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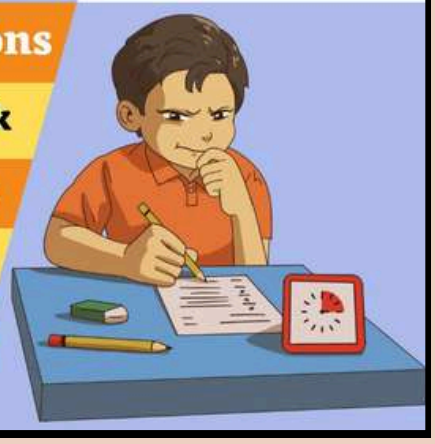

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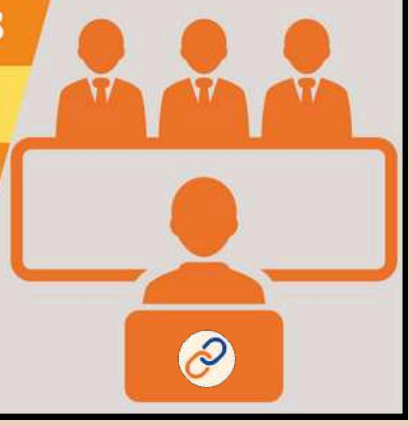

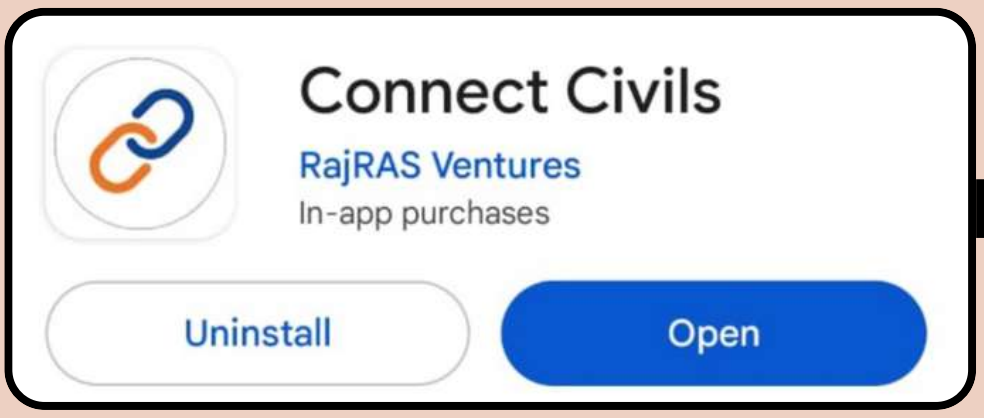

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Polity

Topic 1 - Courts as Guardians, Not Regulators

Syllabus	Polity and Constitution | Fundamental Rights
Context	The Supreme Court's recent observations in **Ranveer Allahbadia vs Union of India (2025)** concerning potential online content regulation have intensified the debate: Should courts prioritize **protecting free speech** or risk overstepping their constitutional boundaries and becoming **de facto regulators**?
What is Free Speech?	❖ The right to express **opinions, ideas, beliefs, and information** through speech, writing, art, or digital platforms. ❖ Core to democracy - enables **dissent, accountability, informed choice, and pluralism**.
Constitutional Basis	❖ **Article 19(1)(a)**: Guarantees freedom of speech and expression. ❖ **Article 19(2)**: Allows **reasonable restrictions** only on specific grounds - sovereignty, security of the state, public order, decency/morality, defamation, contempt of court, incitement to offence. ❖ The grounds listed in **Article 19(2) are exhaustive** and cannot be expanded by judicial interpretation.
Role of Courts in Free Speech: Protector, Not Regulator	Courts are primarily the **Constitutional Umpire** for free speech, not policy framers. Their core responsibilities include: ❖ **Testing Validity:** Reviewing whether restrictions imposed by the State align with the exhaustive grounds of Article 19(2). ❖ **Guarding Against Prior Restraint:** Prevent pre-censorship unless strictly justified. ❖ **Upholding Separation of Powers:** Recognizing that content regulation and policy formulation belong to the legislature or executive. ❖ **Post-Facto Scrutiny:** Reviewing actions and harm *after* they have occurred, avoiding preventive control.
Challenges with Over-Regulation	❖ **Prior Restraint Risk**: Silences speech before any proven harm. ❖ **Vague Standards**: Terms like “offensive” enable arbitrary action. ❖ **Chilling Effect**: Fear of legal action discourages legitimate criticism and dissent. ❖ **Judicial Overreach:** Courts drifting into the domain of policy-making, which undermines democratic principles. ❖ **Digital Complexity:** Scale, speed, and technical nature of online content exceed the practical capacity of the judiciary.

Key Supreme Court Judgments	❖ **Common Cause (2008):** Cautioned courts against proposing policy solutions beyond their institutional competence. ❖ **Sahara India v SEBI (2012):** Affirmed that prior restraint must be a measure of last resort. ❖ **Shreya Singhal (2015):** Struck down Section 66A of the IT Act for its vague nature and "chilling effect" on speech. ❖ **Adarsh Housing Society (2018)**: Content regulation lies with statutory authorities. ❖ **Kaushal Kishor (2023):** Reaffirmed that the grounds for restriction under Article 19(2) are exhaustive.
Way Ahead	❖ **Judicial Restraint:** Courts must remain **guardians of liberty**, not architects of regulation. ❖ **Precise Legislation:** Laws must be narrowly defined, clear, and strictly adhere to Article 19(2) grounds. ❖ **Post-Facto Remedies:** Utilizing penalties and content takedowns after due process, not pre-emptively. ❖ **Global Best Practices**: Removal-based models (EU, UK, Australia). ❖ **Consistent Jurisprudence**: Freedom as rule, restriction as exception.
Conclusion	Free speech under **Article 19(1)(a)** is a democratic essential, constrained only by the specific terms of **Article 19(2)**. The judiciary must exercise restraint, ensuring it protects constitutional liberty and avoids regulation by adjudication, thereby respecting the separation of powers and fostering a free digital environment.

Topic 2 - Safeguarding Liberty	
Syllabus	Polity and Constitution | Fundamental Rights
Context	The Supreme Court mandates that police must provide **written grounds of arrest** in a language understood by the arrested person, elevating it to a **constitutional right under Article 22(1)**, applicable to all offences, including BNS (Bharatiya Nyaya Sanhita), PMLA, and UAPA.
Constitutional Foundations	❖ **Article 22(1):** Arrested person must be informed of the grounds of arrest "as soon as may be." ❖ Elevation from statutory procedure to **fundamental right** ensures: ➢ Violation renders the **arrest unconstitutional**. ➢ Remand becomes **illegal**. ➢ The accused is entitled to **immediate release**. ❖ Strengthens **personal liberty** under Article 21.
Key Features of the Ruling	❖ Grounds of arrest must be: ➢ In writing ➢ In a language understood by the arrestee ➢ Provided within a reasonable time, **≥2 hours before court production.** ❖ Applies to **all special laws, BNS offences, and all arrests**. ❖ **Non-compliance** renders arrest/remand illegal and allows release. ❖ Courts must balance an individual's **right to liberty** against the **needs of the investigation**.
Background and Precedent	❖ **2024 Mumbai Hit-and-Run Case:** ➢ The driver was arrested without written grounds. ➢ The High Court upheld the arrest due to the case's severity. ➢ The Supreme Court granted bail and declared the **right to written grounds as fundamental**. ❖ **Link to Prior Judgments:** ➢ **DK Basu Guidelines (1997):** Introduced arrest safeguards; ruling makes them constitutional. ➢ **Maneka Gandhi Case (1978):** It reinforces the principle that any procedure established by law must be **fair, just, and reasonable**.
Significance	❖ **Strengthening Rule of Law:** Police accountability prevents misuse of arrest. ❖ **Protecting Personal Liberty:** Accused can understand charges, seek counsel, challenge unlawful arrest. ❖ **Empowering Magistrates:** Enables meaningful remand scrutiny. ❖ **Impact on Special Laws:** Limits arbitrary detention under PMLA/UAPA.

	❖ **Advancing Police Reforms:** Better documentation, standard formats, and officer training. ❖ **Reducing Custodial Violence:** Transparency prevents arbitrary arrest abuse.
Implementation Challenges	❖ **Administrative Capacity:** Staff shortages, need for translation/local-language support. ❖ **Law Enforcement Concerns:** Balancing advance notice with investigation; SC allows "reasonable time." ❖ **Judicial Oversight:** Magistrates must check compliance; lower-court training needed. ❖ **Rural/Low-Literacy Contexts:** Simplified formats, local language, immediate legal aid.
Contribution to Due Process & International Standards	❖ Aligns with **ICCPR Article 9** & UN Basic Principles on Arrest. ❖ Ensures **procedural fairness** and **constitutional morality**. ❖ Enhances **India's democratic credentials** by preventing secret arrests.Safeguarding Personal Liberty: Supreme Court Mandates Written Grounds for Arrest.

Topic 3 - Supreme Court Clarification on Governor's Powers to Assent Bills	
Syllabus	Polity | State Legislation
Context	The Supreme Court, through a five-judge Constitution Bench, clarified the constitutional limits on the powers of Governors and the President in granting assent to State Bills. The ruling addresses concerns of legislative paralysis caused by delays or inaction under **Articles 200 and 201**.
What the Case Concerns	❖ Interprets **Articles 200 & 201** governing assent to State Legislature Bills. ❖ Triggered by complaints from States over the **delay/withholding of assent** by Governors. ❖ Focus on the constitutional balance between **elected governments** and **constitutional authorities**.
Governor's Powers under Article 200	❖ When a Bill is presented, the Governor can: ➢ **Give assent**, or ➢ **Return the Bill with recommendations** (except Money Bills), or ➢ **Reserve the Bill for the President** (mandatory in limited cases). ❖ The Governor **cannot keep a Bill pending indefinitely** ("no withholding simpliciter").
Key Supreme Court Clarifications	❖ **No indefinite delay:** Prolonged and unexplained inaction is **unconstitutional** and **judicially reviewable**.

	❖ **No deemed assent:** Delay does **not** automatically convert a Bill into law; **Article 142** cannot bypass procedure. ❖ **Discretion, Not Arbitrary Power:** The Governor has discretion and is **not bound by Cabinet advice** for assent, but cannot misuse it to block elected governments. ❖ **No judicial timelines:** Courts cannot fix deadlines; the Constitution uses "**as soon as possible"**. ❖ **President's Role (Article 201):** This article applies only to Bills reserved by the Governor. The President's decision on assent is **not justiciable** (cannot be challenged in court), and no timelines can be set. ❖ **Scope of judicial review:** Courts can examine the **inaction or procedural flaws** in the assent process, but they cannot review the **substantive merits** of the decision to withhold assent. ❖ **Bills vs Laws:** Courts can challenge **Laws only after assent is granted**, not **Bills** that are still awaiting assent.

Topic 4 - Indian Lower Judiciary	
Syllabus	Polity | Judiciary
Context	India's lower judiciary forms the **backbone of justice delivery**, but rising pendency, limited capacity, and outdated procedures have created a severe **efficiency crisis** at the district level.
Governance Structure	❖ **Constitutional Basis:** Articles **233–237** govern recruitment, appointments, control, and supervision jointly by **High Courts + State Governments**. ❖ **Three-Tier System:** ➢ **District & Sessions Courts:** Highest trial courts; supervised by a District Judge. ➢ **Senior Civil Judge / CJM:** Handle mid-level civil + serious criminal cases. ➢ **Civil Judge (JD) / JMFC:** First-contact courts for most litigants. ❖ **Administrative Control:** ➢ **High Courts:** Inspections, promotions, discipline, standards. ➢ **State Governments:** Buildings, funds, staff, judicial exams. ❖ **Recruitment:** ➢ **Lower Judicial Services (LJS):** Fresh graduates (0–7 yrs) → Civil Judges. ➢ **Higher Judicial Services (HJS):** Advocates (7+ yrs experience) → Direct District Judges.
Trends in the Lower Judiciary	❖ **Massive Pendency: 4.69 crore cases**, nearly **90% of India's total caseload**. ❖ **Vacancies:** Out of **25,843** sanctioned posts, only **21,122** judges are working, leading to a low **judge-population ratio of 21 per million**.

	❖ **Rising Workload:** Each district judge handles **1,000–1,500 new filings/year**. ❖ **Digitalisation:** ➢ **506 crore pages digitised**, **65 crore VC hearings**. ➢ Only **21 virtual courts** → slow tech adoption. ❖ **Case Disposal Time:** ➢ Civil: **5–10 yrs**; Land: **20–30 yrs**. ➢ Criminal: **42% adjournments** causing long delays.
Initiatives Taken	❖ **National Mission for Justice Delivery:** Procedural reforms + infrastructure improvement. ❖ **Infrastructure Boost: 22,372 court halls**, **19,851 residences**; ₹**12,101 crore** spent. ❖ **e-Courts (Phase III):** IT upgrades in **18,735 courts**, **WAN**, **AI tools**, **1,814 e-Sewa Kendras**. ❖ **Fast Track Mechanisms: 865 FTCs**, **725 POCSO/FTSC courts**; **3.34 lakh cases** handled. ❖ **Legislative Reforms:** Amendments to the **NI Act, Commercial Courts Act, Arbitration Act, and Mediation Act**.
Key Problems	❖ **Structural Overload:** Judges spend **2 hours/day** on clerical tasks. ❖ **Inexperienced Officers:** New judges lack courtroom experience; weak orders. ❖ **Archaic Procedures:** CPC's outdated rules (e.g., **Order XXI**) cause long delays. ❖ **Infrastructure Gaps:** Vacancies, shortage of staff, poor record rooms & connectivity. ❖ **Legislative Issues:** New Rent Act disputes, rigid mediation timelines. ❖ **Execution Delays: 70% of civil cases** are stuck in execution; decrees take **3–7 years**.
Way Forward	❖ **Ministerial Courts:** For summons, filings, ex parte evidence → frees trial courts. ❖ **Mandatory Apprenticeship: 6–12 months** High Court training for new judges. ❖ **CPC Reforms:** Merge decree stages; digital execution; compulsory asset disclosure. ❖ **AI-Based Triage:** Smart cause lists, adjournment tracking, old-case prioritisation. ❖ **Human Resource Expansion:** Need **10,000+ new judges** urgently. ❖ **Simplified Laws:** Remove rigid mediation timelines; clarify rent & divorce procedures.
Conclusion	India's lower judiciary faces a **structural and procedural crisis** marked by pendency, outdated laws, and limited capacity. Strengthening manpower, modernising procedures, and scaling **technology-driven justice** are essential to restore public confidence and ensure timely justice.

Topic 5 - Parliament Disruptions

Syllabus	Polity | Parliament
Context	Frequent disruptions in Parliament, highlighted again during the 2025 Winter Session, have raised serious concerns about declining legislative deliberation, shrinking sittings, and weakened executive accountability.
What is Parliament?	❖ Supreme legislative body under **Article 79**: President + Lok Sabha + Rajya Sabha. ❖ Core functions: **Law-making, budget approval, executive oversight, representation of populace.**
Trends in Parliamentary Disruptions	❖ **Fewer sittings**: From 120–130 days/year earlier to ~55–70 days now. ❖ **Shortest full-term Lok Sabha**: 17th Lok Sabha (2019–24). ❖ **Normalisation of disruption**: Slogans, well entry, repeated adjournments. ❖ **Bills passed with minimal debate**: Many cleared within hours or days. ❖ **Decline in committee scrutiny**: Referrals dropped from ~70% to <30%. ❖ **Shrinking Question Hour**: Often curtailed or lost due to adjournments.
Reasons for Disruptions	❖ **Majoritarian governance**: Limited consultation; rushed legislation. ❖ **Opposition strategy**: Disruption used to force attention on issues. ❖ **Erosion of conventions**: Breakdown of trust, floor management, dialogue. ❖ **Media & optics**: Incentives for theatrics over deliberation. ❖ **Weak rule enforcement**: Reluctance to impose penalties uniformly.
Implications	❖ **Low-Quality Legislation:** Due to the lack of thorough debate and scrutiny. ❖ **Reduced Executive Oversight:** The loss of Question Hour diminishes accountability. ❖ **Marginalization:** Smaller and regional parties find their voices further suppressed.

PARLIAMENT OVER THE DECADES

- The number of sittings in the Lok Sabha has gone down from an average of 121 days a year between 1952-70 to 68 days since 2000.
- The 17th Lok Sabha between 2019 and 2024 had the fewest sittings (274) for a full-term house.
- The 17th Lok Sabha did not elect a Deputy Speaker for the entire term in what was a first for the lower house. The post remains vacant in the ongoing 18th Lok Sabha.

Worst washouts in the last two decades

Winter Session of 2010	Lok Sabha 5%	Rajya Sabha 2%
Winter Session of 2013	Lok Sabha 8%	Rajya Sabha 19%
Winter Session of 2016	Lok Sabha 15%	Rajya Sabha 18%
Budget Session of 2014	Lok Sabha 21%	Rajya Sabha 27%
Budget Session of 2018	Lok Sabha 21%	Rajya Sabha 27%

2004-2024 in a nutshell

14th Lok Sabha (2004-2009):	
Sittings	332 days
Time utilised	87%
Bills passed	248
Bills sent to committees	60%
15th Lok Sabha (2009-2014):	
Sittings	356 days
Time utilised	61%
Bills passed	179
Bills sent to committees	71%
16th Lok Sabha (2014-2019):	
Sittings	331 days
Time utilised	84%
Bills passed	133
Bills sent to committees	25%
17th Lok Sabha (2019-2024):	
Sittings	274 days
Time utilised	88%
Bills passed	179
Bills sent to committees	16%

	❖ **Erosion of Trust:** Public faith in Parliament as a serious deliberative forum is declining. ❖ **Institutional Vicious Cycle:** A pattern of **tit-for-tat obstruction** is becoming entrenched.
Way Ahead	❖ **Minimum Sittings:** Enforce 100–120 days/year with a stable, pre-set calendar. ❖ **Mandatory Scrutiny:** Major and rights-based Bills should default to committee review. ❖ **Opposition Guarantees:** Institute fixed **"Opposition Days"** to ensure time for critical debates. ❖ **Strengthened Rules:** Implement an **All-party Code of Conduct** with predictable penalties and a strict ban on entering the Well. ❖ **Pre-Legislative Consultation:** Ensure all-party briefings and comprehensive stakeholder inputs before Bills are introduced.
Conclusion	Parliamentary disruption has become systemic, undermining debate, scrutiny, and accountability. Restoring dignity requires more sittings, assured space for dissent, firm rule enforcement, and a return to resolving conflicts through discussion - not disorder.

Topic 6 - National Commission for Backward Classes (NCBC)

Syllabus	Indian Polity | Constitutional Bodies
Context	The **National Commission for Backward Classes (NCBC)** recommended **exclusion of 35 communities** (mostly Muslim) from **West Bengal's Central OBC list** after reviewing **2014 inclusions**.
What is NCBC?	❖ A **constitutional body under Article 338B** for the protection and advancement of SEBCs. ❖ Originally statutory (1993); granted **constitutional status in 2018** via the **102nd Constitutional Amendment** (Articles **338B** & **342A**). ❖ Advises the Union on **OBC inclusion/exclusion**, welfare, and safeguards.
Composition & Appointment	❖ **5 Members**: Chairperson, Vice-Chairperson, and 3 Members. ❖ Appointed by the **President of India**. ❖ Status and pay equivalent to **Secretary, Government of India**.
Key Functions	❖ **Monitor & investigate** implementation of constitutional safeguards for SEBCs. ❖ **Inquire into complaints** of rights violations or misuse of reservation benefits. ❖ **Evaluate welfare programmes** and advise on socio-economic development. ❖ **Mandatory consultation** by the Union and States on policies affecting SEBCs. ❖ **Submit annual/special reports** to the President (tabled in Parliament/States).

Powers	❖ **Civil court–like powers**: summon witnesses, examine on oath, call for documents. ❖ **Advisory role** on Central OBC List; **final changes require Parliamentary approval** under **Article 342A**.

Topic 7 - Corporate Social Responsibility (CSR)	
Syllabus	Public Administration
Context	The **Supreme Court of India** has ruled that Corporate Social Responsibility must inherently include the environment and ecology. It held that CSR spending on environmental protection is a **constitutional obligation** under **Article 51A(g)**, not mere charity.
What is Corporate Social Responsibility	❖ Corporate Social Responsibility refers to the responsibility of companies to contribute to social welfare and sustainable development. ❖ It integrates social, environmental, and ethical concerns into business operations and stakeholder engagement.
Legal Framework	❖ India became the **first country** to mandate CSR spending. ❖ **Core Provision:** The mandatory provisions for CSR are contained in **Section 135** of the Companies Act, 2013.
Applicability and Spending Requirement	❖ **Eligibility Criteria: Section 135** applies to companies that meet any one of the following thresholds in the preceding financial year: ➢ Net worth of ₹500 crore or more. ➢ Turnover of ₹1,000 crore or more. ➢ Net profit of ₹5 crore or more. ❖ **Mandatory Spending:** Eligible companies must spend at least **2%** of the average net profits of the **last three years** on specified CSR activities.
Key Features of CSR in India	❖ **Governance:** Requirement to constitute a **Board-level CSR Committee** responsible for planning and monitoring the CSR policy. ❖ **Scope of Activities:** CSR activities must align with the areas specified in **Schedule VII** of the Act (e.g., education, health, environment, rural development). ❖ **Transparency and Disclosure:** Mandatory disclosure of the CSR policy, actual spending, and any unspent amounts in the Board's Report. ❖ **Environmental Focus:** The Supreme Court has explicitly recognized environmental protection, biodiversity, and wildlife conservation as inherent CSR duties.

Topic 8 - Right to Disconnect Bill, 2025	
Syllabus	Polity | Legislation
Context	The **Right to Disconnect Bill, 2025**, introduced as a Private Member's Bill by **NCP MP Supriya Sule**, is a legislative response to the growing problem of **digital overwork, burnout, and the erosion of personal time** within India's increasingly "always-on" work culture.
What is the Right to Disconnect Bill, 2025?	❖ A proposed law granting employees a **statutory right to disengage from work-related communication** outside agreed working hours. ❖ Aims to protect **personal time, mental health, and employee dignity** in the digital and remote-work era.
Key Features	❖ **Legal Right to Disengage:** Employees are legally protected from disciplinary action if they ignore communications (calls, emails, messages) after work hours. ❖ **Clear Boundaries:** Requires the clear demarcation of "out-of-work hours" to prevent employer intrusion. ❖ **Regulatory Body:** Proposes an **Employees' Welfare Authority** to monitor implementation and ensure employee well-being. ❖ **Formal Agreement:** Mandates an **Employer–Employee Charter** to formally define norms and exceptions for after-hours communication. ❖ **Overtime Compensation**: Voluntary after-hours work is eligible for overtime pay at normal wage rates. ❖ **Digital Well-being Measures**: Awareness programmes, counselling, and Digital Detox Centres. ❖ **Penalties**: 1% of total employee remuneration imposed on non-compliant organisations.
Why India Needs Such a Law	❖ **Always-on Work Culture**: Smartphones and remote work have blurred boundaries between professional and personal life. ❖ **Mental Health Impact**: Rising burnout, anxiety, and stress, especially among young professionals and gig workers. ❖ **Power Imbalance**: Employees hesitate to refuse after-hours work due to appraisal and job-security fears. ❖ **Global Precedents**: France, Belgium, Ireland, and Australia already recognise this right. ❖ **Productivity Shift**: Encourages outcome-based work instead of presenteeism.
Challenges and Concerns	❖ **Diverse Work Models**: IT, manufacturing, the gig economy, and global services need different rules.

	❖ **Enforcement Issues**: Difficult to monitor informal platforms like WhatsApp or late-night calls. ❖ **SME Burden**: Compliance costs and administrative capacity constraints. ❖ **Operational Rigidity**: Risk of reduced flexibility during emergencies or peak business cycles. ❖ **Private Member's Bill Constraint**: Low probability of becoming law without government backing.
Way Ahead	❖ **Sector-Specific Frameworks**: Flexible norms for time-zone-based and emergency services. ❖ **Tripartite Consultations**: Government–employer–worker dialogue for balanced rules. ❖ **Soft-Law Start**: Begin with guidelines under existing labour codes. ❖ **Cultural Change**: Promote responsible digital communication practices. ❖ **Policy Integration**: Link with occupational health, mental well-being, and productivity policies.
Conclusion	The **Right to Disconnect Bill, 2025,** is a necessary reflection of the digital-age workforce reality in India. It initiates a vital national debate on creating **humane, productive, and sustainable work cultures** that successfully balance workplace flexibility with employee dignity and **mental well-being**.

IR

Topic 1 - India–Russia Bilateral Relations

Syllabus	International Relations | Bilateral Relations
Context	India–Russia relations are anchored in deep strategic trust, defence cooperation, and shared support for a multipolar world order. The **23rd Annual Summit** amid global turbulence highlights the need to rebalance and future-proof this partnership.
Nature of Ties	❖ **Special and Privileged Strategic Partnership** (since 2010). ❖ **Strategic Alignment:** High convergence on key principles, including **multipolarity**, strategic autonomy, and reforming global governance institutions (e.g., UNSC).
Institutional Framework	❖ **Highest Level Dialogue: Annual Summits** serve as the pinnacle institutional format. ❖ **Bilateral Commissions:** The **IRIGC** (India-Russia Inter-Governmental Commission) oversees both Trade–Economic and Military–Technical cooperation. ❖ **Consultative Formats:** Includes the **2+2 Dialogue**, NSA-level talks, and various parliamentary and sectoral working groups.
Areas of Cooperation	➢ **Defence & Strategic Security** ➢ Major Russian-origin platforms: **Su-30MKI, T-90 tanks, INS Vikramaditya, submarines, S-400**. ➢ Joint production/R&D: **BrahMos**, Su-30MKI, T-90, **AK-203** rifles. ➢ Exercises: **INDRA** (tri-services), naval drills, interoperability building. ➢ Nuclear & space: **Kudankulam NPP**, Gaganyaan astronaut training. ❖ **Energy & Natural Resources** ➢ Russia is a key supplier of **discounted crude oil**, gas, and coking coal. ➢ Indian stakes in Russian upstream projects (e.g., Sakhalin). ➢ Emerging areas: **LNG, Arctic energy, hydrogen, nuclear fuel cycle**. ❖ **Trade & Connectivity** ➢ Bilateral trade: **~USD 68.7 billion (FY 2024–25)**, dominated by energy imports. ➢ Targets: **USD 100 billion trade by 2030**, **USD 50 billion investments**. ➢ Corridors: **INSTC**, **Chennai–Vladivostok EMC**, interest in the **Northern Sea Route**. ❖ **Science, Technology & Space** ➢ Cooperation in **AI, IT, materials science, and nanotech** under the STI Roadmap (2021). ➢ Long-standing space collaboration dating back to the ISRO–Soviet era. ❖ **People-to-People & Culture**

	➢ **20,000+ Indian students** (mainly in medicine). ➢ Strong cultural exchanges: films, Yoga, literature, festivals.
Key Challenges	❖ **Ukraine war & sanctions** complicate payments, logistics, and diplomacy. ❖ **Trade imbalance** heavily in Russia's favour; rupee–rouble issues persist. ❖ **Defence dependence risks**: delays, spare parts, wartime prioritisation. ❖ **Technology gap** as India accesses advanced Western/Japanese tech. ❖ **Connectivity bottlenecks** in INSTC and Arctic routes.
Way Ahead	❖ **Rebalance Trade:** Actively promote Indian exports (pharma, agri, IT, machinery) to address the trade imbalance. ❖ **Deepen Defence Collaboration:** Move towards true **co-design and co-production**, including IP sharing and focusing on export-oriented defence manufacturing. ❖ **Fast-track Connectivity:** Ensure full operationalisation of the **INSTC** and the **Chennai–Vladivostok corridor**. ❖ **Embrace New-age Cooperation:** Focus on emerging sectors like Small Modular Reactors (SMRs), green hydrogen, critical minerals, AI, and cybersecurity. ❖ **Enhance People Ties:** Improve **degree recognition**, facilitate joint campuses, and boost tourism. ❖ **Sustained Dialogue:** Maintain strategic communication to manage differences while preserving India's strategic autonomy.
Conclusion	The India–Russia relationship remains fundamentally strong, anchored by defence and energy ties. The essential mandate for the future is to **diversify, modernise, and fundamentally rebalance** the partnership to ensure its continued relevance as a truly "special and privileged" bond in a dynamic global landscape.

Topic 2 - India–Africa Relations	
Syllabus	International Relations | Bilateral Relations
Context	India and Africa share deep **civilisational, political, and economic linkages**, but the partnership now requires renewed momentum as both regions navigate a changing global order and prepare for **IAFS-IV** (India-Africa Forum Summit).
Historical Evolution	❖ **Civilisational Links:** Centuries-old Indian Ocean trade; shared colonial experiences; Gujarati merchant networks. ❖ **Political Solidarity:** Support for decolonisation at the UN, NAM solidarity, and anti-apartheid campaigns during the Cold War. ❖ **Post-1990s Shift:** India's economic reforms led to increased investments and capacity building via ITEC, alongside coordination at the WTO and UNSC. ❖ **Contemporary Phase (2015–25):** IAFS-III with all 54 nations; 17 new embassies; digital partnerships; AU's **G20 membership (2023)** backed by India.
Key Areas of Cooperation	❖ **Trade & Investment** ➢ Bilateral trade exceeds **$100 billion**, making India the **3rd-largest trade partner**. ➢ Indian FDI totals **$75 billion** across telecom, pharma, infrastructure, and hydrocarbons. ➢ The **DFTP (Duty-Free Tariff Preference)** scheme offers **98.2% tariff-free access** to 38 African Least Developed Countries (LDCs). ❖ **Development Partnership** ➢ **$10 billion in Lines of Credit (LoCs)** supporting 189 projects (power, water, rail, rural electrification) in 42 countries. ➢ The **e-VBAB (e-VidyaBharti and e-ArogyaBharti)** platform delivers tele-education and tele-medicine across the continent. ❖ **Capacity Building** ➢ **40,000+ Africans trained** via ITEC, ICCR, e-Network; many now ministers & policymakers. ➢ **IIT-M Zanzibar** (2023) offers cutting-edge tech education. ❖ **Maritime & Security Cooperation** ➢ **AI-KEYME Naval Exercise (2025):** Anti-piracy, HADR, maritime security with 9 African navies. ➢ India is a major contributor to **UN peacekeeping** in Congo, Sudan, and South Sudan. ❖ **Digital & FinTech:** African nations adopting **UPI**, digital ID, and DPI models inspired by India. ❖ **Energy & Climate:** Collaboration under the **International Solar Alliance**; green hydrogen, EV minerals, and blue economy projects.

Challenges	❖ **China's dominance:** $280+ billion trade; heavy infra & defence footprint. ❖ **Slow execution:** Delays in LoC projects due to procedural and local capacity issues. ❖ **Diplomatic slowdown:** No IAFS after 2015 reduces momentum. ❖ **Limited capital:** Indian firms lack the deep financing available to Chinese State-Owned Enterprises (SOEs). ❖ **Security risks:** Sahel insurgency, Sudan conflict, Horn of Africa instability. ❖ **Poor connectivity:** Limited shipping, air routes, and digital corridors.
Way Ahead	❖ **Revive IAFS-IV:** Make it regular; establish a permanent Secretariat. ❖ **Speed up LoCs:** Implement a single-window dashboard, enforce strict deadlines, and empower local teams. ❖ **India–Africa Digital Corridor:** Establish UPI–Afripay links, unified digital IDs, and a tele-health ecosystem. ❖ **Co-invest in future sectors:** Green hydrogen (Namibia/Morocco), EV minerals (DRC/Zambia), AI startups (Kenya/Nigeria). ❖ **Stronger maritime architecture:** Make AI-KEYME an annual event; finalize logistics pacts with Mauritius, Kenya, and Tanzania. ❖ **People-to-people ties:** Increase scholarships, provide better support for African students, and replicate the IIT-M Zanzibar model.
Conclusion	India–Africa relations stand at a **strategic inflection point**, shaped by shared development priorities and Global South solidarity. With stronger institutions and faster, co-created initiatives, the partnership can emerge as a **pillar of 21st-century global cooperation**.

Topic 3 - India–New Zealand Free Trade Agreement	
Syllabus	International Relations | Bilateral Relations
Context	India and **New Zealand** have concluded negotiations on a comprehensive Free Trade Agreement in just nine months. Formal signing is expected in 2026, marking a new phase in Indo-Pacific economic engagement.
What is a Free Trade Agreement	❖ A bilateral pact to reduce or eliminate tariffs and non-tariff barriers on goods and services. ❖ Aims to boost trade, investment, and economic cooperation.
Targets of the India–New Zealand FTA	❖ **Trade expansion:** Double bilateral trade to **USD 5 billion** within five years. ❖ **Investment inflows:** Facilitate **USD 20 billion** investments over 15 years under Make in India. ❖ **Export diversification:** Provide alternative markets amid global protectionism and high US tariffs. ❖ **Services and mobility growth:** Strengthen services trade, skilled mobility, and education linkages.
Existing Trade Profile	❖ **Trade volume:** USD **1.3 billion** in FY25 with **49% year-on-year growth**, but still modest. ❖ **Indian Exports:** Pharmaceuticals, textiles, engineering goods, and IT/ITeS. ❖ **Indian Imports:** Wool, fruits, forestry products, and dairy-related items. ❖ **Challenges:** The trade is constrained by tariffs, regulatory barriers, limited business awareness, and an asymmetry between India's manufactured exports and New Zealand's agri-exports.
Key Features of the FTA	❖ **Tariff Liberalisation:** ➢ New Zealand will provide **100% duty-free access** for India's tariff lines. ➢ India will offer concessions on **95%** of New Zealand's exports. ❖ **Protection of Sensitive Indian Sectors:** India has excluded sensitive items like dairy, rice, wheat, sugar, onions, edible oils, and rubber from the concessions. ❖ **Support for Labour-Intensive Exports:** Preferential access is granted for sectors such as textiles, apparel, leather, footwear, engineering goods, and pharmaceuticals. ❖ **Services and mobility provisions:** A provision for **5,000 temporary employment visas annually** for Indian professionals, valid for up to three years. ❖ **Trade Facilitation:** Clear rules established for rules of origin, customs cooperation, and adherence to Sanitary and Phytosanitary (SPS) and Technical Barriers to Trade (TBTs) measures.
Challenges	❖ **Domestic Opposition:**

	➢ Farmer concerns in India, particularly regarding dairy and horticulture. ➢ Concerns in New Zealand over immigration (Political opposition) and the potential impact on their dairy sector. ❖ **Low trade base:** Gains may be gradual rather than immediate. ❖ **Non-tariff barriers:** Divergent standards and SPS requirements. ❖ **Implementation capacity:** Effective utilisation by MSMEs and service providers is critical.
Way Ahead	❖ **Strengthen supply chains:** Build integrated manufacturing and agri-processing value chains. ❖ **Deepen services cooperation:** Expand collaboration in IT, education, healthcare, tourism, and professional services. ❖ **Leverage diaspora and skills:** Use mobility provisions to enhance skill transfer and innovation. ❖ **Support MSMEs:** Provide standards support, trade facilitation, and export credit. ❖ **Continuous review mechanism:** Use joint committees to address concerns and fine-tune implementation.
Conclusion	The India–New Zealand FTA is a new-generation agreement balancing market access with domestic sensitivities. Effective implementation can expand trade, investment, and skilled mobility, strengthening resilient bilateral ties in the Indo-Pacific.

Topic 4 - India–Oman CEPA	
Syllabus	International Relations | Bilateral Relations
Context	India and **Oman** have signed a Comprehensive Economic Partnership Agreement, marking India's second major trade pact in West Asia after the UAE. The agreement aims to deepen trade, services, investment, and professional mobility amid global protectionism.
What is India–Oman CEPA	❖ A Comprehensive Economic Partnership Agreement to expand trade in goods and services and promote investments. ❖ It is Oman's first bilateral trade agreement since its FTA with the US in 2006.
Key Features	❖ **Zero-duty market access:** Oman eliminates duties on 98.08% of tariff lines, covering 99.38% of India's exports. ❖ **Boost to labour-intensive sectors:** Textiles, leather, gems and jewellery, engineering goods, pharmaceuticals, and automobiles gain full tariff elimination. ❖ **Wide services liberalisation:** Market access opened in 127 services sub-sectors, including IT, R&D, education, healthcare, and professional services. ❖ **Enhanced professional mobility (Mode 4)**

	➢ Intra-corporate transferee quota rises from 20% to 50%. ➢ Contractual service suppliers are allowed to stay up to two years, with extensions. ❖ **100% FDI in services:** Indian firms are allowed full ownership in key Omani services sectors. ❖ **AYUSH and traditional medicine access:** First global commitment covering traditional medicine across all modes of supply. ❖ **Faster pharma approvals:** Acceptance of USFDA, EMA, and UKMHRA approvals reduces regulatory delays.
Oman CEPA and India's West Asia Strategy	❖ **Gateway economy role** ➢ Oman's proximity to the Strait of Hormuz enables access to West Asia and East Africa. ➢ Ports like Duqm and Sohar can act as re-export hubs. ❖ **Market diversification:** Reduces dependence on the US and EU markets, facing carbon and regulatory barriers. ❖ **Strategic GCC foothold:** Along with the UAE CEPA, strengthens India's position despite stalled India–GCC talks. ❖ **Services-led trade expansion:** Taps into Oman's USD 12.5 billion services import market, where India's share remains low. ❖ **Energy-security complementarity:** Ensures stable access to crude oil, LNG, fertilisers, and petrochemical inputs.
Challenges	❖ **Limited market size:** Oman's imports are around USD 40 billion, smaller than those of major Gulf economies. ❖ **Competitiveness and quality gaps:** Indian exporters must improve quality, packaging, and branding. ❖ **Implementation and non-tariff barriers:** Delays in visas and professional recognition may dilute service gains. ❖ **Regional geopolitical volatility:** Conflicts and shipping disruptions increase trade costs. ❖ **Fragmented GCC trade rules:** Multiple bilateral FTAs may raise compliance burdens.
Conclusion	The India–Oman CEPA strengthens India's West Asia trade pivot through tariff-free access, deep services commitments, and enhanced mobility. Effective implementation can transform Oman into a strategic economic bridge connecting India with the Gulf and Africa.

Topic 5 - The Tianjin Declaration	
Syllabus	International Relations | International Organizations
Context	India endorsed the **Tianjin Declaration** at the **2025 Shanghai Cooperation Organisation (SCO) Summit** in Tianjin.
About Tianjin Declaration?	❖ The Tianjin Declaration is the outcome document adopted by the SCO Council of Heads of States at the **2025 Tianjin Summit**. ❖ **Purpose:** Deepen cooperation in Artificial Intelligence (AI) governance and capacity building. ❖ It outlines shared positions on security, development, technology, and institutional reforms. ❖ **Key Outcomes:** ➢ Established an **AI cooperation framework**, affirming equal rights for all countries to develop/use AI. ➢ Commitment to **AI risk mitigation** (security, accountability, transparency, etc.). ➢ Supported the **SCO AI Cooperation Roadmap** for joint research and capacity building. ➢ Welcomed a UNGA resolution proposing a **Regional AI Centre** in **Dushanbe (Tajikistan)** to strengthen Central Asia's digital ecosystem.
Shanghai Cooperation Organisation (SCO)	❖ The SCO is a **permanent intergovernmental** organisation. It focuses on regional security, economic cooperation, and people-to-people ties across Eurasia. ❖ **Establishment** ➢ The SCO was officially established on **15 June 2001** in Shanghai, growing out of the earlier "Shanghai Five" mechanism. ❖ **Headquarters** ➢ **Secretariat (Administrative Hub):** Beijing, China ➢ **Regional Anti-Terrorist Structure (RATS):** Tashkent, Uzbekistan. ➢ **Official Languages:** Russian and Chinese. ❖ **Members** ➢ **Member States (10):** India, China, Russia, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, Pakistan, Iran, and Belarus. ➢ **Observer States (2):** Afghanistan and Mongolia. ❖ **Core Objectives** ➢ Bolster mutual trust, friendship, and good-neighbourliness among members. ➢ Promote cooperation across key sectors including politics, security, economy, science and technology, energy, transport, culture, and education. ❖ **Key Areas of Cooperation (Key Mechanisms)** ➢ **Security:** Primarily focuses on counter-terrorism, separatism, and extremism, coordinated through RATS.

	➢ **Economy:** Encompasses collaboration on trade, connectivity, energy, and infrastructure development. ➢ **Technology and Innovation:** Increasing emphasis on the digital economy, cybersecurity, and Artificial Intelligence (AI). ❖ **Governance Structure (Decision-Making Bodies)** ➢ **Council of Heads of State (CHS):** The supreme decision-making authority. ➢ **Council of Heads of Government (CHG):** Responsible for economic and budgetary issues. ➢ **Council of National Coordinators:** Serves as the key coordination mechanism.

Topic 6 - India's BRICS Presidency 2026	
Syllabus	International Relations | International Organisation
Context	**India** will assume the BRICS presidency in **2026** after a formal handover by Brazil. The presidency comes at a time of global trade frictions and geopolitical uncertainty.
India's BRICS Presidency (2026)	❖ India will assume the rotating Chair of BRICS in 2026. ❖ The Chair sets priorities, convenes meetings, and hosts the annual summit. ❖ This comes amid global trade frictions and geopolitical uncertainty.
BRICS Background & Structure	❖ Political dialogue began in 2006; the first summit was in 2009. ❖ South Africa joined in 2011. ❖ It has no permanent headquarters; the presidency **rotates annually** (Jan 1 - Dec 31). ❖ The **New Development Bank** (NDB) is headquartered in **Shanghai**. ❖ **Members:** Brazil, Russia, India, China, South Africa, Egypt, Ethiopia, Iran, UAE, Saudi Arabia, and Indonesia.
Key Functions & Significance	❖ Focuses on political coordination, economic/financial cooperation, development finance (via NDB), and Global South engagement. ❖ India's presidency allows it to shape agendas on development finance, health, and technology equity. ❖ It can strengthen demands for reforms in global institutions (UN, IMF, World Bank, WTO).

Economy

Topic 1 - Open Market Operation (OMO) Purchase	
Syllabus	Economy | Banking
Context	The **Reserve Bank of India** announced a **₹1 trillion OMO purchase** along with a **$5 billion dollar–rupee swap** to inject durable liquidity. The move aims to stabilise markets as the rupee weakened past 90 per dollar amid foreign capital outflows.
What is Open Market Operation	An Open Market Operation (OMO) is a mechanism where the RBI **buys/sells government securities** from commercial banks and financial institutions.
Types of Open Market Operations	❖ **Expansionary OMO** ➢ RBI buys government securities. ➢ Increases bank reserves and lowers interest rates to stimulate lending and investment. ➢ It enhances **monetary transmission**, ensuring policy signals effectively translate into lending rates. ❖ **Contractionary OMO** ➢ RBI sells government securities. ➢ Reduces liquidity and raises interest rates to curb inflation. ❖ **Special OMOs or Operation Twist** ➢ RBI buys long-term bonds and sells short-term bonds simultaneously. ➢ Used to influence the yield curve without changing overall liquidity.
Purpose of OMO Purchases	❖ Inject **long-term** and **durable liquidity** into the banking system. ❖ **Smooth monetary transmission**, aligning lending rates with the RBI's policy signals. ❖ **Stabilize money-market rates**, particularly the Weighted Average Call Rate.
Market and Policy Significance	The OMO purchase has several positive effects on the financial system: ❖ **Rate Moderation:** Leads to a decline in overnight and short-term interest rates, along with a moderation of government bond yields. ❖ **Market Stability:** Provides stability to rupee money markets, especially during periods of high dollar demand or external shocks. ❖ **Policy Effectiveness:** Supports liquidity, reinforcing the effective transmission of repo rate decisions across the banking system. ❖ **Economic Support:** Stabilizes government borrowing costs and enhances the capacity of banks to extend credit to households and businesses.

What is Dollar–Rupee Swap?	❖ It is a financial transaction where the Reserve Bank of India (RBI) temporarily exchanges US dollars with Indian rupees from banks. ❖ It's mainly used to **manage liquidity** in the financial system and stabilize the rupee against extreme currency fluctuations. ❖ **Mechanism**: ➢ Banks give US dollars to the RBI. ➢ RBI gives rupees to banks in return. ➢ After a fixed period (e.g., 3 years), the transaction is reversed - RBI returns dollars, banks return rupees.

Topic 2 - Cabinet Approves 100% FDI in Insurance	
Syllabus	Indian Economy | Banking & Finance
Context	The Union Cabinet has approved raising the **FDI limit in insurance from 74% to 100%**, to be implemented through the **Insurance Laws (Amendment) Bill, 2025**, aiming to boost capital inflows, competition, and insurance penetration.
What is Foreign Direct Investment?	❖ Investment by a **non-resident acquiring ≥10% equity** in an Indian company. ❖ Implies **long-term interest and managerial influence**.
How FDI Works in India	❖ Capital inflow through: ➢ Share subscription (MoA, preferential allotment, rights/bonus issues, private placement) ➢ Mergers, demergers, amalgamations ➢ Purchase of shares by residents ➢ Conversion of convertible instruments/swaps ❖ Regulated under Foreign Exchange Management Act, 1999 (**FEMA**), sectoral caps, pricing norms, and RBI/Government rules. ❖ **In insurance**: 100% FDI allows **full foreign ownership**, subject to Indian regulatory conditions.
FDI Entry Routes	❖ **Automatic Route**: ➢ No prior approval required. ➢ Must comply with sectoral caps and FEMA norms. ➢ Post-investment reporting mandatory. ❖ **Government Route**: ➢ Prior approval via the **Foreign Investment Facilitation Portal (FIFP).** ➢ May include conditions (lock-in, security, reporting).

Prohibited Sectors for FDI	❖ Lottery business (including online) ❖ Gambling and betting (including casinos) ❖ Chit funds (with minor exceptions for NRIs/OCIs on a non-repatriation basis) ❖ Nidhi companies ❖ Trading in Transferable Development Rights (TDRs) ❖ Real estate business and farmhouses ❖ Manufacturing of tobacco products (cigarettes, cigars, etc.) ❖ Specific atomic energy and railway operations. ❖ Note: Technical collaborations are also prohibited in the lottery and gambling/betting sectors.
Progressive Liberalisation in Insurance	❖ **2015**: 26% → 49% ❖ **2021**: 49% → 74% (with Indian management/control safeguards) ❖ **2025 (Proposed)**: **74% → 100%**, via amendments to: ➢ **Insurance Act, 1938** ➢ **IRDA Act, 1999** ➢ **LIC Act, 1956.**
Conclusion	Raising the insurance FDI cap to **100%** marks a major liberalisation, expected to attract global insurers, deepen capital availability, enhance competition, and accelerate insurance penetration—while remaining anchored in India's regulatory framework.

Topic 3 - Masala Bond	
Syllabus	Economy | Financial Market | External Sector
Context	Masala Bonds are rupee-denominated overseas bonds that help Indian entities raise global capital while shifting currency risk to foreign investors, supporting rupee internationalisation.
What is a Masala Bond?	❖ **Rupee-denominated bonds** issued outside India by Indian entities. ❖ **Currency risk is borne by investors**, not the Indian issuer. ❖ First issued by **IFC in 2014**, permitted by **RBI in 2015**. ❖ **Objectives** ➢ Enable Indian corporates and public bodies to raise **global funds in INR**. ➢ Reduce dependence on **foreign-currency ECBs**. ❖ Promote **offshore rupee markets** and rupee internationalisation.
Key Features	❖ **Denomination:** INR; issued and traded overseas. ❖ **Eligible issuers:** Corporates, NBFCs, REITs, InvITs. ❖ **Listing:** International exchanges (London, Singapore, etc.). ❖ **Minimum maturity:** Reduced from 5 years to **3 years**.

	❖ **End-use restrictions:** Not allowed for real estate (except affordable housing), land purchase, capital markets, or prohibited sectors. ❖ **Tax benefits:** 5% withholding tax on interest; capital gains from rupee appreciation are exempt.
Benefits	❖ **Lower forex risk** and potentially cheaper borrowing for issuers. ❖ **Diversified funding sources** with global investor participation. ❖ Supports **infrastructure financing** for states and PSUs. ❖ Enhances **global confidence in the Indian rupee**.

Topic 4 - India's Labour Codes	
Syllabus	Indian Economy & Employment
Context	India has undertaken the most comprehensive labour reform since Independence by consolidating **29 labour laws into four Labour Codes**. These reforms aim to modernise labour governance, address informality, and adapt to emerging forms of work such as **gig, platform, and fixed-term employment**.
What are India's Labour Codes?	❖ **Code on Wages, 2019** ❖ **Industrial Relations Code, 2020** ❖ **Social Security Code, 2020** ❖ **Occupational Safety, Health and Working Conditions (OSH) Code, 2020** ❖ Together, they provide a **simplified, uniform, and future-ready labour framework**.
Why Labour Reforms Were Needed	❖ **Fragmented laws:** Multiple, overlapping statutes raised compliance costs, especially for MSMEs. ❖ **High Informality:** Over **90% of the workforce is informal**, lacking essential wages and social security coverage. ❖ **Evolving Work Patterns:** The emergence of gig work, increased labour mobility, and fixed-term contracts required a new legal structure. ❖ **Ease of Doing Business:** Rigid laws were a deterrent to investment and hindered formalisation. ❖ **Technological Disruption:** Automation and digital platforms created new vulnerabilities for workers.
Core Objectives of the Labour Codes	❖ Simplify and consolidate labour laws. ❖ Universalise **minimum wages and social security**. ❖ Promote **formalisation** through contracts and digital records. ❖ Extend protection to **gig, platform, and migrant workers**. ❖ Balance **labour flexibility with worker rights**. ❖ Improve **women's workforce participation**.

	❖ Enhance **ease of doing business** via single-window compliance.
Key Worker Welfare Provisions	❖ **National Floor Wage:** States cannot fix wages below it. ❖ **Universal minimum wages:** Covers all workers, including unorganised. ❖ **Mandatory appointment letters:** Ensure transparency in terms of work. ❖ **Gratuity for fixed-term workers:** Eligible after **1 year**. ❖ **Gig & platform workers:** First-time legal recognition with social security schemes. ❖ **Migrant workers:** Portability of benefits and digital registration. ❖ **OSH Code:** Uniform safety standards + free annual health check-ups (40+ age). ❖ **Women workers:** Equal pay, night-shift work with safeguards, crèche facilities.
Industry & Global Response	❖ **Industry bodies (CII, FICCI, ASSOCHAM):** Welcomed reforms for predictability and productivity. ❖ **Global institutions (ILO, World Bank, OECD):** Acknowledge India's move towards a modern labour regime, especially gig-worker inclusion.
Skills, Productivity & Employment	❖ Skill mismatch remains a major challenge (WEF: large reskilling needs by 2030). ❖ Job creation potential in **tourism, logistics, healthcare, education, and services**. ❖ Codes complement skilling via **apprenticeships, ITI reforms, PPP training, and CSR skilling**. ❖ Emphasis on **lifelong learning and productivity**.
Federal & State Dimensions	❖ Labour is a **Concurrent List** subject. ❖ States decide thresholds, inspections, and welfare schemes. ❖ Variations may affect uniform implementation. ❖ Inter-state coordination crucial for **migrant worker protection**.
Implemen-tation Challenges	❖ Uneven state readiness and delayed rule notification. ❖ Compliance and tech adaptation issues for MSMEs. ❖ Low worker awareness of rights and grievance redressal. ❖ Ambiguity in employer contributions for gig workers. ❖ Need for strong digital systems and continuous social dialogue.
Conclusion	India's Labour Codes represent a **modern, unified, and forward-looking labour governance framework**. Their success depends on effective implementation, worker awareness, state coordination, and integration with skilling and social protection systems. If executed well, they can create a **dignified, productive, and inclusive workforce** suited to India's 21st-century economy.

Govt Schemes

Topic 1 - 10 Years of AMRIT Pharmacy	
Syllabus	Government Initiative
Context	**AMRIT Pharmacy**, launched to provide high-quality medicines at deep discounts, completes 10 years with major nationwide expansion and digital upgrades.
What is it	❖ Government initiative offering **50–90% discounted** life-saving medicines, implants, and consumables. ❖ Launched in **2015** under the Ministry of Health & Family Welfare. ❖ Implemented nationwide by **HLL Lifecare Limited**. ❖ **Aim:** To ensure **affordable, accessible, quality** branded and generic medicines and implants, especially for low-income and high-burden patients.
Key Features	❖ **Pan-India Presence:** 255 outlets, expanding to 500 across medical colleges & district hospitals. ❖ **Deep Discounts:** 50–90% reduction on essential, oncology, cardiac, and surgical products. ❖ **High Patient Savings:** ₹17,000 crore (MRP) medicines dispensed → **₹8,400 crore saved** by patients. ❖ **Large Beneficiary Base: 85 crore patients** served in 10 years. ❖ **Digital Upgrades:** Launch of **AMRIT ITes Eco-Green 2.0** for efficiency and transparency. ❖ **Enhanced Services:** Mobile vans, 24×7 contact centre, My Stamp release, Coffee Table Book, Ayurveda integration. ❖ **Skilled Workforce:** Certified pharmacists (D.Pharm, B.Pharm).

Topic 2 - e-Jagriti Platform	
Syllabus	Economy | Agriculture & Food Security
Context	The **e-Jagriti platform** is an AI-enabled digital system that modernises consumer grievance redressal, offering faster, transparent, and paperless justice for citizens and NRIs.
What it is	❖ Unified AI-driven portal integrating all consumer dispute-redressal systems. ❖ Developed by the **Department of Consumer Affairs**. ❖ **Aim:** Provide **fast, transparent, accessible,** and fully digital consumer justice for households, MSMEs, and NRIs.

Key Features	❖ **Unified Digital Consumer Courts:** e-filing, e-scrutiny, virtual hearings, secure documents, role-based dashboards. ❖ **Global Access for NRIs:** Remote filing, tracking, encrypted documents, OTP login, online payments. ❖ **AI-Based Assistance:** Chatbots, multilingual interface, voice-to-text, smart routing, accessibility features. ❖ **High Disposal Efficiency:** Disposal surpasses filings in 2025, reducing backlog significantly. ❖ **Integrated Communication:** Auto SMS/email alerts for notices, updates, deadlines. ❖ **Secure Online Payments:** Supports PayGov and Bharat Kosh.

Topic 3 - Digital Hub for Reference and Unique Virtual Address (DHRUVA)	
Syllabus	Government Scheme | Economy
Context	The **Department of Posts** has proposed **DHRUVA**, a UPI-like digital addressing system to modernise how addresses are created, shared, and used in India. It aims to make addresses precise, interoperable, and protective of user privacy.
What is DHRUVA?	❖ A **Digital Public Infrastructure (DPI)** for addresses that **standardises, digitises, and virtualises** physical locations. ❖ **Aim** ➢ Create a **unified, interoperable, user-controlled** digital address ecosystem. ➢ Treat address management as core DPI - like **Aadhaar, UPI, DigiLocker**. ➢ Enable **Address-as-a-Service (AaaS)** for government and private use.
Key Features	❖ **UPI-like Address Labels (Virtual IDs):** Users can share simple, proxy address labels (e.g., name@entity) instead of the full physical address, reducing repetitive form-filling. ❖ **DIGIPIN Backbone (High-Precision Geocoding):** ➢ It is built on **DIGIPIN**, a **10-character** alphanumeric geocode based on latitude and longitude. ➢ Maps approximately **14 square meter** grids across India, resulting in about **228 billion** unique pins. ➢ Open-source; effective for rural/hard-to-map areas. ❖ **Consent-Based Access:** Time-bound, purpose-specific sharing with strong privacy. ❖ **AaaS APIs:** Secure integration for logistics, fintech, e-commerce, and govt. services. ❖ **Adoption:** Designed for voluntary adoption and interoperability with private platforms.

Topic 4 - Viksit Bharat–Guarantee for Rozgar and Ajeevika Mission (Gramin) Act, 2025	
Syllabus	Government Schemes | Economy | Rural development
Context	The President of India has granted assent to the **Viksit Bharat–Guarantee for Rozgar and Ajeevika Mission (Gramin) Act, 2025**. The Act overhauls **rural employment** policy by aligning livelihood security, asset creation, and climate resilience with the **Viksit Bharat @2047 vision**.
What is the Viksit Bharat–G RAM G Act, 2025	❖ A revamped statutory framework for rural employment. ❖ Replaces the Mahatma Gandhi National Rural Employment Guarantee Act, 2005. ❖ Repositions rural employment as an integrated tool for livelihoods, assets, and climate resilience. ❖ **Aim** ➢ Enhance the income security of rural households through expanded employment guarantees. ➢ Transform wage employment into sustainable rural development via durable asset creation.
Key Features	❖ **Increased Guaranteed Employment** ➢ Statutory guarantee raised to a minimum of **125 days** of unskilled manual work per rural household annually. ➢ Unemployment allowance is retained if work is not provided within 15 days of demand. ❖ **Funding (Centrally Sponsored Scheme):** ➢ **60:40** Centre-State for most states. ➢ **90:10** for North-Eastern and Himalayan states. ➢ **100%** central funding for UTs without legislatures. ➢ States bear unemployment allowance and delay compensation. ❖ **Normative Allocations with State Responsibility** ➢ Centre to notify state-wise normative allocations annually. ➢ Expenditure beyond allocations to be borne by states. ➢ Statutory right to work remains unaffected. ❖ **Pause During Peak Agricultural Seasons** ➢ States may notify an aggregated pause of up to **60 days** during peak agricultural seasons to ensure labour availability for agriculture (without reducing the 125-day entitlement). ❖ **Decentralised and Integrated Planning** ➢ Gram Sabhas and Panchayats remain core planning authorities. ➢ Works to originate from **Viksit Gram Panchayat Plans** prepared through participatory processes.

	➢ Plans are integrated with the PM Gati Shakti National Master Plan and aggregated upward. ❖ **Focus on Priority Domains:** Works are restricted to four thematic areas: ■ Water security. ■ Core rural infrastructure. ■ Livelihood-related infrastructure. ■ Climate resilience and extreme weather mitigation. ➢ Assets are mapped into a national rural infrastructure stack to avoid duplication. ❖ **Strengthened Implementation and Monitoring** ➢ Retains central and state councils, with composition notified through the Rules. ➢ Establishes National and State Level Steering Committees for oversight and convergence. ❖ **Technology-Driven Transparency and Accountability** ➢ Use of biometric authentication, geo-tagging, and real-time dashboards. ➢ Weekly public disclosure of implementation data. ➢ Strengthened social audits by Gram Sabhas.
MGNREGA Scheme	MGNREGA was launched in 2005 as a **rights-based**, **demand-driven** scheme rooted in Gandhian ideals: ❖ **Core Features:** Guaranteed unskilled manual work; unemployment allowance if work is not provided within 15 days; mandatory **33% participation for women** (actual participation >58%); **60:40** wage-material ratio; focus on durable asset creation; mandatory social audits. ❖ **Historical Context:** Roots in the Employment Assurance Scheme (1993) and Food for Work Programme (2004).
Recent / Proposed Amendments	❖ **Proposed Renaming:** To **"Pujya Bapu Gramin Rozgar Yojana"**. ❖ **Water Conservation Priority (Sept 2025):** ➢ **65%** funds in over-exploited/critical blocks, **40%** in semi-critical, **30%** in safe blocks. ❖ **Project UNNATI (2019):** ➢ Skill upgradation for workers; **90,894 trained** till March 2025 (target: 2 lakh).Proposed Amendments to MGNREGA: Rebranding and Expansion.

Topic 5 - Nuclear Energy Mission	
Syllabus	Government Schemes | Energy
Context	India has launched the Nuclear Energy Mission, a national initiative announced in the **Union Budget 2025 - 26,** to significantly **expand its clean and reliable nuclear power capacity** using advanced indigenous technologies.
Nuclear Energy Mission	❖ **Key Objectives and Targets** ➢ **Long-term Goal (by 2047):** Achieve approximately 100 GW of nuclear power capacity. ➢ **Near-term Goal (by 2033):** Operationalize at least five indigenously designed Small Modular Reactors (SMRs). ❖ **Key Features** ➢ **₹20,000 crore** allocated for SMR research, development, and deployment. ➢ **BARC is developing BSMR-200, SMR-55**, and high-temperature gas-cooled reactors for hydrogen. ➢ Focus on **captive power, fossil plant repowering**, and remote applications. ➢ While the public sector is projected to contribute **58-60 GW**, the mission encourages private sector participation. The rollout will be led by NPCIL, including joint ventures with NTPC.
Significance	❖ Provides firm 24×7 baseload power. ❖ Supports grid stability alongside renewable energy expansion. ❖ Contributes to India's Net Zero 2070 commitment.

Topic 6 - SHANTI Bill	
Syllabus	Government Schemes | Energy
Context	Parliament has passed the **Sustainable Harnessing and Advancement of Nuclear Energy for Transforming India (SHANTI) Bill, 2025**, overhauling India's nuclear governance framework. The Bill seeks to expand nuclear capacity, enable private participation, and restructure liability and regulation.
What is the SHANTI Bill?	❖ The SHANTI Bill, 2025, replaces the **Atomic Energy Act, 1962**, and the **Civil Liability for Nuclear Damage Act, 2010**. ❖ It provides a new legal framework for expanding nuclear power with private sector participation and revised liability norms.
Key Features	❖ **New appellate mechanism** ➢ Establishes an Atomic Energy Redressal Advisory Council. ➢ Further appeals lie before the Appellate Tribunal for Electricity. ❖ **Tiered liability framework** ➢ Operator liability is capped between ₹100 crore and ₹3,000 crore based on reactor capacity. ➢ Liability beyond the cap is to be borne by the central government. ❖ **Removal of supplier liability for defects** ➢ Eliminates the operator's right of recourse against suppliers for defective equipment. ➢ Recourse is retained only for contractual breaches or deliberate acts. ❖ **Statutory status to AERB** ➢ Grants statutory recognition to the **Atomic Energy Regulatory Board**. ➢ AERB is mandated to ensure nuclear and radiation safety. ❖ **Opening the nuclear sector to non-government entities:** Allows private companies, joint ventures, and permitted persons to build, own, and operate nuclear plants under licensing and oversight. ❖ **Expanded territorial coverage:** Compensation claims may extend to nuclear damage occurring outside India, subject to conditions.
Need for the SHANTI Bill	❖ **Limits of renewables alone** ➢ Solar and wind are intermittent and storage-dependent. ➢ Nuclear provides stable baseload electricity. ❖ **Rising energy demand and decarbonisation goals:** Economic growth and net-zero commitments require low-carbon baseload power. ❖ **Public sector constraints:** NPCIL and DAE face financial and execution limits in scaling capacity to 100 GW.

	❖ **Alignment with global practices:** Opening the sector enables access to global technology, finance, and supply chains.
Issues and Concerns	❖ **Dilution of liability and safety risks:** Low liability caps and the removal of supplier liability may socialise catastrophic costs. ❖ **Ignoring past disaster lessons:** Experiences from Bhopal and Fukushima highlight the need for strong accountability. ❖ **Regulatory independence questioned:** AERB, despite its statutory status, remains under executive control. ❖ **Radioactive waste and decommissioning gaps:** No clear framework for long-term waste management funding and responsibility. ❖ **Labour and environmental justice risks:** Private participation may increase contractual labour and safety risks. ❖ **Energy sovereignty concerns:** Greater foreign participation may deepen technology dependence.
Way Ahead	❖ **Strengthen liability and accountability:** Revisit liability caps and restore meaningful supplier accountability. ❖ **Ensure independent regulation:** Reform appointments and provide autonomy and parliamentary oversight to AERB. ❖ **Create waste and decommissioning funds:** Establish fully funded, ring-fenced mechanisms for radioactive waste management. ❖ **Balance nuclear with renewables:** Pursue a diversified energy strategy with storage, grids, and efficiency. ❖ **Enhance public trust:** Institutionalise community consultation, transparency, and environmental safeguards.
Conclusion	The SHANTI Bill marks a transformative shift in India's nuclear energy policy, driven by development and decarbonisation needs. Its success depends on balancing nuclear expansion with strong safety norms, regulatory independence, and public accountability.

History

Topic 1 - National Maritime Heritage Complex (NMHC) at Lothal

Syllabus	Ancient History | Art and Culture
Context	**India and the Netherlands** signed an MoU for cooperation on the **National Maritime Heritage Complex (NMHC)** at **Lothal, Gujarat**.
About	❖ The National Maritime Heritage Complex is a flagship heritage project showcasing India's **4,500–5,000-year-old maritime history**. ❖ It is being developed as India's **first national institution dedicated exclusively to maritime heritage**. ❖ **Nodal Ministry:** Ministry of Ports, Shipping, and Waterways.
Key Features	❖ A world-class maritime museum with galleries on ancient navigation, shipbuilding, trade routes, naval history, and coastal cultures. ❖ International collaboration, including a partnership with the **National Maritime Museum** for design, curation, and conservation. ❖ Maritime research and training centre for scholars and professionals. ❖ Venue for global maritime fairs, exhibitions, and cultural events. ❖ Inclusive public outreach with affordable access for students and local communities. ❖ Use of modern technology and immersive visitor experiences.
Lothal	❖ **Lothal** is an Indus Valley/Harappan Civilisation site located near Ahmedabad, Gujarat. ❖ Excavated in 1957, it dates back to around **2400 BCE**. ❖ It is the site of the **world's earliest known man-made dockyard**. ❖ It was a major port town connected to ancient **maritime trade** routes linking Sindh, Saurashtra, **Mesopotamia, and Egypt**. ❖ Key features include advanced **town planning, tidal regulation, and maritime engineering**. ❖ It demonstrates India's continuous maritime tradition.

Topic 2 - Dandami Maria Tribe	
Syllabus	Art and Culture | Tribes
Context	The **Dandami Maria (Bison Horn Maria)** tribe of **Bastar** represents a vibrant living tradition, with their iconic **Bison Horn dance** symbolising cultural continuity despite modern influences.
Who They Are	❖ **Dandami Maria** (also called **Bison Horn Maria / Khalpati Maria**). ❖ Sub-group of the **Gond (Koytorias)** tribe - among India's oldest indigenous communities. ❖ Known for **bison-horn headgear** and ceremonial dances as identity markers.
Origin & Language	❖ Trace lineage to the ancient **Gondwana region** of central India. ❖ Speak **Dandami Maria**; many also use **Gondi dialects** (oral, **Dravidian** origin).
Habitat & Livelihood	❖ Concentrated in the **Bastar region, Chhattisgarh** - Darbha, Tokapal, Lohandiguda, Dantewada. ❖ Forest-based settlements shaping rituals and worldview. ❖ **Subsistence**: agriculture, supplemented by hunting and fishing.
Key Cultural Features	❖ **Bison Horn Maria Dance**: Performed by both **men** (wearing bison-horn headgear) and **women** (in handwoven saris and heavy silver/brass jewellery) during rituals. ❖ **Social Life**: The **Ghotul (youth dormitory)** is vital for social cohesion. **Divorce and widow remarriage are permitted**. ❖ **Beliefs**: Nature-centric faith, worshipping **Budhadev** and **Danteshwari Mai**.

Topic 3 - Emperor Perumbidugu Mutharaiyar II	
Syllabus	Indian History | Medieval India
Context	The Prime Minister has welcomed the release of a **commemorative postage stamp** honouring **Emperor Perumbidugu Mutharaiyar II**, recognising his **administrative excellence**, **military leadership**, and **patronage of Tamil culture** during early medieval South India.
Who He Was	❖ **Perumbidugu Mutharaiyar II**, also known as **Suvaran Maran** or **Shatrubhayankar**. ❖ **Reign:** Approximately **705–745 CE**. ❖ **Dynasty:** A prominent ruler of the **Mutharaiyar dynasty**.

Kingdom & Political Position	❖ Powerful **Tamil chieftain lineage** serving as **feudatories of the Pallavas**. ❖ Loyal ally of **Pallava king Nandivarman II**. ❖ Controlled the **central Cauvery basin** - **Thanjavur, Tiruchirappalli, Pudukkottai, and Perambalur**. ❖ Capital/administrative centre at **Tiruchirappalli**.
Key Contributions	❖ **Governance and Military:** Known for establishing **stable governance**. Provided crucial **strategic military support** to the Pallavas, particularly during their decline. ❖ **Temple Architecture** ➢ Among the **earliest temple builders** in Tamil Nadu. ➢ Rock-cut and structural temples **influenced early Chola architecture**, pre-dating Vijayalaya Chola. ❖ **Cultural & Religious Patronage** ➢ Patron of **Shaivism** with **religious pluralism** - hosted debates with **Jain scholars** like **Acharya Vimalachandra**. ➢ Promoted **Tamil language, literature, and religious institutions** (epigraphic evidence). ❖ **Public Works:** Supported **temple endowments, irrigation tanks, and agrarian infrastructure**, strengthening the **Cauvery delta economy**.

Topic 4 - Birsa Munda: Tribal Freedom Fighter and Reformer	
Syllabus	Modren Indian History | Personalities
Context	India celebrated the **150th birth anniversary of Birsa Munda**, honouring his legacy as a tribal freedom fighter, social reformer, and symbol of Adivasi identity.
Personal Life & Background	❖ **Birth:** Born in **Ulihatu**, Khunti district, Jharkhand, which lies in the Chhotanagpur plateau region. ❖ **Early Life:** Spent his formative years in **Chalkad** and **Kurumbda**, and received education in **Salga** and **Chaibasa**. ❖ **Alternative Name:** His birth name was **Daud Munda**, adopted during a brief period of family conversion. ❖ Tribal freedom fighter, leader of the **Munda tribe**, revered as **Bhagwan** and **Dharti Aaba** (Father of the Earth). ❖ He dedicated his life to fighting for tribal land rights, forest access, and the establishment of tribal self-rule.
Key Movement: The Ulgulan (Great Tumult)	❖ Birsa Munda spearheaded the **Munda Rebellion (Ulgulan)**, a significant uprising against oppressive British policies. ➢ **Core Issues:** The movement challenged exploitative British land regulations,

	the system of forced labour, and the interference of missionaries. ➢ **Land System:** He fiercely opposed the destruction of the traditional **Mundari Khuntkatti** communal land system and the exploitation by thikadars (landlords/contractors). ❖ He successfully united the **Munda, Oraon, and Kharia** tribes to demand land rights and autonomy. ❖ **Tactics:** The movement employed guerrilla tactics, specifically targeting structures of colonial oppression. ❖ **Slogan:** The rallying cry was: **"Abua Raj setar jana, Maharani Raj tundu jana"** (Let our rule be established, and the Queen's rule end).
Social and Religious Reform	❖ **Birsait Sect:** Birsa Munda founded the **Birsait**, a distinct socio-religious sect. ❖ **Reforms:** He actively promoted vital social reforms, including: ➢ Anti-alcoholism ➢ Improved hygiene practices ➢ Cultural revival.
Legacy and Facts	❖ **Death:** He passed away at the young age of **25** in Ranchi jail. ❖ **Impact:** Though short-lived, the movement was instrumental in the eventual enactment of the **Chhotanagpur Tenancy (CNT) Act of 1908**, which provided protection for tribal land rights. ❖ **Talents:** He was a skilled musician, known for playing the **flute and tuila**, and was active in the village **akhra** (meeting/dancing place). ❖ **Honours:** His contributions are commemorated through literature, films, folk songs, and a **150-foot statue** erected in Jharkhand.

Topic 5 - 115 Years of 'Sagara Pran Talamalala'

Syllabus	Modren Indian History | Freedom Struggle
Context	The 115th anniversary of **'Sagara Pran Talamalala'**, a deeply emotional patriotic poem by **Swatantryaveer V.D. Savarkar**, was commemorated to honour its enduring role in expressing exile, sacrifice, and longing for the motherland during India's freedom struggle.
What is 'Sagara Pran Talamalala'?	❖ **This patriotic Marathi poem, composed by Swatantryaveer V.D. Savarkar** around **1909** in **Brighton, England**, is about the pain of exile, nationalism, and longing for India (Matru-bhoomi). ❖ The sea is personified as a messenger. ❖ **Popularity:** Later gained wide popularity as a song, with music composed by Hridaynath Mangeshkar and sung by Lata Mangeshkar. ❖ **Circumstances of its Creation** ➢ Savarkar wrote it while under British surveillance in London, influenced by his brother Ganesh's arrest and the assassination of Curzon Wyllie. ➢ It reflects his internal conflict between revolutionary work abroad and the desperate desire to return home.

Other Major Literary Contributions by Savarkar

Category	Work Title(s)	Key Theme/Contribution
Historical & Political	The Indian War of Independence, 1857	Reinterpreted the 1857 event as India's first War of National Freedom.
	Hindutva: Who is a Hindu?	Defined Hindutva primarily as a cultural and civilisational identity.
	Hindu Pad-Padshahi	Focused on Maratha power and the concept of Hindu polity.
	Six Glorious Epochs of Indian History	A nationalist perspective on India's civilisational resistance.
Autobiography	My Transportation for Life (Mazi Janmathep)	Details his harrowing experiences in the Cellular Jail.
Poetry	Jayostute, Ne Majasi Ne (In addition to Sagara Pran Talamalala)	Patriotic and deeply moving poems.
Plays	Sanyast Khadga, Uttarkriya	Explored themes of sacrifice, liberty, and nationalism.

Topic 6 - 70th Death Anniversary of Dr. B.R. Ambedkar	
Syllabus	Modren Indian History | Personalities
Context	India observed the 70th death anniversary (Mahaparinirvan Diwas) of **B. R. Ambedkar**, remembering his foundational role in constitutional governance, social justice, and economic thought. His legacy continues to guide India's pursuit of equality, dignity, and social democracy.
Who He Was	❖ A towering figure: Jurist, economist, social reformer, and the principal architect of the Indian Constitution. ❖ Championed pioneering struggles against systemic caste discrimination and social exclusion. ❖ Instrumental in establishing India's democratic, legal, and economic frameworks.
Early Life and Education	❖ Born **14 April 1891**, in Mhow, Madhya Pradesh, into the Mahar community, he endured severe caste discrimination early on. ❖ Pursued advanced international studies with support from the Baroda State. ❖ Early intellectual works, such as Castes in India and The Problem of the Rupee, secured his global intellectual recognition.
Role in Social and Political Reform	❖ **Movements Against Untouchability:** ➢ Led the **Mahad Satyagraha (1927)** to establish Dalit rights over public water sources. ➢ Organised the **Kalaram Temple Satyagraha (1930)**, demanding equal access to places of worship. ❖ **Constitutional and Political Contributions:** ➢ Represented the Depressed Classes at the **Round Table Conferences (1930–32)**, internationalizing the caste issue. ➢ Negotiated the **Poona Pact (1932)** with Mahatma Gandhi, which replaced separate electorates with reserved seats, laying the groundwork for India's affirmative action policies. ➢ As Labour Member (1942–46) during the colonial era, he instituted significant labour reforms, including the 8-hour workday, paid leave, maternity benefits, and other welfare measures.
Architect of the Indian Constitution	❖ Chaired the Drafting Committee. ❖ Ensured foundational values of justice, liberty, equality, and fraternity were enshrined in the Constitution. ❖ Key provisions introduced include the abolition of untouchability, reservations, protection of minority rights, and the establishment of an independent judiciary. ❖ Stressed the importance of constitutional morality and social democracy.

Economic and Institutional Impact	❖ **Monetary and Fiscal Influence:** His treatise, The Problem of the Rupee, influenced the creation of the Reserve Bank of India (RBI) in 1934. His research on provincial finance formed the basis for the Finance Commission and fiscal federalism. ❖ **Labour and Welfare:** He was a champion of labour rights, advocating for social security and employment exchanges. ❖ **Infrastructure:** He was instrumental in the formation of crucial institutions like the Central Water Commission and the Damodar Valley Project, driving water and power planning. ❖ **Anti-Inflation Stance:** He famously warned about the disproportionate harm inflation inflicts on the poor.
Key Organisations and Literary Works	❖ **Organisations:** Established or led the ➢ Bahishkrit Hitkarini Sabha (1923), ➢ Independent Labour Party (1936), and ➢ Scheduled Castes Federation (1942). ➢ Conceptualised the Republican Party of India (1956). ❖ **Literary Contributions:** Notable works include ➢ Annihilation of Caste, ➢ The Problem of the Rupee, ➢ Who Were the Shudras, ➢ Buddha and His Dhamma, and ➢ Buddha or Karl Marx. ❖ **Journals:** Founded or edited influential journals such as Mooknayak, Bahishkrit Bharat, Janata, and Samata.
Final Years and Legacy	❖ Suffered poor health from 1954 to 1956. ❖ Completed his major work, The Buddha and His Dhamma, shortly before his passing. ❖ Converted to Buddhism on **14 October 1956** in Nagpur, alongside over five lakh followers. ❖ Died on **6 December 1956**, at his residence in Delhi. ❖ His memorial, **Chaitya Bhoomi**, is in Mumbai. ❖ He was posthumously awarded India's highest civilian honour, the **Bharat Ratna**, in 1990.
Conclusion	Dr. B.R. Ambedkar was not only the architect of the Constitution but also the moral and intellectual force behind modern India. Seven decades after his Mahaparinirvan, his vision of social democracy, equality, and human dignity remains deeply relevant.

Topic 7 - Mahad Satyagraha	
Syllabus	Modren Indian History | Freedom Struggle | Social Reforms
Context	The Mahad Satyagraha has returned to public discourse as scholars revisit its profound role in shaping constitutional morality.
What was the Mahad Satyagraha?	❖ A **non-violent movement** led by **B. R. Ambedkar,** asserting Dalit rights to public resources. ❖ **Dates:** March 19–20, 1927 (Mahad 1.0) and December 25–26, 1927 (Mahad 2.0). ❖ **Place:** Mahad, Bombay Presidency (now Raigad, Maharashtra). ❖ **Causes** ➢ Denial of Dalits' access to **Chavdar Tank** despite the **1923 Bole Resolution** permitting public access. ➢ Persistent caste violence and local resistance to legal equality.
Key Features	❖ **Key Actions:** ➢ Mass march and drinking water from the tank (Civil Rights Assertion). ➢ **Burning of Manusmriti** (Dec 25, 1927) as a rejection of caste scriptures. ❖ **Constitutional Morality:** Liberty, equality, fraternity articulated in practice. ❖ **Women's Participation:** Gender equality foregrounded; women addressed directly. ❖ **Non-violence:** Ethical, democratic protest rooted in dignity and compassion.
Outcomes	❖ **1937 legal victory:** Courts affirmed no valid custom barring Dalits from public tanks. ❖ Catalysed Dalit political consciousness and later constitutional thought. ❖ **Dec 25** is observed as **Indian Women's Liberation Day**.The Mahad Satyagraha: A Landmark in Constitutional Morality.

Science and Technology

Topic 1 - Zinc-Ion Batteries (ZIBs)

Syllabus	Science | Chemistry
Context	Indian researchers have achieved a major breakthrough in **zinc-ion battery (ZIB)** technology by enhancing cathode performance through an innovative activation technique. The development strengthens India's push toward **safe, low-cost, and sustainable energy storage** alternatives.
What are Zinc-Ion Batteries (ZIBs)?	❖ ZIBs are **rechargeable batteries** that use a **zinc metal anode** and an **aqueous electrolyte**. ❖ They are safer and more environmentally friendly than traditional **lithium-ion batteries**. ❖ They eliminate fire risk, toxic materials, and reliance on critical minerals.
The Research and Development	❖ **Developer:** The **Centre for Nano and Soft Matter Sciences (CeNS), Bengaluru**, an autonomous institute under the **Department of Science & Technology (DST)**. ❖ **Objective** ➢ To develop **high-energy-density, stable, and affordable** batteries. ➢ Reduce dependence on **lithium and cobalt** imports. ➢ Enable large-scale storage for **renewables and electric mobility**.
How the Technology Works	❖ The researchers applied a **thermo-electrochemical activation process** to the **V_2O_5 (vanadium oxide)** cathode. ❖ This structural modification resulted in **Zn–V_2O_5** with introduced defects and porous channels. ❖ The modified structure facilitates the **faster movement of both zinc and hydrogen ions**, leading to improved battery performance.
Key Advantages of the New ZIB Technology	❖ **Superior Energy Density:** Significantly enhanced storage capacity. ❖ **Extended Cycle Life:** Capability to withstand thousands of charge–discharge cycles. ❖ **Increased Stability:** Hydrogen-ion stabilization minimizes degradation. ❖ **Enhanced Safety:** The fully aqueous electrolyte ensures the battery is **non-flammable**. ❖ **Affordable:** Utilizes **abundant zinc**, eliminating the need for expensive lithium or cobalt.

Topic 2 - DHRUV64 Microprocessor	
Syllabus	Science & Technology | Quantum Technology
Context	India has launched **DHRUV64**, its first indigenously designed 1.0 GHz, 64-bit dual-core microprocessor. The development marks a major step in semiconductor self-reliance under the Digital India **RISC-V programme**.
What is DHRUV64	❖ **DHRUV64** is India's first indigenously designed 1.0 GHz, **64-bit dual-core microprocessor**. ❖ It is based on the **RISC-V open-source architecture** and developed under the **Digital India RISC-V (DIR-V) programme**. ➢ It is the third chip under the DIR-V Programme, following **THEJAS32** and **THEJAS64**. ❖ **Developed by:** Centre for Development of Advanced Computing (C-DAC) under the Ministry of Electronics and Information Technology. ❖ **Aim:** Build a trusted indigenous processor ecosystem, support **Atmanirbhar Bharat**, and reduce chip import dependence. ❖ **Key Features:** 1.0 GHz speed, 64-bit dual-core architecture, improved efficiency, multitasking, and reliability. Suitable for 5G, automotive, IoT, and consumer electronics.

Topic 3 - Agentic AI	
Syllabus	Science & Technology | AI
Context	Agentic AI is gaining momentum as organisations adopt autonomous AI agents for complex task automation. It represents a shift from assistive AI to **goal-driven, decision-making systems**.
What is Agentic AI	❖ Agentic AI refers to **autonomous, goal-oriented AI systems** with minimal human oversight. ❖ These systems often use large language models to reason, decide, and act. ❖ In multi-agent setups, specialised agents coordinate through orchestration mechanisms. ❖ **Key Features:** High autonomy, proactive behavior, use of external tools, task specialization, adaptability, and natural language interaction. ❖ **Significance:** Enables **end-to-end automation**, improves productivity, and supports advanced applications in various sectors (enterprise, software dev, robotics, healthcare, finance, logistics).

How Agentic AI Works	❖ **Perception:** They gather data from various sources, including users, sensors, APIs, databases, or the internet. ❖ **Reasoning and Understanding:** Inputs are analyzed using models for language, vision, or pattern recognition. ❖ **Planning and Goal Setting:** Objectives are broken down into a planned sequence of executable steps. ❖ **Action and Decision:** The system selects and executes the optimal actions, typically via external tools or software. ❖ **Learning and Collaboration:** Agents enhance their performance through feedback and coordinate effectively with other agents.

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 - Transforming India into a Leading Quantum-Powered Economy	
Syllabus	Science & Technology | Quantum Technology
Context	NITI Aayog's Frontier Tech Hub has released a strategic roadmap to position India as a top global quantum power by 2035. The plan outlines actions to build a full-stack, industry-driven quantum ecosystem.
What Is It?	❖ A **national strategic roadmap** (with IBM as knowledge partner) for quantum computing, communication, sensing, and materials. ❖ Sets a **2035 vision** for global leadership, self-reliance, and exports in quantum technologies.
Vision 2035 & Key Goals	❖ Achieve global leadership and secure a spot among the **top 3 quantum economies** by 2035, with a **50%+ share** of global quantum software and several high-revenue startups (**$100M+**). ❖ **Quantum Atmanirbharta**: End-to-end participation - **hardware, materials, processors, cryogenics, software**; become a **net exporter**.
Key Highlights	❖ **Strategic Deployment**: Scale use across **defence, healthcare, finance, energy, mining, and infrastructure**. ❖ **Implementation Strategy (Two Phases)**: ➢ **Foundation Building** (2025–30): Establish testbeds, incubate 50+ startups, conduct pilot projects, and initiate **Post-Quantum Cryptography (PQC)** rollouts. ➢ **Global Leadership** (2030–35): Secure global market leadership, establish export corridors, and dominate key supply chains. ❖ **Workforce:** Achieve a **10x expansion** of quantum-skilled talent within 2–3 years through national programs and universities. ❖ **Cybersecurity:** Mandate planning and testbeds for **quantum-resilient cryptography (PQC)** for government and critical infrastructure. ❖ **Industry & Investment:** Promote Quantum–High-Performance Computing (HPC) integration, cloud services, accelerators, and launch a national **quantum venture fund** and market accelerators. ❖ **Standards & Diplomacy:** Lead global standards development, benchmarking consortia, and strategic international partnerships.
Initiatives Already Taken	❖ **National Quantum Mission (2023–31)** with **₹6,000+ crore** for hubs and testbeds. ❖ Startup support via **iDEX/NQM**, early pilots, global collaborations. ❖ **QKD trials**, quantum networks, and sensing prototypes.
Key Challenges	❖ **Hardware gaps**: Dependence on imports (processors, cryogenics, materials). ❖ **Low R&D spend** (~0.65% of GDP) and limited IP ownership.

	❖ **Skill shortages** in cryogenics, optics, microwave engineering, and co-design. ❖ **Risk-averse capital** and slow industry adoption. ❖ **Geopolitics**: Export controls, supply-chain risks, talent competition.
NITI Aayog Recommendations	❖ Build **domestic hardware & materials** manufacturing. ❖ Create **standards, testbeds, and certification** for interoperability. ❖ **Scale skilling** via universities and national programmes. ❖ Fast-track **sectoral pilots** in high-impact areas (e.g., logistics, finance, defence). ❖ Ensure an early **PQC transition** across government and critical sectors. ❖ Strengthen **quantum diplomacy** and standards leadership. ❖ Launch a national **quantum venture fund** and market accelerators.
Conclusion	Quantum technology offers India a rare chance to lead a frontier industry. With coordinated investment, skilling, standards, and industry adoption, India can emerge as a **top-three quantum economy by 2035**.NITI Aayog's Frontier Tech Hub released a strategic roadmap for India to become a top global quantum power by 2035, focusing on a full-stack, industry-driven ecosystem.

Topic 6 - Bioremediation

Syllabus	Bio Technology | Environment | Pollution Control
Context	With rising soil, water, and industrial pollution, bioremediation is emerging as a sustainable, low-cost solution using nature-based processes to restore contaminated ecosystems.
What is Bioremediation ?	❖ Uses **living organisms** (bacteria, fungi, algae, plants) to degrade or detoxify pollutants. ❖ Microbes convert contaminants into **harmless by-products** like water, CO_2, organic acids, or stable metal forms. ❖ Effective against **oil, pesticides, heavy metals, plastics, and industrial chemicals**.
Types of Bioremediation	❖ **In-situ (On-site treatment)** ➢ **Bioventing:** Air + nutrients stimulate native microbes in soil. ➢ **Air sparging:** Oxygen is injected into groundwater for biodegradation. ➢ **Biowalls/Biobarriers:** Microbe-filled trenches clean flowing groundwater. ➢ **Water recirculation:** Extract–treat–reinject to boost microbial action. ❖ **Ex-situ (Off-site treatment)** ➢ Contaminated soil/water removed and treated in reactors. ➢ Used for **high pollution levels** or uncontrolled site conditions.

Why India Needs Bioremediation	❖ **Severe pollution load:** Ganga, Yamuna, and Cauvery face sewage and effluent stress. ❖ **Industrial contamination:** Oils, heavy metals, pesticides, and plastics are widespread. ❖ **Cost advantage:** Cheaper and cleaner than chemical/mechanical methods. ❖ **Biodiversity strength:** Indigenous microbes adapted to Indian conditions. ❖ **Scalable & eco-friendly:** Suitable for large polluted landscapes.
Current Status in India	❖ **DBT:** R&D support under Clean Technology Programme. ❖ **CSIR–NEERI:** Pilot bioremediation projects nationwide. ❖ **IITs:** Research on pollutant-degrading microbes and nanocomposites. ❖ **Emerging tech:** GM microbes for plastics and hydrocarbon degradation.
Global Best Practices	❖ **Japan:** Plant–microbe systems for urban waste cleanup. ❖ **EU:** Multi-country projects for oil spills and mining-site remediation.
Conclusion	Bioremediation is a cost-effective, eco-friendly solution to India's pollution crisis. With proper standards, biosafety oversight, and institutional support, it can become a cornerstone of sustainable environmental restoration.

Topic 7 - Precision Biotherapeutics: The Future of Personalized Medicine

Syllabus	Science & Technology | Bio-Technology
Context	Precision biotherapeutics represent a fundamental shift in medical treatment, moving away from **one-size-fits-all** approaches. These therapies leverage **genomics** and **personalized medicine** to develop highly targeted treatments, primarily for cancer, genetic disorders, and metabolic diseases.
What are Precision Biotherapeutics?	❖ Therapies are customized based on an individual's unique **genetic and molecular profile**. ❖ **Advanced Tools:** They utilize cutting-edge technologies like **CRISPR, mRNA, monoclonal antibodies, and CAR-T** cell therapy. ❖ **Root-Cause Focus:** The goal is to **correct the underlying cause** of the disease, not merely manage symptoms. ❖ Enabled by **AI, big data analytics**.
How They Work	❖ **Diagnosis: Genomic Profiling** is used to accurately identify specific mutations and biomarkers. ❖ **Targeting: Molecular Targeting** precisely identifies the faulty genes, proteins, or pathways involved in the disease. ❖ **Treatment: Therapeutic Design** employs tools such as CRISPR, mRNA, or biologics to either correct the genetic defect or silence the malfunctioning

	components. ❖ **Delivery: Personalised Dosing** is optimized by AI for efficient delivery and maximum efficacy. ❖ **Refinement: Adaptive Feedback** systems use real-time patient data to continuously adjust and improve the treatment protocol.
Applications	❖ **Oncology (Cancer):** Includes treatments like CAR-T cell therapy, using tumour genomics, and highly targeted antibodies. ❖ **Genetic Disorders:** Utilizes **Gene editing** for diseases such as Thalassemia and Spinal Muscular Atrophy (SMA). ❖ **Metabolic Diseases:** Employs **RNA-based drugs** to treat conditions like diabetes and lipid abnormalities. ❖ **Rare Diseases:** Involves the development of custom **gene, enzyme, or RNA therapies**. ❖ **Infectious Diseases:** Powers the creation of **mRNA vaccines** to rapidly address new and emerging viral strains.
Challenges	❖ **Regulatory gaps** for gene/cell therapies. ❖ **High costs** of precision drugs and manufacturing. ❖ **Infrastructure Deficiencies:** There is **limited biomanufacturing capacity** in India. ❖ **Ethical Concerns: Genomic data privacy** remains a major concern. ❖ **Development Speed:** The **low clinical trial capacity** slows the development and approval of advanced therapies.

Topic 8 - AstroSat: India's Multi-Wavelength Space Observatory	
Syllabus	Science & Technology | Space Missions
Context	AstroSat marks India’s entry into space-based multi-wavelength astronomy. The 10-year milestone of its UVIT payload highlights sustained scientific excellence and global impact.
What is AstroSat?	❖ India’s **first dedicated astronomy satellite** is capable of simultaneous observations across the UV, optical, soft X-ray, and hard X-ray bands. ❖ **Launched:** 2015 by PSLV-C30 into ~650 km orbit. ❖ **Aim:** Study high-energy cosmic processes and provide open-access astronomical data.
Key Features	❖ **Payloads:** Equipped with **five distinct payloads**, covering the spectrum from **UV up to 100 keV** X-ray bands (0.3–100 keV). ❖ **Unique Feature:** It offers **simultaneous multi-wavelength imaging**, a capability

	rare on a global scale. ❖ **Operational Control:** Managed by ISTRAC, with data archived at ISSDC (Byalalu). ❖ Designed life 5 years; **operational beyond a decade**.
Ultra-Violet Imaging Telescope (UVIT)	❖ A twin-telescope UV imager that operates in the Near-UV (NUV), Visible, and Far-UV (FUV) bands. ❖ Achieves a resolution of **less than 1.5 arcseconds**, placing it among the world's finest UV instruments. ❖ Developed by a national consortium, led by the Indian Institute of Astrophysics (IIA) in collaboration with ISRO centres.
Scientific Significance	❖ UVIT is India's **first UV space telescope** and only the **second globally** (after the Hubble Space Telescope) to provide Far-UV (FUV) imaging. ❖ Discoveries: hot companions of Be stars, blue stragglers, UV disks in dwarf galaxies, novae in Andromeda, AGN UV–X-ray links.

Topic 9 - Mars Atmosphere and Volatile Evolution (MAVEN) Spacecraft	
Syllabus	Science & Technology | Space Missions
Context	NASA has lost contact with the MAVEN spacecraft after it went silent in early December 2025 following a routine communication blackout. MAVEN is a crucial Mars orbiter studying how the Red Planet lost its atmosphere over time.
What is MAVEN	❖ MAVEN is a **NASA Mars orbiter mission** focused on the **upper atmosphere, ionosphere, and atmospheric escape** of Mars. ❖ It aims to explain how Mars changed from a warm, wet planet to a cold, dry world. ❖ **Primary Aim** ➢ Determine how and how fast Mars lost its atmosphere to space. ➢ Understand the role of the Sun and solar wind in atmospheric escape. ➢ Support Mars surface missions through data relay services.
Key Features	❖ An orbiter with a highly elliptical orbit for vertical profiling. ❖ Focuses on the upper atmosphere using eight specialized instruments (including mass spectrometers and plasma sensors). ❖ Uses the **Imaging Ultraviolet Spectrograph (IUVS)** to map the upper atmosphere.
Major Discoveries and Contributions	❖ **Atmospheric loss quantified:** Confirmed solar wind stripping as a major driver of atmospheric loss over billions of years. ❖ Identified that water loss occurs when water vapor splits, and hydrogen escapes to space.

	❖ **Impact of solar storms:** Found that solar flares and coronal mass ejections sharply increase escape rates.

Topic 10 - GNSS Spoofing	
Syllabus	Science & Technology | Space Technology
What it is	❖ GNSS (Global Navigation Satellite System) spoofing is the **malicious transmission** of **counterfeit satellite signals** designed to deceive navigation systems on aircraft, vehicles, or other receivers. This results in the presentation of incorrect navigation data and the activation of false alerts, such as cockpit warnings.
Types of GNSS Interference	❖ **Spoofing:** Intentionally introduces fake signals to manipulate navigation data. ❖ **Jamming:** Emits high-power radio noise to actively block genuine GNSS signals. ❖ **Meaconing:** Captures and rebroadcasts genuine signals with a deliberate delay, subtly distorting the reported position.
How GNSS Spoofing Works	❖ A transmitter emits **stronger fake signals** near the target. ❖ Aircraft lock onto the counterfeit source. ❖ Spoofer slowly drifts the false signal, causing wrong navigation readings and alerts.
Characteristics	❖ **Hard to Detect:** The fake signals closely imitate authentic GNSS transmissions. ❖ **Localized Effect:** Operation is restricted to a limited geographic area. ❖ **Deceptive Drift:** Uses gradual position changes to avoid immediate suspicion. ❖ **Impact:** Triggers false cockpit warnings (e.g., terrain or proximity alerts). ❖ **Evasion:** Can often bypass basic anti-jamming measures.

Topic 11 - The New Space Race	
Syllabus	Science & Technology | Space Governance
Context	The rapid expansion of **satellite megaconstellations** has shifted global competition to **orbital space and the electromagnetic spectrum**. With **50,000+ satellites expected by 2030**, concerns over equity, sustainability, and governance have become critical.
What Is Spectrum?	❖ **Electromagnetic spectrum**: Finite radio frequencies used for wireless and satellite communication. ❖ Satellites require **exclusive, interference-free bands**. ❖ Regulated globally by the **International Telecommunication Union (ITU)**.
Spectrum Bands Used in Space	❖ **L-Band (1–2 GHz):** GPS, aviation, maritime; strong cloud penetration. ❖ **S-Band (2–4 GHz):** Telemetry, tracking, weather satellites. ❖ **C-Band (4–8 GHz):** Broadcasting; reliable during rain. ❖ **Ku-Band (12–18 GHz):** High-speed satellite internet (e.g., Starlink). ❖ **Ka-Band (26–40 GHz):** Very high data rates; next-gen broadband. ❖ **V-Band & above:** Future ultra-high throughput, deep-space systems.
Rise of Megaconstellations	❖ **6Starlink (USA):** 8,000+ launched; plan ~42,000. ❖ **OneWeb:** 648 satellites; Indian stake via **Bharti Group**. ❖ **Amazon Kuiper:** Planned ~3,200 satellites. ❖ **China GuoWang:** Target ~13,000 satellites. ❖ **Drivers** ➢ Falling launch costs. ➢ Demand for global & rural connectivity. ➢ Low-latency needs (defence, aviation, shipping). ➢ Digital sovereignty & strategic competition. ➢ **Market size:** $4.27 bn (2024) → $27.31 bn (2032).
Key Challenges	❖ **Spectrum Congestion:** Interference risk due to limited high-value bands. ❖ **Orbital Crowding & Debris:** >40,000 tracked objects; risk of **Kessler Syndrome**. ❖ **Inequitable Access:** ITU's first-come-first-served model favours rich states & early entrants. ❖ **Astronomy Disruption:** Light pollution & radio interference harm scientific research. ❖ **Digital Divide:** High terminal costs (Starlink ~₹53,000) limit affordability. ❖ **Regulatory Gaps:** Existing space rules are inadequate for mega-scale constellations.

Topic 12 - Nuclear Power in Space	
Syllabus	Science & Technology | Space Governance
Context	The proposed deployment of **nuclear reactors on the Moon** marks a shift toward sustained human presence in space, as solar power alone cannot meet long-term, high-energy mission requirements.
Need for Nuclear Power in Space	❖ **Unreliable solar energy:** Long lunar nights, dust storms on Mars, and weak sunlight limit solar power. ❖ **Continuous Energy Needs:** Uninterrupted, high-capacity power is required for critical infrastructure like habitats, life-support systems, laboratories, and manufacturing. ❖ **ISRU (In-Situ Resource Utilization) energy needs:** Water extraction, oxygen generation, and fuel production require megawatt-scale power. ❖ **Compact & stable source:** Nuclear reactors provide dense, weather-independent energy in small footprints.
Applications of Nuclear Power in Space	❖ **Habitat and Facility Power:** Provides energy for life-support, communication, heating, and scientific activities at Moon/Mars bases. ❖ **ISRU Enablement:** Powers the continuous production of vital resources such as water, oxygen, and rocket propellants. ❖ **Surface Operations:** Supports surface mobility, including rovers, drilling, and autonomous exploration equipment. ❖ **Advanced Propulsion:** ➢ **Nuclear Thermal Propulsion (NTP):** Facilitates faster crewed missions to Mars, reducing radiation exposure time. ➢ **Nuclear Electric Propulsion (NEP):** Offers sustained, long-duration thrust for deep-space probes and cargo transport. ❖ **Extreme Environments:** Ensures reliable power for missions to challenging areas like shadowed lunar craters and polar regions.
Existing International Legal Framework	❖ **Outer Space Treaty (1967):** Permits the peaceful use of nuclear technology in space while prohibiting nuclear weapons. ❖ **UN Principles (1992):** Sets safety guidelines and mandates risk assessments for nuclear power sources in space. ❖ **Liability Convention (1972):** Deals with liability for damage caused by space objects, though its application to deep-space reactors remains complex. ❖ **NPT (Nuclear Non-Proliferation Treaty):** Has limited direct relevance to non-weapon space reactors and propulsion systems.

Topic 13 - Aircraft Hansa-3 NG	
Syllabus	Science & Technology | Defence Technology
Context	Hansa-3 NG is India's **first indigenous, production-ready pilot trainer aircraft**, marking a major step in **Atmanirbhar Bharat** for civil aviation training.
About Aircraft Hansa-3 NG	❖ **Type:** Two-seater, next-generation trainer aircraft. ❖ **Purpose:** Designed for training pilots for Private Pilot License (PPL) and Commercial Pilot License (CPL). ❖ **Significance:** It is the first fully indigenous trainer aircraft in India ready for serial production. ❖ **Developer:** CSIR–National Aerospace Laboratories (NAL), located in Bengaluru.

Topic 14 - Integrated Drone Detection & Interdiction System (Mark-2)	
Syllabus	Science & Technology | Defence Technology
Context	India is strengthening its **counter-drone warfare** capacity with the induction of indigenous **Mark-2 systems**, offering faster, high-energy, and precise neutralisation of hostile UAVs.
About the Mark-2 System	❖ An advanced indigenous counter-drone platform to **detect, track, and neutralise** hostile drones. ❖ Developed by **DRDO–CHESS** in collaboration with the Armed Forces. ❖ **Aim:** Provide rapid, precise, high-energy defence against **surveillance drones, weaponised UAVs, and swarm attacks** at borders and critical sites.
Key Features	❖ **10 kW High-Energy Laser:** Destroys drones up to **2 km** (double Mark-1 range). ❖ **Multi-Sensor Suite:** Radar, EO/IR, RF detectors + AI-based classification. ❖ **Hard-Kill + Soft-Kill:** Laser destruction + RF jamming and GNSS spoofing. ❖ **Vehicle-Mounted:** Quick deployment for borders, airports, bases, urban zones. ❖ **Future-Ready:** Compatible with upcoming **30 kW laser systems** (range up to 5 km).

Topic 15 - INS Aridhaman	
Syllabus	Science & Technology | Defence Technology
Context	India is set to induct **INS Aridhaman**, its third domestically built **nuclear-powered ballistic missile submarine (SSBN)**. This addition significantly boosts its sea-based nuclear capability, supporting the **No First Use** doctrine.
About INS Aridhaman	❖ India's **third Arihant-class SSBN**, built at the **Ship Building Centre, Visakhapatnam** under the **Advanced Technology Vessel** (ATV) Project. ❖ It follows **INS Arihant (2016)** and **INS Arighat (2024)**. ❖ Ensures **second-strike capability** as part of India's nuclear triad.
Key Features	❖ Over **90% indigenous content**, including the nuclear reactor. ❖ **Displacement**: ~6,000 tonnes (surface); ~7,000 tonnes (submerged). ❖ **Power:** Equipped with an **83 MW Pressurised Water Reactor** developed by BARC. ❖ **Armament (Missiles):** ➢ Up to **24 K-15 SLBMs** (Submarine-Launched Ballistic Missiles) with a 750 km range, **or** ➢ **K-4 SLBMs** with a 3,500 km range. ❖ **Stealth Features:** Utilizes anechoic tiles and advanced sonar systems (bow, flank, and towed array).

Topic 16 - INS Taragiri	
Syllabus	Science & Technology | Defence Technology
Context	The Indian Navy has received **INS Taragiri**, the fourth **Nilgiri-class stealth frigate** under **Project 17A**, enhancing surface combat strength and indigenous warship-building capability.
About INS Taragiri	❖ A **Project 17A Nilgiri-class stealth frigate**, designed for multi-mission operations. ❖ Built by **Mazagon Dock Shipbuilders Ltd (MDL), Mumbai**.
Key Features	❖ **Stealth Technology:** Incorporates reduced radar, acoustic, and infrared signatures. ❖ **Propulsion**: CODOG (Combined Diesel or Gas) system with diesel engines + gas turbines. ❖ **Weapons**: BrahMos missiles, MRSAM, 76 mm SRGM, CIWS.

Project 17A Ships	❖ INS Nilgiri ❖ INS Himgiri ❖ INS Udaygiri ❖ **INS Taragiri** ❖ INS Dunagiri (upcoming).

Topic 17 - Strong Defence Industrial Base	
Syllabus	Science & Technology | Defence Production
Defence Industrial Base (DIB) in India	❖ **Goal:** India targets **₹3 lakh crore** defence production and **₹50,000 crore exports** by **2029** for strategic autonomy and due to geopolitical instability. ❖ **DIB Definition:** Ecosystem of public/private firms, MSMEs, R&D institutions, testing facilities and supply chains for defence design, development, manufacturing, and export. ❖ **Key Trends (FY 2024–25):** ➢ Highest-ever production: ₹1.54 lakh crore. ➢ Indigenous production growth: 174% increase since 2014-15. ➢ Record exports: ₹23,622 crore (to over 80 countries). ➢ Involvement: Approx. 16,000 MSMEs; private sector contributes ~23%.
Necessity of Indigenous DIB	❖ **Strategic Autonomy:** Reduces vulnerability to sanctions (e.g., BrahMos). ❖ **Operational Readiness:** Enables rapid repair/customisation during conflicts (e.g., Ladakh standoff adaptation). ❖ **Economic Multiplier:** Drives high-skill employment and innovation (e.g., Defence Corridors). ❖ **Geopolitical Leverage:** Strengthens strategic partnerships (e.g., BrahMos export to the Philippines).
Initiatives	❖ Prioritising 'Buy (Indian-IDDM)' in Defence Acquisition Procedure 2020. ❖ Corporatisation of Ordnance Factories. ❖ FDI liberalisation (up to 100% via government route). ❖ Innovation platforms: iDEX, TDF, RDI ecosystem. ❖ Defence Industrial Corridors (UP, Tamil Nadu). ❖ Digitisation and simplification of export authorisations (OGEL).
Challenges	❖ Regulatory complexity and delays. ❖ Bottlenecks in testing and certification infrastructure. ❖ Financing constraints for MSMEs (high working capital, long payment cycles). ❖ Gap between R&D prototypes and mass production. ❖ Demand uncertainty due to repeated cancellations.

Conclusion	A strong DIB is crucial for safeguarding sovereignty and achieving **Viksit Bharat 2047** through innovation-led growth and strategic credibility.

Topic 18 - Defence Atmanirbharta	
Syllabus	Science & Technology | Defence Exports
Context	India has achieved its highest-ever defence production and exports under the **Atmanirbhar Bharat** initiative, signalling a decisive shift from import dependence to indigenous manufacturing.
Key Trends & Statistics	❖ **Record Defence Production:** Reached **₹1.27 lakh crore (FY 2023–24)**, a substantial rise from ₹46,429 crore in 2014–15. ❖ **Overall Output Peak:** Total defence production touched **₹1.54 lakh crore (FY 2024–25)**. ❖ **Highest-Ever Exports:** Defence exports rose to **₹23,622 crore (FY 2024–25)**, from <₹1,000 crore in 2014. ❖ **Private Sector Growth:** Share increased to **23%**, with **16,000+ MSMEs** integrated into supply chains. ❖ **Domestic Procurement Push: 177 of 193 MoD contracts** (worth ₹2.09 lakh crore) were awarded to Indian firms.
Opportunities for India	❖ **Defence Industrial Corridors:** UP & TN corridors attracted **₹9,145 crore investment**; large future potential. ❖ **Expanding Export Footprint:** Defence exports to **80–100 countries**, with scope for MRO, training, and logistics. ❖ **FDI Liberalisation: 74% automatic route**, 100% via approval boosts OEM collaboration. ❖ **Digital Export Systems:** Faster clearances via online authorisation portal; exporter participation up **17%**. ❖ **Innovation Ecosystem:** Innovations for Defence Excellence (**iDEX**), Technology Development Fund (**TDF** - ₹500 crore), and **₹1 lakh crore** Research, Development, and Innovation **(RDI) Scheme** support startups and academia.
Major Government Initiatives	❖ **Defence Acquisition Procedure (DAP) 2020:** Prioritises 'Buy Indian–IDDM' (Indigenously Designed, Developed, and Manufactured) and advanced technology integration. ❖ **Defence Procurement Manual 2025:** Aims for uniform, digitalised revenue procurement. ❖ **Positive Indigenisation Lists:** Bans the import of thousands of defence items. ❖ **Ordnance Factory Reforms:** Corporatisation into **7 Defence Public Sector Undertakings (DPSUs)** for greater efficiency.

	❖ **Export Facilitation:** Simplified Standard Operating Procedures (SOPs), Open General Export Licences (OGELs), and dedicated export promotion cells.
Key Challenges	❖ **Technology Gaps:** Weakness in propulsion, sensors, electronics; **58% licensed production**. ❖ **Limited Scale:** Domestic capacity is still insufficient for the full annual demand. ❖ **Export Constraints:** DPSUs face stiff global competition. ❖ **Policy–Execution Gap:** Bureaucratic delays and complex compliance. ❖ **Import Dependence:** Critical materials and components are still sourced abroad.
Conclusion	India's defence manufacturing is in a transformative growth phase. Sustaining this momentum critically depends on achieving deep-tech capability, ensuring robust participation from the private sector, and proactively pursuing export diplomacy.

Topic 19 - 50 Years of the Biological Weapons Convention (BWC)	
Syllabus	Science and Tech | Conventions
Context	The **Biological Weapons Convention (BWC)** completed **50 years of entry into force (1975–2025)**, marking a milestone in global disarmament. India hosted an international conference in New Delhi, highlighting **biosecurity challenges and Global South priorities**.
What is the Biological Weapons Convention?	❖ World's **first multilateral treaty** banning an entire category of **Weapons of Mass Destruction (WMDs)**. ❖ Prohibits **development, production, stockpiling, acquisition, transfer, and use** of biological and toxin weapons.
Timeline & Membership	❖ **Opened for signature:** 10 April 1972 (London, Moscow, Washington). ❖ **Entered into force:** 26 March 1975. ❖ **Members:** 189 States Parties. ❖ **India:** Founding State Party; committed to full compliance.
Key Features of the BWC	❖ **Articles I–III (Core Prohibitions):** Total ban on bioweapons; destruction of existing stockpiles. ❖ **Article X (Peaceful Cooperation):** Promotes sharing of biological science for peaceful purposes, especially capacity-building for developing countries. ❖ **Review Conferences:** Held ~every 5 years to update norms and address new technologies. ❖ **No Verification Mechanism:** Major limitation - no formal inspections or compliance checks.

	❖ **Political Enforcement:** Complaint mechanism (Article VI) exists but is rarely used. ❖ **Strong Global Norm:** No State openly claims possession of biological weapons.
Significance at 50 Years	❖ **Cornerstone of Bio-Disarmament:** Primary global safeguard against biological weapons. ❖ **Emerging Tech Risks:** AI, synthetic biology, gene editing, and gain-of-function research heighten misuse risks. ❖ **Global South Focus:** Higher vulnerability due to weak biosafety infrastructure and disease burdens, making cooperation under **Article X** crucial. ❖ **India's Role:** Advocates equitable biosecurity, capacity-building, and responsible science.

Environment & Geography

Topic 1 - Integrated Forum on Climate Change and Trade (IFCCT)	
Topic	Environment | Climate Change
Context	IFCCT is a newly launched **global platform** at COP30 aimed at managing the growing tensions between **climate policies and international trade** through inclusive, structured dialogue.
What is it	❖ A **politically backed, non-negotiating** global forum for dialogue on climate–trade interactions. ❖ Launched at **COP30, Belém (Brazil)** on 15 November 2025. ❖ **Aim:** Provide a **permanent space** for countries to discuss and address conflicts arising from **climate-linked trade measures** such as CBAMs, subsidies, and supply-chain shifts.
Key Features	❖ **Non-binding dialogue** space encourages open discussions. ❖ **Open-ended consultation (2025–26)** to shape agenda and priorities. ❖ Focus on **climate–trade coherence** and developing-country concerns. ❖ Participation from **ministers, WTO leaders, experts, industries**. ❖ Geneva-based process aligned with global trade governance.
Significance	❖ Addresses the widening gap between **trade measures and climate commitments**. ❖ Helps developing nations adapt to **new green trade rules**. ❖ Reduces friction by promoting **predictability and coordination** in climate-driven trade actions.

Topic 2 - India's Climate Ambitions	
Topic	Environment | Climate Change
Context	India is preparing its next **Nationally Determined Contributions (NDCs)** for the **2035 horizon**, even as experts call for a clearer **economy-wide transition plan** aligned with economic growth, equity, and climate responsibility.
What are NDCs?	❖ National climate commitments made by countries under the **Paris Agreement**, updated every 5 years (Article 4). ❖ Cover **emissions reduction, renewable energy, adaptation, finance, and technology**.

India's Current NDC Targets (2030)	❖ **45% reduction in emissions intensity** from 2005 levels. ❖ **50% non-fossil installed power capacity** (solar, wind, hydro, nuclear, biomass). ❖ **2.5–3 Bt CO_2 carbon sink** via afforestation and agroforestry. ❖ **LIFE movement** to promote sustainable lifestyles and low-carbon behaviour. ❖ **Adaptation push** in agriculture, water, coasts, the Himalayas, health, and disaster management. ❖ **Climate finance & technology mobilisation** - domestic + international support.
Performance So Far	❖ **50% non-fossil capacity achieved (June 2025)** - ahead of target. ❖ **51.5% renewables in daily power mix (July 2025)** - grid milestone. ❖ **36% drop in emissions intensity** - on track for 2030 goal. ❖ **Global rankings**: 4th in renewables, 3rd in solar, 4th in wind. ❖ **Electrification gains** in railways and urban mobility are reducing oil dependence.
Key Challenges	❖ **Absolute emissions still rising**; peak likely around **2035**. ❖ **Coal dependence** for grid stability persists. ❖ **$62 bn/year investment need** for power, storage, and grids till 2035. ❖ **Technology gaps**: long-duration storage, green hydrogen, CCS. ❖ **Climate finance shortfall** from developed countries. ❖ **Just transition risks** for coal-dependent states and workers. ❖ **Adaptation lag** amid rising heatwaves and extreme events.

Topic 3 - The Indian Ocean as the Cradle of a New Blue Economy

Syllabus	Environment
Context	The Indian Ocean is rapidly emerging as a centre of climate vulnerability, economic opportunity, and geopolitical competition. This has renewed calls for a **new Blue Economy framework** that balances sustainability, equity, and regional cooperation.
India's Historical Leadership in Ocean Governance	❖ **Common Heritage of Mankind:** India supported SIDS during UNCLOS, advocating shared ownership of seabed resources beyond national jurisdiction. ❖ **Maritime Vision:** Nehru linked India's security and prosperity to ocean freedom and resources. ❖ **Environmental Justice:** Indira Gandhi (Stockholm, 1972) balanced development needs with environmental protection. ❖ **Multilateral Engagement:** Active role in **IORA, IONS, Indian Ocean Commission** promotes cooperation over rivalry. ❖ **Sustainability Norms:** Support for biodiversity protection and readiness to ratify the **BBNJ Agreement**.

Emerging Challenges in the Indian Ocean	❖ **Climate Stress:** Faster-than-global-average warming causing sea-level rise and extreme cyclones. ❖ **Coral & Biodiversity Loss:** Acidification threatens reefs in **Lakshadweep and Chagos**. ❖ **IUU Fishing:** Depletes fish stocks and harms artisanal livelihoods, especially near East Africa and Bay of Bengal. ❖ **Falling Marine Productivity:** Overfishing and monsoon disruption weaken food security. ❖ **Socio-Economic Risks:** Coastal job losses, migration, and instability create non-traditional security threats.

A Three-Pillar Strategy for India's Blue Economy

A comprehensive strategy for India must focus on stewardship, resilience, and inclusive growth:

Pillar	Rationale & Actions	Key Initiatives
1. **Stewardship of the Commons**	Establishing cooperative, rules-based ocean governance and expanding conservation efforts.	Cooperative governance frameworks, regional coral/mangrove restoration, expansion of **Marine Protected Areas (MPAs)** (including high seas under BBNJ).
2. **Climate & Disaster Resilience**	Developing regional capacity for ocean-based monitoring, modeling, and early warning systems.	Strengthening **INCOIS, MoES**, satellite-based monitoring, and implementing nature-based coastal protection (mangroves, dunes, artificial reefs).
3. **Inclusive Blue Growth**	Fostering economic activities that are both sustainable and benefit coastal communities.	Development of **Green Shipping Corridors** (aligned with IMO decarbonization), tapping offshore renewable energy (wind, wave, tidal) within the EEZ, and promoting sustainable aquaculture/seaweed farming.

Global Momentum for Ocean Finance	❖ **€25 billion** existing ocean investments + **€8.7 billion new pledges** at BEFF 2025. ❖ **$20 billion** Ocean Finance Target under **One Ocean Partnership** (COP30, Belém). ❖ Ocean health is increasingly recognized and integrated into global climate finance and development planning mechanisms.
Conclusion	The Indian Ocean can become the foundation of a **new, inclusive blue economy** that combines growth with sustainability. By aligning stewardship, finance, and regional cooperation, India can shape a future where oceans are governed through collaboration rather than competition - from the Indian Ocean, for the world.

Topic 4 - Conservation as Coexistence	
Syllabus	Environment | Biodiversity Conservation
Context	The concept of **Conservation as Coexistence** stresses shifting from restrictive, top-down wildlife protection to community-led, inclusive conservation. Evidence shows biodiversity flourishes where local communities remain active stewards.
What is Conservation?	❖ Sustainable management of ecosystems and species to support both biodiversity and human well-being.
Approaches to Conservation	❖ **Protection-based:** Strict no-use zones (e.g., national parks, sanctuaries). ❖ **Community-based:** Local communities manage resources using traditional norms. ❖ **Co-management:** Joint planning and implementation by government and communities. ❖ **Landscape-level:** Protecting interconnected ecological networks (farms, forests, wetlands, corridors).
Existing Conservation Methods in India	Largely state-driven. ❖ **Protected/Designated Areas:** National parks, sanctuaries, tiger reserves. ❖ **Legal Frameworks:** Wildlife Protection Act (WLPA) 1972, Forest Conservation Act 1980, CAMPA. ❖ **Species-Specific Initiatives:** Project Tiger, Elephant, Snow Leopard. ❖ **Enforcement:** Eco-sensitive zones (ESZs) rules, anti-poaching units, tracking technology. ❖ **Expansion & Relocation:** Enlarging protected areas and voluntary community relocation.
Limitations of Existing Methods	❖ **Exclusionary model:** Eviction of indigenous communities weakens stewardship. ❖ **Colonial mindset:** Assumes "pristine forests" without people. ❖ **Implementation Gaps:** Weak enforcement, encroachment, mining, and insufficient manpower. ❖ **Conflict:** Strict boundaries increase human-wildlife conflict by restricting animal movement. ❖ **High Costs:** State-led conservation is expensive, whereas community models are more cost-effective.
Case Studies of Coexistence	❖ **Gir, Gujarat:** Lions thrive outside the core protected area, largely due to the tolerance of the Maldhari community and effective compensation mechanisms. ❖ **Biate Villages, Meghalaya:** Community-managed rotational farming (jhum) demonstrates stable forests and the discovery of new species.

Redefining Conservation in India	❖ **Inclusive Models:** Transitioning from "fortress protection" to community-led approaches. ❖ **Valuing Indigenous Knowledge:** Incorporating practices like sacred groves, rotational farming, and traditional taboos. ❖ **Integrated Governance:** Managing landscapes by linking forests, farms, pastures, and wetlands. ❖ **Shared Responsibility & Fairness (FPIC):** Ensuring fair compensation, benefit-sharing, and Free, Prior, and Informed Consent for all actions.
Conclusion	India's conservation future depends on treating communities as partners, not obstacles. Sustainable biodiversity thrives where cultural practices, livelihoods, and ecosystems function together - anchoring conservation in coexistence.

Topic 5 - Great Indian Bustard (GIB)	
Syllabus	Ecology & Environment | Biodiversity Conservation
Context	The **Supreme Court of India** has strengthened safeguards for the critically endangered Great Indian Bustard while revising transmission alignments under the Green Energy Corridor in Rajasthan and Gujarat.
About	❖ One of the heaviest flying birds (Ardeotis nigriceps). ❖ State bird of **Rajasthan**. ❖ Flagship grassland species and indicator of ecosystem health.
Conservation Status	❖ **IUCN Red List:** Critically Endangered. ❖ **Wildlife (Protection) Act, 1972:** Schedule I. ❖ **CITES:** Appendix I. ❖ **CMS (Bonn Convention):** Listed species. ❖ **Estimated population:** Around 200 individuals globally.
Habitat and Distribution	❖ Prefers open, flat grasslands and scrublands with low human disturbance. ❖ Historically found across 11 Indian states and parts of Pakistan. Currently confined mainly to Rajasthan (Key habitat: Desert National Park) and Gujarat. ❖ Small remnant populations in Maharashtra, Karnataka, and Andhra Pradesh.

Topic 6 - Rhinoceros (Rhino)	
Syllabus	Environment & Biodiversity
Context	International study shows rhino dehorning reduces poaching by 75-78% in African reserves, making it a cost-effective conservation tool when combined with enforcement.
About Rhinoceros	❖ Large, ancient **herbivorous mammal** (Rhinocerotidae family). ❖ **Habitat:** Grasslands, savannahs, tropical/subtropical forests, swamps, and shrublands. ❖ **5 Species:** ➢ **Africa:** White rhino (Near Threatened), Black rhino (Critically Endangered). ➢ **Asia: Greater one-horned rhino** (India/Nepal - Vulnerable), Javan rhino (Indonesia - Critically Endangered), Sumatran rhino (Indonesia - Critically Endangered). ❖ **Key Characteristics:** ➢ Horn is made of **keratin** (not bone). ➢ Herbivorous diet. ➢ Poor eyesight, strong hearing and smell. ➢ Slow reproduction rate.
Significance	❖ Keystone species (maintaining ecological balance); ❖ Indian rhino is central to Assam's natural heritage (Kaziranga National Park); ❖ conservation reflects governance and anti-poaching effectiveness.

Topic 7 - El Niño	
Syllabus	Geography | Climatology
Context	Climate models indicate early signals of a possible **El Niño return in 2026** as warming in the equatorial Pacific weakens La Niña conditions. El Niño events have wide-ranging climatic impacts, including on India's monsoon system.
What is El Niño	❖ El Niño is the **warm phase of the El Niño–Southern Oscillation (ENSO)**. ❖ It is characterised by abnormal warming of surface waters in the central and eastern equatorial Pacific Ocean. ❖ It occurs irregularly every **2–7 years** and raises global average temperatures.
How El Niño Forms	❖ Trade winds along the equator weaken. ❖ Warm surface waters shift eastward from the western Pacific towards South America. ❖ The thermocline deepens in the eastern Pacific, reducing cold-water upwelling.

	❖ Ocean–atmosphere interaction alters pressure patterns known as the Southern Oscillation.
Key Indicators	❖ Sea Surface Temperature anomalies in Niño regions. ❖ Subsurface heat build-up at depths of 100–250 metres. ❖ **Oceanic Niño Index (ONI)** of at least +0.5°C for five consecutive overlapping seasons. ❖ Weakening or reversal of the Walker Circulation and equatorial trade winds.
Factors Affecting El Niño	❖ Strength and persistence of trade winds. ❖ Subsurface heat content of the Pacific Ocean. ❖ Interaction between ocean temperatures and atmospheric pressure systems. ❖ Long-term global warming, which can amplify impacts.
Implications	❖ El Niño years are often among the **warmest globally**. ❖ **India:** Higher risk of weak monsoons and drought conditions. ❖ **South America:** Heavy rainfall, floods, and coastal erosion. ❖ **Australia and Southeast Asia:** Droughts, severe heatwaves, and wildfires.

Topic 8 - Makhana (Fox Nut)	
Syllabus	Indian Geography
Context	India produces nearly **80% of the world's makhana**, highlighting its global dominance in this niche agri-sector. To leverage its economic and export potential, the government has introduced focused institutional and financial support.
About Makhana?	❖ **Makhana** (fox nut/gorgon nut) is the edible seed of the aquatic plant Euryale ferox. ❖ Grown in **ponds and wetlands.** ❖ **Major Producing Regions** ➢ Cultivated mainly in **India, China, and Japan.** ➢ **India** is the largest global producer (**80%** of the world's output); **Bihar** accounts for **~85%** of India's output, with **Darbhanga** as the main hub. ❖ It's a **labour-intensive aquatic crop** vital for **rural livelihoods** in eastern India. ❖ **Versatile food**: Consumed roasted, fried, or used in traditional dishes. ❖ **Significance:** Provides economic livelihood, ensures nutrition security (rich in protein, fibre, antioxidants; low glycaemic index), and has high export potential. ❖ **Policy Support:** Includes the establishment of the **National Makhana Board** and a **₹476.03 crore central scheme (2025–31)** focusing on productivity, processing, and global market access.

Topic 9 - East African Rift Valley	
Syllabus	World Geography | Physical Geography
Context	A new study using resurrected 1960s magnetic data shows clear evidence of **active seafloor spreading** near the **Afar triple junction**, confirming that Africa is gradually splitting into two plates.
What it is	❖ The world's largest **active continental rift system**, stretching ~3,500 km from the Red Sea to Mozambique. ❖ Formed due to **crustal extension**, producing long depressions, fault scarps, volcanoes, and deep rift lakes.
Key Features	❖ **Tectonic Boundary: Divergent boundary** where the **Nubian and Somali plates** are moving apart at a rate of approximately 5–16 mm/year (faster in the north). ❖ **Afar Triple Junction**: Meeting point of Red Sea, Gulf of Aden, and East African rifts - one of Earth's most dynamic tectonic zones. ❖ **Two Main Branches:** ➢ **Eastern Rift (Ethiopia–Kenya):** Characterized by significant volcanism and a high magma content. ➢ **Western Rift (Uganda–Malawi):** Known for intense seismic activity and deep lakes. ❖ **Active Features:** Include active volcanoes (such as Erta Ale) and major rift lakes (e.g., Tanganyika and Malawi).
Formation and Driving Forces	1. **Mantle Plume Upwelling:** A deep **mantle superplume** beneath East Africa heats and lifts the overlying lithosphere. 2. **Extensional Forces:** The crust is stretched by these forces, leading to normal faulting and the creation of **horst–graben structures** that form the deep rift valleys. 3. **Magma Intrusion:** Basaltic volcanism and high heat flow fill the thinning crust, further weakening it. 4. **Plate Divergence:** The primary engine is the ongoing divergence of the Nubian and Somali plates. 5. **External Stress:** Stress transfer from the active spreading in the adjacent **Red Sea and Gulf of Aden** intensifies the breakup, particularly at the Afar junction. This long-term rifting process is expected to ultimately lead to the formation of a **new ocean basin**.

Topic 10 - Black Sea	
Syllabus	World Geography | Mapping
Context	The **Black Sea** is a strategically important inland sea connecting **Eastern Europe** with the **Mediterranean region**, frequently in the news due to its geopolitical and maritime significance.
About Black Sea	❖ **What it is?** ➢ A **large inland sea** connected to the Mediterranean via a chain of straits. ➢ Known for its **unique stratified waters** - deep layers are **anoxic** and rich in **hydrogen sulfide**, creating a biologically dead zone. ❖ **Location:** Lies between **Eastern Europe, the South Caucasus, and Anatolia**. ❖ **Neighbouring Countries: Ukraine, Russia, Georgia, Turkey, Bulgaria, Romania** ❖ **Connectivity:** Bosporus → Sea of Marmara → Dardanelles → Aegean → Mediterranean Sea.

SMA, SBL and Ethics

Topic 1 - India's Persistent Struggle to End Manual Scavenging

Syllabus	Sociology | Social Sector | Depressed Class
Context	Manual scavenging persists in India despite repeated bans, Supreme Court directives, and national policies, highlighting systemic failures and caste-based discrimination.
Legal Framework	❖ **1993 Act:** Employment of Manual Scavengers & Construction of Dry Latrines (Prohibition) Act – weak enforcement. ❖ **2013 Act:** Criminalises manual scavenging; mandates rehabilitation, alternative livelihoods, protective gear; penalties up to ₹5 lakh & imprisonment. ❖ **Supreme Court Directions:** ➢ 2014: Manual scavenging violates Article 21 (right to life with dignity). ➢ 2023: Immediate cessation + ₹30 lakh compensation per death. ➢ 2024: Non-compliance flagged; municipal accountability emphasised.
Ground Realities	❖ Predominantly marginalised Scheduled Caste communities are affected. ❖ 40% of districts still report manual scavenging. ❖ 75–80 deaths annually from toxic sewers and unsafe conditions. ❖ **Recent Fatalities** ➢ **Kolkata (Feb 2024):** 3 workers died cleaning sewers without safety gear. ➢ **Bengaluru (Jan 2024):** Father-son died; BBMP denies manual scavenging exists. ➢ **Tamil Nadu (Dec 2023):** 2 deaths due to toxic sewer gas. ➢ **2023 Data:** 80+ deaths nationwide; highest in Karnataka, TN, Maharashtra, UP.
Policy and rehabilitation failures	❖ **Transfer of responsibility**: The central government shifts responsibility to the states, while the states often deny the existence of this practice. ❖ **Financing and implementation gaps**: Rehabilitation programs received inadequate funding, and their implementation remained weak. ❖ **Administrative deficiencies**: The legal distinction between "manual scavenging" and "hazardous cleaning" is misused, allowing offenders to escape. ❖ **Hindering rehabilitation**: Limited skills training and weak alternative livelihood opportunities have led to the failure of rehabilitation. ❖ **Delay in compensation**: The Supreme Court-mandated compensation of ₹30 lakh is rarely or never received by families on time, leaving them vulnerable to financial instability.

Way forward: Solutions and Global Models	❖ **Strengthening Accountability and Enforcement** ➢ **Criminal Liability:** Fix criminal responsibility on officials who fail to comply. ➢ **Independent Monitoring:** Establish an independent monitoring mechanism to track the continuation or elimination of the practice. ➢ **Empowering NCSK:** Provide the National Commission for Safai Karamcharis (NCSK) with greater powers and resources. ❖ **Mechanisation and Use of Technology** ➢ **Mandatory Mechanisation:** Make mechanised sewer cleaning compulsory for Urban Local Bodies (ULBs); impose penalties for non-compliance. ➢ **Funding:** Ensure adequate financial support for robotic and advanced sewer-cleaning systems. ➢ **Regulating Contractors:** Strictly regulate and penalise contractors engaging in unsafe practices. ❖ **Comprehensive Rehabilitation and Social Justice** ➢ **Timely Compensation:** Ensure immediate and timely compensation to the families of the deceased. ➢ **Education and Training:** Provide scholarships, advanced skill training, and safe employment opportunities for affected families. ➢ **Removing Caste-based Stigma:** Launch social campaigns to eliminate caste-based stigma associated with this work. ❖ **Judicial and Policy Reforms** ➢ **Judicial Oversight:** Continuous monitoring by the Supreme Court to ensure compliance. ➢ **Incentivising States:** Provide incentives to states that successfully eliminate the practice. ➢ **Periodic Audits:** Conduct regular audits to ensure effective implementation of schemes.
Conclusion	Manual scavenging persists due to governance gaps, weak enforcement, and caste discrimination. Effective mechanisation, strict accountability, and comprehensive rehabilitation are critical to uphold constitutional rights and prevent further deaths.

Topic 2 - Supreme Court Guidelines on Dowry-Related Violence	
Syllabus	Sociology | Social Sector | Dowry
Context	The Supreme Court of India's 2025 judgment in **State of Uttar Pradesh vs Ajmal Beg** is a pivotal decision addressing dowry-related violence, restoring convictions, and establishing comprehensive guidelines for its eradication.
What is the Judgment About	❖ The ruling examines the issue from social, constitutional, and criminal perspectives, declaring that dowry - even when labeled as "gifts" - is a violation of women's fundamental rights to **dignity, equality (Articles 14 & 15), and life (Article 21)**. ❖ The Court asserted that eradicating this practice is a constitutional necessity.
Key Judicial Findings	❖ **Restoration of conviction:** The Supreme Court overturned the Allahabad High Court's acquittal and reinstated the trial court convictions under **Sections 304B (Dowry Death) and 498A (Cruelty)** of the Indian Penal Code, utilizing Section 113B of the Indian Evidence Act (Presumption as to dowry death). ❖ **Sociological Finding:** Dowry has transformed from a voluntary offering into a coercive, institutionalized system rooted in patriarchy and hypergamy. ❖ **Widespread Practice:** The Court noted that dowry is pervasive across religious communities, having even undermined traditional safeguards like mehr in Islam.
Current Status of Dowry in India	❖ **NCRB data shows around 7,000 annual dowry deaths**, yet only **4,500 cases are charge-sheeted**. With about 6,500 annual trials, there are **barely \~100 convictions**. ❖ **67% of investigations exceed six months** (2022). ❖ **80% of cases** originate from UP, Bihar, Jharkhand, MP, Odisha, Rajasthan, West Bengal, and Haryana. **Delhi accounts for \~30%** of dowry deaths among major cities.
Supreme Court–Issued Guidelines	❖ **Strengthen Enforcement:** Ensure proper staffing, empowerment, and visibility of **Dowry Prohibition Officers** across all states. ❖ **Capacity Building:** Mandate regular **sensitisation training for police and judicial officers** focused on the social and psychological dimensions of dowry violence. ❖ **Fast-Track Justice:** High Courts must monitor and ensure the **time-bound disposal** of long-pending cases under Sections 304B and 498A IPC. ❖ **Education and Awareness:** ➢ Integrate constitutional values of equality and dignity into **school curricula**. ➢ Run community outreach programmes through District Administrations and Legal Services Authorities. ❖ **Judicial Monitoring:** The judgment is to be circulated to all States and High

	Courts for strict compliance, subject to **continued judicial oversight**.
Challenges in Eradicating Dowry	❖ **Social acceptance as 'gifts':** Cultural legitimacy weakens detection and enforcement. ❖ **Patriarchal marriage markets:** Grooms are monetised based on education, income, and status. ❖ **Weak enforcement capacity:** Dowry Prohibition Officers remain understaffed and ineffective in many States. ❖ **Judicial delays and low convictions:** Prolonged trials dilute deterrence and public trust. ❖ **Cross-community diffusion:** Dowry has spread across religions, overriding doctrinal safeguards.
Way Ahead	❖ **Zero-tolerance enforcement:** Ensure **time-bound investigation** and prosecution with accountability. ❖ **Community-led norm change:** Social sanctions are essential to delegitimise dowry beyond law. ❖ **Economic Empowerment:** Increase women's **financial autonomy** to reduce vulnerability to violence. ❖ **Data-driven policing:** Evidence-based targeting can improve investigation quality and accountability. ❖ **Judicial compliance monitoring:** Continuous oversight by the High Courts and the Supreme Court is required.
Conclusion	The 2025 ruling shifts the focus from dowry as a mere social evil to a **constitutional violation**. Ending this violence requires an integrated approach combining strict legal enforcement, robust institutional capacity, and profound social transformation.

Topic 3 - Media Ethics	
Syllabus	Applied Ethics
Context	Leaked hospital footage of actor Dharmendra sparked outrage, highlighting unethical media intrusion and the urgent need for stronger media ethics.
What is Media Ethics?	❖ **Moral** + **professional** standards guiding how journalists gather, verify, and publish information responsibly.
Core Features	❖ **Truth & Accuracy:** Verify facts, correct errors, avoid misleading context. ❖ **Objectivity & Fairness:** Separate fact/opinion; avoid bias and distortion. ❖ **Independence:** Resist political/corporate pressure; avoid conflicts of interest. ❖ **Privacy & Dignity:** Avoid intrusive coverage, especially during illness, grief, or vulnerability.

	❖ **Public Accountability:** Corrections, ombudsmen, and transparent mechanisms to maintain trust.
Need for Strong Media Ethics Today	❖ **Breaking-News Pressure:** Often prioritises speed over accuracy, leading to the spread of misinformation (e.g., false death rumours like the Dharmendra case). ❖ **Digital Virality:** Mislabelled videos spread fast; corrections come too late. ❖ **Erosion of Trust:** Sensationalism and polarisation decline public faith in media. ❖ **TRP-Driven Infotainment:** Shock-value content overrides public interest. ❖ **Vulnerable Individuals Targeted:** Celebrities, victims, and patients face invasive coverage.
Reasons for Decline in Media Ethics	❖ **Commercialisation:** A system where sensationalism is financially rewarded (TRPs/clicks). ❖ **Flawed Self-Regulation:** Existing ethical codes are often poorly enforced, resulting in ineffective penalties. ❖ **Misuse of "Public Interest":** Framing voyeuristic content as legitimate journalism. ❖ **Normalisation of Paparazzi Culture:** The acceptance of stalking and non-consensual filming. ❖ **External Influence:** Political and corporate ownership dictating editorial direction. ❖ **Audience Desensitisation:** An increasing acceptance of toxic, loud, and low-quality media formats.
Way Forward	❖ **Strengthen Self-Regulation:** Strict enforcement of ethical codes, mandatory internal audits, and correction mechanisms. ❖ **Strict Privacy Protocols:** Banning coverage of ICU, medical images, or grief without explicit consent. ❖ **Ethics Training:** Regular newsroom workshops and case-based learning. ❖ **Transparency Tools:** Ombudsmen, apology columns, correction windows. ❖ **Digital & Paparazzi Guidelines:** Developing specific norms for handling children, patients, and sensitive events like funerals. ❖ **Promoting Media Literacy:** Empowering citizens to identify and reject unethical content, thereby supporting credible news sources.

Topic 4 - Higher Education in India	
Syllabus	Management | Education
Context	NITI Aayog has released a policy report on **Internationalisation of Higher Education in India** to operationalise NEP 2020. The roadmap aims to make India a global hub for higher education and research by **2047**, aligned with **Viksit Bharat @2047**.
What is Internationalisation of Higher Education	❖ Intentional integration of international, intercultural, and global dimensions into all aspects of higher education (curriculum, research, governance, etc.). ❖ Seeks to globalise learning outcomes **within India** while expanding cross-border academic engagement.
Core Features of Internationalisation	❖ **Internationalisation at Home** ➢ Global curricula, foreign faculty, joint courses, and international research exposure within Indian campuses. ➢ Benefits nearly **97% students** who study in India. ❖ **Two-way academic mobility** ➢ Balanced inbound and outbound student–faculty exchanges. ➢ Joint PhD supervision and visiting professorships. ❖ **Cross-border institutional presence** ➢ Foreign university campuses in India and Indian HEIs abroad. ➢ Expands India's academic footprint. ❖ **Research-led global integration:** Joint research, co-authored publications, shared labs, and global consortia. ❖ **Education as soft power:** Higher education used for diplomacy and long-term engagement, especially with the Global South.
Potential of Higher Education in India	❖ **Demographic advantage:** Average age of **28.4 years**, offering a large talent pool. ❖ **Scale and system capacity:** Over **1,200 universities** and **40 million students**. ❖ **Cost–quality edge:** Education costs **30–40% lower** than Western countries in key disciplines. ❖ **Knowledge economy strengths:** Global credibility in IT, space, pharmaceuticals, and digital public infrastructure. ❖ **Global ranking presence** ➢ **54 Indian institutions** in QS World Rankings 2026. ➢ Capacity to host **1 lakh international students by 2030**.
Challenges	❖ **Inbound–outbound imbalance:** Over **13 lakh Indians** study abroad versus ~50,000 foreign students in India. ❖ **Forex Outflow:** USD 3.4 billion in overseas education remittances (2023–24). ❖ **Regulatory fragmentation:** Multiple regulators and slow approvals deter foreign participation.

	❖ **Uneven institutional readiness:** Many state and rural universities lack hostels and global offices. ❖ **Limited global branding:** Low international visibility and weak alumni diplomacy.
NITI Aayog's Recommended Strategy	❖ **Inter-Ministerial Task Force:** Anchored in the Ministry of Education for coordination and funding. ❖ **National Equivalence Portal:** Single-window digital system for degree recognition. ❖ **Campus-within-a-Campus model:** Foreign universities co-located within Indian HEIs with a 10-year sunset clause. ❖ **Country Centres of Excellence:** Central Universities as nodal hubs for partner countries. ❖ **Vishwa Bandhu Fellowship:** Attract global researchers and diaspora faculty. ❖ **Expansion beyond GIFT City:** Extend IFSC model to law, management, public policy, and sports science. ❖ **Revamped NIRF framework:** Include international faculty, inbound students, and joint publications. ❖ **Tagore Academic Mobility Framework:** Multilateral credit recognition for ASEAN, BIMSTEC, BRICS, and others.
Conclusion	The NITI Aayog roadmap shifts India from a **source** to a **destination** of global talent, aiming to host **8 lakh international students by 2047** and regain its role as a **Vishwa Guru**.

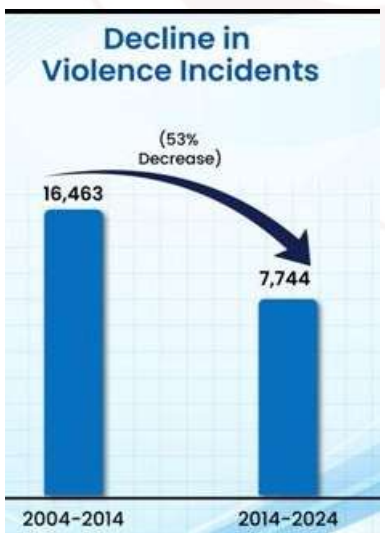
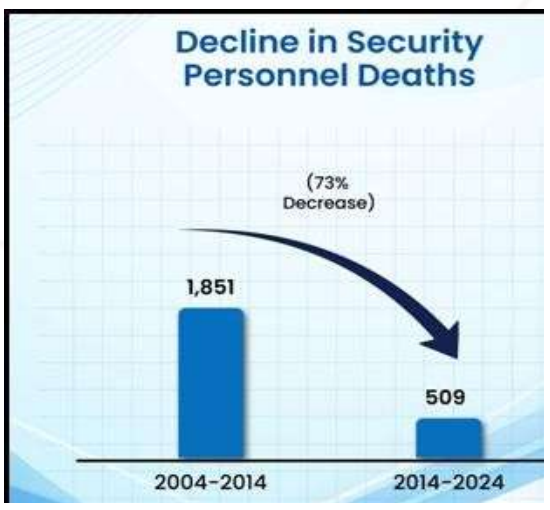
Miscellaneous

Topic 1 - 'DRISHTI' Monitoring System	
Syllabus	Science & Technology
Context	Indian Railways is introducing the **AI-driven DRISHTI system** to monitor freight wagon doors in real time, improving security against tampering and theft. This technology will make freight operations more transparent, accurate, and efficient.
What is 'DRISHTI'?	❖ An **AI-powered real-time surveillance system** that tracks the **locking status** of freight wagon doors during transit. ❖ Developed jointly by **Northeast Frontier Railway (NFR)** and **IIT Guwahati – TIDF**. ❖ **Aim** ➢ Automate detection of **unlocked**, **open**, or **tampered** wagon doors. ➢ Reduce slow and labour-intensive manual inspections. ➢ Improve safety, reliability, and transparency in freight movement.
Key Features	❖ **AI cameras & sensors** continuously monitor wagon doors. ❖ **Computer vision algorithms** analyse door positions and locks. ❖ **Real-time alerts** for tampering, partial locking, or unexpected movement. ❖ **Automated anomaly detection** without stopping the train. ❖ **Advanced imaging** ensures accuracy even during high-speed transit. ❖ **10-month successful trials** show high reliability. ❖ **Scalable system** for NFR and future national rollout.

Topic 2 - The India Skills Report 2026	
Syllabus	Reports | Economy
Context	The India Skills Report 2026 highlights a steady rise in India's **employability rate to 56.35%**, reflecting a stronger alignment between youth skills and industry needs. It underscores rising tech readiness, women-led gains, and growing demand for practical, AI-driven skills.
About the India Skills Report 2026	❖ Annual nationwide assessment of **workforce readiness** conducted by ETS (Educational Testing Service), CII (Confederation of Indian Industry), AICTE (All India Council for Technical Education), AIU (Association of Indian Universities) & Taggd. ❖ Tracks **employability**, skill gaps, hiring trends, and future-of-work demands.
Key Trends	❖ **Rising Employability:** Climbs to **56.35%**, improving steadily over four years.

	❖ **Women Ahead:** Women (54%) surpass men (51.5%) in employability. ❖ **Tech & AI Dominance:** CS (80%) and IT (78%) top job-readiness; strong AI/data/cloud demand. ❖ **"Skills-First" Hiring:** The focus is shifting from traditional degrees to **skills**, driven by the adoption of micro-credentials and experiential learning. ❖ **Gig Economy Growth:** Gig hiring up **~38%**, forming 16% of jobs. ❖ **High Internship Demand:** 92.8% students seek hands-on exposure. ❖ **Stream Strengthening:** Commerce (62.8%), Science (~61%), Arts (~55%) show strong gains; ITI and Polytechnic are also improving.

Topic 3 - From Red Corridor to Naxal-Free Bharat

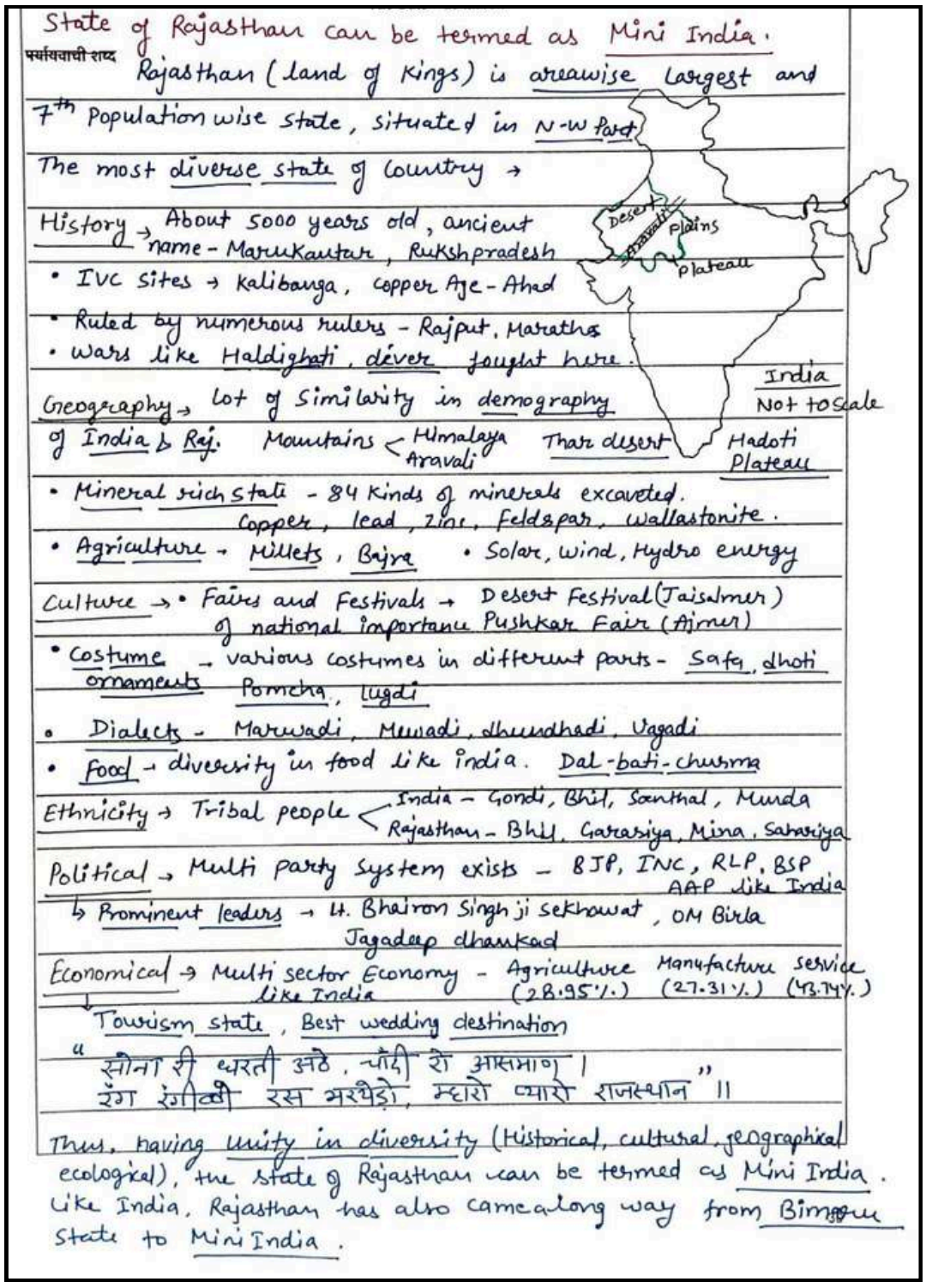
Syllabus	Internal Security (Naxalism)
Context	India is on the verge of becoming a **Naxal-free Bharat**, with Left-Wing Extremism (LWE) now confined to a small number of isolated pockets. The sharp decline reflects a sustained **security + development + governance** strategy since 2014.
Trends in Naxalism (2014–2025)	❖ **Territorial contraction:** Affected districts reduced from **126 → 11**; most-affected from **36 → 3**. ❖ **Violence decline:** Incidents ↓ **53%**, civilian deaths ↓ **70%**, security force deaths ↓ **73%** (vs 2004–14). ❖ **Cadre attrition:** Arrests, surrenders, neutralisations at peak levels (2025: **317 neutralised, 800+ arrested, ~2,000 surrendered**). ❖ **Parallel governance collapse:** Roads, telecom, policing dismantled jungle sanctuaries.  

Brief History of Naxalism	❖ **1967 (Naxalbari):** Agrarian distress and land alienation sparked armed mobilisation. ❖ **1980s–2000s:** Spread across Fifth Schedule tribal belts amid weak administration. ❖ **2004:** Formation of **CPI (Maoist)** intensified LWE footprint. ❖ **2005–2014:** Peak with "liberated zones"; state response scaled up. ❖ **Post-2014:** Decisive rollback via permanent camps, infrastructure, welfare and policing.
Key Initiatives Against Naxalism	❖ **Governance & Rights** ➢ **Fifth Schedule:** Special governance for Scheduled Areas. ➢ **PESA, 1996:** Gram Sabha control over local resources. ➢ **FRA, 2006:** Recognition of forest rights. ❖ **Development** ➢ **Infrastructure saturation:** Roads, power, telecom reduce isolation. ➢ **Financial inclusion:** DBT and banking curb extortion economies. ➢ **Skills & education:** Alternative livelihoods reduce recruitment. ❖ **Security** ➢ **Forward presence:** Permanent camps prevent re-occupation. ➢ **Financial choking:** Disrupt extortion and arms supply. ➢ **Surrender & rehab:** Incentives convert cadres into peace stakeholders.
Remaining Challenges	❖ **Governance gaps:** Thin courts, health, schools in interiors. ❖ **Rights dilution risks:** Weak FRA/PESA implementation fuels distrust. ❖ **Socio-economic vulnerability:** Poverty, land disputes, displacement. ❖ **Ideological residue:** Propaganda and urban/digital support networks.
Way Ahead	❖ **Governance-Led Service Delivery:** Focusing on delivering justice, health, and education effectively, moving beyond mere security patrols. ❖ **Empowering Local Self-Rule:** Ensuring real devolution of power to Gram Sabhas and eliminating parallel systems of control. ❖ **Administrative Indigenization:** Prioritizing the recruitment of locals into key administrative roles (police, revenue, health). ❖ **Protecting Constitutional Rights:** Mandating auditable Gram Sabha consent and strictly enforcing Community Forest Rights (CFR) under FRA.
Conclusion	India has broken the **military and territorial backbone** of Naxalism. Sustaining peace now depends on **trust-building governance, justice delivery, and tribal empowerment** so that constitutional promises become lived realities in Fifth Schedule areas.

Your Notes

Focus on Answer Writing

Connect Civils - Dedicated to Civil services only



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

- 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 Systems exists - BJP, INC, RLP, BSP, AAP like India
↳ Prominent leaders → H. Bhairon Singh ji sekhawat, OM Birla, Jagadeep dhankad

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

" सोना री धरती अठे, चाँदी रो आसमाण।
रंग रंगीलो 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.

(No. 2, 2 format) 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। चावल, वार्षिचिन, मसाला फसलों की प्रधानता।
2. भौगोलिक विविधता — हिमालय, उच्चावच, प.मरु., गंगा-ब्रह्मपुत्र मैदान, दक्कन प्रायद्वीपीय पठार, अरावली, पूर्वी मैदान, हाड़ौती पठार
3. आकार में समान — 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" — भाषायी: भारत — 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, गैर 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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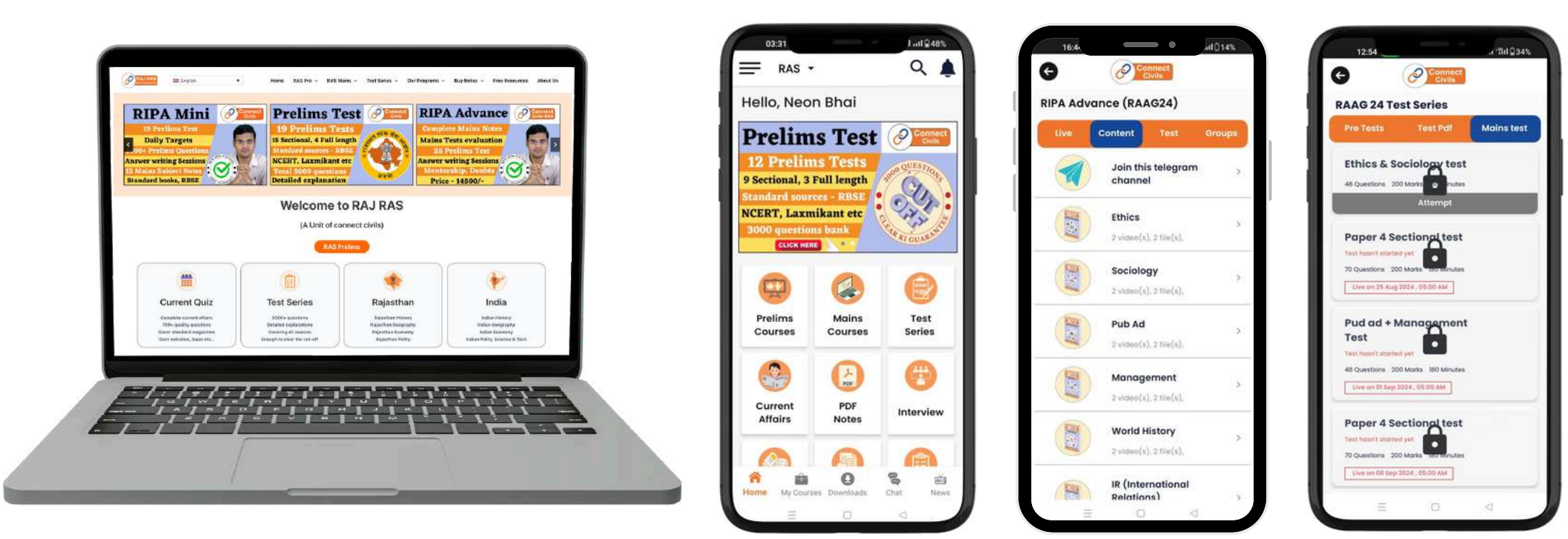

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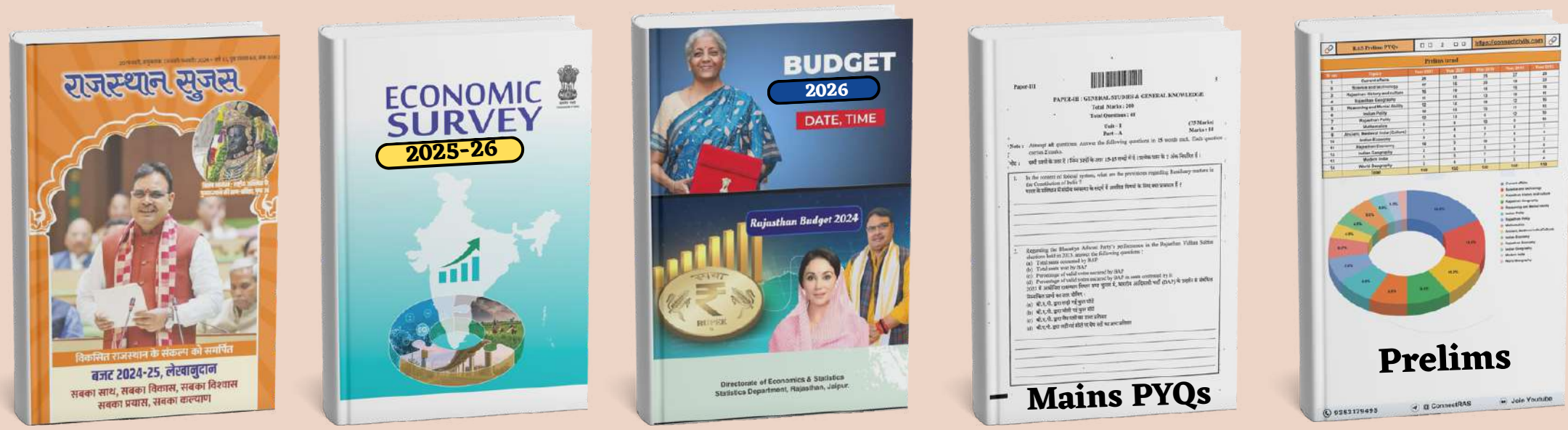

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