PS3:** Solid stage for high-speed boost to near-orbital velocity. ➢ **PS4:** Liquid stage for precise satellite placement. ❖ **Payload Capacity** ➢ Polar Orbit - **1750 Kg** ➢ Sub GTO - **1425 Kg** ❖ The **workhorse** of ISRO. ❖ **Recent concern** ➢ Two back-to-back failures in 2025 point to quality and testing gaps. ➢ May affect India's commercial launch reputation.
OrbitAid's AyulSAT	**About AyulSAT** ❖ A 25-kg tanker and target satellite by Chennai-based **OrbitAid Aerospace** for testing in-orbit refuelling and docking. ❖ **Mission:** Launched on ISRO's **PSLV-C62** to demonstrate **propellant transfer in microgravity**. ❖ **Goal:** Enable satellite life-extension, servicing, reduce space debris, and support the on-orbit economy. ❖ **Key Features:** ➢ Tests internal fuel transfer to study fluid behavior in space. ➢ Uses OrbitAid's **SIDRP** (standard docking and refuelling port) interface. ➢ Capable of transferring fuel, power, and data. ➢ Designed as a target for a future chaser satellite (**RPOD-ready**) by 2026. ➢ **India's first** private commercial in-orbit satellite refuelling interface.

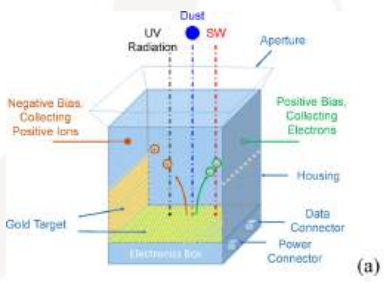
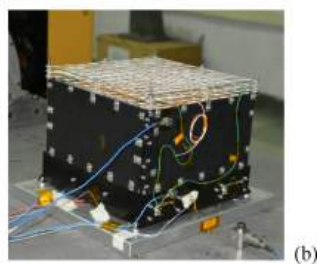
Topic 11 - Reusable Rockets and the Future	
Syllabus	Science & Technology | Space Technology
Context	With SpaceX advancing full reusability and ISRO preparing for Orbital Re-entry Experiment (OREX), reusable rockets are set to redefine affordable and sustainable access to space.
What are Reusable Rockets?	❖ Launch vehicles are designed to return intact after launch. ❖ Enable reuse of costly components like engines and avionics. ❖ Shift spaceflight from a disposable to a transport model, similar to aviation. ❖ Reduce launch costs by amortising hardware over multiple flights.
Key Trends in Rocket Reusability	❖ **Full Reusability Push:** Starship aims to recover both booster and upper stage; payload up to ~100 tonnes to LEO. ❖ **Rapid Turnaround:** Targets of 24-hour reflight cycles to support mega-constellations like Starlink. ❖ **Vertical Integration:** In-house 3D printing and modular design lower refurbishment time and costs. ❖ **Rising Global Competition:** Blue Origin (New Glenn) and China's LandSpace (Zhuque-3) plan reusable boosters by 2026.
Why Rockets Have Multiple Stages?	❖ **Efficiency:** Discarding empty tanks reduces mass, allowing higher acceleration. ❖ **Dead Weight Reduction:** Spent stages otherwise hinder performance. ❖ **Reusability Shift:** Traditional stages fall into the ocean; reusable systems guide them back to land or sea.
Global Leaders vs India (2026)	❖ **Recovery Method:** ➢ Global: Vertical Takeoff, Vertical Landing (VTVL) via retro-propulsion on land pads or drone ships. ➢ India: Winged Reusable Launch Vehicle (RLV) for runway landing (Pushpak); VTVL is planned for the Next Generation Launch Vehicle (NGLV). ❖ **Reuse Record:** ➢ Global: Falcon 9 boosters reused 30+ times; Starship nearing full reuse. ➢ India: Experimental phase; LEX tests successful, no orbital reuse yet. ❖ **Main Vehicles:** ➢ Global: Falcon 9, Starship. ➢ India: Pushpak (RLV-TD) and upcoming NGLV. ❖ **Cost to LEO:** ➢ Global: ~$1,500–2,700 per kg. ➢ India: Higher currently; aims for ~10× reduction with NGLV. ❖ **Primary Goal:** ➢ Global: Commercial dominance, Mars, mega-constellations. ➢ India: Strategic autonomy, Bharatiya Antariksh Station, affordable launches.

Challenges for India	❖ **Thermal Protection Systems:** Withstanding ~2000°C re-entry heat is critical for winged RLVs. ❖ **Precision Autonomous Landing:** Orbital re-entry to a fixed runway demands sub-meter accuracy. ❖ **Propulsion Constraints:** Existing engines are not designed for multiple restarts; LOX-methane engines are under development. ❖ **Refurbishment Economics:** Reuse must be cheaper than rebuilding; reliability concerns raise insurance costs. ❖ **Infrastructure Gaps:** Limited recovery barges, telemetry networks, and dedicated runways.
Way Ahead	❖ **Fast-track NGLV (Soorya):** Complete D1–D3 flights on schedule for space station and crewed missions. ❖ **PPP-led Manufacturing:** ISRO as a technology enabler; industry to scale production. ❖ **Support Start-ups:** Agnikul and Skyroot as agile testbeds for reusable tech. ❖ **Leverage IN-SPACe VC Fund:** ₹1,000-crore fund to back deep-tech launch systems and reduce costs. ❖ **Master Recovery Technologies:** Develop both vertical booster landings and horizontal runway recoveries
Conclusion	By accelerating NGLV development and embracing a PPP-driven ecosystem with start-ups, India can mainstream reusability and secure low-cost, autonomous access to space.The Dawn of Reusable Rockets: Redefining Space Access.

Topic 12 - EOS-N1 (Anvesha)	
Syllabus	Science & Technology | Space Missions
Context	ISRO is set to launch **EOS-N1 (Anvesha)**, a high-end hyperspectral satellite, aboard PSLV-C62 in early 2026.
What is it?	❖ **Launch:** Scheduled for early 2026 via PSLV-C62. ❖ **Developer:** Indian Space Research Organisation (ISRO). ❖ **Type:** High-end Earth observation satellite with hyperspectral capabilities. ❖ **Purpose:** Dual-use for both strategic/defence and civilian applications, aiming to boost surveillance and reconnaissance while supporting developmental monitoring.
Key functions	❖ **Hyperspectral Imaging:** Enables precise material and surface identification. ❖ **Strategic & Defence:** Critical for border and terrain surveillance, aligning with DRDO's needs. ❖ **Agriculture:** Used for monitoring crop health, estimating soil moisture, and predicting yield.

	❖ **Urban & Infrastructure:** Supports detailed land-use mapping and urban planning. ❖ **Environment:** Helps in tracking pollution levels and monitoring ecosystems.
Significance	❖ High-priority strategic asset aligned with DRDO needs. ❖ Places India among select nations with hyperspectral capability. ❖ Dual-use satellite for defence and development.

Topic 13 - Dust EXperiment (DEX)

Syllabus	Science & Technology | Space Technology
Context	ISRO's Dust Experiment (DEX) has provided India's first direct measurements of interplanetary dust entering Earth's atmosphere.
What is DEX?	❖ **Detector Type:** India's first indigenous cosmic dust detector; measures high-speed interplanetary and orbital dust. ❖ **Developed By:** ISRO and Physical Research Laboratory (PRL), Ahmedabad. ❖ **Mission:** Flown aboard **PSLV-C58 POEM** (XPoSat mission). ❖ **Aim:** ➢ Measure cosmic dust flux in Earth's upper atmosphere. ➢ Improve satellite safety and deep-space mission planning.  (a)  (b) ❖ **Key Features:** Detects impacts >4 km/s, compact (3 kg, 4.5 W), wide coverage (140° FOV), operational at ~350 km altitude. ❖ **Scientific Output:** Confirms ~1 dust impact every 16 minutes. ❖ **Significance:** ➢ Enhances spacecraft safety modelling. ➢ Improves understanding of the near-Earth space environment. ➢ Supports future Moon, Mars, and planetary missions.

Topic 14 - Artemis II Mission

Syllabus	Science & Technology | Space Missions
Context	Artemis II marks NASA's return to crewed deep-space exploration, sending astronauts around the Moon for the first time since 1972.
What is Artemis II?	❖ First crewed mission of the Artemis program. ❖ Lunar flyby (no landing) using the Orion spacecraft. ❖ Involves NASA (lead) and the Canadian Space Agency (CSA). ❖ **Aim:**

	➢ Validate human deep-space systems. ➢ Prepare for the Artemis III lunar landing and future Mars missions. ❖ **Key Features:** ➢ Crewed Lunar Flyby, orbiting the Moon's far side. ➢ Uses a Free-Return Trajectory for a safe return. ➢ Tests life support, navigation, and radiation shielding. ➢ Reaches over 230,000 miles from Earth (farthest human travel). ➢ Mission Duration: About 10 days, ending with an ocean splashdown. ❖ **Significance:** ➢ Bridge between uncrewed Artemis I and landing mission Artemis III. ➢ Revives human lunar exploration after 50+ years. ➢ Strengthens international space cooperation.

Topic 15 - Man Portable Anti-Tank Guided Missile (MPATGM)	
Syllabus	Science & Technology | Defence Technology
Context	DRDO successfully flight-tested the third-generation, fire-and-forget MPATGM with top-attack capability against a moving target.
About MPATGM	❖ Third-generation, fire-and-forget, shoulder-fired anti-tank missile. ❖ Designed to destroy modern tanks and armoured vehicles. ❖ Developed by DRDO (DRDL, Hyderabad). ❖ **Aim** ➢ Provide infantry with a lightweight, lethal anti-armour weapon. ➢ Effective in day, night, and all-weather conditions.
Key Features	❖ Fire-and-forget (no post-launch guidance needed). ❖ Imaging Infrared (IIR) seeker for accurate day–night targeting. ❖ Top-attack mode (hits the tank where armour is weakest). ❖ Tandem HEAT warhead (defeats reactive and main armour). ❖ Range: 200 m to 4 km. ❖ Portable launcher (shoulder-fired or tripod/vehicle-mounted).

Topic 16 - Akash-NG Missile System	
Syllabus	Science & Technology | Defence Technology
Context	**DRDO** has successfully concluded the User Evaluation Trials for the Akash-NG missile system. The trials confirm its readiness for induction into the armed forces.
About Akash-NG Missile System	❖ A next-generation short-to-medium range **surface-to-air** missile. ❖ Designed for intercepting a range of **aerial threats**, including aircraft, drones, and cruise missiles.

	❖ Can intercept targets at **Mach 2.5–3.5**. ❖ Developed by **DRDO** and produced by **Bharat Dynamics Limited (BDL)** and **Bharat Electronics Limited (BEL)**. ❖ **Aim** ➢ Upgrade legacy Akash systems with better range and accuracy. ➢ Strengthen Atmanirbhar Bharat in missile technology.
Significance	❖ Major improvement over earlier Akash variants. ❖ Provides a layered air defense shield alongside systems like **S-400** and **MRSAM**. ❖ Fills the medium-range gap in India's Integrated Air Defence System (IADS). ❖ Enhances strategic deterrence against "saturation attacks" (drone swarms) common in modern hybrid warfare (e.g., Ukraine-Russia, West Asia).

Major Advancements over Legacy Akash

Feature	Original Akash	Akash-NG
Weight	~720 kg	**~350 kg** (Lighter & more mobile)
Range	25–30 km	70–80 km
Propulsion	Ramjet	Dual-Pulse Solid Rocket Motor → flexible operation across varied ranges and altitudes.
Seeker	Command Guided	**Active Radio Frequency Seeker** (Higher precision) with high Electronic Counter-Counter Measure (ECCM) capability.
Launch Mode	Exposed Rail	**Canisterised** (Faster response time)
Target Type	General Aircraft	Low-RCS & Stealth Drones

Topic 17 - Long-Range Anti-Ship Hypersonic Glide Missile (LR-AShM)

Syllabus	Science & Technology | Defence Technology
Context	❖ India’s LR-AShM debut marks a major leap in hypersonic and maritime strike capabilities.
About LR-AShM?	❖ India's first indigenous hypersonic glide missile for long-range naval targets. ❖ **Developer:** DRDO, for the Indian Navy. ❖ **Purpose:** Strengthen maritime deterrence, A2/AD (Anti-Access/Area Denial), and neutralise carrier strike groups at standoff ranges. ❖ **Key Specs:** ➢ **Speed:** Hypersonic (Mach 5+ average, peaks near Mach 10). ➢ **Range:** Approximately 1,500 km. ➢ **Design:** Boost-glide. ➢ **Guidance:** INS + satellite + active radar seeker. ❖ **Status:** Initial deployment via mobile land launchers; naval and air variants planned.

	❖ **Significance:** Places India among the few nations with hypersonic missile capability (US, Russia, China). Enhances deterrence in the Arabian Sea and Bay of Bengal.

Topic 18 - Pinaka Long Range Guided Rocket (LRGR-120)

Syllabus	Science & Technology | Defence Technology
Context	DRDO successfully conducted the inaugural flight test of the Pinaka LRGR-120 at the Integrated Test Range (ITR), Chandipur.
About Pinaka LRGR - 120	❖ **Pinaka LRGR-120** is the most advanced evolution ("Mark-III") of indigenous Pinaka Multi-Barrel Rocket Launcher (MBRL) system. ❖ **Developed by:** DRDO (Armament Research and Development Establishment - ARDE and High Energy Materials Research Laboratory - HEMRL). ❖ **Aim** ➢ Extend Pinaka strike range. ➢ Enable accurate long-range attacks. ➢ Use existing Pinaka launchers.

Evolution of the Pinaka System

Variant	Range	Guidance Type	Role
Pinaka Mk-I	38–40 km	Unguided	Conventional area saturation.
Guided Pinaka (Mk-II)	75–90 km	INS + NavIC	Precision strikes at medium range.
LRGR-120 (Mk-III)	120 km	Advanced Precision Guided	Deep-strike, stand-off engagement.

Significance	❖ Enhances India's long-range precision strike capability. ❖ Improves battlefield flexibility and helps in minimizing unintended collateral damage.

Topic 19 - Suryastra Rocket System	
Syllabus	Science & Technology | Defence Technology
Context	Suryastra marks India's entry into long-range universal rocket artillery systems, significantly enhancing deep-strike and deterrence capabilities.
What is it? 	❖ **India's first indigenous universal multi-calibre long-range rocket launcher system**. ❖ Capable of **precision surface-to-surface strikes** at **150 km and 300 km**. ❖ A single platform can integrate **multiple rocket and missile types**. ❖ **Aim** ➢ To strengthen deep-strike and stand-off firepower by enabling both **precision and saturation fire** from a single system. ➢ Support **Make in India** and reduce import dependence.
Development profile	❖ **Manufacturer:** NIBE Ltd. (India) ❖ **Technology Base:** Derived from the Israeli **PULS (Precise & Universal Launching System)**. ❖ **International Collaboration:** Developed in partnership with **Elbit Systems (Israel)** under a Technology Collaboration Agreement signed in July 2025. ❖ Inducted into the Indian Army via a **₹293-crore emergency procurement** to ensure fast deployment.
Key features	❖ **Tactical Deep-Strike Range:** Capable of precision surface-to-surface strikes at **150 km and 300 km**. ❖ **Universal Platform:** A single launcher can integrate and fire **multiple rocket and missile types** (including 122 mm, 160 mm, and 306 mm calibres). ❖ **High Precision:** Achieves a Circular Error Probable (CEP) of **less than 5 metres**. ❖ **Multi-Target Engagement:** Can execute simultaneous strikes at different ranges. ❖ **Mobility:** Compatible with various wheeled platforms (**4×4, 6×6, 8×8**).
Significance	❖ **Leap over Pinaka:** Higher range + precision. ❖ **Deterrence boost:** Strengthens conventional deterrence vs China & Pakistan. ❖ **Joint warfare integration:** Enhances coordinated strike capability. ❖ **Indigenisation:** A major step in long-range artillery self-reliance.

Environment & Geography

Topic 1 - Secondary Pollutants

Topic	Environment | Air Pollution
Context	A recent analysis by the **Centre for Research on Energy and Clean Air (CREA)** highlights that secondary pollutants now contribute nearly one-third of Delhi's annual PM2.5 load. This finding redirects the focus from solely visible, local emissions to the complexities of atmospheric chemical reactions.
What are secondary pollutants	❖ Unlike primary pollutants emitted directly from a source, secondary pollutants form in the atmosphere when primary gases react (precursor gases). ❖ Their formation is dependent on environmental factors like sunlight, humidity, temperature, and stagnant air. ❖ They can accumulate over time and travel long distances from their source areas.
Major secondary pollutants	❖ Secondary PM2.5 (Ammonium sulfate, ammonium nitrate). ❖ **Ozone (O_3):** Formed when Nitrogen Oxides (NOx) and Volatile Organic Compounds (VOCs) react under sunlight. ❖ **Acids:** Sulfuric and nitric acid, which are precursors to acid rain. ❖ **Smog Components:** Peroxyacyl nitrates (PANs) and nitrogen dioxide (Priamry + secondary).
How They Form:	❖ **Precursor Gases:** SO_2 (power plants), NOx (vehicles, thermal plants), Ammonia (fertilizers, livestock). ❖ **Atmospheric Reactions (Chemical Pathways):** ➢ SO_2 converts into sulfate, which then reacts with ammonia to form **ammonium sulfate**. ➢ NOx converts into nitric acid, which then reacts with ammonia to form **ammonium nitrate**. ❖ **Role of Weather Conditions:** High humidity, fog, low temperature, and weak winds speed up formation, especially in winter.
Major Implications for Pollution Control and Health	❖ **Regional Air Pollution:** Because secondary pollutants can travel long distances. Delhi's air quality is significantly affected by secondary pollutants traveling from outside the NCR. ❖ **Winter Smog Cause:** Rapid formation of secondary PM2.5 in stagnant, moist air causes sudden, severe pollution spikes. ❖ **Policy Focus Shift:** Policy must prioritize reducing precursor gases (SO_2, NOx, ammonia) regionally, moving beyond only coarse PM10 or local dust control. ❖ **Health Impact:** Fine secondary particles penetrate deep into the lungs, increasing risks of asthma, heart disease, and premature death.

Topic 2 - Commission for Air Quality Management (CAQM)	
Topic	Environment | Air Pollution
Context	The Commission for Air Quality Management has issued notices to thermal power plants for violating biomass co-firing norms. The action aims to curb air pollution in the NCR region.
About CAQM	❖ A **statutory body** for air pollution control in NCR and adjoining areas. ❖ Established in 2021 via a special ordinance. ❖ Replaced existing Environment Pollution (Prevention and Control) Authority. ❖ **Headquarters**: New Delhi. ❖ **Jurisdiction/Coverage:** ➢ The National Capital Region. ➢ Neighboring areas within the states of Haryana, Punjab, Rajasthan, and Uttar Pradesh.
Structure and Tenure	❖ **Composition:** Includes a Chairperson, a Member-Secretary, a Central government representative, technical air pollution experts, and members from non-government organisations. ❖ **Tenure:** Members serve for three years or until they reach the age of 70, whichever comes first.
Functions	❖ Coordinate Centre–State air pollution control efforts. ❖ Frame and implement air quality management strategies. ❖ Monitor compliance with pollution control norms. ❖ Oversee actions like biomass co-firing and stubble-burning control. ❖ Promote research and capacity building.

Topic 3 - Pollution Control Vessel ‘Samudra Pratap’	
Syllabus	Environment | Science & Technology | Pollution
Context	The **Indian Coast Guard** has inducted its **first indigenously** designed **Pollution Control Vessel**, **Samudra Pratap**. The induction marks a major step in strengthening India’s maritime environmental protection capability.
About Samudra Pratap	❖ **'Samudra Pratap'** is the **Indian Coast Guard's first indigenously** designed **Pollution Control Vessel (PCV)**. ❖ **Purpose:** Marine environmental protection, oil-spill response, pollution control, and firefighting. ❖ **Significance:** Largest vessel in the ICG fleet and first PCV indigenously designed/built. ❖ **Built By: Goa Shipyard Limited** (Part of **two-ship (02-PCV) Project)**.

	❖ **Key Features:** ➢ **Dynamic Positioning (DP-1)** capability. ➢ Advanced pollution response systems (oil fingerprinting, oil spill detection, viscous oil recovery equipment). ➢ High-capacity firefighting (FiFi-2/FFV-2 notation). ➢ Equipped with a 30 mm CRN-91 gun and two 12.7 mm remote-controlled guns. ➢ Indigenous systems: ■ Integrated Bridge System. ■ Integrated Platform Management System. ■ Automated Power Management System.

Topic 4 - Transforming a Waste-Ridden Urban India	
Syllabus	Environment | Pollution | Waste Management
Context	With **COP30 (Belém, 2025)** pushing waste and circularity to the centre of climate action, India's urban waste crisis is increasingly seen as a climate, health, and governance challenge rather than just a cleanliness issue.
What is it?	❖ India is transitioning from the traditional **linear "collect–dump" model** to a **circular urban waste economy**. ❖ This shift emphasizes **waste minimisation, segregation, recycling, composting, and reuse** to achieve several goals: ➢ Cut **pollution** and **methane emissions**. ➢ Mitigate **public health risks**. ➢ Reduce reliance on **landfills** in fast-growing cities.
Trends and Data on Urban Waste	❖ **Rising Generation:** Urban India is projected to generate **165 million tonnes of Municipal Solid Waste (MSW) by 2030**. ❖ **Future Peak:** Waste generation could surge to **436 million tonnes by 2050** as the urban population approaches **814 million**. ❖ **Climate Footprint:** Urban waste currently emits approximately **~41 million tonnes of Greenhouse Gases (GHGs)**, primarily methane from organic matter. ❖ **C&D Waste:** Cities generate about **~12 million tonnes of Construction & Demolition (C&D) waste annually**, contributing to air pollution and drainage clogging.
Organic Waste: A Strategic Opportunity	❖ **Composting at scale:** Converts wet waste into manure, reducing landfill load and restoring soil nutrients. ➢ E.g., Market Development Assistance (2025) enabled cities like **Varanasi** to supply Fermented Organic Manure to farmers.

	❖ **Bio-methanation & CBG:** Anaerobic digestion links waste management with clean energy. ➢ E.g., **Indore's 550 TPD CBG plant** fuels city buses; ~750 projects supported under GOBARdhan by 2025. ❖ **Methane mitigation:** Diverting wet waste from dumpsites sharply cuts methane emissions. ➢ E.g., **Alappuzha's decentralised composting** showed measurable GHG reduction. ❖ **Decentralised processing:** In-situ treatment lowers transport cost, emissions, and secondary pollution. ➢ E.g., **Swachh Campus norms (2025)** enabled hotels in Srinagar and Pattan to achieve 100% on-site processing. ❖ **Green livelihoods:** Circular systems formalise informal labour into dignified green jobs. ➢ E.g., **SafaiMitra Suraksha Programme** integrated SHGs into composting and MRF operations.
Role of Swachh Bharat Mission (Urban) 2.0	❖ **Garbage-Free Cities (GFC) framework:** The star-rating system institutionalises zero dumping and scientific processing. ➢ E.g., **Navi Mumbai and Surat** achieved 7-Star GFC status in Swachh Survekshan 2025. ❖ **Dump-site remediation:** Bio-mining clears legacy waste and reclaims urban land. ➢ E.g., **MCD (2025)** reported ~25,000 MT/day bio-mining across Delhi landfills. ❖ **Source segregation:** The three-bin system improves recycling quality and processing efficiency. ➢ E.g., **Aizawl's Adopt-a-Dustbin Scheme** achieved near-100% segregation in commercial areas. ❖ **Climate integration:** SBM-U aligns waste governance with methane reduction and SLCP targets. ❖ **Behavioural change:** Jan Andolan strategies nudge citizens to adopt segregation as a social norm.
Key challenges	❖ **Poor source segregation:** Mixed waste contaminates recyclables and undermines WtE viability. ➢ E.g., NCR cities like **Gurgaon** reported <20% segregation (SC, 2025). ❖ **Plastic waste complexity:** Multi-layered plastics lack recycling markets despite EPR rules. ❖ **C&D waste enforcement gaps:** Illegal dumping worsens flooding and PM10 pollution. ➢ E.g., **CAG (2025)** found 70% ULBs lacked designated C&D collection points.

	❖ **Municipal capacity limits:** Shortage of funds, skilled staff, and technical oversight. ❖ **Compost quality issues:** Contamination reduces farmer trust and uptake.
Way ahead	❖ **Strengthen Legal Frameworks:** Ensure effective enforcement of **C&D Waste Rules (2025)** from April 2026. ❖ **Expand EPR Scope:** Extend EPR beyond plastics to cover textiles, packaging, and residual e-waste streams. ❖ **Water-Waste Nexus:** Scale up AMRUT-linked models for **reuse of urban wastewater**. E.g., **Nagpur industry supply**. ❖ **Promote Best Practices:** Utilize platforms like the **Cities Coalition for Circularity (C-3)** for city-to-city learning and knowledge diffusion. ❖ **Citizen Incentives:** Implement user-fee rebates, carbon credits, and pay-as-you-segregate models to motivate participation.
Conclusion	India's urban waste problem is now a climate and economic challenge. Embedding circularity, decentralised processing, and citizen participation into urban governance can transform waste from a liability into a resource and decide whether Indian cities stagnate under waste or lead sustainable growth.

Topic 5 - GEI Target (Amendment) Rules, 2025	
Syllabus	Environment | Climate Change
Context	The Union Government has notified the second round of legally binding emission reduction targets for carbon-intensive industries under the **Greenhouse Gases Emission Intensity (GEI) Target (Amendment) Rules, 2025**.
What are GEI Rules?	❖ **Purpose:** Statutory rules to mandate GHG emission-intensity reductions and operationalise the Carbon Credit Trading Scheme (CCTS). ❖ **Legal Basis:** Environment (Protection) Act, 1986; In Force since 9 Oct 2025. ❖ **Nodal Agencies:** MoEFCC, Bureau of Energy Efficiency (BEE), and Central Pollution Control Board (CPCB). ❖ **Coverage (Second Round):** ➢ **Sectors:** Includes petroleum, petrochemicals, textiles, and secondary aluminium. ➢ **Units:** 208 industrial units, comprising both Public Sector Undertakings (PSUs) and private companies.
Key Provisions	❖ **Targets:** Specified in tonnes of CO_2 equivalent (tCO_2e) per unit of output. ❖ **Timeframe:** The baseline year is 2023–24, with compliance required for the 2025–26 and 2026–27 fiscal years. ❖ **Incentives and Penalties:**

	➢ Industrial units exceeding their reduction targets will be awarded carbon credits. ➢ Non-compliance will result in a penalty equivalent to double the average carbon price
Significance	❖ **Climate Action:** Marks a definitive shift from voluntary climate pledges to mandatory actions. ❖ **Market Impact:** Further strengthens the operational framework of the Indian Carbon Market. ❖ **National Contribution:** Crucial for achieving India's Nationally Determined Contributions (NDC) targets.

Topic 6 - Grasslands and Climate Change	
Syllabus	Environment
Context	With 2026 declared the International Year for **Rangelands and Pastoralists**, the neglect of grasslands in climate policy has emerged as a critical gap in global and national climate action.
What are grasslands?	❖ Open natural ecosystems are dominated by grasses with sparse or no tree cover. ❖ Found as savannahs, prairies, steppes, and rangelands across continents. ❖ Cover nearly **40% of Earth's land surface**, supporting pastoral livelihoods, wildlife, and soil carbon storage.
Why grasslands matter for climate action	❖ **Below-ground carbon storage:** Nearly 90% of grassland carbon is stored in soils and deep roots, making it more stable than forest biomass. ❖ **Fire resilience:** Grassland fires do not release stored soil carbon, allowing rapid recovery and long-term carbon permanence. ❖ **Albedo-based cooling:** Lighter grass surfaces reflect more solar radiation than forests, reducing local heat absorption. ❖ **Water regulation:** Dense root systems enhance groundwater recharge and reduce runoff during extreme rainfall. ❖ **Climate adaptability:** Grasslands perform better than forests in semi-arid and drought-prone regions.
Global policy bias: forests over grasslands	❖ **Forest-centric climate finance:** Global funds and negotiations prioritise forests, sidelining grasslands despite comparable mitigation value. ❖ **Institutional fragmentation:** Grasslands fall between UNFCCC, CBD, and UNCCD, leading to weak ownership and coordination. ❖ **NDC exclusion:** Most countries explicitly mention forests but omit grasslands as carbon sinks.

	❖ **Wasteland misclassification:** Productive grasslands are labelled as degraded land, legitimising diversion for infrastructure and plantations.
Implications of declining grasslands	❖ **Biodiversity loss:** Open-habitat species face decline due to tree plantation–driven habitat conversion. ❖ **Reduced climate resilience:** Degraded grasslands accelerate desertification, floods, and drought cycles. ❖ **Pollinator decline:** Grassland ecosystems support pollinators critical for global food security. ❖ **Livelihood disruption:** Pastoral and indigenous communities face displacement and loss of grazing commons.
Way forward	❖ **Recognise Open Natural Ecosystems (ONEs):** Shift policy language from "wastelands" to ecologically valuable grasslands. ❖ **Integrate into NDCs:** Explicitly include grasslands as carbon sinks to unlock climate finance and policy focus. ❖ **Ecosystem-based planning:** Balance forests, grasslands, wetlands, and mangroves in climate strategies. ❖ **Strengthen community rights:** Secure pastoral and indigenous land governance for sustainable management. ❖ **Incentivise sustainable grazing:** Promote PES and soil-carbon–based incentives for rangeland restoration.
Conclusion	Grasslands are climate assets, not empty lands; without integrating them into NDCs and climate finance, global climate strategies will remain ecologically incomplete and socially inequitable.

Topic 7 - International Renewable Energy Agency (IRENA)	
Syllabus	Climate Change | International Organisation
Context	The 16th Assembly of IRENA recently concluded in Abu Dhabi, urging a faster global transition to renewable energy.
What is IRENA	❖ **IRENA** is the only global intergovernmental body focused exclusively on renewable energy. ❖ **Role:** Central platform for policy guidance, technology collaboration, data, and green investment mobilization. ❖ **Established:** January 26, 2009, in Bonn, Germany (statute entered into force in 2010). ❖ **Headquarters:** Masdar City, Abu Dhabi. ❖ India is a founding member.
Core Objectives	❖ **Climate Action:** Promote the use of renewable energy to address climate change.

	❖ **Energy Access:** Improve access to energy in developing nations. ❖ **Security:** Enhance global energy security. ❖ **Economic Growth:** Support sustainable, green economic expansion.
Key Functions and Services	❖ Policy Support to members. ❖ Research & Data (Costs and trends). ❖ Technology Promotion (Solar, wind, hydro, etc.). ❖ Capacity Building (Training). ❖ Investment Mobilization (Financing clean energy). ❖ Acts as the principal international forum for renewable energy diplomacy.
Significance and Impact	❖ Supports **SDG-7** (Affordable, reliable, sustainable energy). ❖ Helps nations achieve net-zero emissions. ❖ Reduces fossil fuel dependence and mitigates climate risk.

Topic 8 - Aravalli Hills Controversy	
Syllabus	Environment | Biodiversity Conservation
Context	The **Supreme Court of India** has approved a new height-based definition of the Aravalli Hills. Environmentalists warn this may deregulate vast ecologically sensitive areas, triggering protests under the “Save Aravalli” campaign.
About Aravalli Hills	❖ The world's oldest **fold mountain systems** originated during the **Proterozoic Era** (approximately 1.5 to 2.5 billion years ago). ❖ Stretch about **650–700 km** from Delhi to Gujarat. ❖ Serve as the ecological backbone of north-west India.
Key Ecological Functions	❖ **Natural climatic barrier** ➢ Prevents the eastward spread of the Thar Desert. ➢ Reduces desertification in Rajasthan, Haryana, and Delhi-NCR. ❖ **Hydrological significance** ➢ Recharge zone and source for rivers like Banas, Sabarmati, and Luni. ➢ Supports agriculture and drinking water security. ❖ **Wildlife corridors** ➢ Connect protected areas such as Sariska and Ranthambhore. ➢ Enable movement of tigers and other wildlife. ❖ **Pollution and climate buffer:** Act as green lungs, moderating heat, trapping dust, and reducing air pollution. ❖ The range is a major source of over **70 commercially valuable minerals**, including major deposits of base metals (**copper, zinc, lead**), precious metals (**gold, silver**), industrial materials (**marble, limestone, granite, quartz), and** other natural resources (forest produces).

Supreme Court Judgment	❖ Accepted the Centre-led committee's height-based definition. ➢ Aravalli Hills are now defined as landforms rising at least **100 metres** above local relief. ➢ Two such hills within 500 metres form an Aravalli range. ❖ **Shift from scientific mapping** ➢ Replaces the Forest Survey of India's **3-degree slope method,** which considered geological continuity. ➢ It excludes low-elevation yet ecologically vital hill systems, putting large tracts (80-90%) in Delhi-NCR and Rajasthan at risk of losing legal protection. ❖ The judgment temporarily halted the issuance of fresh mining leases pending further studies, while prioritizing administrative uniformity and the framework for 'sustainable' mining. ❖ **Dec, 2025**: SC **stayed its own judgment**, citing need for clarification and expert review. ➢ It allows for a comprehensive review of the definition under constitutional articles (Articles 14, 21, 48A, 51A(g)).
The Controversy: New Definition vs. Ecology	❖ **Massive Exclusion:** The definition ignores the ecological function of extensive, low-lying Aravalli landscapes that are critical to the system's health. ❖ **Accelerated Development:** The lack of legal protection in derecognised zones is expected to accelerate damaging construction and infrastructure growth. ❖ **Ignoring Precaution:** The judgment's focus on avoiding 'over-inclusion' overlooks the cumulative and irreversible ecological damage. ❖ **Lack of Transparency:** The redefinition process proceeded without adequate consultation with scientific experts and local communities. ❖ **Ecological Risks:** Violates fundamental right to a healthy environment (Article 21). ➢ Loss of biodiversity, desertification, water scarcity, intensified heat waves, climate stress. ➢ Worsening air quality (AQI) in the National Capital Region.
Way Ahead	❖ **Landscape-based Protection:** Protection must cover hilltops, slopes, valleys, and ecological corridors. ❖ **Restore Scientific Benchmarks:** Reintroduce slope-based and geological criteria that reflect the range's ecological function. ❖ **Strengthen Legal Safeguards:** Rigorously enforce the Environment (Protection) Act and expand eco-sensitive zones. ❖ **Institutionalise Consultation:** Ensure transparent and participatory decision-making with scientists and local communities. ❖ **Integrate Climate Resilience:** Recognize and treat the Aravallis as critical natural infrastructure for climate adaptation and risk reduction.

Conclusion	❖ The Aravalli Hills are defined by **ecological function and continuity**, not height alone. A narrow definition risks dismantling a vital natural shield, making a science-based and precautionary reassessment essential for long-term environmental security.
Supreme Court Role in Protecting Aravallis	❖ **Godavarman Case (1995):** Broadened the definition of "forest" based on its ecological nature, regardless of official records, thereby extending protection to Aravalli forests. ❖ **M.C. Mehta Case (1985)** ➢ **M.C. Mehta Case (1985):** Established the legal basis for Aravalli protection in Delhi–Haryana. ➢ Bans on illegal mining and real-estate violations. ❖ **Mining Bans (1996–2002):** Prohibited mining in Faridabad–Haryana Aravallis based on NEERI/HPCB reports. ❖ **FSI Mapping Order (2010)** ➢ Rejected height rule. ➢ Mandated a slope-based and buffer-zone method for mapping. ❖ **Vanished Hills Order (2018):** Halted mining after 31 hills were reported removed, prioritizing ecology over revenue. ❖ **Delhi Ridge Protection (2023–25):** Recognized the "morphological ridge" and imposed bans on land allotment and tree felling.

Topic 9 - UN Biodiversity Beyond National Jurisdiction (BBNJ) Treaty	
Syllabus	Environment & Biodiversity
Context	The BBNJ Treaty has **entered into force**, creating the first global legal framework to protect biodiversity in international waters.
What is the BBNJ Treaty?	❖ **Legally binding** treaty under United Nations Convention on the Law of the Sea (UNCLOS). ❖ **Purpose**: ➢ To safeguard marine biodiversity in international waters - that lies beyond national jurisdiction (two-thirds of the global ocean). ➢ Contributing to the ambitious "30 by 30" target (protecting 30% of the ocean by 2030). ❖ Also known as the High Seas Treaty. ❖ Treaty negotiations began in 2008, and the text was finalized in March 2023 after 15 years of discussions. It entered into force in September 2025 following 60 ratifications.

Key Features	❖ **Marine Protected Areas (MPAs):** Allow the creation of MPAs in international waters. ❖ **Environmental Impact Assessments (EIAs):** Mandatory assessment for harmful activities. ❖ **Marine Genetic Resources (MGRs):** Ensures the fair and equitable sharing of benefits derived from these resources. ❖ **Capacity Building:** Technology transfer and scientific support for developing countries. ❖ **Precautionary Approach:** Ensures decisions prioritize science and ecosystem protection. ❖ **Prohibition of Sovereignty Claims:** Explicitly prevents any state from claiming ownership over high-seas resources.
Significance	❖ The BBNJ Treaty is crucial because it addresses a major governance gap in ocean protection. ❖ It strengthens global marine conservation efforts while ensuring a balance between conservation needs and equitable access to resources for developing nations.

Topic 10 - Environmental Protection Fund	
Syllabus	Environment
Context	The Union Government has notified detailed rules for the utilisation and administration of the Environmental (Protection) Fund, operationalising provisions introduced under the Jan Vishwas Act, 2023.
About the Fund?	❖ **Statutory Fund:** Established under the Environment (Protection) Act, 1986. ❖ Its primary goal is to utilize penalties collected for environmental violations to directly support restoration, protection, and monitoring activities. ❖ The rules for the fund's administration were officially notified in January 2026. ❖ **Governance and Structure** ➢ **Nodal Ministry:** The Ministry of Environment, Forest and Climate Change (MoEFCC). ■ It can delegate implementing responsibilities to other bodies. ➢ **Oversight:** ■ Governance involves Project Management Units at both the Central and State levels. ■ The fund is subject to a CAG audit, and an online portal managed by the CPCB ensures transparency and monitoring. ❖ **Sources:** Penalties collected under the Air Act and the Environment (Protection) Act, as well as interest income.

	❖ **Revenue Sharing:** The revenue generated is split between the Centre and States/Union Territories at a **25:75 ratio**, promoting Centre–State cooperation. ❖ **Uses:** Funding pollution control, site remediation, monitoring, R&D, and clean technology promotion
Significance	❖ Strengthens accountability without criminalisation. ❖ Promotes Centre–State cooperation. ❖ Improves regulatory capacity.

Topic 11 - Top Court's Green Governance

Syllabus	Environmental Governance | Judiciary
Context	The Supreme Court's expanding role in environmental governance has delivered key protections, but recent reversals and policy-like interventions have raised concerns over consistency and institutional balance.
What is Top Court's Green Governance?	❖ Refers to the Supreme Court's proactive role in environmental protection beyond legality checks. ❖ Uses tools like **continuing mandamus** to issue ongoing, policy-shaping directions. ❖ Aims to fill regulatory gaps where executive action is weak or delayed.
Major Environmental Judgments (2025)	❖ **Great Indian Bustard Case (M.K. Ranjitsinh):** Imposed stringent conservation measures, including mandates for underground power lines and habitat restoration. ❖ **Kancha Gachibowli Forest Case (Hyderabad):** A suo motu stay was issued on mass tree felling, relying on the public trust doctrine. ❖ **Delhi-NCR Air Pollution Cases:** Directed the CAQM on planning, data transparency, and enforcement mechanisms. ❖ **Stray Dog Management Case:** Shifted the policy focus from relocation to a **sterilisation-and-release** approach. **Note on Reversals**: The initial ban on ex post facto clearances in **Vanashakti v. Union of India** was later reversed due to concerns over project disruption. Similarly, the initial narrow definition allowing mining in the **Aravalli Hills Mining Case** was subsequently stayed and referred to an expert committee.
Successes of the Supreme Court	❖ **Constitutionalised Environmental Protection:** Embedded global principles into Article 21 (health, dignity, inter-generational equity). ❖ **Checked Executive Inaction:** Acted as a watchdog during governance paralysis, threatening public health.

	❖ **Prevented Irreversible Damage:** Applied the precautionary principle to halt risky activities. ❖ **Expanded Public Trust Doctrine:** Held the State as trustee of natural resources for future generations. ❖ **Mainstreamed Environmental Rights:** Linked environment with equality and dignity, strengthening enforceability.
Issues and Challenges	❖ **Judicial Overreach:** Prescribing technical solutions blurs adjudication and administration. ❖ **Policy Uncertainty:** Frequent reversals dilute predictability for regulators and investors. ❖ **Expertise Paradox:** Repeated constitution/rejection of expert committees weakens scientific consistency. ❖ **Reduced Participatory Space:** Direct Supreme Court access sidelines statutory forums like NGT. ❖ **Mandamus Fatigue:** Long-running cases risk micromanagement over durable policy reform.
Way Ahead	❖ **Re-anchor to Legality:** Focus on due process, statutory compliance and reasoned review. ❖ **Discipline, Not Replace Regulators:** Enforce accountability rather than substitute governance. ❖ **Clear Intervention Thresholds:** Adopt principles like **Non-Regression** to avoid dilution of safeguards. ❖ **Strengthen Institutions:** Fill vacancies and empower SPCBs, CAQM, and NGT to reduce judicial dependency.
Conclusion	The Supreme Court remains vital to environmental protection where governance falters, but stable, principle-based oversight that strengthens-rather than replaces-institutions is essential for sustainable green governance.

Topic 12 - Rajasthan's Organic Panchayat Pledge

Syllabus	Ecology & Environment
Context	The **Bamanwas Kankar Panchayat** (7 hamlets) in **Kotputli-Behror** district, Rajasthan has become the **first fully organic-certified panchayat** in the State and also in North-West India.
Organic Certified Panchayat	❖ **Chemical-free farming**: No synthetic/chemical fertilizers or pesticides. ❖ **Eco-friendly livestock management**: Sustainable animal husbandry practices. ❖ **Community-driven initiative**: Transition led by local residents, especially women farmers.

	❖ **Certification**: Facilitated by **COFED (Cofarmin Federation of Organic Societies and Producer Companies)** under **National Programme for Organic Production (NPOP)** standards. ➢ NPOP is a organic products certification programme by **APEDA** (Ministry of Commerce and Industry). ❖ **Significance:** ➢ Improves soil/water health, ➢ Boosts farmer income by cutting expenses and better market access (premium pricing), ➢ Enhances public health, and supports biodiversity. ❖ Aligns with **India's national mission on natural farming** and **UN SDGs (sustainable agriculture, health, environment)**.
Significance	❖ Improves soil/water health, ❖ Boosts farmer income by cutting expenses and better market access (premium pricing), ❖ Enhances public health, and supports biodiversity. ❖ Aligns with **India's national mission on natural farming** and **UN SDGs (sustainable agriculture, health, environment)**.

Topic 13 - State of Finance for Nature 2026

Syllabus	Environment
Context	UNEP's State of Finance for Nature 2026 warns that global finance overwhelmingly harms nature, threatening economic stability and climate goals.
About the Report	❖ Fourth edition of UNEP's flagship assessment on global nature-related finance. ❖ Tracks capital flows that either harm or protect nature. ❖ Focuses on scaling **Nature-based Solutions (NbS)** for conservation and sustainability.
Key Findings	❖ **Finance Gap:** NbS investment must increase 2.5× to **US$571 billion annually by 2030**. ❖ **Nature-Negative Dominance:** Harmful finance reached **US$7.3 trillion (2023)** (7% of global GDP). ❖ **Subsidies:** Governments provide **US$2.4 trillion** in environmentally harmful subsidies. ❖ **Private Sector: US$4.9 trillion** from private finance flows into nature-degrading sectors. ❖ **NbS Funding:** 90% is public; only **US$23.4 billion** from private investors.

Failures Identified	❖ **Harmful Subsidies Persist:** Trillions still incentivise environmental degradation. ❖ **Weak Biodiversity Offsets:** Poor enforcement limits ecological gains. ❖ **Low Private Capital:** Private NbS investment remains negligible. ❖ **Regulatory Dilution:** Environmental safeguards weakened in some regions. ❖ **Underfunded Global Support:** Developing countries face financial shortfalls for conservation goals.
Recommendations	❖ **Subsidy Reform:** Redirect harmful subsidies to regenerative and clean sectors. ❖ **Mandatory Disclosure:** Enforce nature-risk reporting for large firms. ❖ **Blended Finance:** Use public funds to de-risk private NbS investments. ❖ **Green Budgeting:** Integrate NbS into national fiscal planning. ❖ **Equity Focus:** Ensure Indigenous and local communities benefit from nature finance.
Conclusion	The report underscores a critical imbalance in global finance, and only a rapid redirection of capital toward nature-positive investments can secure economic resilience and ecological stability.

Topic 14 - Virtual Water Export Crisis	
Syllabus	Geography| Agriculture | Water Conservation
Context	India has become the world's largest rice exporter, but this success is causing a "virtual water export crisis," draining groundwater in water-stressed states (like Punjab and Haryana).
What is Virtual Water?	❖ The total volume of freshwater used to produce a commodity throughout its supply chain. For example, producing **1 kg of rice requires 3,000-4,000 litres of water**. ❖ Exporting rice means exporting billions of cubic metres of scarce groundwater annually. ❖ **Key Trend:** India exports over 20 million tonnes of rice yearly, equivalent to over 24,000+ million cubic metres of virtual water.
Reasons for Crisis:	❖ Water-intensive rice model unsuitable for semi-arid regions. ❖ Distortionary subsidies (High MSP, free electricity) encourage over-pumping. ❖ Green Revolution legacy and weak state capacity for groundwater regulation. ❖ **Challenges:** Political resistance to MSP reform, lack of stable income from diversification, and monitoring gaps.
Impacts	❖ Severe groundwater depletion (most blocks in Punjab-Haryana over-exploited). ❖ Rising farm distress and increased climate vulnerability. ❖ Ecological damage and inter-generational water loss.

Initiatives Taken	❖ **Jal Shakti Abhiyan:** Focuses on comprehensive water conservation and groundwater recharge efforts. ❖ **Atal Bhujal Yojana:** Aims at community-led sustainable groundwater management. ❖ **Mission Amrit Sarovar:** Dedicated to the rejuvenation and creation of water bodies. ❖ **Per Drop More Crop:** Promotes efficient water use through micro-irrigation techniques. ❖ **NAQUIM 2.0:** Involves the mapping and management of the nation's aquifers.
Way Forward	❖ Reform MSP/procurement towards millets and less water-intensive crops. ❖ Rationalise free power and regulate pump usage. ❖ Promote Direct Seeded Rice (DSR) and offer long-term income assurance for diversification. ❖ Align export policy with the water footprint.
Conclusion	India's rice export success is unsustainable; without aligning agriculture and water governance with ecological limits, it risks a major water disaster.

Topic 15 - Dynamic Ground Water Resource Assessment Report, 2024	
Syllabus	Geography | Water Resources
Context	The Dynamic Groundwater Resource Assessment Report, 2024, indicates a cautious improvement in India’s groundwater status, with higher recharge and reduced over-exploitation compared to 2017, though regional stress remains a concern.
Key trends in groundwater resources	❖ **Rising recharge:** Total annual groundwater recharge at **446.90 BCM**, reflecting gains from rainwater harvesting and conservation works. ❖ **Moderate extraction:** Annual extraction at **245.64 BCM**; **stage of extraction 60.47%**, indicating national-level sustainability. ❖ **Expansion of ‘Safe’ units: 73.4%** assessment units now Safe (up from **62.6% in 2017**). ❖ **Decline in over-exploitation:** Over-exploited units reduced from **17.24% (2017)** to **11.13% (2024)**. ❖ **Conservation impact:** Recharge from tanks, ponds, and water conservation structures increased to **25.34 BCM** (nearly doubled since 2017). ❖ **Persistent regional imbalance:** Stress remains concentrated in **Punjab, Haryana, Delhi, Rajasthan, Tamil Nadu, Karnataka, Telangana, and Gujarat**. ❖ **Rainfall dependence:** ~**61%** of recharge comes from rainfall, increasing monsoon sensitivity.

Reasons for groundwater depletion	❖ **Agriculture-driven overuse:** ~**62%** of irrigation depends on groundwater; water-intensive crops dominate stressed regions. ❖ **Seasonal rainfall mismatch:** ~**75%** rainfall in June–September vs year-round withdrawals. ❖ **Hydro-geological limits:** Hard rock terrains (~two-thirds of India) restrict storage to fractures. ❖ **Energy-subsidy distortion:** Cheap/free power incentivises excessive pumping in the NW and peninsular states. ❖ **Urban–industrial pressure:** Rising non-agricultural demand reflected in **245.64 BCM** annual draft (2024).
Initiatives to counter depletion	❖ **National Aquifer Mapping (NAQUIM & NAQUIM 2.0):** Scientific aquifer-level planning. ❖ **Atal Bhujal Yojana (ATAL JAL):** Community-led demand-side management in stressed blocks. ❖ **Master Plan for Artificial Recharge (2020):** Proposes structures to harness **185 BCM** monsoon runoff. ❖ **Jal Shakti Abhiyan – Catch the Rain:** Nationwide rainwater harvesting focus. ❖ **PMKSY (groundwater component):** Efficient irrigation and conjunctive use in Safe areas.
Challenges associated	❖ **Water security risk:** Groundwater supplies **~85% rural** and **~50% urban** drinking water. ❖ **Regional inequality:** NW India, western arid zones, and peninsular crystalline belts remain stressed. ❖ **Quality deterioration: 127 units (1.88%)** saline; arsenic/fluoride coexist with quantity stress. ❖ **Climate vulnerability:** Erratic rainfall; recharge dipped slightly from **449.08 BCM (2023)** to **446.90 BCM (2024)**. ❖ **Governance fragmentation:** State subject status leads to uneven regulation and pricing signals.
Way Forward	❖ **Aquifer-based management:** Scale NAQUIM/NAQUIM-2.0 with village-level plans for Critical/Over-exploited units. ❖ **Demand-side reforms:** Crop diversification, power subsidy rationalisation, micro-irrigation to keep extraction <60%. ❖ **Artificial recharge push:** Implement the Master Plan to create **1.42 crore** structures capturing **185 BCM** runoff. ❖ **Community stewardship:** Expand ATAL JAL across **8,220** water-stressed Gram Panchayats. ❖ **Data-driven governance:** Institutionalise annual assessments via **IN-GRES** for real-time policy correction.

Conclusion	The 2024 assessment shows guarded optimism, but sustained aquifer-based planning, demand management, and climate-resilient governance are vital for India's long-term groundwater security.

Topic 16 - The Urban Future

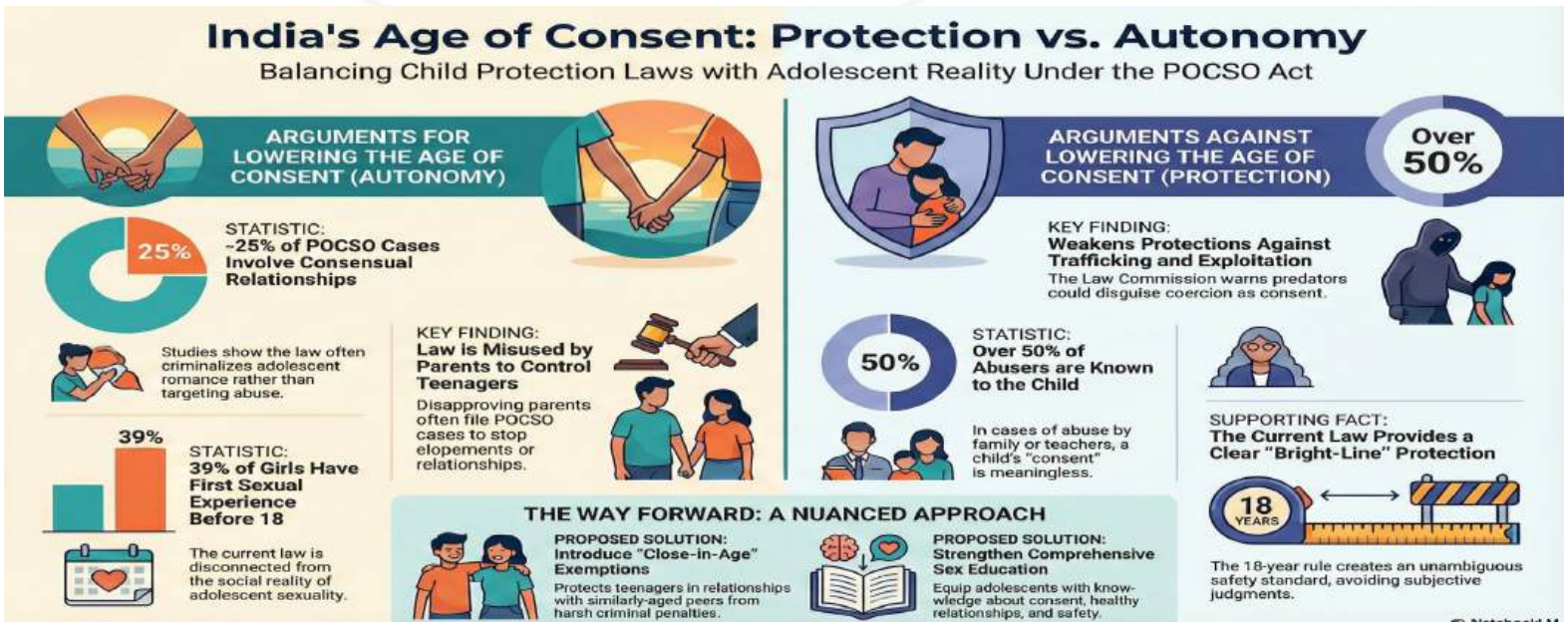
Syllabus	Geography | Urbanisation
Context	India's rapid urbanisation has renewed debate on building inclusive, people-centric cities. Policy discussions now stress mobility, equity, and governance alongside infrastructure.
What is Urbanisation	❖ Shift of population from rural to urban areas with expanding cities. ❖ **Drivers:** This shift is fueled by industrialization, migration, the search for better livelihoods, and access to services.
Key Data Trends in India	❖ **Urban population:** ~36% in 2024, projected to exceed 50% by the 2050s–60s. ❖ **Economic role:** Urban areas contribute ~65–70% of GDP. ❖ **Migration:** Rising inter-State and rural–urban flows to Tier-1 and Tier-2 cities. ❖ **Public transport access:** Only ~37% of urban residents have easy access. ❖ **Bus deficit:** Need ~2 lakh buses; operational fleet ~35,000.
Existing Urbanisation Pattern	❖ **Metro-Centric Development:** Growth is concentrated in large cities rather than fostering new towns. ❖ **Peripheral sprawl:** Informal settlements on city fringes with inadequate basic services. ❖ **Regional Imbalance:** City specialization creates 'sectoral hubs,' leading to uneven regional development. ❖ **Limited Social Inclusion:** 'Smart city' initiatives often prioritize infrastructure over social needs.
Challenges	❖ **Exclusion and inequality:** Migrants face language, documentation, and welfare-access barriers. ❖ **Housing deficit:** High land costs and weak rental markets push the poor into slums. ❖ **Urban mobility stress:** Inadequate public transport and private vehicle dependence increase congestion. ❖ **Governance gaps:** Fragmented authority and weak fiscal autonomy of Urban Local Bodies. ❖ **Environmental Degradation:** Cities grapple with air pollution, the 'heat island' effect, flooding, and water scarcity. ❖ **Social fragmentation:** Gated communities and weak community bonds reduce social cohesion.

Way Ahead	❖ **People-centric planning:** Prioritise human well-being over rigid master plans. ❖ **Inclusive governance:** Services should be multilingual, and migrants must be represented in decision-making bodies. ❖ **Develop a Sustainable Mobility System:** Strengthen the bus network, integrate all forms of mass transit, and ensure efficient last-mile connectivity. ❖ **Empower ULBs Financially:** Use tools like municipal bonds and rational user charges to secure long-term investment. ❖ **Ensure Affordable Housing:** Promote transit-oriented development and focus on in-situ redevelopment of slum areas.
Conclusion	India's urban future is central to its economic and social destiny. To achieve a resilient and equitable urban India, it is essential to design cities that prioritize people, inclusion, and effective governance.

SMA, SBL and Ethics

Topic 1 - Should the Age of Consent Be Lowered?

Syllabus	Sociology | Social Sector | Women
Context	In January 2026, the Supreme Court in ***State of UP vs Anurudh & Anr.*** flagged misuse of POCSO in consensual teenage relationships. It asked the Union government to consider reforms to prevent criminalising adolescent romance.
What is the Age of Consent	❖ It is the legally fixed age at which a person can agree to sexual activity. ❖ In India, it is 18 years under POCSO, IPC, and BNS, 2023. ❖ Any sexual activity below 18 is treated as rape, even if consensual.
Key Trends and Data	❖ NFHS-4: Around 39% of girls had their first sexual experience before 18. ❖ Enfold & Project 39A (2016–20): About 25% of POCSO cases involve consensual teenage relationships. ❖ Many POCSO cases arise from parental opposition, not actual abuse..
Supreme Court View and Current Law	❖ POCSO and criminal law treat all sex under 18 as non-consensual. ❖ The Supreme Court (Jan 2026) admitted misuse in teenage romance cases. ❖ It urged the government to consider exemptions for genuine adolescent relationships. ❖ Some High Courts support adolescent autonomy, but the SC still treats consent under 18 as invalid.
Arguments for Lowering or Relaxing the Age	❖ Criminalises teenage love and relationships. ❖ Parents misuse POCSO to punish elopement or inter-caste relations. ❖ The law does not match the social reality of adolescent relationships. ❖ Global practice: Many countries allow consent at 16 with safeguards. ❖ Courts get overloaded with romance cases, delaying real abuse cases.



Arguments Against Lowering the Age	❖ High risk of grooming and hidden coercion. ❖ Weakens the fight against child marriage and trafficking. ❖ The clear 18-year rule gives a strong protection boundary. ❖ Parliament earlier rejected recognising minor consent. ❖ Predators may hide abuse behind “consent”.
Way Ahead	❖ Introduce a close-in-age rule for 16–18 with a small age gap. ❖ Strict punishment for older or exploitative partners. ❖ Courts to check power imbalance and grooming. ❖ Strong sex education and counselling in schools. ❖ Supreme Court to frame uniform national guidelines.
Conclusion	Lowering the age of consent completely may harm child safety, but the present law unfairly punishes adolescent love. India needs a balanced reform that protects children while respecting genuine teenage relationships.

Topic 2 - Accountability in Democratic Institutions	
Syllabus	Accountability
Context	Lok Sabha Speaker Om Birla recently addressed the **28th Commonwealth Speakers and Presiding Officers Conference (CSPOC) in New Delhi**. He emphasized that the **legitimacy of democratic institutions** depends on their ability to remain **transparent, inclusive, and accountable amidst the rise of AI** and social media.
What is Accountability?	❖ The duty of those in power is to explain, justify, and take responsibility for their actions. ❖ The government (agent) is answerable to citizens (principal). ❖ Includes giving reasons, facing scrutiny, and accepting consequences.
Key Features	❖ **Answerability:** Leaders must explain decisions openly. ❖ **Enforceability:** There must be punishment for wrongdoing. ❖ **Responsiveness:** Institutions should respond to public needs and feedback.
Why Accountability Matters	❖ **Builds Trust:** Transparency reduces the gap between rulers and people. Example: Transparency clauses in National Critical Mineral Mission (2025). ❖ **Checks Corruption:** Regular scrutiny limits misuse of power. Example: Proposal to remove ministers jailed for serious crimes. ❖ **Improves Services:** Ensures that welfare benefits reach intended beneficiaries without leakages. Example: Social audits in MGNREGA. ❖ **Protects Marginalized:** Ensures inclusive decision-making. ❖ **Upholds Rule of Law:** Everyone is equal before the law. Example: SC ruling on Governor’s veto powers (2025).

Challenges	❖ **Tech Misuse:** AI and deepfakes can mislead people. ❖ **Opaque Governance:** Excess secrecy weakens oversight. ❖ **Weak Parliament:** Disruptions reduce executive scrutiny. ❖ **Slow Justice:** Over 5 crore pending cases reduce deterrence. ❖ **Misinformation:** Social media spreads false narratives fast.
Way Ahead	❖ **Stronger Committees:** Empower standing committees. ❖ **Ethical AI Rules:** Set clear digital and AI guidelines. ❖ **Social Audits:** Make audits compulsory in all departments. ❖ **Fast Justice:** Speed up cases involving public officials. ❖ **Citizen Participation:** Use platforms like MyGov for feedback.
Conclusion	Accountability turns power into public trust, and only transparent, inclusive, and responsible institutions can keep democracy strong in the digital age.

Topic 3 - Child Marriage and India

Syllabus	Sociology
Context	India is accelerating efforts to end child marriage by 2030 through the **Bal Vivah Mukt Bharat campaign**.
What is Child Marriage?	Marriage involving a girl under 18 years of age or a boy under 21 years of age.
Evolution of Legislation	❖ **1891 (Age of Consent Act):** Marked the first legal intervention. ❖ **1929 (Sarda Act):** Established a minimum age for marriage. ❖ **1948 & 1978 Amendments:** Further raised the legal marriageable age. ❖ **2006 (Prohibition of Child Marriage Act - PCMA):** Introduced a framework for prohibition, protection, and punishment.
Current Legal Framework	❖ **PCMA, 2006:** ➢ Minimum marriageable age: **18 years for girls, 21 years for boys**. ➢ Child marriages are **voidable** at the option of the minor (within 2 years of attaining majority). ➢ Provides for **punishment**: up to 2 years imprisonment and/or ₹1 lakh fine. ➢ Appointment of **Child Marriage Prohibition Officers**. ❖ **BNS, 2023:** Sex with wife below 18 = rape. ❖ **POCSO Act, 2012:** Criminalises sexual abuse within child marriage.
Targets and Current Status	❖ **National Goals (SDG 5.3):** ➢ **By 2026:** Reduce the overall prevalence of child marriage by 10%. ➢ **By 2030:** Complete eradication of child marriage. ➢ **Operational Focus:** Achieve child marriage-free districts and local governing bodies (panchayats).

	❖ **Current Trends (NFHS-5 Data):** ➢ **Prevalence:** 23% of women aged 20-24 were married before they turned 18. ➢ **Regional Concentration:** The practice is more prevalent in states like West Bengal, Bihar, Uttar Pradesh, and across central-eastern India.

Miscellaneous

Topic 1 - Responsible Nations Index (RNI) 2026

Syllabus	Ranking & Indecies
Context	India has launched the Responsible Nations Index to redefine global benchmarks of national success.
What is RNI?	❖ Global composite index measuring ethical governance and responsibility. ❖ Moves beyond GDP- and power-centric rankings. ❖ **Launched by the** World Intellectual Foundation (WIF). ❖ **Pillars of Assessment:** ➢ Ethical governance ➢ Social well-being and inclusiveness ➢ Environmental responsibility ➢ Global cooperation ❖ **Significance:** ➢ Promotes ethics-driven policy and governance. ➢ Encourages policy introspection among nations. ➢ Supports the achievement of Sustainable Development Goals (SDGs) and broader sustainability targets.
2026 Rankings Snapshot	❖ **Top-Ranked Nations:** Singapore, Switzerland, Denmark, Cyprus, and Sweden. ❖ **India's Position:** Ranked **16th** globally and is the top-ranked Asian country.

Topic 2 - Indira Gandhi Prize for Peace 2026

Syllabus	Awards
Context	Renowned humanitarian and women's rights advocate **Graça Machel** has been awarded the Indira Gandhi Prize for Peace, Disarmament and Development 2026 for her lifelong global contributions.
About Indira Gandhi Prize	❖ An international **annual** award recognising outstanding contributions to peace, disarmament, development, and human welfare. ❖ Reflects India's commitment to global justice, non-alignment, and human dignity. ❖ **Instituted:** 1985 by the Government of India. ❖ **Administered by:** Indira Gandhi Memorial Trust, New Delhi. ❖ **Funding:** Government of India endowment. ❖ **Purpose:** To honour Indira Gandhi's vision of peace, equity, and ethical global leadership.

	❖ **Eligibility:** Living individuals or organizations worldwide (no discrimination based on nationality, race, religion, or gender). ❖ **Nominators:** Parliamentarians, past awardees, jury members, reputed organisations, and legislators from UN member states. ❖ **Selection Process** ➢ **Authority:** International Jury (5–9 members). ➢ **Decision:** By consensus; final and binding. ➢ **Flexibility:** Prize may be shared or withheld if no suitable candidate is found.
Core Objectives	❖ Promotion of international peace and nuclear disarmament. ❖ Equitable and inclusive global development (South–South cooperation). ❖ Expansion of human freedom, dignity, and social justice. ❖ Use of science and knowledge for human welfare, not militarism.
Award Components	❖ **Prize Money:** ₹1 crore (₹10 million) or equivalent foreign exchange. ❖ Trophy: Haematite Jasper with a Jaipur miniature-style portrait. ❖ Formal citation.

Topic 3 - Operation Megaburu	
Syllabus	Internal Security (Naxalism)
Context	Operation Megaburu, a major anti-Maoist offensive in Jharkhand's West Singhbhum district, led to the killing of 16 Maoists, including top **CPI(Maoist) leader Anal alias Patiram Manjhi**.
What is Operation Megaburu?	❖ Large-scale counter-insurgency operation against CPI (Maoist). ❖ Conducted in Saranda forest, West Singhbhum. ❖ **Forces:** CoBRA units of CRPF and Jharkhand Police. ❖ **Goal:** Neutralise top Maoist leadership and eliminate remaining pockets; support the end of Naxalism by March 2026. ❖ **Features:** Intelligence-led, deployment of ~1,500 elite CoBRA commandos, focused on leadership decapitation. ❖ **Significance:** Reduced Maoist presence to small pockets, boosted civilian confidence, and facilitated development.

Topic 4 - Census of India 2027

Syllabus	Population
Context	The Government has notified the first phase of the Census of India 2027, formally restarting India's decennial population count after a gap of more than a decade.
About Census of India 2027	❖ **16th Census overall** and the **8th since India's Independence**. ❖ **Legal Basis**: Conducted under the **Census Act, 1948,** and **Census Rules, 1990**. ❖ Administered by the Office of the Registrar General & Census Commissioner of India, under the Ministry of Home Affairs. ❖ **Timeline and Phases:** ➢ **Houselisting & Housing Census (HLHC):** Scheduled from April to September 2026. ➢ **Population Enumeration (PE):** Scheduled for February 2027. ■ A special schedule will be implemented for Ladakh and snow-bound regions.
New features	❖ **Fully Digital:** It will be the first fully digital Census, utilizing mobile applications instead of traditional paper schedules. ❖ **Self-enumeration:** Citizens can fill in their data online prior to the field visit. ❖ **Real-time Monitoring (CMMS):** The enumeration process will be monitored in real-time. ❖ **GIS-based Mapping (HLB):** Census blocks will be accurately geo-referenced using a Geographical Information System. ❖ **Electronic Caste Data:** This marks the first electronic collection of caste data since 1931. ❖ **Census-as-a-Service:** Machine-readable datasets will be provided to different government ministries.
Significance	❖ Providing core data essential for welfare program targeting. ❖ Informing delimitation processes and reservation policies. ❖ Guiding fiscal transfers between central and state governments. ❖ Improving the speed, accuracy, and transparency of governance data. ❖ Enabling evidence-based interventions for social justice.

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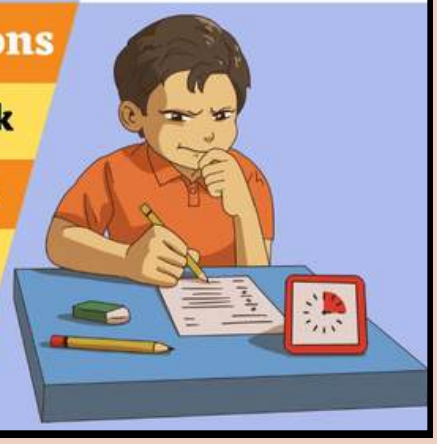

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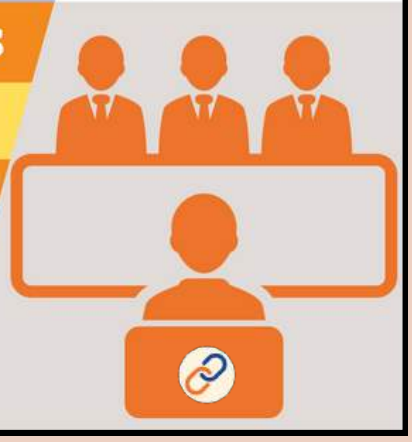

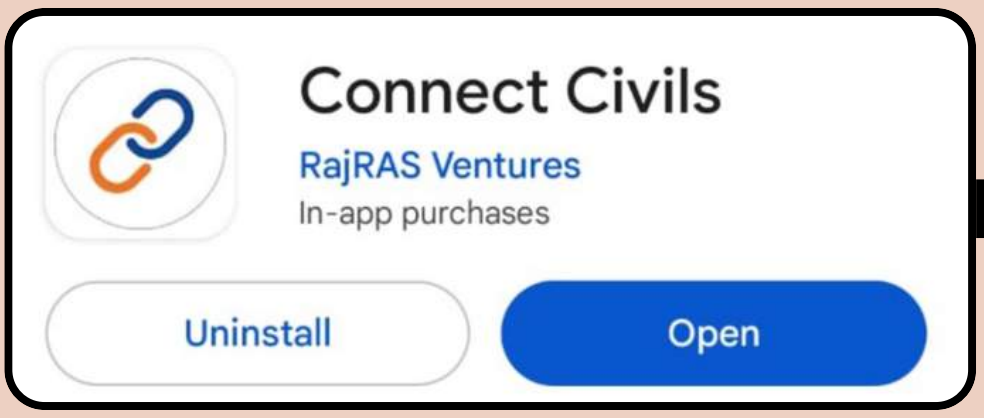

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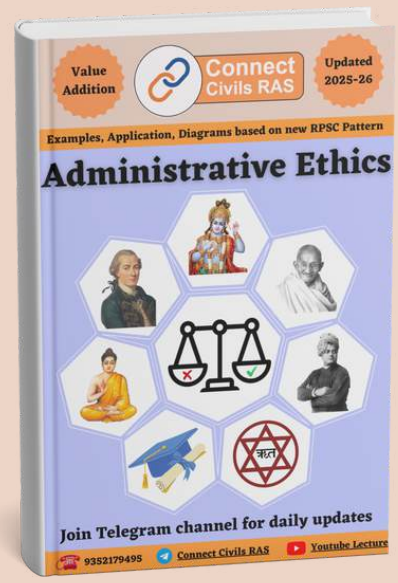

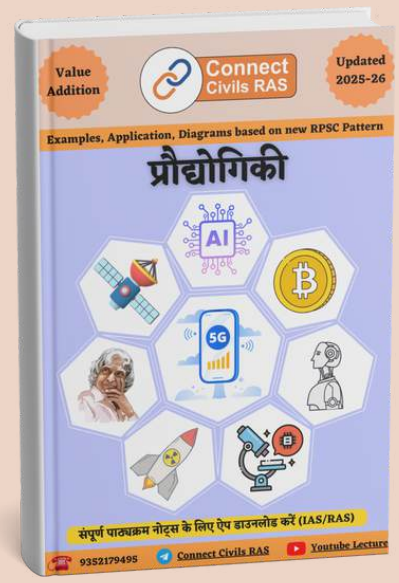

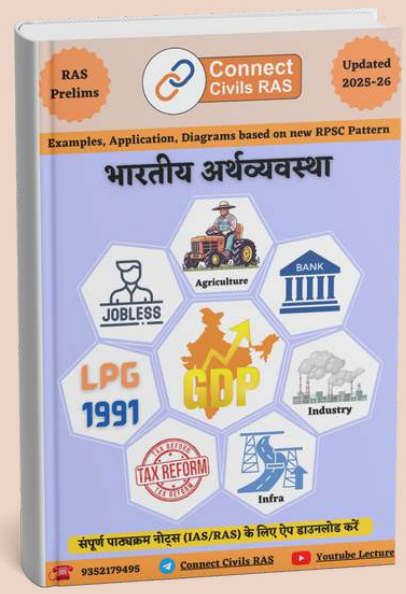

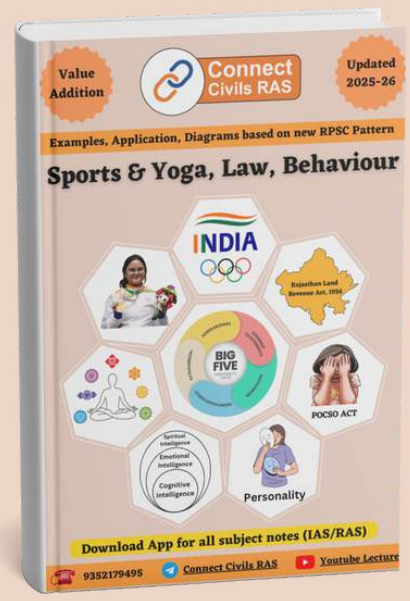

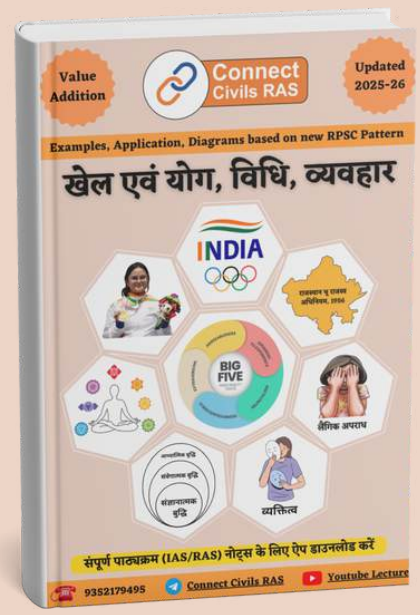

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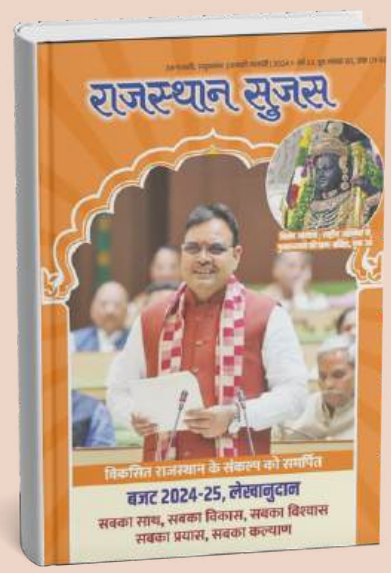

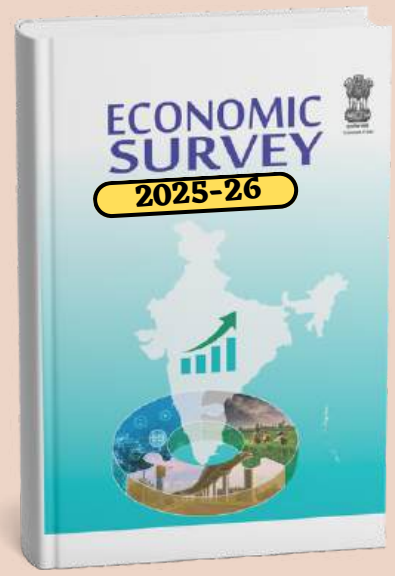

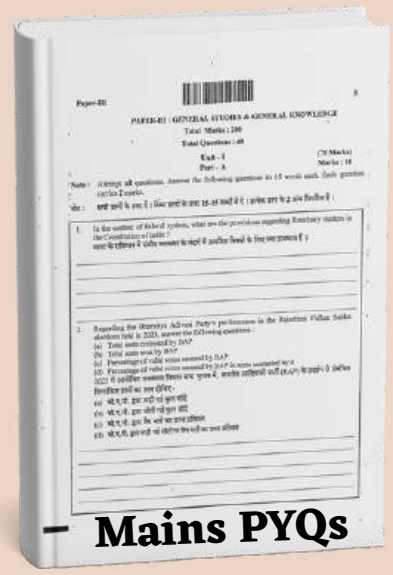

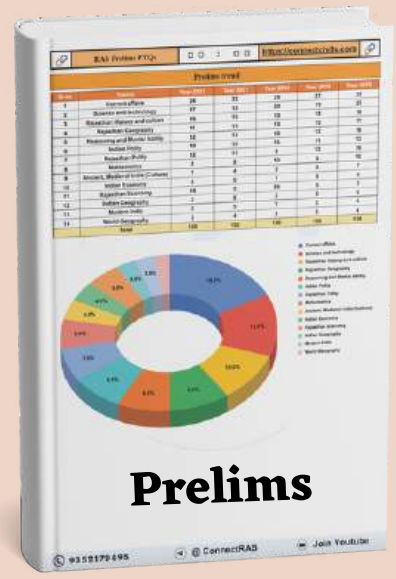

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