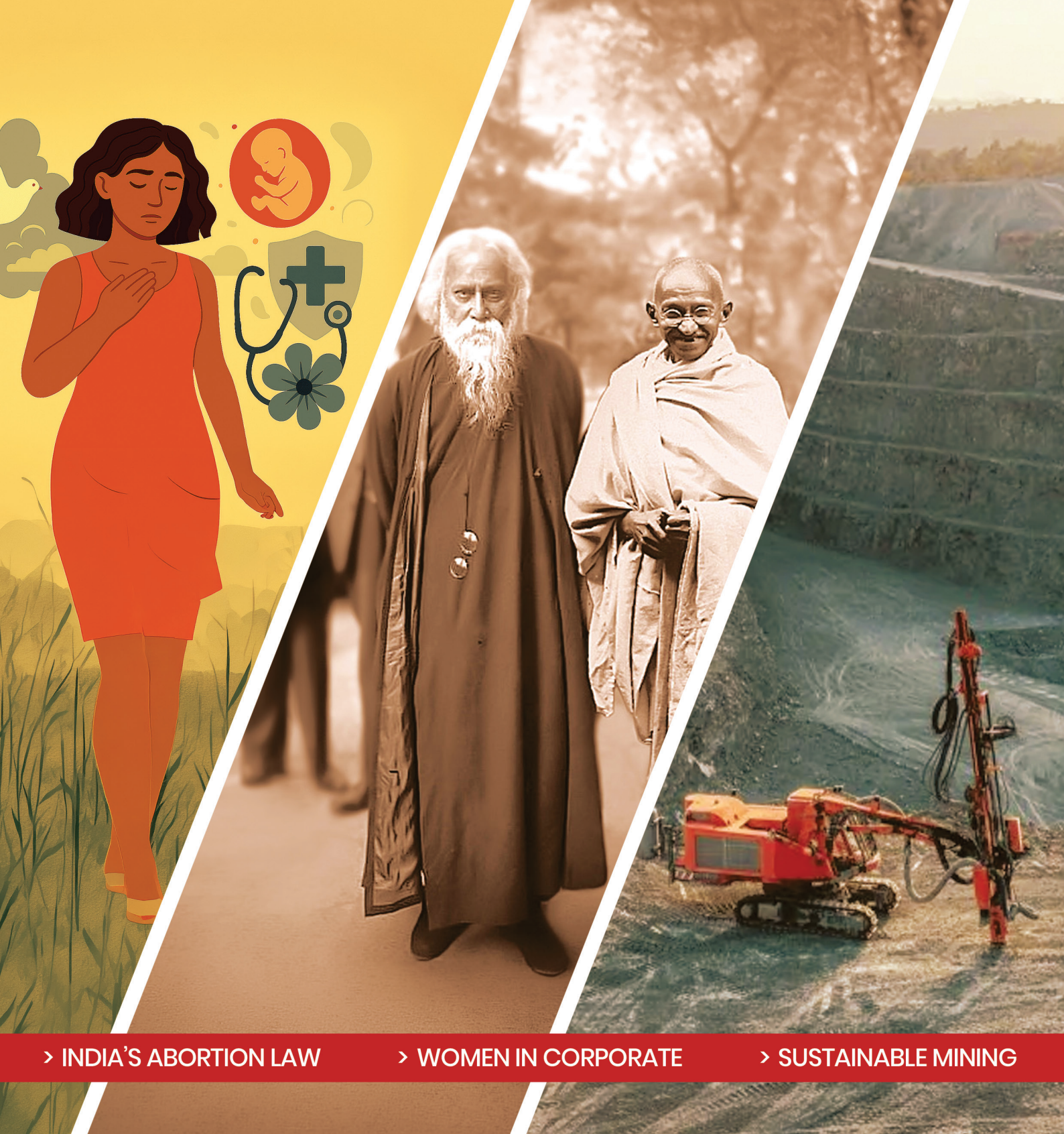


# FWD

FORTUNE WEEKLY DIGEST



> INDIA'S ABORTION LAW

> WOMEN IN CORPORATE

> SUSTAINABLE MINING

04<sup>th</sup> MAY, 2025 - 10<sup>th</sup> MAY, 2026

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## EDITOR'S NOTE

As UPSC aspirants, it is essential to stay updated on current affairs to excel in the examination. This **Fortune Weekly Digest (ForWarD)** brings you the latest news and developments from around the world, carefully curated and analyzed to help you prepare for the Civil Services (Main) Examination.

We understand that time is precious, and we have made sure to present the information in a concise and easy-to-understand manner.

The magazine is divided into different sections. Mains relevant topics have been covered in detail with a UPSC previous year question perspective. The jot downs are examples and interesting facts to enrich your answer writing. Cherrypicks has some key words from the week, helpful again in answer writing and essay. We have also included essay topics and sample questions to help you gauge your preparation.

We have designed this magazine to best supplement the daily current affairs notes we have launched by the name of **FIND (Fortune IAS News Daily)** and **FINDER (Fortune IAS News Daily Explainer)** and the **Fortune Prelims Precise** monthly compilation. This magazine will be explained in detail and your queries addressed in a live class we conduct.

At a time when there is no dearth of current affairs materials, our hope is help you get a one-stop solution for all your current affairs needs.

This magazine is a work in progress and your feedback will be appreciated.

We hope that this magazine will serve as a valuable resource for your exam preparation and contribute to your success in the UPSC examination.

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**FIRST ATTEMPT** TOPPERS FROM  
**OUR PRELIMS CUM MAINS BATCH**

**SWATHI S BABU**  
AIR 522

**MANJIMA P**  
AIR 235

**KASTURI SHA**  
AIR 68

**FABI RASHEED**  
AIR 71

**OORMILA J S**  
AIR 561

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# SUSTAINABLE MINING

*Syllabus: GS III - Infrastructure: Energy, Ports, Roads, Airports, Railways etc.*

## PYQ MAPPING

**Q)** *Despite India being one of the countries of Gondwanaland, its mining industry contributes much less to its Gross Domestic Product (GDP) in percentage. Discuss. (2021)*

## WHY IN NEWS

A recent The Hindu article highlights that despite its environmental costs, **sustainable mining** is crucial to supply critical minerals required for achieving a low-carbon, green energy future.

## INTRODUCTION

Mining is a critical sector that **supports industrial growth, energy security, and infrastructure development** in India. However, its adverse environmental and social impacts necessitate a shift towards sustainable mining practices that balance economic development with ecological conservation and social justice.

## WHAT IS SUSTAINABLE MINING

### ➔ Definition:

- o Sustainable mining refers to the extraction and processing of minerals in a manner that ensures **economic efficiency, environmental protection, and social equity**, without compromising the needs of future generations.

### ➔ Triple Bottom Line Approach:

- o It integrates **economic (profitability), environmental (ecosystem protection), and social (community welfare)** dimensions, making mining compatible with sustainable development.

### ➔ Lifecycle-Based Approach:

- o Sustainable mining covers the **entire mining lifecycle** including exploration, extraction, beneficiation, transportation, mine closure, and post-mining land restoration.

### ➔ Alignment with Global Goals:

- o It contributes directly to **SDGs such as SDG 7 (energy), SDG 8 (economic growth), SDG 12 (responsible consumption), and SDG 13 (climate action)**.

**— IMPORTANCE OF MINING —**

**1 INDUSTRIAL BACKBONE:**  
Supplies key raw materials (Iron ore, coal, bauxite, limestone) for core sectors like steel, cement, power, and infrastructure.

**2 ECONOMIC CONTRIBUTION:**  
India produces 95+ minerals; mining significantly supports GDP, exports, and industrial output.

**3 ENERGY SECURITY:**  
Coal meets ~50-55% of India's energy needs, making mining vital for power generation.

**4 EMPLOYMENT GENERATION:**  
Provides large-scale direct and indirect jobs, especially in tribal and backward regions.

## IMPACTS

### Environmental Impacts

- ➔ **Land Degradation and Deforestation:** Open-cast mining leads to **large-scale deforestation, soil erosion, and loss of fertile land**, making ecological restoration difficult.
- ➔ **Water Pollution and Scarcity:** Mining generates **acid mine drainage, heavy metal contamination**, and excessive groundwater extraction, affecting both quality and availability.
- ➔ **Air Pollution:** Dust emissions (PM10, PM2.5), blasting, and transportation lead to **respiratory diseases and degraded air quality** in mining regions.
- ➔ **Biodiversity Loss:** Mining in ecologically sensitive zones leads to **habitat fragmentation and species extinction risks**.

### Social Impacts

- ➔ **Displacement and Tribal Marginalization:** Mining often displaces **Scheduled Tribes and forest dwellers**, disrupting their cultural and economic systems.
- ➔ **Livelihood Disruption:** Agriculture, forest-based livelihoods, and traditional occupations are adversely affected.
- ➔ **Health Hazards:** Occupational diseases such as **silicosis, pneumoconiosis**, and general public health issues are prevalent in mining belts.

### **Economic and Governance Issues**

- ➔ **Resource Curse Phenomenon:** Mineral-rich regions often remain underdeveloped due to **poor governance, inequality, and conflict**.
- ➔ **Illegal Mining and Revenue Loss:** Unauthorized mining leads to **loss of government revenue and environmental degradation**.

## LEGAL FRAMEWORKS

- ♣ **Mines and Minerals (Development and Regulation) Act, 1957 (Amended in 2015, 2021):** Governs mineral exploration, leasing, and auctions, with amendments emphasizing transparency, auction-based allocation, and scientific mining.
- ♣ **Environment Protection Act, 1986 & EIA Notification 2006:** Mandates **environmental clearance and impact assessment**, ensuring mitigation of ecological damage.
- ♣ **Forest (Conservation) Act, 1980:** Regulates diversion

of forest land for mining, requiring **central approval and compensatory afforestation**.

- ♣ **Forest Rights Act, 2006:** Protects rights of tribal communities and mandates **Gram Sabha consent for mining projects**.
- ♣ **National Mineral Policy, 2019:** Includes the concept of "**Inter-Generational Equity**," which dictates that mineral wealth should be managed to ensure the well-being of both present and future generations.

## GOVERNMENT INITIATIVES

### 🌀 Sustainable Development Framework (SDF) :

- o **Developed by the Ministry of Mines**, based on recommendations of the Hoda Committee and prepared with expert inputs.
- o Provides guidelines for **scientific mining, biodiversity conservation, and mine closure practices**.

**development, and livelihood generation** in mining-affected areas.

### 🌀 National Critical Minerals Mission (NCCM):

- o Promotes **recovery of critical minerals** from tailings, overburden, and industrial waste through exploration incentives, private sector participation, and circular economy policies

### 🌀 District Mineral Foundation (DMF):

- o Established under the **MMDR Amendment Act of 2015**, DMFs are **statutory trusts** set up in districts affected by mining operations.
- o Mining companies are **legally required to deposit a percentage of their royalty into these funds**, which are dedicated to the socio-economic development of the local communities and tribal populations.

### 🌀 Star Rating of Mines Scheme:

- o Encourages compliance with sustainability standards through **performance-based ratings (1 to 5 stars)** based on environmental and social parameters.

### 🌀 Pradhan Mantri Khanij Kshetra Kalyan Yojana (PMKKKY):

- o Utilizes DMF funds for **health, education, skill**

**KEY CHALLENGES IN THE MINING SECTOR**

- 

**1 WEAK ENFORCEMENT AND MONITORING:**  
Regulatory mechanisms often suffer from capacity constraints and lack of real-time monitoring.
- 

**2 INADEQUATE REHABILITATION AND RESETTLEMENT:**  
Displaced communities often face delayed compensation and poor living conditions.
- 

**3 UNDERUTILIZATION OF DMF FUNDS:**  
Funds are either unspent or misallocated, limiting their impact on local development.
- 

**4 TECHNOLOGICAL AND FINANCIAL CONSTRAINTS:**  
Small and medium miners lack access to advanced sustainable mining technologies.
- 

**5 CONFLICT AND GOVERNANCE ISSUES:**  
Mining areas often overlap with Left-wing extremism regions, complicating governance and development.

## GLOBAL BEST PRACTISES

- ☀️ **Gold Fields at the Agnew Mine in Australia:** Operates one of the first **vast hybrid renewable energy systems** in the industry, utilizing a combination of wind, solar, and battery storage to power its operations.
- ☀️ **Escondida Mine in Chile:** Use **desalinated seawater** pumped from the Pacific under strict watershed regulations to reduce groundwater extraction in the Atacama Desert.

☀️ **NLC India Limited (NLCIL):** Has biologically **reclaimed over 2,866 hectares of mined-out land** in Neyveli, converting open-cast pits into lakes, orchards, and habitats that now support 100+ species of birds.

☀️ **Coal India Limited (CIL):** Revolutionizing opencast mining by deploying surface miners for **eco-friendly, blast-free extraction** while simultaneously combating degraded landscapes by using AI-enabled UAVs for rapid bio-reclamation.

## WAY FORWARD

- \* **Strengthening Regulatory Mechanisms:** Enhance monitoring through **digital tools like GIS, remote sensing, and blockchain-based tracking.**
- \* **Promoting Green and Smart Mining:** Adoption of **AI, automation, electric machinery, and low-carbon technologies.**
- \* **Community-Centric Development:** Ensure **greater participation of local communities and effective utilization of DMF funds.**
- \* **Transparency and Environmental, Social and Governance (ESG) Compliance:** Mandate **sustainability reporting and third-party audits** for mining companies.
- \* **Scientific Mine Closure and Land Restoration:** Focus on **afforestation, soil restoration, and conversion of mines into productive land uses.**
- \* **Capacity Building and Institutional Strengthening:** Improve governance through **training, institutional reforms, and stakeholder coordination.**

## CONCLUSION

The future of mining lies in its transition from an extractive, profit-driven model to a **regulated, technology-driven, and community-centric framework** rooted in sustainability. Ultimately, the success of this transition will determine whether mineral wealth becomes a source of inclusive development or perpetuates ecological crises and social inequities.

## SAMPLE QUESTION

**Q)** “Mining is both a driver of economic growth and a source of environmental degradation.” Critically examine in the context of India.  
**(10 marks) (150 words)**

# INDIA'S ABORTION LAW

*Syllabus: GS II - Government policies and interventions for development in various sectors.*

## PYQ MAPPING

**Q)** What are the continued challenges for Women in India against time and space? (2019)

## WHY IN NEWS

A recent The Hindu discussion featuring Dipika Jain (legal scholar at Jindal Global Law School) and Alka Barua (public health expert with CommonHealth India) highlights rising abortion-related court cases, exposing gaps in India's MTP law, rigid time limits, and criminalisation barriers.

## INTRODUCTION

Abortion in India is regulated under the **Medical Termination of Pregnancy (MTP) Act, 1971**, reflecting a balance between **reproductive rights and legal safeguards**. It remains a crucial issue at the intersection of **public health, gender justice, and constitutional rights**.

## NEED FOR A LAW

- ➔ **High Maternal Mortality:** Before 1971, abortion was largely illegal, forcing women into **unsafe and clandestine procedures**, increasing deaths.
- ➔ **Population and Family Planning:** It also aligned with India's **population control policies** and **family planning programmes**.
- ➔ **Protect Women's Health and Dignity:** Legalization was essential to ensure access to **safe, hygienic, and medically supervised abortion services**, safeguarding women's bodily integrity.
- ➔ **Shah Committee (1966):** The government-appointed Shah Committee **recommended liberalization of abortion laws** to address public health concerns and reduce unsafe abortions

## MEDICAL TERMINATION OF PREGNANCY (MTP) ACT 1971

- ♣ **Legalisation up to 20 Weeks:** Permits abortion up to **20 weeks of gestation** under specified conditions.
  - **Grave injury to physical or mental health**
  - **Pregnancy due to rape**
  - **Failure of contraceptive (initially only for married women)**
- ♣ **Doctor-Centric Framework:** Abortion depends on the **opinion of Registered Medical Practitioners (RMPs)**, not solely on the woman's choice.
- ♣ **Grounds for Abortion:**
  - **Risk to life of the mother**
  - ♣ **Consent Requirement:** **Consent of the woman is mandatory**; guardian consent needed for **minors/mentally ill persons**.

## AMENDMENTS TO MTP ACT

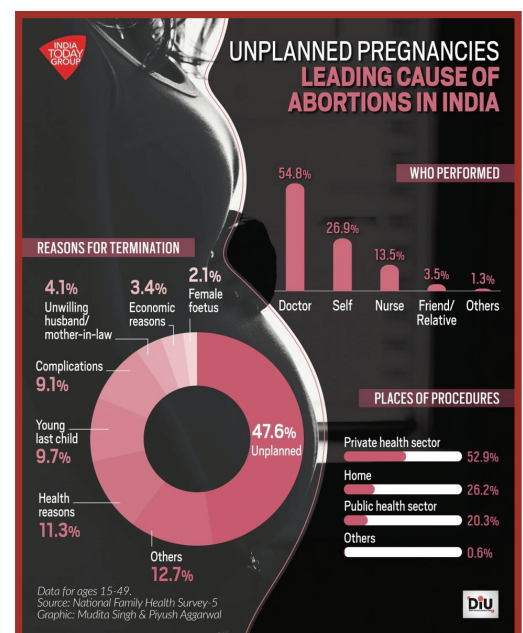
### MTP Amendment, 2002

- ✍ Enabled **more private clinics and providers** to legally offer abortion services.
- ✍ Introduced **stricter penalties** for conducting abortions in unapproved facilities or by unqualified practitioners

### MTP Amendment, 2021

- ✍ Legally recognized that **unmarried women could seek**

- **abortions** on the grounds of **contraceptive failure**.
- ✍ The upper limit for abortion was extended to **24 weeks for special categories** (rape survivors, minors, differently-abled women, widowhood and divorce), improving reproductive rights.
- ✍ **Medical Boards** are required for **termination beyond 24 weeks** in cases of **fetal abnormalities**.



## ABORTION UNDER BHARATHIYA NYAY SANHITHA (BNS)

- **Section 88 – Causing Miscarriage:** Punishes voluntary miscarriage (**up to 3 years; 7 years if advanced pregnancy**), except to save the woman’s life.
- **Section 89 – Without Consent:** Miscarriage without consent is a serious offence, punishable with **life imprisonment or up to 10 years + fine**.
- **Section 90 – Death of Woman:** If miscarriage leads to death, punishment is **up to 10 years**, and **life imprisonment if without consent**.
- **Section 91 – Preventing Birth:** Acts intended to prevent a child being born alive or causing its death are punishable with **up to 10 years + fine**.
- **Section 92 – Death of Unborn Child:** Causing death of a “quick unborn child” amounts to a grave offence with **up to 10 years + fine**.

Abortion is **criminalised by default**, with legality only through exceptions under the MTP Act.

## IMPORTANT CASE LAWS

### X v. Principal Secretary (2022):

- The apex court clarified abortion up to 24 weeks to include **unmarried or single women whose consensual relationships have broken down** during the pregnancy highlighting Article 14 (Right to Equality).

### Suchita Srivastava v. Chandigarh Administration (2009):

- A woman's right to make reproductive choice, including the **choice to procreate or abstain from procreating** has been recognized as part of her personal liberty under **Article 21** of the Indian Constitution.

## PRO LIFE VS PRO CHOICE DEBATE

Pro Life	Pro Choice
<ul style="list-style-type: none"> <li>➤ Argues that life begins at conception, making abortion morally unacceptable.</li> <li>➤ Strong opposition based on cultural and religious values.</li> <li>➤ Fear of <b>sex-selective abortions</b> and ethical misuse.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Women have the right to decide over their own bodies.</li> <li>➤ Protected under <b>Article 21</b> of the Constitution.</li> <li>➤ Legal abortion reduces <b>unsafe abortions and maternal mortality</b>.</li> </ul>

## ISSUES WITH ABORTION

- ▼ **Doctor-Centric Approach:** Decision-making rests with **doctors rather than women**, limiting autonomy.
- ▼ **Conditional and Non-Rights-Based Framework:** Abortion remains conditional, with strict criteria and burden of proof on doctors rather than a guaranteed right.
- ▼ **Rigid Gestational Limits:** The 24-week limit does not align with real-life situations where women approach late due to trauma, stigma, or lack of awareness.
- ▼ **Judicialisation of Abortion:** Women often forced to **approach courts** for late-term abortions.
- ▼ **Conflict with Other Laws (POCSO, PCPNDT):** Mandatory reporting and overlapping legal provisions deter women, especially minors, from seeking safe abortion.

## CHALLENGES

- ⚠ **Limited Rural Access:** Shortage of **trained doctors and approved facilities**.
- ⚠ **Fear of Criminal Prosecution Among Doctors:** Since abortion is **criminalised with exceptions**, doctors face legal risks if conditions are not strictly met, leading to reluctance.
- ⚠ **Social Stigma: Cultural taboos** discourage women from seeking abortion services.

✧ **Misinterpretation of Law:** Providers often misunderstand legal provisions, leading to unnecessary refusals or additional consent requirements.

✧ **Healthcare Constraints:** Inadequate **infrastructure**

**and diagnostic facilities.**

✧ **Administrative Delays:** **Medical boards and approvals** cause time-sensitive delays.

### WAY FORWARD

✧ **Shift to Woman-Centric Approach:** Move from **doctor-centric to autonomy-based framework.**

✧ **Revisiting Gestational Limits:** Consider flexible or case-based extensions, especially in cases of rape and foetal abnormalities.

✧ **Decriminalisation Debate:** Removing abortion from penal provisions can reduce stigma and fear among

both providers and patients.

✧ **Strengthening Healthcare:** Expand **safe and accessible abortion services**, especially in rural areas.

✧ **Awareness Campaigns:** Promote **legal literacy and reproductive rights awareness.**

✧ **Streamlining Procedures:** Reduce delays in **medical board approvals and legal processes.**

### CONCLUSION

India's abortion framework has evolved towards a more **rights-based and progressive approach**, especially through judicial interpretation of **Article 21**. However, achieving true reproductive justice requires a shift towards a more **accessible, woman-centric, and autonomy-driven system.**

### SAMPLE QUESTION

**Q)** "The Medical Termination of Pregnancy (MTP) Act reflects a shift from a moral framework to a rights-based approach, yet remains doctor-centric." Critically examine. **(10 marks) (150 words)**

# MAHATMA GANDHI AND RABINDRANATH TAGORE: SIMILARITIES AND DIFFERENCES IN THEIR APPROACHES

Syllabus: GS I - Modern Indian History

## PYQ MAPPING

**Q)** What was the difference between Mahatma Gandhi and Rabindranath Tagore in their approach towards education and nationalism? (2023)

## WHY IN NEWS

The 165th birth anniversary of Rabindranath Tagore has revived discussions on his ideological debates with Mahatma Gandhi, particularly over the “cult of the charkha” during the freedom struggle.

## INTRODUCTION

Mahatma Gandhi and Rabindranath Tagore were two of the most influential thinkers of modern India who shaped the intellectual, political, and cultural foundations of the Indian freedom struggle. While Gandhi represented ethical politics, mass mobilisation, and constructive nationalism, Tagore embodied cultural renaissance, universal humanism, and creative freedom. Despite differences in methods and outlook, both aimed at the moral and spiritual regeneration of Indian society.

## AREAS OF SIMILARITY

### Humanistic Outlook:

- o Both emphasized dignity, morality, and spiritual development of individuals.
- o Opposed exploitation, social discrimination, and colonial oppression.
- o Believed that material progress without ethical values is incomplete.

### Critique of Colonialism:

- o Criticized British rule for economic exploitation and cultural alienation.
- o Sought revival of Indian self-confidence and indigenous traditions.
- o Viewed freedom as both political and cultural emancipation.

### Importance of Education:

- o Rejected the colonial education system for being detached from Indian realities.

- o Emphasized holistic education aimed at character formation.
- o Believed education should contribute to social transformation.

### Rural Reconstruction:

- o Considered villages central to India’s development.
- o Worked for rural upliftment through education and self-reliance.
- o Advocated empowerment of the marginalized sections of society.

### Spiritual Foundation:

- o Integrated ethics and spirituality into public life.
- o Promoted communal harmony and universal brotherhood.
- o Viewed religion as a moral force rather than ritualism.

## AREAS OF DIFFERENCE

### Approach Towards Education

Aspect	Gandhi	Tagore
Core Philosophy	Practical and craft-based education for self-reliance	Creative and liberal education for holistic growth
Objective	Character building and dignity of labour	Freedom of mind and artistic development
Curriculum	Vocational and productive work under Nai Talim	Art, music, literature, and cultural learning
Teaching Method	Learning through manual work and experience	Open-air and nature-centric learning

Language	Emphasized vernacular medium in early education	Favoured exposure to English and global ideas
Institutions	Nai Talim schools	Visva-Bharati University and Shantiniketan
Global Outlook	Focus on indigenous self-sufficiency	Encouraged internationalism and cultural exchange

### Approach Towards Nationalism

Aspect	Gandhi	Tagore
Nature of Nationalism	Strong supporter of anti-colonial nationalism	Critical of aggressive nationalism
Means of Freedom	Mass mobilisation through non-violence and satyagraha	Intellectual and cultural awakening
Swadeshi	Promoted indigenous goods and self-reliance	Fearred excessive Swadeshi could become narrow
View on West	Critical of Western industrial civilisation	Selective acceptance of Western modernity
Political Role	Direct leader of freedom struggle	Philosophical and cultural contributor
Vision for India	Decentralized village republics	Culturally vibrant and globally connected India

### Economic and Social Vision

Aspect	Gandhi	Tagore
Economy	Village-based decentralized economy	Balanced acceptance of modern economic progress
Industrialisation	Opposed large-scale industrialisation	More receptive to science and technology
Social Change	Mass movements and constructive programmes	Cultural and intellectual reform
Ideal Society	Simple living and trusteeship	Harmonious society based on creativity and humanism

### Intellectual Debates Between Gandhi and Tagore

Issue	Gandhi	Tagore
Charkha	Symbol of self-reliance	Overemphasis on symbolism
Non-Cooperation	Necessary political strategy	Concerned about intellectual isolation
Nationalism	Instrument of liberation	Potential threat to universalism
Modernity	Skeptical of industrial modernity	Selective acceptance of modern ideas

## CONCLUSION

Gandhi and Tagore represented two complementary streams of India's renaissance — ethical-political activism and cultural-intellectual humanism. Gandhi sought national regeneration through mass mobilisation, self-reliance, and moral politics, while Tagore emphasized creativity, universalism, and freedom of thought. Their differences were rooted in methods rather than objectives, as both ultimately aimed at creating a just, humane, and spiritually enriched society. Together, they provided India with a balanced vision combining nationalism with universal human values.

## SAMPLE QUESTION

**Q)** “Despite sharing a common goal of India's regeneration, Mahatma Gandhi and Rabindranath Tagore differed significantly in their approaches towards nationalism, education, and modernity.” Discuss. **(15 marks) (250 words)**

# GOVERNOR'S DISCRETION

Syllabus: GS II - Parliament and State legislatures

## PYQ MAPPING

- Q)** Account for the legal and political factors responsible for the reduced frequency of using Article 356 by the Union Governments since mid 1990s. **(2023)**
- Q)** Discuss the essential conditions for exercise of the legislative powers by the Governor. Discuss the legality of re-promulgation of ordinances by the Governor without placing them before the Legislature. **(2022)**

## WHY IN NEWS

After Tamilaga Vettri Kazhagam (TVK) became the largest party in the 2026 Tamil Nadu Assembly polls, **Governor Rajendra Arlekar delayed swearing-in of C. Joseph Vijay as Chief Minister**, demanding proof of majority support.

## INTRODUCTION

The **Governor's discretionary powers** constitute a vital exception to the principle of **aid and advice**, allowing limited independent action within India's constitutional framework. Though narrow in scope, these powers play a significant role in shaping **federal relations, political stability, and constitutional governance**.

## SHORT TAKES

- **Article 356:** Empowers the President to impose President's Rule in a state when the Governor reports or the President is otherwise satisfied that the constitutional machinery has failed, leading to the state being brought under direct Central rule.

## CONSTITUTIONAL POSITION OF GOVERNOR

- **Appointment and Tenure:** The Governor is **appointed by the President (Article 155)** and holds office during the **pleasure of the President (Article 156)**.
- **Executive Authority:** All executive actions of the state are taken in the **name of the Governor (Article 154)**.
- **Aid and Advice Principle:** Under **Article 163**, the Governor is to act on **aid and advice**, except in matters where **discretion is permitted**.
- **Dual Role:** Functions as a **constitutional head** and also as a **link between the Union and State governments**.

## ABOUT DISCRETIONARY POWERS

- 🕒 Discretion refers to the **authority to act without or against ministerial advice** in specified situations. Though not absolute, these powers have **major political and constitutional implications**.
- 🕒 Discretion can arise from **explicit constitutional provisions** or from **political circumstances**.
- 🕒 **Situational Discretion:**
  - **Appointment of Chief Minister-** Especially in a **hung assembly**, the Governor decides whom to invite.
  - **Dissolution of Assembly-** Can decide on **dissolution when no stable government exists**.

### Types of Discretion

- 🕒 **Constitutional Discretion:**
  - **Reservation of Bills (Article 200)-** Governor can **reserve a bill for the President's consideration**.
  - **Report under Article 356-** Can send a **report recommending President's Rule**.
- 🕒 **Special Responsibilities (Certain States):**
  - The Governor of **Nagaland** regarding law and order (Article 371A)
  - The Governors of **Sixth Schedule states** regarding mineral royalty disputes in tribal areas.

## RECENT TAMIL NADU SCENARIO

- 📌 In the **2026 Tamil Nadu Assembly elections**, the **Tamilaga Vettri Kazhagam (TVK)** emerged as the single largest party in a hung Assembly, falling short of the majority mark in the 234-member House.
- 📌 The **Governor Rajendra Arlekar** delayed inviting TVK leader C. Joseph Vijay to form the government, insisting on **written proof of majority support from 118 MLAs** instead of an immediate swearing-in

followed by a floor test.

☞ The episode raised concerns over **discretionary**

**power use in government formation**, with debate on whether majority should be proved inside the **Assembly through floor test**.

## IMPORTANT CASE LAWS

- ☞ **Shamsher Singh vs State of Punjab (1974)**: Supreme Court held that the **Governor must act on aid and advice**, except in **rare discretionary situations**.
- ☞ **S.R. Bommai vs Union of India (1994)**: Restricted misuse of **Article 356**, emphasizing **floor test for majority**.
- ☞ **Rameshwar Prasad Case (2006)**: Dissolution of Assembly cannot be based on **speculative reports or Governor's personal opinion** and he must act in **constitutional objectivity**, not political bias.
- ☞ **Nabam Rebia vs Deputy Speaker (2016)**: Ruled that the **Governor cannot interfere in legislative proceedings arbitrarily**.

## EXAMPLES OF DISCRETION STRENGTHENING DEMOCRACY

- ☀ **Governor Suraj Bhan ordered a composite floor test in the 1998 Uttar Pradesh crisis** instead of recognising any faction as the majority. This ensured that government formation was decided on the floor of the House.
- ☀ **Governor Dharma Vira dismissed the West Bengal ministry in 1967** after Chief Minister Ajoy Mukherjee refused to convene the Assembly despite losing majority. This prevented unconstitutional continuation in power.

## ISSUES AND CONTROVERSIES

- ♣ **Politicisation of Office**: Governors are often accused of acting as **agents of the Union government**.
  - **Example-** In 2024, **West Bengal Governor C.V. Ananda Bose** faced criticism for setting up a "Peace Room" in Raj Bhavan to address law-and-order issues, seen as executive overreach by the state government.
- ♣ **Misuse in Government Formation**: Allegations of **bias in inviting parties to form government** in hung assemblies.
  - **Example-** After the **2018 Karnataka elections**, **Governor Vajubhai Vala** invited the BJP (104 seats) to form the government and gave it 15 days to prove majority, despite the post poll Congress–JD(S) alliance having 116 seats.
- ♣ **Delay in Assent to Bills**: Governors sometimes **withhold or delay assent**, creating legislative deadlock.
  - **Example-** In 2023, **Tamil Nadu Governor R.N. Ravi** completely stalled state governance by indefinitely withholding assent to 10 key legislative bills.
- ♣ **Frequent Use of Article 356**: Historically misused to **dismiss state governments**.
  - **Example-** In 1989, **Karnataka Governor P. Venkatasubbaiah** dismissed S. R. Bommai's majority government based on defection claims without a floor test, leading to the landmark S. R. Bommai case.
- ♣ **Lack of Clear Guidelines**: Ambiguity in **defining discretionary powers** leads to misuse.

## RECOMMENDATIONS OF COMMISSIONS

- ☀ **Sarkaria Commission (1988)**:
  - Governor should be an **eminent person, not active in politics**.
  - Governor should invite parties in this order-
    - Pre-poll alliance with majority.
    - Single largest party.
    - Post-poll alliance with majority.
  - Governor must act **impartially and avoid political influence**.
  - Floor test is the **preferred method to determine the majority**.
- ☀ **Punchhi Commission (2010)**:
  - Recommended limiting Governor's discretionary powers.
  - Suggested that the Governor should have **fixed tenure and security from arbitrary removal**.
  - Advocated that the Governor must act within **constitutional morality, not political discretion**.
  - Clear guidelines for **government formation in hung assemblies**.

### WAY FORWARD

- \* **Strengthening Floor Test Mechanism:** A **mandatory floor test within 24–48 hours in hung assemblies** ensures majority is tested in the House and reduces gubernatorial discretion.
- \* **Codifying Discretionary Powers:** Clear legal guidelines on **order of preference, timelines, and procedures in hung assemblies** can prevent arbitrary decisions.
- \* **Time-bound Decision Making:** A **fixed constitutional timeframe for Governor decisions** helps avoid delays and instability.
- \* **Depoliticisation of Governor's Office:** A **transparent, merit-based appointment process** ensures Governors act independently of political influence.
- \* **Judicial Safeguards:** Continued **Supreme Court oversight** ensures constitutional compliance and federal balance.
- \* **Strengthening Constitutional Morality:** Governors must act as **neutral constitutional authorities, not political actors.**
- \* **Minimising Article 356 Misuse:** **President's Rule should be a last resort** after all options for government formation are exhausted.

### CONCLUSION

The exercise of discretionary powers must be guided by **constitutional morality, neutrality, and judicial precedents** to prevent arbitrariness. A **restrained and clearly defined approach** is essential to ensure that the Governor's office strengthens rather than undermines **cooperative federalism.**

### SAMPLE QUESTION

**Q)** Do discretionary powers of the Governor strengthen or weaken India's federal structure? Justify your answer with examples. **(10 marks) (150 words)**

## WEEKLY DOSSIERS

### INDIA'S GENETIC MOSAIC AND ITS IMPORTANCE FOR PUBLIC HEALTH

#### Introduction

India is one of the most genetically diverse countries in the world, shaped by ancient migrations, endogamy, geography, language, and social practices. This genetic diversity is not merely an anthropological feature but has major implications for healthcare, disease prevention, and precision medicine.

#### India's Genetic Diversity

- ◆ **Layered Ancestry**
  - Indian populations emerged through multiple waves of migration and mixing.
  - Genetic influences include-
    - Early modern humans
    - Iranian-related agricultural populations
    - Steppe pastoralists
    - Tibeto-Burman groups
  - Hence, there is no single "Indian genome."
- ◆ **Impact of Endogamy and Consanguinity**
  - Many Indian communities historically practised-
    - Endogamy (marriage within community)
    - Consanguinity (marriage among relatives)
  - These increase the probability of recessive genetic disorders.
- ◆ **Founder Effect**
  - In isolated populations, rare disease-causing variants become concentrated over generations.
  - This leads to community-specific disease burdens.
  - **Examples**
    - Sickle cell anaemia among tribal populations.
    - Thalassaemia in several regional communities.
- ◆ Certain metabolic and neuromuscular disorders clustered in specific groups.

#### Importance for Public Health

- ◆ **Early Disease Prevention**
  - Genetic screening can identify carriers before childbirth.

- Helps reduce inherited disorders through informed counselling.

- ◆ **Improved Newborn Screening**

- ◆ Early detection of treatable genetic conditions improves survival and quality of life.

- ◆ **Precision Medicine**

- Drug responses vary across populations.
- Genetic mapping can help design safer and more effective treatments.

- ◆ **Rare Disease Diagnosis**

- Genetic databases can improve diagnosis of rare disorders and reduce diagnostic delays.

- ◆ **Drug Discovery and Research**

- Large-scale genomic studies can identify new disease pathways and therapeutic targets.

#### Challenges

- ◆ **Ethical and Social Concerns**

- Risk of stigma and discrimination against communities.
- Misinterpretation of carrier status may affect marriages and social relations.

- ◆ **Lack of Comprehensive Biobank**

- India lacks a large health-linked genomic database comparable to the UK Biobank.

- ◆ **Privacy and Data Protection**

- Genetic data requires strong safeguards regarding consent and confidentiality.

- ◆ **Limited Genetic Counselling**

- Genetic testing without proper counselling can create fear and misinformation.

#### Way Forward

- ◆ Expand projects like GenomeIndia Project.
- ◆ Develop community-sensitive genetic counselling systems.

- ◆ Strengthen newborn and carrier screening programmes.
- ◆ Ensure ethical governance and privacy protection.
- ◆ Promote inclusive genomic research representing India's diversity.

India's genetic mosaic is both a scientific resource and a public health opportunity. Understanding genetic diversity can improve disease prevention, diagnosis, and precision medicine. However, genomic knowledge must be used responsibly, without reinforcing social divisions or notions of genetic purity. A balanced approach combining science, ethics, and public health can transform India's healthcare future.

## Conclusion

## INDIA'S FIRST ORBITAL DATA CENTRE SATELLITE – PATHFINDER

### Introduction

India is set to launch its first orbital data centre satellite, named **Pathfinder**, through a partnership between Pixxel and Sarvam AI. Scheduled for launch in 2026, the mission aims to test AI-enabled data processing directly in space using datacentre-grade GPUs.

### What is an Orbital Data Centre?

- ◆ An orbital data centre is a satellite or constellation of satellites carrying powerful GPUs similar to terrestrial data centres.
- ◆ It enables-
  - AI model training and inference in orbit
  - In-space data processing instead of transmitting raw data to Earth
  - Faster and efficient handling of Earth observation data
- ◆ It extends the concept of "edge computing" into space.

### Why are Orbital Data Centres Important?

- ◆ **Rising Energy Demand of AI**
  - Terrestrial data centres consume enormous electricity and water.
  - Space-based systems can use near-continuous solar energy.
- ◆ **Efficient Data Processing**
  - Earth observation satellites generate massive image datasets.
  - Processing data in orbit reduces bandwidth and downlink costs.
- ◆ **Strategic and Commercial Competition**

- Global firms such as-

- SpaceX
- Blue Origin
- Microsoft are exploring orbital computing infrastructure.

### Key Features of Pathfinder

- ◆ Around 200 kg-class satellite.
- ◆ Carries-
  - Datacentre-class GPUs
  - Pixxel's hyperspectral imaging camera
- ◆ Designed to-
  - Analyse satellite imagery directly in orbit
  - Transmit only processed insights to Earth
- ◆ Sarvam AI will provide AI models and computing backbone.

### Challenges

- ◆ **Thermal Management**
  - Space vacuum prevents heat removal through convection.
  - Heat must be dissipated through radiation systems.
- ◆ **Radiation Damage**
  - Cosmic rays can damage electronic systems and cause "bit flips."
- ◆ **Power Storage**
  - Satellites require battery storage during eclipse periods.
- ◆ **Maintenance Constraints**
  - Repair in orbit is difficult; systems require built-in

redundancy.

### Significance for India

- ◆ Strengthens India's private space ecosystem.
- ◆ Promotes indigenous AI-space integration.
- ◆ Advances India's capabilities in-
  - Hyperspectral imaging
  - Space-based computing
  - Precision Earth observation

- ◆ Aligns with India's growing role in the global space economy.

### Conclusion

The Pathfinder mission marks a significant step in combining artificial intelligence with space technology. Though large-scale orbital data centres remain technologically and economically challenging, the initiative positions India at the frontier of next-generation space computing and AI-enabled satellite infrastructure.

## HANTAVIRUS AND RECENT GLOBAL CONCERNS

### Introduction

Hantavirus has recently drawn global attention following an outbreak aboard the expedition cruise ship MV Hondius in May 2026, where multiple infections and deaths were reported. The incident has renewed concerns regarding zoonotic diseases and global health preparedness.

### What is Hantavirus?

- ◆ Hantaviruses are a group of viruses mainly carried by rodents such as rats and mice.
- ◆ Humans become infected through contact with-
  - Rodent urine
  - Saliva
  - Droppings
  - Contaminated dust particles
- ◆ Certain strains affect-
  - Lungs → Hantavirus Pulmonary Syndrome (HPS)
  - Kidneys → Haemorrhagic Fever with Renal Syndrome (HFRS)

### Recent MV Hondius Outbreak

- ◆ The Dutch expedition cruise ship MV Hondius reported multiple hantavirus cases during its voyage.
- ◆ Cases were linked to the Andes strain of hantavirus.
- ◆ Reported outcomes-
  - Several confirmed and suspected infections
  - Multiple deaths
  - International passenger monitoring across countries

### Why is it Drawing Global Attention?

- ◆ **International Spread Risk**
  - Infected passengers travelled across multiple countries before diagnosis.
  - Triggered international surveillance and contact tracing.
- ◆ **Human-to-Human Transmission Concerns**
  - Most hantaviruses do not spread between humans.
  - However, the Andes virus strain has shown limited human-to-human transmission.
- ◆ **Rising Focus on Zoonotic Diseases**
  - Highlights risks from animal-to-human disease transmission.
  - Reinforces lessons from COVID-19 regarding global preparedness.

### Symptoms

Symptoms usually appear 1–8 weeks after exposure.

- ◆ **Early Symptoms**
  - Early symptoms include fever, muscle pain, fatigue, headache, nausea, and vomiting.
- ◆ **Severe Symptoms**
  - Severe infection can cause breathing difficulty, chest tightness, fluid accumulation in the lungs, kidney complications, shock, and respiratory failure.
- ◆ **People at Higher Risk**
  - Farmers, forestry workers, campers, construction workers, and people exposed to rodent-infested

environments are at higher risk of hantavirus infection.

## Treatment and Prevention

### ◆ Treatment

- Currently, there is no specific antiviral cure or approved vaccine for hantavirus infection.
- Treatment mainly involves supportive care such as oxygen therapy, fluid management, and intensive care support in severe cases.

### ◆ Prevention

- Prevention focuses on rodent control measures, safe sanitation practices, proper ventilation while cleaning enclosed spaces, and avoiding exposure to rodent-contaminated environments.

## Should the Public Be Concerned?

- ◆ WHO states that the overall public health risk remains low.
- ◆ Hantavirus is far less transmissible than COVID-19 or influenza.
- ◆ Current outbreaks are localized and linked mainly to rodent exposure.

## Conclusion

The recent hantavirus outbreak underscores the growing importance of surveillance for zoonotic diseases in an interconnected world. Although the chances of a pandemic-like situation remain low, strengthening global monitoring systems, rapid reporting, and public awareness is essential to prevent future outbreaks and improve preparedness.

# BEYOND VERDICTS: KEY JUDICIAL INTERVENTIONS

## Digital Initiatives for Judicial Administration

- ◆ The Chief Justice of India launched two major digital initiatives to improve judicial administration and access to justice.
- ◆ **One Case One Data** is a unified case management system that integrates databases of **taluka courts, District Courts, High Courts, and government departments** to automate data retrieval, reduce duplication, and enable seamless case tracking.
- ◆ **Su Sahay**, an **AI-powered chatbot** developed by the National Informatics Centre and the Supreme Court Registry, has been integrated into the Supreme Court of India website to help users easily access case information and court services.

## Constitutionalism and Majoritarianism

- ◆ The Supreme Court of India stated that in a constitutional democracy like India, **majority rule cannot override constitutional principles**. The observation was made by a **nine-judge Constitution Bench** during a review of the scope of **religious freedom**.
- ◆ **Constitutionalism** means that government powers are limited by the **Constitution** and exercised according to the **rule of law**. It protects **fundamental rights**, ensures **accountability and separation of powers**, safeguards **free and fair democracy**, and prevents the rights of minorities from being undermined by majoritarian decisions.

## Bhojshala Complex

- ◆ The Madhya Pradesh High Court ruled that the disputed **Bhojshala complex** in **Dhar, Madhya Pradesh**, is a Hindu temple, overturning a 2003 order of the Archaeological Survey of India.
- ◆ Built in the 11th century by **Raja Bhoja** of the Parmara dynasty, Bhojshala was a renowned centre of **Sanskrit education** and a temple dedicated to **Goddess Saraswati**. It was later converted into the **Kamal Maula Mosque** under Muslim rulers. The site contains important inscriptions related to **Sanskrit grammar, classical poetry**, and the **Kurmavata of Vishnu**.

## Supreme Court on Living Wage

- ◆ The Supreme Court of India, while hearing matters related to worker protests in Noida, stressed that providing

workers with a **living wage** is a constitutional responsibility of the State under the **Directive Principles of State Policy**.

- ◆ Under **Article 43**, the State is expected to ensure not just minimum earnings, but wages that enable workers and their families to enjoy a **decent standard of living**. A **living wage** is therefore higher than the **minimum wage**, which only represents the legally fixed minimum payment employers must provide.

### Supreme Court on UAPA Conviction Rates

- ◆ The Supreme Court of India, while granting bail to a Jammu and Kashmir accused in a **narco-terror case** under the **Unlawful Activities (Prevention) Act (UAPA)**, highlighted the extremely low conviction rates in UAPA cases. Referring to **NCRB data** presented by the Ministry of Home Affairs, the Court noted that national conviction rates in UAPA cases ranged between **1.5% and 4%** from 2019–2023, while in **Jammu and Kashmir** it remained **below 1%**. The Court observed that such figures indicate a very high possibility of acquittal and stressed that prolonged pre-trial imprisonment cannot be justified merely on allegations. Reaffirming the principle that **“bail is the rule and jail is the exception,”** the Court stated that **Section 43D(5) of UAPA** should not be used to deny bail indefinitely.

## ETHICS - CASE STUDY

**Q)** You are posted as the District Education Officer in a rural district. During an inspection, you discover that many government school teachers are regularly absent from classes and are using political influence to avoid disciplinary action. As a result, students from poor families are suffering from poor learning outcomes and high dropout rates.

When you initiate strict monitoring measures, teacher unions begin protesting against you, claiming that your approach is “anti-teacher” and insensitive to ground realities. Some local politicians also pressure you to relax inspections, warning that continued action may affect your career prospects. At the same time, parents and students expect you to improve the quality of education in the district.

### In this situation:

- What are the ethical issues involved in the case?
- How do attitudes influence the behaviour of different stakeholders in this case?
- What should be the attitude of a civil servant in dealing with pressure, resistance, and public expectations?
- What course of action would you adopt and why?
- How can positive attitude and emotional intelligence help in resolving such conflicts?

## ETHICS - EXAMPLES

- Judicial Ethics:** The Madhya Pradesh High Court quashed an FIR against teacher Faizan Ansari, booked under Section 353(2) BNS for sharing the Urdu poem “*Be-haya*” on WhatsApp, holding it was a satirical commentary with no intent to incite hatred.
- Dedication:** Major General Lissamma P.V., Additional Director General of the Military Nursing Service, was awarded the National Florence Nightingale Award by President Droupadi Murmu for her four decades of distinguished service in military healthcare and nursing.
- Professional Ethics:** A Lucknow University assistant professor, Paramjeet Singh, was arrested for allegedly offering to leak two exam papers to a student in exchange for favours, based on viral audio clips. An FIR under BNS Section 74 and the UP Public Examination Act was filed, and the university initiated an inquiry.
- Environmental Ethics:** Navi Mumbai’s transformation into “Flamingo City” is a case of citizen-led environmental conservation, led by Save Navi Mumbai Environment (SNME) and activists like Stalin Dayanand who filed petitions, ran awareness campaigns, and opposed destructive projects in wetlands.
- Compassion:** P. Karthik, a Tamil Nadu constable, was moved after performing the last rites of an unclaimed elderly woman and since then has traced families by circulating photos and cross-checking missing records, often working beyond duty hours. When no relatives are found, he personally conducts respectful funerals.
- Governance Ethics:** The Rah-Veer Scheme, launched by the Ministry of Road Transport and Highways in 2020, rewards citizens with ₹25,000 for helping road accident victims during the Golden Hour. It operates under Good Samaritan rules, providing legal protection, anonymity, and recognition to encourage timely public assistance.
- Social Harmony:** Kodinhi village in Kerala, with an unusually high twin birth rate, formed the Twins and Kins Association (TAKA) in 2008 to connect families, host twin gatherings, and support research. These events and efforts helped residents turn a biological anomaly into a shared cultural identity and pride.
- AI Ethics:** All India Radio Kozhikode recreated the voices of legends like Thikkodiyan, Uroob, and K. Raghavan using AI for the radio play *Kaanka, Kadaline Kan Thurakkathe*, marking its 75-year legacy. Using archived recordings, the team synthetically reconstructed and integrated original voices into new dialogues.

## MODEL ESSAY

*"In a time of deceit, telling the truth is a revolutionary act"*

### Introduction

- Quote by George Orwell reflecting his critique of propaganda, authoritarianism, and manipulation of truth.
- In the contemporary world of **fake news, deepfakes, and information warfare**, the relevance of this idea has increased significantly.

### **Philosophical Foundation**

- **Truth as highest virtue:** Socrates chose death rather than abandon truth.
- **Truth and power (Foucault):** Truth challenges dominant power structures.
- **Moral duty (Kant):** Truth must be upheld regardless of consequences.
- **Truth as liberation (Gandhi):** Truth leads to freedom and justice.

### Benefits

- **Strengthening Democracy:** Democracies depend on informed citizens and transparent governance. **Eg:** Right to Information (RTI) Act, 2005
- **Promotes Accountability:** Truth acts as a check on abuse of power. **Eg: 2G Spectrum and Coal Block Allocation exposures** by the Comptroller and Auditor General (CAG)
- **Builds Social Trust:** Honest communication strengthens trust between citizens and institutions. **Eg: CoWIN platform tracker** provided real-time, completely open, and authentic public data on vaccine stock
- **Enables Social Reform:** Many reform movements begin with exposing hidden injustices. **Eg: Bhanwari Devi case** broke a silence on hidden workplace abuse creating **Vishaka Guidelines** for workplace safety.

### Challenges

- **Rise of Misinformation:** Social media spreads unverified and emotionally charged content rapidly.
- **Political Pressure and Censorship:** Governments and powerful groups may suppress inconvenient truths.

- **Social Polarisation:** People increasingly accept "selective truth" based on ideology.
- **Economic and Corporate Interests:** Corporate lobbying and advertising influence narratives.
- **Psychological Barriers:** Cognitive biases make individuals resist uncomfortable truths.

### Way Forward

- **Strengthening Institutions:** Independent judiciary and free press, along with protection for whistleblowers and journalists
- **Media and Digital Literacy:** Citizens should be trained in critical thinking and media literacy to identify and resist misinformation.
- **Ethical Governance:** Transparency through strong RTI and open data systems reduces opportunities for deceit **Eg:** data.gov.in (Open Government Data) publish real-time, raw granular data on public spending, e-tenders, and scheme implementation
- **Responsible Use of Technology:** Regulation of deepfakes and misinformation, along with fact-checking and AI verification tools
- **Encouraging Civic Courage:** Society must value honesty over convenience and support individuals who speak the truth in public life.

### Conclusion

- In an age where information can be manipulated at scale, truth becomes a form of resistance against distortion and control.
- As Orwell's idea suggests, speaking truth is not just moral behaviour but a **transformative force capable of challenging unjust systems.**

### Sample Quotes

- *If Ethics is poor at the top, the behaviour is copied down the organisation - Robert Noyce*
- *A map of the world that does not include Utopia is not worth even glancing at, for it leaves out the one country at which humanity is always landing. - Oscar Wilde*
- *There are no facts, only interpretations- Nietzsche*

## MAINS JOT DOWN



### GS I: ART & HERITAGE

- Somnath Temple recently marked 75 years of its reopening and 1000 years since Mahmud Ghazni's attack in 1026 CE.
- It is the first among the twelve Jyotirlingas and is located at Prabhas Patan on Gujarat's Saurashtra coast.
- According to mythology, it was built by Chandra Dev in honour of Lord Shiva. The temple, mentioned in texts like the *Skanda Purana* and by Al-Biruni, is built in the Chalukya style with features of both Nagara and Dravidian architecture.



### GS III: DEFENCE

- Defence Research and Development Organisation successfully tested its **Actively Cooled Full Scale Scramjet Combustor** for over 1,200 seconds.
- A **Scramjet** (Supersonic Combustion Ramjet) is a hypersonic air-breathing engine that uses atmospheric oxygen for combustion while flying at supersonic speeds.
- It reduces vehicle weight and is important for reusable space access and **hypersonic missile** development.

- India recently conducted the second successful flight trial of the **Divyastra** missile from Dr. APJ Abdul Kalam Island.
- Divyastra is an advanced **Agni missile** equipped with **Multiple Independently Targeted Re-entry Vehicle (MIRV)** technology, which enables a single missile to carry multiple nuclear warheads capable of striking different targets independently.
- MIRV technology was first developed by the United States in the 1960s, and is currently possessed by countries such as Russia, United Kingdom, France, and China.



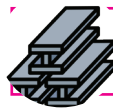
### GS II: HEALTH

- A study found that **RTS,S/AS01E**, the world's first approved **malaria vaccine**, reduced overall child deaths by **13%** in parts of Africa. **Malaria** is a life-threatening disease caused by parasites and mainly transmitted through the bites of infected female Anopheles mosquito mosquitoes. It does **not spread from person to person**.



### GS II: INTERNATIONAL RELATIONS

- India hosted the **10th Indian Ocean Dialogue (IOD)** under the theme "**Indian Ocean Region in a Transforming World.**" The IOD is the flagship **Track 1.5 dialogue platform** of the Indian Ocean Rim Association, aimed at promoting discussions among governments, academics, and strategic experts on regional cooperation and maritime issues in the Indian Ocean Region.



### GS III: INFRASTRUCTURE

- The **Multi-Lane Free Flow (MLFF) Tolling System** was launched on a section of **Urban Extension Road-II (NCR)** to enable seamless toll collection.
- It combines **Automatic Number Plate Recognition (ANPR)** technology with **FASTag-based electronic tolling** for automated fee collection with minimal human intervention.
- Implemented by the National Highways Authority of India, the system aims to reduce toll operation costs from **15% to 3-4%**, save nearly **250 crore litres of fuel annually**, and cut around **81,000 tonnes of carbon emissions**.



**GS III: AGRICULTURE**

→ The Government aims to bring an additional 100 lakh hectares under **micro-irrigation** during 2025-30 through the **Per Drop More Crop (PDMC)** scheme under the National Mission for Sustainable Agriculture. Launched in 2014-15 under the **National Action Plan on Climate Change (NAPCC)**, NMSA works under the **Ministry of Agriculture & Farmers Welfare** to promote **sustainable agriculture, water-use efficiency, and soil health management**.

→ The National Jute Board (NJB) has intensified the implementation of the **Jute Crop Information System (JCIS)**, launched in **2023** in collaboration with the Indian Space Research Organisation and Jute Corporation of India to monitor **jute cultivation** using **remote sensing** and field data.

→ JCIS includes two major tools — **BHUVAN JUMP**, a mobile app for on-field jute monitoring, and **PATSAN** (Prospective Assessment of Jute Using Mobile App-Based Field Observations).



**GS I: IMPORTANT PERSONALITIES IN NEWS**

→ Sardar Vallabhbhai Patel (1875–1950), popularly known as the **“Iron Man of India”**, was born in **Nadiad, Gujarat**.

→ He led major peasant movements like the **Kheda Satyagraha (1918)** and **Bardoli Satyagraha (1928)** against British oppression and supported mass movements such as the **Quit India Movement (1942)**.

→ He presided over the **Karachi Session (1931)** of the **Indian National Congress**, which ratified the **Gandhi-Irwin Pact**. After Independence, he became India’s **first Deputy Prime Minister** and **first Home Minister**. His greatest contribution was the **integration of more than 560 princely states** into the **Indian Union**.



**GS III: ENVIRONMENT**

→ The **Global Forest Goals (GFG) Report 2026** highlighted that global forest area declined by over **40 million hectares between 2015 and 2025**.

→ Major causes include **agricultural expansion** and rising demand for **fuelwood and charcoal**.

→ The report identified barriers to **sustainable forest management** such as **weak governance, insecure land tenure, illegal trade, and limited institutional capacity**.

→ Forest degradation has intensified due to **climate-related pressures** including **droughts, wildfires, heatwaves, pests, and diseases**.

→ Although forest finance reached a record **US\$84 billion in 2023**, it remains far below the estimated **US\$300 billion annually needed by 2030**.

## CHERRYPICKS OF THE WEEK

### FERMENTED ORGANIC MANURE (FOM)

- It is an organic fertilizer produced through controlled fermentation of materials such as manure, crop residues, and compost. It is also a byproduct of biogas and compressed biogas (CBG) plants. FOM improves soil health, supplies essential plant nutrients, enhances beneficial microbial activity, and supports climate-resilient agriculture.

### PD-1 INHIBITORS (PROGRAMMED CELL DEATH PROTEIN-1 INHIBITORS)

- They are a type of **immunotherapy drug** or **checkpoint inhibitor** used in cancer treatment.
- They block the **PD-1 checkpoint protein**, which normally prevents immune cells from attacking the body's own cells. By inhibiting this protein, these drugs help the **immune system recognize and destroy cancer cells more effectively**.

### ENTERPRISE AI

- It refers to the integration of **Artificial Intelligence (AI)** technologies such as **Machine Learning (ML)**, **Natural Language Processing (NLP)**, and **computer vision** into large organizations to enhance **efficiency, automation, productivity, and decision-making** across business operations.

### MULE ACCOUNTS

- They are bank accounts used by cybercriminals to illegally transfer or launder money obtained through **cyber frauds**.
- These accounts are often opened using **fake identities** or by exploiting unsuspecting individuals, and are used to hide the real beneficiary by creating multiple layers in digital financial fraud.
- In 2024, the Reserve Bank of India launched **MuleHunter.AI**, an AI-based system designed to detect and prevent mule accounts.

### BHARAT MARITIME INSURANCE POOL

- It aims to ensure **continuous and affordable maritime insurance** even during conflicts when foreign insurers withdraw coverage. It covers major maritime risks including **hull, machinery, cargo, protection and indemnity (P&I), and war risks**.