THE DAILY UPSC BRIEF

HIGH-YIELD DAILY SOURCES & ANALYSIS | FRIDAY, 6 NOVEMBER 2026

9	4	9
ARTICLES	GS PAPERS	MCQS & MAINS QS

TOPIC RADAR: GS1: 1 Topic | GS2: 3 Topics | GS3: 4 Topics | GS4: 1 Topic

QUOTE OF THE DAY · RELEVANT FOR GS4 CONSTITUTIONAL MORALITY & JUDICIAL ETHICS

"Dissent is not defiance; it is the very safety valve of democracy. A judge's ultimate allegiance is not to institutional comfort or majoritarian consensus, but to the constitutional conscience." — ***Justice Ujjal Bhuyan (Supreme Court of India, November 2026)***

TOP 3 NUMBERS TO REMEMBER TODAY

- **₹25,000 / 3 Yrs**: Statutory penalty & imprisonment for parents under Section 199A MV Act for permitting underage driving
- **150–500 km**: Operational strike envelope of DRDO's canisterised Pralay quasi-ballistic missile tested off Odisha coast
- **6 Months**: Duration of the breakthrough all-oral BPaLM drug regimen for Drug-Resistant TB, down from 24 months

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PRELIMS POINTERS — TODAY IN ONE LINE EACH

1. Pralay Missile — DRDO's canisterised, solid-propellant surface-to-surface quasi-ballistic missile (150–500 km range); executes in-flight aerodynamic maneuvers to evade anti-ballistic missile (ABM) defenses.
2. Materiovigilance Programme of India (MvPI) — Coordinated by Indian Pharmacopoeia Commission (IPC), Ghaziabad as National Coordination Centre; monitors medical device adverse events and post-market safety.
3. Section 199A Motor Vehicles Act — Imposes criminal liability on parents/guardians for offences committed by juveniles driving motor vehicles, carrying ₹25,000 fine, 3 years imprisonment, and 12-month vehicle registration cancellation.
4. BPaL / BPaLM Regimen — Novel 6-month, all-oral treatment regimen for Pre-XDR/MDR Tuberculosis comprising Bedaquiline, Pretomanid, and Linezolid (plus Moxifloxacin), drastically replacing 18–24 month injectable courses.
5. Solar PV in E-Waste Rules 2022 — Solar photovoltaic modules, panels, and cells are mandated under Schedule I of E-Waste (Management) Rules 2022, requiring manufacturers and producers to ensure Extended Producer Responsibility (EPR).

HOW TO READ THIS BRIEF • VISUAL LEARNING & COLOR SYSTEM

Subhead Pill | Case Law (Blue) | Data / Stat (Red) | Act / Section (Indigo) | Policy / Body (Green) | Feynman Analogy | Mains Snippet (IBC) | Trap Radar

⚡ THE 3-MINUTE EXECUTIVE SCANNER — *ALL 9 TOPICS AT A GLANCE*

GS 1.3	**Affirmative Action & Campus Equity**	UGC equity guidelines move beyond formal admissions to substantive campus integration, anti-discrimination cells, and addressing structural dropouts among marginalized students.
GS 2.1	**Custodial Liberty & The 24-Hour Clock**	SC rules informal police detention violates `Article 22(2)`; the statutory 24-hour clock for magistrate production starts from physical restraint, not formal GD entry.
GS 2.2	**Electoral Roll Purification & Rights**	Bombay HC curbs arbitrary voter roll deletions during SSR; Aadhaar linking remains voluntary under RPA 1950 and cannot be an eviction criterion.
GS 2.7	**Procedural Access via Zero FIRs**	Mandatory registration under `Section 173 BNSS` removes jurisdictional barriers for victims, yet systemic station transfers and compliance deficits demand digital oversight.
GS 3.8	**IPR vs Public Health in Drug-Resistan…**	Indian Patent Office rejects secondary patent on Bedaquiline under `Section 3(d)`, enabling generic manufacture and scaling the 6-month oral BPaLM regimen.
GS 3.12	**Pralay Quasi-Ballistic Missiles at LAC**	DRDO's canisterised `150-500 km` missile performs in-flight maneuvers to defeat anti-ballistic defenses, plugging the tactical conventional firepower void.
GS 3.7	**Materiovigilance Transparency & RTI**	CIC directs disclosure of medical device adverse events, ruling public health surveillance supersedes corporate commercial confidence under RTI Section 8(2).
GS 3.9	**Solar PV Waste Management Guidelines**	Operationalization of `E-Waste Rules 2022` introduces strict EPR recycling mandates to recover silver, silicon, and toxic heavy metals from `4.5M tonnes` of solar scrap.
GS 4.1	**Judicial Conscience & Dissent as Duty**	Justice Bhuyan emphasizes dissent as a democratic safety valve; ethical adjudication demands adherence to ***constitutional morality*** over institutional comfort.

GS PAPER 1: SOCIAL EMPOWERMENT & INCLUSIVE EDUCATION

⚖ GS1.3 · SOCIAL EMPOWERMENT // HIGHER EDUCATION ★★ EXAM CORE

Affirmative Action in Higher Education: Re-evaluating UGC Equity Rules & Caste Inclusivity

Why in news: Fresh assessments of the **University Grants Commission (UGC)** Promotion of Equity Regulations reveal that despite formal reservation quotas under `Article 15(5)`, premier Higher Educational Institutions (HEIs) continue to report disproportionate dropout rates and subtle caste-based alienation among Scheduled Caste (SC) and Scheduled Tribe (ST) students.

💡 THE FEYNMAN ANALOGY — *UNDERSTAND IN 10 SECONDS*

Imagine opening a door to invite everyone into a library, but once inside, all books are shelved out of reach and desks are reserved for old members. Formal admission quotas merely unlock the door; true equity requires providing the ladders, lighting, and supportive mentorship necessary for every student to thrive.

Key Takeaway: Equality of access without institutional belonging and remedial support leads to passive exclusion and academic attrition.

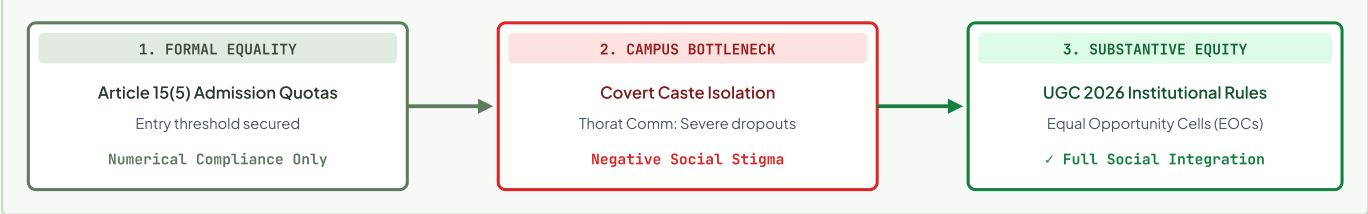
60%+ Share of student dropouts from premier Indian Institutes of Technology (IITs) and Central Universities accounted for by reserved category students (SC, ST, and OBC), highlighting structural campus alienation.

KEY DIMENSIONS & INSTITUTIONAL DYNAMICS

- **The Merit Myth vs Substantive Equality:** `[CONSTITUTIONAL LAW]` In ***B.K. Pavitra (II) (2019)*** and ***Neil Aurelio Nunes (2022)***, the Supreme Court affirmed that merit cannot be reduced to competitive test scores; it must encompass social context. Affirmative action is not an exception to equality, but its facet under `Article 14`.
- **Statutory Mandate of UGC Equity Regulations:** `[REGULATORY FRAMEWORK]` The **UGC (Promotion of Equity in Higher Educational Institutions) Regulations, 2012** mandate every university to appoint an Anti-Discrimination Officer, establish Equal Opportunity Cells (EOC), and institute strict safeguards against harassment based on caste or social origin.
- **Institutional Barriers & The Caste Gap:** `[SOCIAL IMPACT]` Inquiries following student suicides (***Rohith Vemula***, ***Payal Tadvi***) revealed entrenched everyday discrimination: segregation in hostels, biased grading in subjective viva-voce assessments, and derogatory stereotyping regarding reservation categories.
- **Rohini Commission & Sub-Categorization:** `[AFFIRMATIVE ACTION]` The Justice G. Rohini Commission highlighted that quota benefits remain concentrated among a few dominant sub-castes, underlining the 2024 Constitution Bench ruling in ***State of Punjab v. Davinder Singh*** permitting sub-classification within SCs/STs.
- **Cognitive Mnemonic: E-Q-U-I-T-Y:** `[EXAM MNEMONIC]` **E**ntry quotas (Art 15(5)) • **Q**uality remediation • **U**niversal belonging • **I**nstitutional ombudsman • **T**argeted sub-classification • **Y**ear-round diversity audits.

✏ DRAW THIS IN EXAM — *30-SECOND MAINS VISUAL MODEL*

Evolution from Formal Admission Quotas to Substantive Campus Equity (Draw in GS1)



✏ **Examiner Note:** Illustrate how formal numerical reservation (Article 15(5)) must be reinforced by campus equity cells and social integration to achieve substantive equality under Articles 14 and 21.

🎯 EXAM VALUE-AMMO: B.K. Pavitra II (2019) • Neil Aurelio Nunes (2022) • Davinder Singh (2024) • UGC Equity Regs 2012 • Bourdieu Cultural Capital

How to use in UPSC Mains: Cite in GS1 (Social Empowerment, Diversity of India, Caste in Modern Society) when analyzing social stratification and barriers to upward mobility; cite in GS2 (Welfare Mechanisms, Educational Institutions, Fundamental Rights) regarding affirmative action jurisprudence and institutional reform.

3-COLUMN MAINS DIMENSION MATRIX

1. Dimension / Anchor	2. Substantive Arguments & Data	3. Value-Add / Reform
GS1 / GS2: Re-evaluating Affirmative Action in Higher Education	• **Structural Entry vs Retention:** Admission quotas ensure numerical presence but fail to address institutional hostility, language barriers, and subjective assessment bias. • **Deficit of Grievance Redress:** Equal Opportunity Cells in most HEIs remain toothless, lacking statutory investigative teeth or independent ombudsman oversight. • **Sub-classification Imperative:** Extreme internal stratification within reserved categories requires targeted affirmative action for the most disadvantaged communities.	• Enact a comprehensive 'Rohith Act' granting statutory powers to campus anti-discrimination cells with mandatory time-bound inquiry procedures. • Incorporate equity and diversity audit metrics into the National Institutional Ranking Framework (NIRF) and NAAC accreditation scores.

Mains value-add: Contrast Dr. B.R. Ambedkar's vision of education as an instrument of social fraternity with Pierre Bourdieu's concept of educational institutions reproducing cultural and social capital.

⚠ UPSC EXAMINER'S TRAP RADAR — TRAP: PRECEDENT OVERRULE LAG

THE EXAMINER'S TRAP:
Believing that the Supreme Court has barred sub-classification within Scheduled Castes and Scheduled Tribes for reservation.

WHY ASPIRANTS FAIL:
Relying on the old 2004 E.V. Chinnaiah ruling without updating to the landmark 7-judge Constitution Bench ruling in 2024.

THE FACT CHECK:
In State of Punjab v. Davinder Singh (2024), a 7-judge Constitution Bench overruled E.V. Chinnaiah, explicitly permitting states to sub-classify SCs and STs to provide preferential quotas to more backward sub-groups.

TARGET PRELIMS MCQ — MODERATE

Q. Consider the following statements regarding affirmative action and equity in higher education in India:
1. Under Article 15(5) of the Constitution, the State is empowered to make special provisions for the advancement of socially and educationally backward classes in all higher educational institutions, including minority institutions.
2. In State of Punjab v. Davinder Singh (2024), a 7-judge Constitution Bench of the Supreme Court upheld the constitutional validity of sub-classification within Scheduled Castes for reservation.
3. The University Grants Commission (Promotion of Equity in Higher Educational Institutions) Regulations, 2012 mandate the appointment of an Anti-Discrimination Officer in every higher educational institution.
Which of the statements given above are correct?

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

Answer: (b) 2 and 3 only

Explanation: Statements 2 and 3 are correct. Statement 1 is incorrect: Article 15(5) (introduced by the 93rd Constitutional Amendment Act, 2005) explicitly EXCLUDES minority educational institutions referred to in Article 30(1) from state reservation mandates.

Related PYQ: UPSC Prelims 2021: 'Which of the following provisions of the Constitution have a bearing on Education? 1. Directive Principles of State Policy... 2. Rural and Urban Local Bodies... 3. Fifth Schedule...' [Direct testing of educational constitutional provisions].

MAINS PRACTICE QUESTION (GS1/GS2 — 15 MARKS, 250 WORDS)

"Affirmative action in higher education cannot terminate at the admissions counter; without institutional empathy and substantive equity mechanisms, formal representation fails to achieve social justice." Critically evaluate this statement in light of recent dropouts and student unrest in premier institutions.

Evaluation rubric: Demand of question: Contextualize formal equality under Art 15(5) vs substantive equality under Art 14 -> Highlight root causes of campus alienation (grading bias, social capital deficit, toothless EOCs) -> Cite landmark jurisprudence (Davinder Singh, Neil Aurelio Nunes) -> Suggest comprehensive policy interventions (statutory ombudsman, NIRF diversity weighting).

■ [Abbreviations & Terminology]: **EOC:** Equal Opportunity Cell | **HEI:** Higher Educational Institution | **NAAC:** National Assessment and Accreditation Council | **NIRF:** National Institutional Ranking Framework | **UGC:** University Grants Commission

⚡ 30-SECOND ACTIVE RECALL CHECKPOINT — GS PAPER 1 (SOCIAL EMPOWERMENT & EDUCATION) — [COVER & RECALL • 10-SEC DRILL]

Q. Does Article 15(5) apply to minority educational institutions? → No, Article 15(5) explicitly excludes minority educational institutions covered under Article 30(1).

Q. Which landmark 7-judge Constitution Bench case in 2024 permitted SC/ST sub-classification? → State of Punjab v. Davinder Singh (2024).

Q. What key statutory body under UGC regulations must be established in universities to tackle bias? → Equal Opportunity Cell (EOC) headed by an Anti-Discrimination Officer.

GS PAPER 2: POLITY, CONSTITUTION & CRIMINAL JUSTICE

⚖ GS2.1 · FUNDAMENTAL RIGHTS // CUSTODIAL LIBERTY — *** MUST READ

Custodial Liberty & The 24-Hour Clock: Supreme Court on Arrest vs Detention under Article 22(2)

Why in news: A Supreme Court bench comprising Justices Ujjal Bhuyan and Atul S. Chandurkar ruled that the constitutional clock under `Article 22(2)` and statutory mandate under `Section 58 of BNSS` (`Section 57 CrPC`) begins the exact moment an individual is physically restrained or detained by the police, rendering unrecorded or informal custodial interrogation unconstitutional.

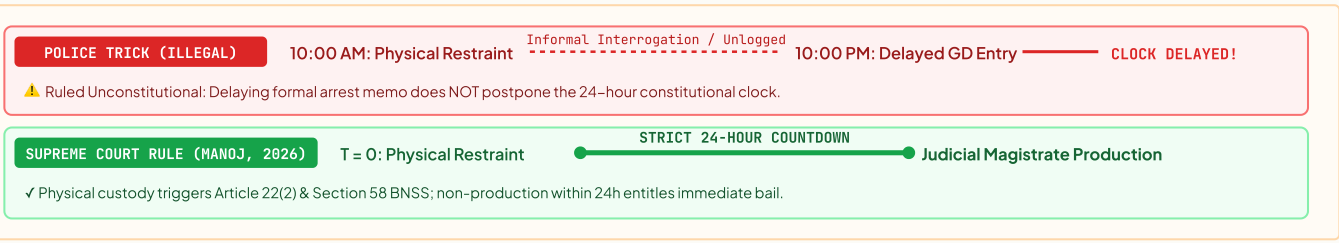
24 Hours Absolute constitutional ceiling under `Article 22(2)` for producing any arrested or detained person before the nearest judicial magistrate, excluding the journey time.

CONSTITUTIONAL DOCTRINE & JUDICIAL SAFEGUARDS

- **The Constitutional Command of Article 22(2):** [CONSTITUTIONAL LAW] Article 22(2) mandates that every person arrested and detained in custody shall be produced before the nearest magistrate within twenty-four hours, excluding the time necessary for the journey from the place of arrest to the magistrate's court.
- **Statutory Anchors: Section 58 BNSS & Section 57 CrPC:** [CRIMINAL PROCEDURE] Section 58 of the Bharatiya Nagarik Suraksha Sanhita (BNSS), 2023 (mirroring Section 57 of CrPC) mandates that no police officer shall detain an arrested person for longer than 24 hours without a special judicial magistrate remand order under Section 187 BNSS (Section 167 CrPC).
- **The Myth of 'Informal Detention':** [CUSTODIAL REFORMS] The Supreme Court in *Manoj Kumar Soni v. State of A.P.* and reinforced in November 2026 condemned the police practice of keeping suspects in station custody under the guise of "informal interrogation" before formally entering arrest in the General Diary (GD). The Court held that restraint equals arrest.
- **Judicial Oversight & D.K. Basu Reaffirmed:** [HUMAN RIGHTS] Reaffirmed binding *D.K. Basu (1997)* norms: arrest memos, informing next of kin, and immediate judicial review under Section 35 BNSS (*Arnesh Kumar*) to deter custodial torture.
- **Cognitive Mnemonic: B-A-S-U:** [EXAM MNEMONIC] **B**ooking from physical custody • **A**rrest memo with witness • **S**crutiny by magistrate in 24h • **U**nrecorded detention void.

✏️ DRAW THIS IN EXAM — *30-SECOND MAINS VISUAL MODEL*

Constitutional Custody Clock: Trigger, Informal Detention Trap & Production (Draw in GS2)



✏️ **Examiner Note:** Show how physical restraint instantly triggers Article 22(2) and Section 58 BNSS, invalidating the police practice of delaying formal GD arrest entries.

🎯 EXAM VALUE-AMMO: Article 22(2) • Section 58 BNSS • Section 187 BNSS • D.K. Basu (1997) • Manoj Kumar Soni (2026)

How to use in UPSC Mains: Cite in GS2 (Fundamental Rights, Judiciary, Police Reforms) when evaluating custodial justice, personal liberty, and the operationalization of BNSS.

📝 MAINS READY-TO-WRITE ANSWER SNIPPET (IBC FORMAT)

INTRO (~25w) Article 22(2) and Section 58 BNSS represent non-negotiable constitutional bulwarks designed to prevent secret detention and protect bodily integrity under Article 21.

CORE BODY (~80w)
- **Substance Over Form:** The Supreme Court has decisively ruled that physical deprivation of liberty, not ministerial bookkeeping in the police station diary, triggers the 24-hour clock.
- **Magisterial Gatekeeping:** Prompt production before an independent judicial magistrate is the primary institutional filter against custodial violence and arbitrary police detention.
- **Compliance Deficit:** Routine violations persist through 'informal questioning', delayed memo preparation, and remote detention, undermining the rule of law.

WAY FWD (~30w) Mandate real-time digital arrest logging on the Inter-operable Criminal Justice System (ICJS) with automated alerts to district legal services authorities upon 12 hours of detention.

⚠ UPSC EXAMINER'S TRAP RADAR — TRAP: BOOKKEEPING VS PHYSICAL CUSTODY

THE EXAMINER'S TRAP:	WHY ASPIRANTS FAIL:	THE FACT CHECK:
Assuming the 24-hour limit under Article 22(2) begins only when the police officially log the arrest in the Station General Diary.	Confusing procedural police recording with the constitutional trigger of physical restraint.	The 24-hour clock begins the moment physical custody, restriction of movement, or detention occurs. Any delay in formal booking cannot stop or extend the constitutional timer.

TARGET PRELIMS MCQ — MODERATE

Q. With reference to the constitutional and statutory safeguards regarding arrest and detention in India, consider the following statements:
1. Under Article 22(2) of the Constitution, the 24-hour period within which an arrested person must be produced before a magistrate includes the time necessary for the journey from the place of arrest.
2. The protection under Article 22(1) and Article 22(2) is not available to an enemy alien or to a person detained under any law providing for preventive detention.
3. Under Section 58 of the Bharatiya Nagarik Suraksha Sanhita (BNSS), 2023, police detention beyond 24 hours requires a special order from a magistrate.
Which of the statements given above are correct?

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

Answer: (b) 2 and 3 only

Explanation: Statements 2 and 3 are correct. Statement 1 is incorrect: Article 22(2) explicitly EXCLUDES the time necessary for the journey from the place of arrest to the court of the magistrate from the 24-hour calculation.

Related PYQ: UPSC Prelims 2020: 'A person can be detained under preventive detention without trial for a maximum period of...?' / UPSC Prelims 2017: 'Which one of the following statements is correct regarding Fundamental Rights?'

MAINS PRACTICE QUESTION (GS2 — 15 MARKS, 250 WORDS)

"The constitutional guarantee under Article 22(2) is not a mere procedural rule of criminal procedure; it is the fundamental dividing line between the rule of law and police arbitrary power." Discuss the significance of recent judicial rulings enforcing the 24-hour production clock.

Evaluation rubric: Demand of question: Detail constitutional mandate (Article 22(2)) and statutory codification (Sec 58 BNSS / Sec 57 CrPC) -> Analyze the malice of informal detention and delayed GD entries -> Discuss judicial scrutiny (D.K. Basu, Arnesh Kumar, Manoj Soni) -> Propose institutional safeguards (ICJS digital tracking, body-worn cameras).

■ [Abbreviations & Terminology]: **BNSS:** Bharatiya Nagarik Suraksha Sanhita | **CrPC:** Code of Criminal Procedure | **GD:** General Diary | **ICJS:** Inter-operable Criminal Justice System | **NHRC:** National Human Rights Commission

GS2.2 · ELECTIONS // REPRESENTATION OF THE PEOPLE ★★ EXAM CORE

Electoral Integrity & Roll Purification: Article 326, Special Summary Revision (SSR), and Aadhaar-Voter Linkage Dilemma

Why in news: The Bombay High Court (Goa Bench) intervened against the arbitrary deletion of registered electors during the ongoing Special Summary Revision (SSR), reiterating that the right to vote under Article 326 cannot be extinguished without strict adherence to natural justice and statutory verification under the Representation of the People Act, 1950.

THE FEYNMAN ANALOGY — *UNDERSTAND IN 10 SECONDS*

Think of the electoral roll as a citizenship ledger for democracy. Cleaning up duplicate names is like pruning a tree to keep it healthy. However, if the gardener trims branches blindly with automated algorithms without checking the roots, living branches get cut off, disenfranchising genuine citizens.

Key Takeaway: Electoral roll purification must prioritize due process and physical field verification over blunt bureaucratic deletions.

Form 6B Statutory form introduced under the Election Laws (Amendment) Act, 2021 for voluntary submission of Aadhaar numbers; non-submission cannot be a legal ground for electoral deletion.

STATUTORY PROTOCOLS & FRANCHISE PROTECTION

- **Article 326 & Statutory Franchise:** [CONSTITUTIONAL LAW] While Article 326 guarantees universal adult suffrage, the Supreme Court in *N.P. Ponnuswami (1952)* and *Anoop Baranwal (2023)* clarified that the right to vote is a statutory right governed by the Representation of the People Act (RPA), 1950 & 1951, though vital to democratic basic structure.
- **Statutory Procedure for Deletions: Section 22 RPA 1950:** [ELECTORAL LAW] Under Section 22 of RPA 1950 and Rule 21A of Registration of Electors Rules, 1960, an Electoral Registration Officer (ERO) cannot delete any entry on grounds of shifting or death without giving the concerned person an individual notice and reasonable opportunity of being heard.
- **The Aadhaar-Voter ID Dilemma:** [DATA PRIVACY] The Election Laws (Amendment) Act, 2021 amended Section 23 of RPA 1950 to allow linking of EPIC with Aadhaar. Crucially, the Election Commission of India (ECI) submitted to the Supreme Court that Aadhaar linkage is strictly voluntary and non-submission carries no penalty.
- **Risks of Algorithmic Disenfranchisement:** [GOVERNANCE CHALLENGE] Civil society audits demonstrate that large-scale automated deduplication software frequently flags legitimate voters sharing common surnames or migratory addresses, disproportionately disenfranchising migrant workers and urban poor without field verification by Booth Level Officers (BLOs).
- **Cognitive Mnemonic: V-O-T-E-R:** [EXAM MNEMONIC] **V**erification mandatory • **O**pportunity of hearing • **T**imely provisional display • **E**xclusion of coercion • **R**ight under Art 326.

EXAM VALUE-AMMO: Article 326 • Section 22 RPA 1950 • Section 23(5) RPA • Form 6B (Voluntary) • Law Commission 255th Report

How to use in UPSC Mains: Cite in GS2 (Salient features of RPA, Election Commission of India, Electoral Reforms) when discussing roll purification, voter disenfranchisement, and election integrity.

3-COLUMN MAINS DIMENSION MATRIX

1. Dimension / Anchor	2. Substantive Arguments & Data	3. Value-Add / Reform
GS2: Electoral Roll Purification vs Voter Franchise	• **Procedural Violations:** Deletion of electors based on bulk software algorithms without individual statutory notice violates Section 22 of RPA 1950. • **Aadhaar Coercion Creep:** Administrative insistence on Aadhaar via Form 6B contrary to statutory voluntary mandates risks mass disenfranchisement. • **Vulnerability of Mobile Populations:** Seasonal internal migrant workers and urban rental tenants face systemic exclusion due to rigid residential verification norms.	• Institutionalize mandatory physical verification and publicly accessible provisional deletion lists displayed for at least 30 days at Gram Panchayat and ward offices. • Establish an automated SMS and digital tracking system informing citizens immediately whenever a deletion proceeding is initiated against their EPIC.

Mains value-add: Reference the Law Commission of India's 255th Report on Electoral Reforms emphasizing statutory transparency in roll revision.

UPSC EXAMINER'S TRAP RADAR TRAP: VOLUNTARY VS MANDATORY INVERSION

THE EXAMINER'S TRAP:
Assuming that linking Aadhaar with the Voter ID card (EPIC) is legally mandatory under Section 23 of RPA 1950.

WHY ASPIRANTS FAIL:
Misinterpreting the 2021 Election Laws Amendment as compulsory rather than voluntary.

THE FACT CHECK:
Aadhaar linking with the electoral roll is strictly voluntary under the proviso to Section 23(5) of RPA 1950. The ECI has clarified that no name can be deleted from the electoral roll solely for failure to furnish Aadhaar.

TARGET PRELIMS MCQ MODERATE

Q. Consider the following statements regarding the preparation and revision of electoral rolls in India:
1. Under Article 326 of the Constitution, the right to vote is classified as a fundamental right under Part III.
2. Under Section 22 of the Representation of the People Act, 1950, an Electoral Registration Officer must give a reasonable opportunity of being heard before deleting any person's name from the electoral roll.
3. Under the Election Laws (Amendment) Act, 2021, furnishing an Aadhaar number is mandatory for inclusion in the electoral roll.
Which of the statements given above is/are correct?

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

Answer: (b) 2 only

Explanation: Statement 2 is correct (Section 22 mandates natural justice before deletion). Statement 1 is incorrect: The right to vote under Article 326 is a constitutional/statutory right, not a Part III Fundamental Right (Anoop Baranwal case). Statement 3 is incorrect: Aadhaar submission under Section 23(5) is strictly voluntary.

Related PYQ: UPSC Prelims 2017: 'Right to vote and to be elected in India is a: (a) Fundamental Right (b) Natural Right (c) Constitutional Right (d) Legal Right' [Direct conceptual testing of electoral rights].

MAINS PRACTICE QUESTION (GS2 — 15 MARKS, 250 WORDS)

"The sanctity of electoral democracy depends as much on the accuracy of electoral rolls as on the impartiality of the polling process." In light of recent concerns over summary roll revisions, analyze the institutional safeguards necessary to prevent wrongful voter disenfranchisement.

Evaluation rubric: Demand of question: Contextualize role of ECI and SSR under RPA 1950 -> Detail statutory procedures (Sec 22 RPA, Rule 21A, Form 6B) -> Examine challenges (algorithmic deletions, Aadhaar linkage ambiguity, migrant exclusion) -> Suggest administrative reforms (mandatory field audits, provisional display, grievance redress).

■ [Abbreviations & Terminology]: **BLO:** Booth Level Officer | **ECI:** Election Commission of India | **EPIC:** Electoral Photo Identity Card | **ERO:** Electoral Registration Officer | **RPA:** Representation of the People Act | **SSR:** Special Summary Revision

GS2.7 · POLICE REFORMS // ACCESS TO JUSTICE ★ ESSENTIAL BRIEF

Criminal Justice & Procedural Access: Evaluating Practical Efficacy of Zero FIRs

Why in news: With the nationwide enforcement of the Bharatiya Nagarik Suraksha Sanhita (BNSS), 2023, procedural audits reveal that despite statutory codification of 'Zero FIR' under Section 173(1), police stations across multiple states continue to resist registering crimes committed outside their jurisdiction, undermining the core objective of swift criminal justice.

Section 173(1)

Specific provision of the BNSS, 2023 statutorily codifying Zero FIR, mandating registration of information irrespective of the area where the crime was committed.

PROCEDURAL FRAMEWORK & OPERATIONAL ROADBLOCKS

- **Genesis & Justice Verma Committee Recommendations:** [LEGAL REFORMS] The concept of Zero FIR was conceived following the Justice J.S. Verma Committee (2013) recommendations post-Nirbhaya, to eliminate jurisdictional wrangling between police stations while crucial forensic evidence deteriorates.
- **Statutory Enshrinement in Section 173 BNSS:** [STATUTORY CODIFICATION] Unlike the erstwhile CrPC (where Zero FIR was maintained through administrative circulars and *Lalita Kumari (2014)* guidelines), Section 173(1) BNSS explicitly provides that information regarding a cognizable offence may be registered irrespective of territorial jurisdiction.
- **Numbering Mechanism & Transfer Protocol:** [PROCEDURAL WORKFLOW] A Zero FIR is registered without assigning a serial number (assigned number "0"), followed by initial medical examination or crime-scene preservation, after which the complete case diary is transferred to the jurisdictional police station for formal FIR re-numbering and investigation.
- **Institutional Resistance & Burking of Crime:** [POLICE FUNCTIONING] Empirical studies by the BPR&D highlight persistent field refusal: station house officers fear artificial inflation of local crime statistics ("burking") and avoid administrative transfer paperwork, forcing victims to shuttle between jurisdictions.
- **Cognitive Mnemonic: Z-E-R-O:** [EXAM MNEMONIC] **Z**ero territorial bar • **E**vidence golden hour • **R**eal-time CCTNS • **O**fficer liability under BNS 199.

EXAM VALUE-AMMO: Section 173(1) BNSS • Section 199 BNS • Justice Verma Comm. (2013) • Lalita Kumari (2014) • CCTNS ICJS Transfer

How to use in UPSC Mains: Cite in GS2 (Criminal Justice Administration, Police Reforms, Governance) when examining victim rights and institutional accountability under BNSS.

MAINS READY-TO-WRITE ANSWER SNIPPET (IBC FORMAT)

INTRO (~25w) Zero FIR operationalizes the victim's constitutional right of access to justice under Article 21 by dismantling bureaucratic jurisdictional barriers.

CORE BODY (~80w)
- **Statutory Legitimacy:** Section 173(1) of BNSS elevates Zero FIR from an executive circular to an explicit statutory right for citizens across India.
- **Preservation of Evidence:** Immediate registration enables prompt medical examination in sexual offences and rapid forensic collection during the golden hour.
- **Structural Inertia:** Deep-seated culture of 'burking' of crime and lack of inter-station transfer compliance protocols dilute field implementation.

WAY FWD (~30w) Integrate CCTNS with state digital portals to allow zero-click transfer tracking, and penalize non-registering officers under Section 199 of Bharatiya Nyaya Sanhita (BNS).

UPSC EXAMINER'S TRAP RADAR TRAP: SCOPE EXTRAPOLATION

THE EXAMINER'S TRAP:	WHY ASPIRANTS FAIL:	THE FACT CHECK:
Assuming that Zero FIR can only be registered for heinous offences committed against women and children.	Confusing special procedural advisories with the comprehensive scope of Section 173(1) BNSS.	Under Section 173(1) of BNSS, a Zero FIR can be registered for ANY cognizable offence, irrespective of the nature of the crime or the gender of the complainant.

TARGET PRELIMS MCQ MODERATE

Q. With reference to the concept and procedure of 'Zero FIR' in India, consider the following statements:
1. A Zero FIR can be registered only in offences involving violence against women and children.
2. It was statutorily codified under Section 173(1) of the Bharatiya Nagarik Suraksha Sanhita (BNSS), 2023.
3. After registering a Zero FIR, the police station carries out initial preliminary measures before transferring the case to the police station having territorial jurisdiction.
Which of the statements given above are correct?

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

Answer: (b) 2 and 3 only

Explanation: Statements 2 and 3 are correct. Statement 1 is incorrect: A Zero FIR can be registered for ANY cognizable offence under Section 173(1) BNSS, not limited to offences against women or children.

Related PYQ: UPSC Prelims 2021: 'With reference to the Indian judiciary, consider the following statements: 1. Any retired judge of the Supreme Court of India can be called back... 2. A High Court in India has the power to review its own judgement...' [Procedural criminal justice testing].

MAINS PRACTICE QUESTION (GS2 — 15 MARKS, 250 WORDS)

"The statutory codification of Zero FIR under the Bharatiya Nagarik Suraksha Sanhita (BNSS) is a landmark stride toward victim-centric jurisprudence, yet administrative inertia continues to blunt its efficacy." Critically examine the structural and behavioral impediments to its effective implementation.

Evaluation rubric: Demand of question: Define Zero FIR and trace evolution (Verma Committee -> BNSS Sec 173) -> Discuss benefits (golden hour evidence, dismantling territorial evasion) -> Analyze structural impediments (crime burking, inter-station friction, lack of training) -> Suggest institutional measures (CCTNS tracking, BNS 199 penalties).

■ [Abbreviations & Terminology]: **BNS:** Bharatiya Nyaya Sanhita | **BNSS:** Bharatiya Nagarik Suraksha Sanhita | **BPR&D:** Bureau of Police Research & Development | **CCTNS:** Crime and Criminal Tracking Network & Systems | **FIR:** First Information Report | **SHO:** Station House Officer

QUICK FACTS & EXAMPLES — POLITY & CRIMINAL JUSTICE

Article 22(2) Custodial Clock
How to use: Mandates magistrate production within 24 hours of arrest; excludes journey time; non-compliance invalidates detention as unconstitutional.

Section 58 BNSS (Sec 57 CrPC)
How to use: Statutory ceiling of 24 hours for police custody without warrant; extension requires judicial remand under Section 187 BNSS.

Section 173(1) BNSS
How to use: Explicit statutory codification of Zero FIR, requiring police to record cognizable offence information regardless of territorial jurisdiction.

Section 22 RPA 1950
How to use: Mandates reasonable opportunity of being heard (individual notice) before an Electoral Registration Officer can delete any voter from the roll.

⚡ 30-SECOND ACTIVE RECALL CHECKPOINT — GS PAPER 2 (POLITY, CONSTITUTION & JUSTICE) [COVER & RECALL • 10-SEC DRILL]

Q. Does the 24-hour limit in Article 22(2) include travel time to the magistrate? → No, the time necessary for the journey from the place of arrest to the magistrate's court is explicitly excluded.

Q. Can an individual's name be deleted from the electoral roll solely for not submitting Aadhaar? → No, submission of Aadhaar via Form 6B under Section 23(5) RPA 1950 is strictly voluntary.

Q. Under which section of the BNSS, 2023 is Zero FIR statutorily codified? → Section 173(1) of the Bharatiya Nagarik Suraksha Sanhita (BNSS).

GS PAPER 3: S&T, DEFENCE, HEALTH & ENVIRONMENT

GS3.8 · INTELLECTUAL PROPERTY // PUBLIC HEALTH ★★★ MUST READ

IPR vs Public Health: Section 3(d) Patents Act and Generic Access to BPaL Regimen for Drug-Resistant TB

Why in news: The Indian Patent Office (IPO) rejected multinational secondary patent claims on key anti-tuberculosis drugs including Bedaquiline and Pretomanid under Section 3(d) of the Patents Act, 1970, clearing the path for domestic generic manufacturers to supply the breakthrough 6-month oral BPaL/BPaLM regimen at a fraction of global costs.

6 Months Duration of the revolutionary oral BPaL/BPaLM treatment regimen for Drug-Resistant Tuberculosis (down from painful 18–24 month regimens involving daily toxic injections).

THERAPEUTIC TRANSFORMATION & PATENT JURISPRUDENCE

- **The Burden of Drug-Resistant Tuberculosis in India:** [PUBLIC HEALTH CRISIS] India accounts for ~27% of global tuberculosis incidence and a significant share of MDR and XDR-TB. The traditional treatment regimen lasted 18 to 24 months, requiring toxic daily injections with severe side effects including permanent deafness.
- **The BPaL / BPaLM Breakthrough:** [MEDICAL INNOVATION] Recommended by the World Health Organization (WHO), the BPaLM regimen combines Bedaquiline, Pretomanid, Linezolid, and Moxifloxacin. It cures MDR-TB in just 6 months with an all-oral protocol, boosting cure rates from ~55% to over 88%.
- **Section 3(d) & The Anti-Evergreening Doctrine:** [PATENT JURISPRUDENCE] Section 3(d) of the Patents Act, 1970 mandates that mere discovery of a new form of a known substance, such as a salt or polymorph, is NOT patentable unless it demonstrates significantly enhanced *therapeutic efficacy* (*Novartis v. UOI, 2013*).
- **Overcoming Monopoly Pricing:** [GENERIC PHARMA] While the primary molecule patent on Bedaquiline expired in 2023, secondary filings on salts sought to extend monopoly until 2027. The IPO's rejection allowed Indian generic majors to manufacture the drug, slashing treatment costs by ~70–80%.
- **Cognitive Mnemonic: B-P-A-L-M:** [EXAM MNEMONIC] **B**edaquiline generic • **P**atents Act 3(d) • **A**nti-evergreening • **L**ow-cost procurement • **M**ission SDG 3.3.

✏️ DRAW THIS IN EXAM — *30-SECOND MAINS VISUAL MODEL*

Section 3(d) Anti-Evergreening Filter & Generic TB Medicine Access (Draw in GS3)



✏️ **Examiner Note:** Show how primary patent expiration followed by Section 3(d) rejection of secondary salt claims unlocks low-cost generic manufacture for the BPaL regimen under Article 21.

🎯 EXAM VALUE-AMMO: Section 3(d) Patents Act 1970 • Section 84 Compulsory Licensing • Novartis AG (2013) • WTO Doha Declaration (2001) • SDG 3.3 End TB

How to use in UPSC Mains: Cite in GS3 (Intellectual Property Rights, Science and Technology in Healthcare) regarding TRIPS flexibilities, patent evergreening, and generic drug security; cite in GS2 (Health Policy, Article 21 Right to Health) when evaluating affordable healthcare access.

3-COLUMN MAINS DIMENSION MATRIX

1. Dimension / Anchor	2. Substantive Arguments & Data	3. Value-Add / Reform
GS3: Balancing IPR Innovation with Public Health Access	• **Pro-Health Patent Regime:** Section 3(d) operationalizes TRIPS flexibilities by curbing secondary 'evergreening' patents that lack enhanced therapeutic efficacy. • **Fiscal Sustainability of Health Programs:** Low-cost generic procurement allows NTEP to distribute free BPaLM courses to over 70,000 MDR-TB patients annually. • **Global Geopolitical Scrutiny:** India continues to face pressure from USTR Special 301 Priority Watch Lists, requiring robust defense of its sovereign patent standards.	• Strengthen Indian Patent Office examination capacity with specialized bio-medical examiner cells to reduce backlog in secondary patent oppositions. • Leverage Section 84 Compulsory Licensing provisions proactively for other critical non-communicable and rare disease medications.

Mains value-add: Reference the 2001 WTO Doha Declaration on TRIPS and Public Health, which affirmed members' rights to protect public health and promote access to medicines for all.

⚠️ UPSC EXAMINER'S TRAP RADAR

TRAP: TIMELINE & CRITERIA INVERSION

THE EXAMINER'S TRAP:
Assuming Section 3(d) of the Patents Act prohibits any patent from ever being granted on a derivative of a known compound.

WHY ASPIRANTS FAIL:
Ignoring the explicit statutory exception of 'enhanced therapeutic efficacy'.

THE FACT CHECK:
Section 3(d) allows patenting of derivatives, salts, or polymorphs IF the applicant proves that the new form exhibits significantly enhanced therapeutic efficacy over the known compound.

TARGET PRELIMS MCQ

DIFFICULT

Q. Consider the following statements regarding the Indian Patents Act, 1970 and public health:
1. Section 3(d) of the Patents Act, 1970 prohibits the patenting of a new form of a known substance unless it results in enhanced therapeutic efficacy.
2. In the landmark Novartis AG v. Union of India (2013) case, the Supreme Court held that increased bioavailability alone does not necessarily equate to enhanced therapeutic efficacy under Section 3(d).
3. Compulsory licensing under Section 84 of the Patents Act can be applied for only after five years from the date of grant of a patent.
Which of the statements given above are correct?

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

Answer: (a) 1 and 2 only

Explanation: Statements 1 and 2 are correct. Statement 3 is incorrect: Under Section 84(1) of the Patents Act, 1970, an application for a compulsory license can be made after the expiration of THREE years (not five years) from the date of the grant of that patent.

Related PYQ: UPSC Prelims 2019: 'Consider the following statements: 1. According to the Indian Patents Act, a biological process to create a plant can be patented... 2. In India, there is no Intellectual Property Appellate Board... 3. Plant varieties are not eligible to be patented in India...' [Direct testing of Patent Act exclusions].

MAINS PRACTICE QUESTION (GS3 — 15 MARKS, 250 WORDS)

"Section 3(d) of the Indian Patents Act, 1970 is not a protectionist barrier, but a calibrated public health safeguard reconciling international trade commitments with the fundamental right to life." Critically analyze this statement with reference to drug-resistant tuberculosis and generic access.

Evaluation rubric: Demand of question: Explain Section 3(d) and anti-evergreening doctrine (Novartis precedent) -> Contrast innovator monopoly vs public health burden (MDR-TB, BPaL regimen) -> Examine WTO TRIPS flexibilities & Doha Declaration (2001) -> Discuss strategic significance of India's generic pharma as the 'pharmacy of the global south'.

■ [Abbreviations & Terminology]: **BPaL:** Bedaquiline, Pretomanid, Linezolid | **IPO:** Indian Patent Office | **MDR-TB:** Multi-Drug Resistant Tuberculosis | **NTEP:** National Tuberculosis Elimination Programme | **TRIPS:** Trade-Related Aspects of Intellectual Property Rights | **WTO:** World Trade Organization

GS3.12 · DEFENCE TECH // BORDER SECURITY ** EXAM CORE

Tactical Standoff at the LAC: Strategic Doctrine of Pralay Quasi-Ballistic Missiles

Why in news: The **Defence Research and Development Organisation (DRDO)** successfully conducted high-precision user-flight trials of the indigenous **Pralay** surface-to-surface quasi-ballistic missile off the Odisha coast, paving the way for its induction into the Indian Army and Air Force along the Line of Actual Control (LAC).

THE FEYNMAN ANALOGY — *UNDERSTAND IN 10 SECONDS*

Imagine a standard baseball pitch thrown in a high arc; the batter can calculate exactly where it lands and swing to hit it. That is a traditional ballistic missile. Now imagine a curveball that suddenly changes direction mid-air right before crossing the plate. That is Pralay's quasi-ballistic flight: it fools enemy radar and air defense interceptors by evading detection.

Key Takeaway: Quasi-ballistic maneuvering neutralizes modern Anti-Ballistic Missile (ABM) shields along contested mountain frontiers.

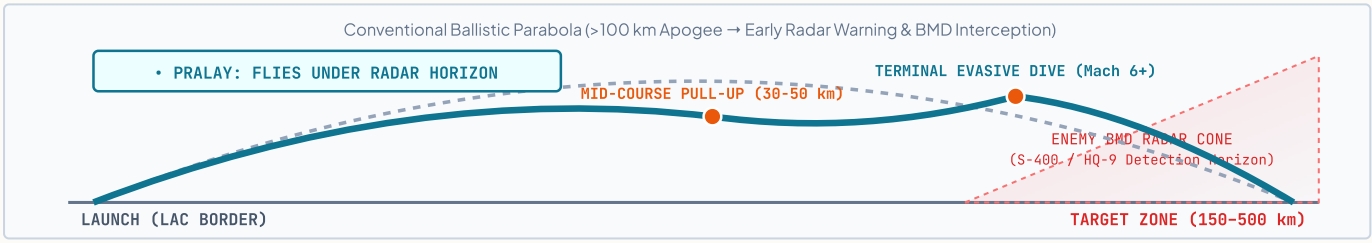
150–500 km Operational strike range of the canisterised, solid-propellant Pralay missile, carrying conventional warheads of `350 kg to 700 kg`.

TACTICAL SPECIFICATIONS & STRATEGIC DETERRENCE

- **Technical Architecture & Propulsion:** `[DEFENCE SPECS]` Developed by DRDO, Pralay is a short-range, surface-to-surface missile powered by a two-stage solid propellant rocket motor, utilizing modern composite motor casings and state-of-the-art avionics derived from India's BMD program.
- **Quasi-Ballistic Trajectory & In-Flight Maneuvers:** `[FLIGHT PROFILE]` Unlike purely parabolic ballistic missiles, Pralay flies along a low-altitude quasi-ballistic trajectory. It is equipped with jet-vane thrust vectoring and aerodynamic control fins that allow it to perform unpredictable terminal maneuvers to defeat hostile ABM interceptors (S-400 or HQ-9).
- **Plugging the Tactical Conventional Gap:** `[TACTICAL DOCTRINE]` India lacked a conventional tactical surface-to-surface missile in the 150–500 km bracket. The Prithvi series is liquid-fueled (cumbersome setup), and the Agni series is reserved for strategic nuclear deterrence. Pralay fills this tactical gap alongside supersonic BrahMos cruise missiles.
- **The Integrated Rocket Force (IRF) Concept:** `[MILITARY REORGANIZATION]` Pralay forms the spearhead of India's proposed non-contact conventional Rocket Force, enabling joint strikes against hardened enemy airbases, radar installations, and command bunkers across high-altitude Himalayan terrains without escalating to nuclear thresholds.
- **Cognitive Mnemonic: P-R-A-L-A-Y:** `[EXAM MNEMONIC]` **P**recision strike • **R**ocket motor solid • **A**ero-maneuvers • **L**ow-apogee path • **A**nti-ABM • **Y**ield 350-700 kg.

DRAW THIS IN EXAM — *30-SECOND MAINS VISUAL MODEL*

Pralay Quasi-Ballistic Trajectory vs Predictable Parabolic Arc (Draw in GS3)



Examiner Note: Show how low-apogee flight coupled with mid-course pull-ups and terminal maneuvers evades enemy Anti-Ballistic Missile (ABM) radar interception.

EXAM VALUE-AMMO: Pralay 150-500 km • Solid Canisterised TEL • Quasi-Ballistic Trajectory • Integrated Rocket Force (IRF) • Counter-BMD Evasion

How to use in UPSC Mains: Cite in GS3 (Defence Technology, Security Challenges in Border Areas) when analyzing standoff deterrence, theaterization, and LAC military infrastructure.

MAINS READY-TO-WRITE ANSWER SNIPPET (IBC FORMAT)

INTRO (~25w) Pralay bridges the conventional tactical strike void between supersonic cruise missiles and strategic nuclear ballistic systems in India's border defense posture.

CORE BODY (~80w)
- **Maneuverable Survivability:** Quasi-ballistic trajectory and terminal agility overcome hostile air defense complexes stationed across the Tibetan Plateau.
- **Non-Nuclear Threshold:** Provides joint commanders with precision standoff firepower against high-value logistics nodes without triggering nuclear escalation risks.
- **Operational Readiness:** Solid-propellant canisterisation guarantees minimal launch reaction time in rugged mountain battlegrounds.

WAY FWD (~30w) Accelerate the creation of a dedicated theater-level Integrated Rocket Force (IRF) unified under joint command doctrines to streamline targeting synergy.

UPSC EXAMINER'S TRAP RADAR — TRAP: CATEGORICAL CONFUSION (ICBM VS TACTICAL)

THE EXAMINER'S TRAP:	WHY ASPIRANTS FAIL:	THE FACT CHECK:
Confusing Pralay with an Intercontinental Ballistic Missile (ICBM) or a nuclear-only delivery platform.	Assuming all ballistic missiles developed by DRDO belong to the strategic nuclear arsenal.	Pralay is strictly a conventional, short-range (150–500 km) tactical quasi-ballistic missile. It is designed for conventional warheads and tactical joint theater strikes, distinct from the strategic nuclear Agni series.

TARGET PRELIMS MCQ EASY

Q. With reference to the 'Pralay' missile recently tested by DRDO, consider the following statements:
1. It is a long-range intercontinental ballistic missile designed exclusively for thermonuclear warheads.
2. It utilizes a solid-propellant rocket motor and follows a low-apogee quasi-ballistic trajectory capable of mid-air maneuvers.
3. It is canisterised and deployed on road-mobile Transporter Erector Launchers (TELs).
Which of the statements given above are correct?

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

Answer: (b) 2 and 3 only

Explanation: Statements 2 and 3 are correct. Statement 1 is incorrect: Pralay is a short-range (150–500 km), surface-to-surface CONVENTIONAL quasi-ballistic missile, NOT an intercontinental thermonuclear missile.

Related PYQ: UPSC Prelims 2018: 'What is Terminal High Altitude Area Defense (THAAD), sometimes seen in the news?' / UPSC Prelims 2023: 'Consider the following ballistic missiles... Agni-IV, Agni-V...'

MAINS PRACTICE QUESTION (GS3 — 15 MARKS, 250 WORDS)

"Modern mountain warfare along contested frontiers demands non-contact, precision conventional firepower capable of neutralizing hostile air defense networks." Discuss the strategic rationale behind inducting conventional quasi-ballistic missiles like Pralay into India's armed forces.

Evaluation rubric: Demand of question: Detail Pralay's technical capabilities (150-500 km range, solid propellant, quasi-ballistic evasion) -> Contextualize LAC tactical void (between BrahMos and Agni) -> Analyze the doctrine of an Integrated Rocket Force (IRF) -> Discuss operational readiness in joint theater commands.

■ [Abbreviations & Terminology]: **ABM:** Anti-Ballistic Missile | **BMD:** Ballistic Missile Defence | **DRDO:** Defence Research and Development Organisation | **IRF:** Integrated Rocket Force | **LAC:** Line of Actual Control | **TEL:** Transporter Erector Launcher

GS3.7 · HEALTH GOVERNANCE // REGULATORY TRANSPARENCY ★ ESSENTIAL BRIEF

Medical Device Vigilance & Regulatory Transparency: RTI Disclosure vs Commercial Confidence in MvPI

Why in news: The **Central Information Commission (CIC)** directed the **Indian Pharmacopoeia Commission (IPC)** to disclose data on Serious Adverse Events (SAEs) reported under the **Materiovigilance Programme of India (MvPI)**, ruling that public health surveillance supersedes corporate claims of commercial confidence under `Section 8(2) of the RTI Act`.

3-Fold Surge in Serious Adverse Events (SAEs) and malfunctions reported for high-risk medical devices in India over the past four years, underscoring the urgent need for open surveillance.

SURVEILLANCE ARCHITECTURE & INFORMATION DISCLOSURE

- **The Materiovigilance Programme of India (MvPI):** `[REGULATORY VIGILANCE]` Launched in 2015 by the Ministry of Health & Family Welfare, MvPI is coordinated by the **Indian Pharmacopoeia Commission (IPC)** in Ghaziabad (National Coordination Centre) to monitor medical device adverse events and feed data to the CDSCO.
- **The Secrecy Dispute & RTI Exemption:** `[RTI JURISPRUDENCE]` Device manufacturers and the IPC historically denied public RTI applications seeking malfunction and mortality data, citing "commercial confidence" and trade secrets under `Section 8(1)(d) of the RTI Act, 2005`.
- **The Public Interest Override: Section 8(2):** `[STATUTORY OVERRIDE]` The CIC affirmed that under `Section 8(2) of the RTI Act`, a public authority must disclose information if public interest outweighs harm to commercial interests. Patients have a fundamental right under `Article 21` to informed consent regarding life-sustaining implants.
- **Medical Devices Rules, 2017 & Risk Classification:** `[REGULATORY FRAMEWORK]` Under the `Medical Devices Rules, 2017`, devices are classified from Class A (low risk, e.g., thermometers) to Class D (high risk, e.g., drug-eluting stents). While post-market surveillance is statutory, compliance remains largely voluntary and under-reported by private corporate hospitals.
- **Cognitive Mnemonic: M-A-U-D-E:** `[EXAM MNEMONIC]` **M**ateriovigilance nodal IPC • **A**dverse event log • **U**niversal public registry • **D**evices Rules 2017 • **E**xemption override Sec 8(2).

EXAM VALUE-AMMO: MvPI IPC Ghaziabad • Medical Devices Rules 2017 • Section 8(2) RTI Public Interest • US FDA MAUDE • Standing Comm. 138th Report

How to use in UPSC Mains: Cite in GS3 (Science and Technology, Public Health, Consumer Welfare) when evaluating medical technology safety and healthcare regulation; cite in GS2 (RTI Act, Transparency & Accountability, Citizen Charters) regarding public interest overrides under Section 8(2).

3-COLUMN MAINS DIMENSION MATRIX

1. Dimension / Anchor	2. Substantive Arguments & Data	3. Value-Add / Reform
GS2 / GS3: Transparency in Medical Device Surveillance	• **Opaque Adverse Surveillance:** Cloaking adverse device reactions under 'commercial confidence' compromises patient informed consent and safety. • **Weak Institutional Mandate:** IPC and CDSCO lack statutory penalties to punish hospital chains and device manufacturers that fail to report serious malfunctions. • **Import Dependency:** Over 75% of high-end medical implants in India are imported, compounding tracing challenges in case of global product recalls.	• Enact a dedicated Medical Devices Bill establishing an independent, specialized regulatory body distinct from the pharmaceutical-centric CDSCO. • Create an open-access public adverse event database modeled on the US FDA MAUDE to empower clinical research and informed patient choices.

Mains value-add: Reference the Parliamentary Standing Committee on Health (138th Report on Medical Devices) highlighting the absence of an independent Medical Device Regulatory Authority.

⚠ UPSC EXAMINER'S TRAP RADAR

TRAP: AGENCY / NODAL BODY SUBSTITUTION

THE EXAMINER'S TRAP:	WHY ASPIRANTS FAIL:	THE FACT CHECK:
Assuming that medical device safety monitoring (MvPI) is managed directly by the Indian Council of Medical Research (ICMR).	Confusing biomedical research bodies with statutory pharmacopoeial commissions.	The Materiovigilance Programme of India (MvPI) is coordinated by the Indian Pharmacopoeia Commission (IPC), Ghaziabad, which acts as the National Coordination Centre under MoHFW.

TARGET PRELIMS MCQ

MODERATE

Q. Consider the following statements regarding the regulation of medical devices and adverse event monitoring in India:
1. The Materiovigilance Programme of India (MvPI) is coordinated by the Indian Pharmacopoeia Commission (IPC) located in Ghaziabad.
2. Under the Medical Devices Rules, 2017, medical devices are categorized into four risk classes (Class A to Class D).
3. Under Section 8(2) of the RTI Act, 2005, information exempted under Section 8(1) can be disclosed if the public interest in disclosure outweighs the harm to protected interests.
Which of the statements given above are correct?

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

Answer: (d) 1, 2 and 3

Explanation: All three statements are correct: MvPI is coordinated by IPC Ghaziabad; Medical Devices Rules 2017 classify devices into Class A (lowest risk) to Class D (highest risk); and Section 8(2) RTI Act contains the public interest override.

Related PYQ: UPSC Prelims 2020: 'With reference to the provisions made under the National Food Security Act, 2013...' / UPSC Prelims 2019: 'Consider the following statements about the Central Drugs Standard Control Organisation (CDSCO)...'

MAINS PRACTICE QUESTION (GS3 — 15 MARKS, 250 WORDS)

"Post-market surveillance of medical devices is as critical to public health as clinical trial approval." Critically evaluate India's materiovigilance framework in light of the recent push for open disclosure under the Right to Information Act.

Evaluation rubric: Demand: Define MvPI role -> Analyze commercial secrecy (Sec 8(1)(d)) vs public interest (Sec 8(2), Art 21) -> Highlight structural gaps (under-reporting, no public registry) -> Suggest reforms (statutory open registry, dedicated medical device law).

■ [Abbreviations & Terminology]: **CDSCO:** Central Drugs Standard Control Organisation | **CIC:** Central Information Commission | **IPC:** Indian Pharmacopoeia Commission | **MAUDE:** Manufacturer and User Facility Device Experience | **MvPI:** Materiovigilance Programme of India | **RTI:** Right to Information

GS3.9 · RENEWABLE ENERGY // CIRCULAR ECONOMY

★★ EXAM CORE

Clean-Tech Circular Economy: Policy Guidelines for Solar Photovoltaic (PV) Waste Management

Why in news: The Ministry of New and Renewable Energy (MNRE) and Ministry of Environment, Forest and Climate Change (MoEFCC) operationalized strict **Extended Producer Responsibility (EPR)** compliance mechanisms under the **E-Waste (Management) Rules, 2022**, addressing India's mounting volume of discarded solar photovoltaic panels and modules.

4.5M Tonnes Projected cumulative solar photovoltaic waste India will generate by 2050 (according to IRENA and CEEW estimates), making India one of the top solar waste producers globally.

CIRCULAR ECONOMY IMPERATIVES & RECYCLING MANDATES

- **The Emerging Solar Waste Avalanche:** [ENVIRONMENTAL THREAT] As India surges toward its target of **500 GW** of non-fossil power capacity by 2030 (with solar contributing >300 GW), early-generation modules installed in the early 2010s are reaching end-of-life or premature failure due to extreme heat and weather shocks.
- **Statutory Inclusion in E-Waste Rules, 2022:** [STATUTORY MANDATE] The **E-Waste (Management) Rules, 2022** explicitly placed solar photovoltaic modules, panels, and cells under **Schedule I**. Manufacturers and producers must register on the Central Pollution Control Board (CPCB) portal and fulfill mandated recycling targets.
- **Critical Mineral Recovery Potential:** [CIRCULAR ECONOMY] Solar PV panels are rich in critical raw materials: high-purity silicon (~**3–5%**), silver (~**0.05%** by weight but ~**50%** of module value), copper, and glass (~**70–75%**). Recycling recovers scarce minerals, decreasing reliance on raw material imports from China.
- **Informal Sector & Leaching Hazards:** [ECOLOGICAL HAZARD] Damaged panels risk leaching toxic lead and cadmium/tellurium into groundwater. Lack of commercial recyclers drives crude dismantling by informal dealers.
- **Cognitive Mnemonic: S-I-L-V-E-R:** [EXAM MNEMONIC] **S**ilicon/silver recovery • **I**nformal dumping curb • **L**eaching prevention • **V**iability gap funding • **E**PR compliance • **R**efund deposit scheme.

EXAM VALUE-AMMO: E-Waste Rules 2022 Sched I • Extended Producer Responsibility (EPR) • CPCB Central Portal • Critical Raw Materials (CRMs) • 4.5M Tonnes by 2050

How to use in UPSC Mains: Cite in GS3 (Renewable Energy, Environmental Pollution, Circular Economy) when evaluating solar expansion, critical mineral security, and e-waste governance.

MAINS READY-TO-WRITE ANSWER SNIPPET (IBC FORMAT)

INTRO (~25w) Effective solar PV waste recycling is critical to prevent the renewable energy transition from generating a secondary environmental crisis.

CORE BODY (~80w)
- **Material Security:** Recycling solar modules recovers high-purity silicon and silver, strengthening domestic supply chains under the National Green Hydrogen and Solar Missions.
- **Statutory Accountability:** Schedule I of E-Waste Rules 2022 mandates EPR certificates, preventing producers from abandoning decommissioned solar parks.
- **Infrastructure Deficit:** Absence of specialized recycling technology clusters leads to informal dumping and severe chemical contamination.

WAY FWD (~30w) Introduce a dedicated 'Deposit Refund Scheme' (DRS) for solar developers and provide viability gap funding for commercial high-purity mineral recovery units.

⚠ UPSC EXAMINER'S TRAP RADAR

TRAP: STATUTORY DOMAIN CONFLATION

THE EXAMINER'S TRAP:	WHY ASPIRANTS FAIL:	THE FACT CHECK:
Assuming that solar panel waste in India is regulated under the Solid Waste Management Rules, 2016 or Hazardous Waste Rules.	Not knowing the specific statutory coverage introduced in recent e-waste legislation.	Solar photovoltaic modules, panels, and cells are specifically codified under Schedule I of the E-Waste (Management) Rules, 2022, administered by the CPCB under MoEFCC.

TARGET PRELIMS MCQ

MODERATE

Q. With reference to solar photovoltaic (PV) waste management in India, consider the following statements:
1. Solar photovoltaic modules and cells are explicitly covered under the E-Waste (Management) Rules, 2022.
2. Producers of solar panels are mandated to store solar waste up to the year 2034–2035 without any recycling requirement.
3. Silicon, silver, and copper can be commercially recovered through advanced solar module recycling processes.
Which of the statements given above are correct?

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

Answer: (b) 1 and 3 only

Explanation: Statements 1 and 3 are correct. Statement 2 is incorrect: Under the E-Waste (Management) Rules, 2022, producers must register on the CPCB portal and fulfill phased Extended Producer Responsibility (EPR) recycling targets; they are NOT permitted to merely hoard waste indefinitely.

Related PYQ: UPSC Prelims 2019: 'In India, 'extended producer responsibility' was introduced as an important feature in which of the following? (a) The Bio-medical Waste Rules (b) The Recycled Plastic Rules (c) The E-Waste Rules (d) The Food Safety and Standards Regulations' [Direct testing of EPR origins].

MAINS PRACTICE QUESTION (GS3 — 15 MARKS, 250 WORDS)

"India's aggressive expansion of solar energy must be complemented by an equally robust end-of-life circular economy; otherwise, the decarbonization of energy will culminate in an electronic waste crisis." Discuss the policy and technological measures needed to manage solar PV waste.

Evaluation rubric: Demand of question: Contextualize solar scale-up (500 GW target) and waste projections (IRENA data) -> Explain E-Waste Rules 2022 provisions on Solar PV -> Analyze twin benefits (preventing toxic leaching + recovering critical silver/silicon) -> Recommend solutions (EPR enforcement, specialized recycling parks, deposit refund scheme).

■ [Abbreviations & Terminology]: CPCB: Central Pollution Control Board | EPR: Extended Producer Responsibility | IRENA: International Renewable Energy Agency | MNRE: Ministry of New and Renewable Energy | MoEFCC: Ministry of Environment, Forest and Climate Change | PV: Photovoltaic

QUICK FACTS & EXAMPLES — ECONOMY, DEFENCE & ENVIRONMENT

Section 3(d) Patents Act 1970
How to use: Bars secondary patents for mere new forms/salts of known compounds lacking demonstrated enhanced therapeutic efficacy (Novartis 2013).
Pralay Missile
How to use: Surface-to-surface quasi-ballistic missile (150–500 km range); two-stage solid rocket; flies non-parabolic evasive trajectory to defeat ABM interceptors.
Solar PV in E-Waste Rules 2022
How to use: Schedule I inclusion mandates Extended Producer Responsibility (EPR) registration and recycling tracking on the central CPCB portal.

⚡ 30-SECOND ACTIVE RECALL CHECKPOINT — GS PAPER 3 (S&T, DEFENCE & ENVIRONMENT)

[COVER & RECALL • 10-SEC DRILL]

Q. What key criterion must a new salt form satisfy under Section 3(d) of the Patents Act? → It must demonstrate significantly enhanced therapeutic efficacy over the known parent compound.

Q. What is the operational range of the Pralay quasi-ballistic missile? → 150 km to 500 km, carrying a 350 kg to 700 kg conventional warhead.

Q. Under which statutory rules is solar photovoltaic waste officially governed in India? → The E-Waste (Management) Rules, 2022 (under Schedule I).

GS PAPER 4: ETHICS & CONSTITUTIONAL MORALITY

GS4.1 · JUDICIAL ETHICS // CONSTITUTIONAL MORALITY

★★ EXAM CORE

Judicial Conscience & Freedom of Expression: When Dissent Becomes a Constitutional Duty

Why in news: Supreme Court Justice Ujjal Bhuyan highlighted that judicial dissent is not institutional weakness, but the essential 'safety valve of democracy' and an ethical duty when consensus threatens *constitutional morality*.

THE FEYNMAN ANALOGY — *UNDERSTAND IN 10 SECONDS*

Think of a submarine navigating deep waters with high pressure outside. If all pressure relief valves are welded shut in the name of conformity, the submarine will eventually implode. Principled dissent is that vital safety valve: it releases internal pressure, prevents autocratic rigidity, and keeps the vessel of the Constitution afloat across changing political seasons.

Key Takeaway: Dissent is not defiance; it is loyalty to the foundational principles of justice when majoritarian consensus goes astray.

Art 145(5) Constitutional provision explicitly protecting a Supreme Court judge's right to deliver a dissenting judgment.

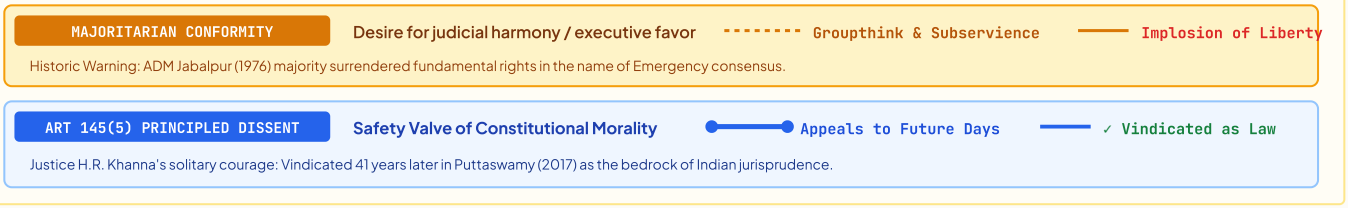
ETHICAL DIMENSIONS & JUDICIAL CONSCIENCE

- **The Philosophy of Dissent: Chief Justice Hughes' Maxim:** [ETHICAL FOUNDATION] Justice Bhuyan cited US Chief Justice Charles Evans Hughes: "A dissent in a court of last resort is an appeal to the brooding spirit of the law, to the intelligence of a future day, when a later decision may possibly correct the error into which the court was betrayed."
- **Justice H.R. Khanna & The ADM Jabalpur Legacy:** [HISTORICAL PRECEDENT] The foremost ethical beacon of judicial courage remains Justice H.R. Khanna's solitary dissent in *ADM Jabalpur v. Shivkant Shukla (1976)*, where he chose constitutional conscience over career advancement (sacrificing the CJI post), later vindicated in *Puttaswamy (2017)*.

- **Ambedkar's Constitutional Morality vs Conformism:** [CONSTITUTIONAL MORALITY] Dr. B.R. Ambedkar warned that constitutional morality must be cultivated. For a judge, allegiance is sworn strictly to the Constitution, not to executive convenience, popular sentiment, or the comfort of uncritical peer conformity.
- **Cognitive Mnemonic: C-O-D-E:** [EXAM MNEMONIC] **C**onstitutional morality • **O**vercoming careerism • **D**issent as safety valve • **E**thical independence (Bangalore Principles).

✏️ DRAW THIS IN EXAM — *30-SECOND MAINS VISUAL MODEL*

Dissent as the Safety Valve of Constitutional Democracy (Draw in GS4)



✏️ **Examiner Note:** Principled dissent anchored in constitutional morality ensures democratic resilience and prevents authoritarian drift.

🎯 EXAM VALUE-AMMO: Article 145(5) • ADM Jabalpur (1976) • Justice H.R. Khanna • Ambedkar Constitutional Morality • Bangalore Judicial Principles

How to use in UPSC Mains: Cite in GS4 (Conscience as Source of Guidance, Public Service Values) and GS2 (Judicial Independence, Basic Structure) for questions on institutional dissent.

📝 MAINS READY-TO-WRITE ANSWER SNIPPET (IBC FORMAT)

INTRO (~25w)	Dissent in constitutional adjudication is not an institutional flaw, but the vital safety valve of a democratic republic.
CORE BODY (~80w)	• **Constitutional Morality:** Adjudicators swear fidelity to constitutional values over executive convenience, majoritarian consensus, or institutional comfort. • **Appeal to Future Law:** As Chief Justice Hughes noted, principled dissent appeals to the intelligence of a future day, providing doctrinal seeds for legal corrections. • **Countering Careerism:** Overcoming unthinking conformism and post-retirement careerism is essential to preserve public trust in judicial independence.
WAY FWD (~30w)	Institutionalize transparent, recorded dissents in multi-member bodies and mandate a 2-year cooling-off period for post-retirement executive appointments.

⚠️ UPSC EXAMINER'S TRAP RADAR — TRAP: CONCEPTUAL MISCHARACTERIZATION

THE EXAMINER'S TRAP:	WHY ASPIRANTS FAIL:	THE FACT CHECK:
Equating judicial dissent with procedural indiscipline or rebellious factionalism.	Confusing institutional decorum with uncritical conformism.	Principled dissent is an explicit constitutional right under Article 145(5). It deepens jurisprudence and provides the doctrinal seeds for future constitutional correction.

TARGET PRELIMS MCQ — MODERATE

Q. With reference to judicial ethics and the constitutional role of dissent in India, consider the following statements:
1. Article 145(5) of the Constitution explicitly recognizes the right of a judge of the Supreme Court to deliver a dissenting judgment.
2. In ADM Jabalpur v. Shivkant Shukla (1976), Justice H.R. Khanna was the lone dissenter, holding that Article 21 cannot be suspended even during an Emergency.
3. The Bangalore Principles of Judicial Conduct are recognized globally as standards for judicial integrity and independence.
Which of the statements given above are correct?

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

Answer: (d) 1, 2 and 3

Explanation: All three statements are correct: Article 145(5) guarantees the right to record a dissenting opinion; Justice Khanna was the sole dissenter in ADM Jabalpur; and the Bangalore Principles define international judicial conduct benchmarks.

Related PYQ: UPSC Mains GS4 2021: '"An unexamined life is not worth living." – Socrates. Discuss the importance of moral integrity in public administration.' / UPSC Prelims 2021: 'Constitutional Morality'.

MAINS PRACTICE QUESTION (GS4 — 10 MARKS, 150 WORDS)

"Dissent is not defiance; it is the very safety valve of democracy." In the context of judicial adjudication and civil services, evaluate how an officer should resolve conflicts between institutional conformity and personal conscience.

Evaluation rubric: Demand: Define dissent in ethical governance -> Analyze organizational harmony vs constitutional conscience -> Cite benchmarks (Ambedkar, Khanna, Bangalore Principles) -> Suggest practical resolution framework.

■ [Abbreviations & Terminology]: CJI: Chief Justice of India | HC: High Court | PIL: Public Interest Litigation | SC: Supreme Court

⚡ 30-SECOND ACTIVE RECALL CHECKPOINT — GS PAPER 4 (ETHICS & CONSTITUTIONAL MORALITY) [COVER & RECALL • 10-SEC DRILL]

Q. Which constitutional provision explicitly protects a Supreme Court judge's right to dissent? → Article 145(5) of the Constitution of India.

Q. Who was the sole dissenting judge in ADM Jabalpur v. Shivkant Shukla (1976)? → Justice H.R. Khanna.

Q. What are the core foundational values articulated in the Bangalore Principles of Judicial Conduct? → Independence, Impartiality, Integrity, Propriety, Equality, and Competence.