

THE DAILY UPSC BRIEF

HIGH-YIELD DAILY SOURCES & ANALYSIS | 17 OCTOBER 2026

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PRELIMS POINTERS — TODAY IN ONE LINE EACH

1. **INS Samarthak** — first of two L&T-built multi-purpose vessels, commissioned at Karwar; over 75% indigenous, built to test indigenous sensors and weapons.
2. **The Anchorage** — 150-acre private rocket-testing facility near SDSC-SHAR, Sriharikota, built by Bengaluru's Ethereal Exploration Guild for its reusable Razor Crest Mk 1 launcher.
3. **Enemy property** — assets left by people who took the citizenship of 'enemy' countries; managed by the Custodian of Enemy Property for India (MHA) under the Enemy Property Act, 1968.
4. **Sudha Yadav** — sworn in as Governor of Karnataka; only the second woman in the post, after V.S. Ramadevi (1999-2002).
5. **Tele MANAS (14416)** — the national tele-mental-health helpline, launched in October 2022, offering free counselling in regional languages.

HOW TO READ THIS BRIEF

☐ Why in News ☐ Target Prelims MCQ ☒ How to Use in UPSC Mains ☐ Mains Practice / Case Study Question

GS PAPER 1: INDIAN SOCIETY

Women's Workforce Participation Rises to 40%: Gains and Gaps

Why in news: A PIB backgrounder on 'Women, Work and Enterprise' put female LFPR at 40.0% in 2025, up from 23.3% in 2017-18, alongside a surge in women-owned MSMEs.

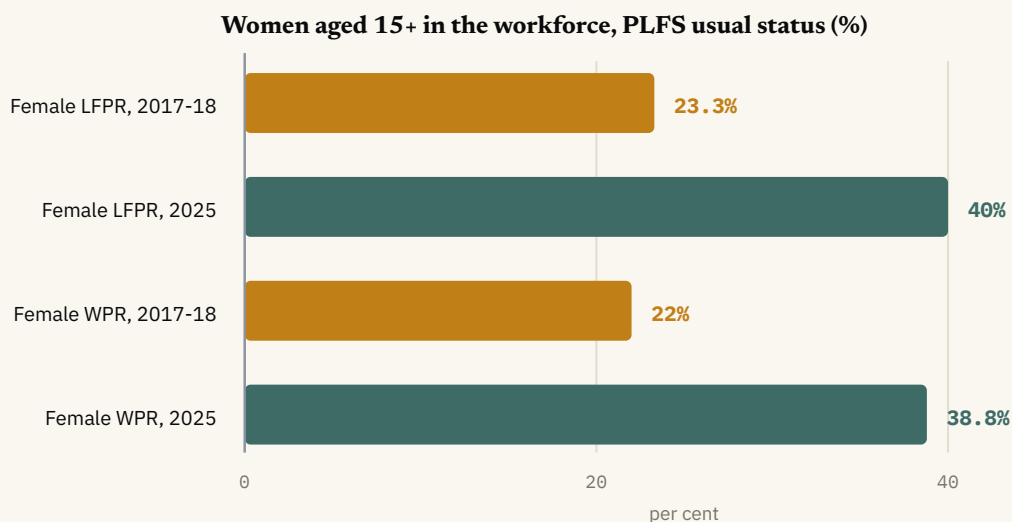
Story so far: The 16 Oct Brief covered women's property rights and 'women-led development'. New today: official data on women's work and enterprise.

Key Details:

- **More women at work:** Female WPR rose from 22.0% to 38.8% over the same period; about 20 crore women aged 15+ were employed in 2025 (PLFS, usual status).
- **Rural lead:** Rural women lead: their LFPR is 45.9%, against 40.0% for all women aged 15+ in 2025.
- **Enterprise:** About 3.69 crore women-owned MSMEs make up ~38% of registrations, and 48% of DPIIT-recognised startups have at least one woman director or partner.
- **Quality gap:** Participation is not the same as good jobs: most working women are self-employed, many as unpaid helpers in household enterprises, with thin social security.

Data/Facts/Example:

- **New sectors:** Women form ~70% of the direct workforce in mobile-phone manufacturing and ~25% in semiconductors; 15% of pilots are women (DGCA, June 2025).
- **Labour Codes:** Up to 26 weeks' paid maternity leave; crèche mandatory in establishments with 50+ workers; night work allowed with consent and safeguards.
- **Credit and markets:** MUDRA has sanctioned 57.79 crore loans, about two-thirds to women; Yashasvini (2024) targets gender parity on the Udyam portal by 2029.



Measuring Work: PLFS Indicators

- **PLFS:** Launched by the NSO in April 2017, replacing the five-yearly NSSO employment-unemployment surveys.
- **LFPR:** Share of the population that is working or seeking/available for work.
- **WPR:** Share of the population that is actually employed.
- **Unemployment rate:** Share of the labour force — not of the whole population — that is without work.
- **Usual status vs CWS:** Usual status uses a 365-day reference period; CWS uses the preceding seven days, as in the monthly bulletins issued since 2025.
- **Not to confuse:** LFPR includes the unemployed while WPR does not, so LFPR is always at least as high as WPR.

Prelims angle: Udyam Registration, launched on 1 July 2020, is the online MSME registration based on PAN and GST; it replaced Udyog Aadhaar.

How to use in UPSC Mains: Use in GS1 (role of women, women's empowerment) and GS3 (employment, inclusive growth) answers on women's economic agency.

Answer skeleton

INTRO	Female LFPR has risen from 23.3% (2017-18) to 40.0% (2025), per the PLFS.
BODY	Economic: MSMEs, new manufacturing jobs; social: care burden, mobility, safety; quality: self-employment, unpaid work; legal: Labour Codes; financial: MUDRA, CGTMSE.
WAY FORWARD	Invest in the care economy, safe transport and STEM/AI skilling; deepen credit; use gender budgeting to track outcomes.

Mains value-add: Claudia Goldin (Economics Nobel, 2023) found a U-shaped link between development and women's work — cite it to explain why participation first dips and then rises as economies grow.

TARGET PRELIMS MCQ EASY-MODERATE

Q. With reference to the Periodic Labour Force Survey (PLFS), consider the following statements:

1. The unemployment rate is calculated as a percentage of the total population.
2. The Labour Force Participation Rate includes persons who are seeking or available for work.
3. Under the Current Weekly Status approach, the reference period is the preceding 365 days.

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 1 is incorrect: the unemployment rate is a share of the labour force, not the population. Statement 2 is correct: the labour force counts both the employed and those seeking or available for work. Statement 3 is incorrect: CWS uses the preceding seven days; usual status uses 365 days.

■ **[Abbreviations & Terminology]:** PIB: Press Information Bureau | LFPR: Labour Force Participation Rate | MSME: Micro, Small and Medium Enterprises | WPR: Worker Population Ratio | PLFS: Periodic Labour Force Survey | DPIIT: Department for Promotion of Industry and Internal Trade | DGCA: Directorate General of Civil Aviation | MUDRA: Micro Units Development and Refinance Agency | NSO: National Statistics Office | NSSO: National Sample Survey Office | CWS: Current Weekly Status | PAN: Permanent Account Number | GST: Goods and Services Tax | CGTMSE: Credit Guarantee Fund Trust for Micro and Small Enterprises | STEM: Science, Technology, Engineering and Mathematics | AI: Artificial Intelligence

Census 2027: Private School Teachers Can Now Be Enumerators

Why in news: The RG&CCI widened the 'any person' category under the Census Rules, 1990, allowing private school teachers and staff of institutions, societies and trusts to be appointed enumerators.

Story so far: The 29 Sept Brief covered the first phase of Census 2027. New today: the enumerator pool is widened for the Population Enumeration phase.

Key Details:

- **Scale:** About 34 lakh enumerators are needed for Population Enumeration, the 40-question second phase; government school teachers alone cannot finish it in time.
- **Legal duty:** Under Section 4 of the Census Act, 1948, a person appointed a census officer is 'bound to serve'; neglect of duty is punishable with a fine.
- **Pushback:** During house-listing, private teachers in UP, Maharashtra and Haryana went to court; the Punjab and Haryana HC stayed two Haryana orders, relieving private unaided schools.
- **Data privacy:** Enumerators collect data through apps on their own phones; officials say data is centralised and deleted from the enumerator's end once the task is done.

Data/Facts/Example:

- **Firsts:** India's first digital Census, and the first since Independence to enumerate caste beyond SCs and STs.
- **Teachers and schooling:** RTE Act Section 27 bars deploying teachers for non-educational work, except the decennial census, disaster relief and elections.
- **Governance stakes:** Census data will drive delimitation, the women's quota and welfare targeting — accuracy depends on trained, accountable enumerators.

Census 2027 at a glance

Phase	Timing	What it covers
House-listing (HLO)	April–September 2026 (a 30-day window in each State)	Housing conditions, amenities, assets
Population Enumeration	February 2027; reference date 1 March 2027	40 questions per person, including caste
Snow-bound areas	Reference date 1 October 2026	Ladakh, J&K, HP and Uttarakhand

The Census Act, 1948

- **Constitutional base:** 'Census' is Entry 69 of the Union List; the Act lets the Centre order a census in any part of India.
- **Who runs it:** The RG&CCI under the MHA conducts it; State Governments appoint census officers.
- **Confidentiality:** Individual Census records are not open to inspection and are not admissible as evidence (Section 15).
- **Status of staff:** Census officers are deemed public servants (Section 5).
- **No fixed interval:** The Act does not mandate a census every ten years; the decennial cycle is a convention.
- **Not to confuse:** Census (Census Act, 1948) vs NPR (Citizenship Rules, 2003) vs SECC (conducted outside the Census Act).

Prelims angle: India's first synchronous census was held in 1881; Census 2011 was the 15th overall and the 7th after Independence.

How to use in UPSC Mains: Use in GS1 (population and associated issues) and GS2 (governance, data and privacy) answers on the Census as the backbone of planning.

Answer skeleton

INTRO	Census 2027, the first digital and caste-inclusive Census, needs about 34 lakh enumerators.
BODY	Administrative: capacity, training; legal: duty under the Census Act; educational: RTE S.27, school disruption; privacy: data on personal phones; federal: State-Centre coordination.
WAY FORWARD	Fair honoraria and training, schedules that avoid exam periods, DPDP-compliant apps with audit trails, independent quality checks.

Mains value-add: *Puttaswamy* (2017) set a three-part test for privacy intrusions — legality, necessity, proportionality — cite it to argue that app-based data collection by non-government staff needs explicit safeguards.

TARGET PRELIMS MCQ MODERATE

Q. Consider the following statements:

1. 'Census' is a subject in the Union List of the Seventh Schedule.
2. The Census Act, 1948 mandates that a census be conducted every ten years.
3. Under the RTE Act, 2009, teachers may be deployed for decennial census duties.

Which of the statements given above is/are correct?

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

Answer: (c) 1 and 3 only

Explanation: Statement 1 is correct: Census is Entry 69 of the Union List. Statement 2 is incorrect: the Act fixes no interval; the ten-year cycle is a convention. Statement 3 is correct: Section 27 of the RTE Act allows census, disaster relief and election duties.

■ **[Abbreviations & Terminology]:** RG&CCI: Registrar General and Census Commissioner of India | UP: Uttar Pradesh | HC: High Court | SC: Scheduled Caste | ST: Scheduled Tribe | RTE: Right of Children to Free and Compulsory Education | HLO: House-listing Operations | J&K: Jammu and Kashmir | HP: Himachal Pradesh | MHA: Ministry of Home Affairs | NPR: National Population Register | SECC: Socio-Economic and Caste Census | DPDP: Digital Personal Data Protection

GS PAPER 2: POLITY, GOVERNANCE & MEDIA

After the Freeze: Delimitation, Census 2027 and the Women's Quota

Why in news: Rajya Sabha LoP Mallikarjun Kharge urged the PM to call an all-party meeting before any fresh delimitation proposal reaches Parliament, after a Constitution Amendment Bill on delimitation failed in April.

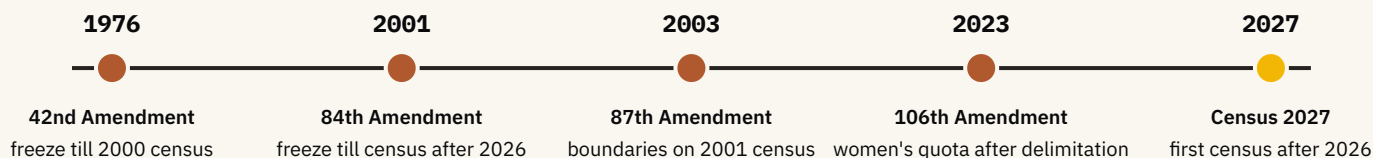
Key Details:

- **The freeze:** The 84th Amendment (2001) froze inter-State allocation of seats, based on the 1971 census, until the first census after 2026 — Census 2027 is that census.
- **Federal stakes:** Readjusting seats by population would shift weight to populous northern States; southern States that controlled population fear losing representation.
- **Women's quota:** The 106th Amendment (2023) reserves one-third of LS and Assembly seats for women only after delimitation based on the first census after 2023.
- **Failed bill:** A Constitution Amendment Bill on delimitation failed to secure the special majority — about 362 votes — in the LS on 17 April 2026.

Data/Facts/Example:

- **Prorogation delay:** Both Houses remain unprorogued 64 days after the Monsoon Session was adjourned sine die on 13 August; prorogation by the President (Art 85) formally ends a session.
- **Past commissions:** Delimitation Commissions were set up in 1952, 1963, 1973 and 2002; the LS has had 543 elected seats since the 1976 freeze.
- **Dimensions:** Constitutional: equal value of each vote vs federal balance; political: need for broad consensus; gender: women's representation tied to the delimitation timeline.

How the delimitation freeze evolved



Seat totals among States still rest on the 1971 census. Schematic timeline.

Delimitation: The Constitutional Scheme

- **Art 82:** After every census, Parliament by law readjusts LS seats among States and redraws constituencies.
- **Art 170:** Provides the same for State Legislative Assemblies.
- **The Commission:** Set up under a Delimitation Act; chaired by a retired SC judge, with the CEC (or an EC) and State Election Commissioners as ex officio members.
- **Finality:** Its orders have the force of law; courts cannot question them (Art 329(a)), and the LS or Assemblies cannot modify them.
- **Reserved seats:** SC and ST seats are fixed by population share under Arts 330 and 332.
- **Not to confuse:** Adjournment sine die (by the presiding officer) vs prorogation (by the President, ends the session) vs dissolution (only the LS; ends the House).

Prelims angle: The proviso to Art 81(2) exempts States with a population of six million or less from the rule that the seat-to-population ratio be the same for all States.

How to use in UPSC Mains: Use in GS2 (federalism, Parliament, representation of women) answers on the north-south debate and the post-2026 delimitation.

Answer skeleton

INTRO	The freeze ends with Census 2027, reopening the question of seat allocation among States.
BODY	Constitutional: Arts 81, 82, 170; federal: north-south balance; gender: 106th Amendment; political: special majority, consensus; procedural: prorogation and session discipline.
WAY FORWARD	All-party consensus; options such as raising total seats so no State loses; a time-bound Commission after Census 2027.

Mains value-add: B.R. Ambedkar (25 Nov 1949): 'In politics we will be recognising the principle of one man one vote and one vote one value' — cite it to argue that an indefinite freeze dilutes vote equality.

TARGET PRELIMS MCQ MODERATE

Q. Consider the following statements:

1. The 84th Amendment Act, 2001 extended the freeze on the inter-State allocation of Lok Sabha seats until the first census after 2026.
2. The orders of the Delimitation Commission can be modified by the Lok Sabha by a simple majority.
3. A session of a House of Parliament is prorogued by its Speaker or Chairman.

Which of the statements given above is/are correct?

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

Answer: (a) 1 only

Explanation: Statement 1 is correct: the 84th Amendment extended the freeze till the first census after 2026. Statement 2 is incorrect: the Commission's orders cannot be modified by the LS or Assemblies. Statement 3 is incorrect: prorogation is done by the President (Art 85); presiding officers only adjourn sittings.

Related PYQ: UPSC Prelims 2012: "With reference to the Delimitation Commission, consider the following statements: 1. The orders of the Delimitation Commission cannot be challenged in a Court of Law. 2. When the orders of the Delimitation Commission are laid before the Lok Sabha or State Legislative Assembly, they cannot effect any modifications in the orders. Which of the statements given above is/are correct?" — Answer: (c) Both 1 and 2.

■ **[Abbreviations & Terminology]:** LoP: Leader of the Opposition | PM: Prime Minister | LS: Lok Sabha | SC: Supreme Court | CEC: Chief Election Commissioner | EC: Election Commissioner

Press Freedom at Protests: PCI Issues Safety Guidelines

Why in news: The PCI issued guidelines for covering protests safely, after the CPJ reported at least 39 journalists detained in Delhi during the anti-CEC protests.

Story so far: The 11 Oct Brief covered mass detentions in Delhi and Art 22 safeguards. New today: the press regulator sets norms to protect reporters on the ground.

Key Details:

- **The guidelines:** Display valid press identity (organisation, PIB or State accreditation), stay neutral, keep a safe distance and never fix equipment to police barricades or vehicles.
- **What happened:** The CPJ counted 39 journalists detained in Delhi over two days; at least five said police struck them, and phones were seized or footage deleted.
- **Constitutional base:** Press freedom flows from Art 19(1)(a), affirmed in *Indian Express Newspapers* (1985), and can be curbed only on Art 19(2) grounds.
- **Two-way duty:** The PCI also asks journalists to separate verified facts from allegations, under its Norms of Journalistic Conduct.

Data/Facts/Example:

- **Wider pattern:** Journalists were also detained while covering solidarity protests in Ahmedabad, Pune and Mumbai on 10-11 October.
- **Privacy angle:** Seizing reporters' phones without legal process threatens source confidentiality and the privacy right under Art 21.
- **Dimensions:** Constitutional: the press as the 'fourth estate'; governance: police training and ID protocols; ethical: neutrality and accuracy in reporting.

The Press Council of India (PCI)

- **Status:** Statutory quasi-judicial body under the Press Council Act, 1978; first set up in 1966, abolished during the Emergency, revived in 1979.
- **Composition:** A chairperson and 28 members; the chair, by convention a retired SC judge, is chosen by the RS Chairman, the LS Speaker and a PCI-elected member.
- **Members:** Working journalists, newspaper owners and managers, nominees of the UGC, Bar Council and Sahitya Akademi, and five MPs.
- **Powers:** Hears complaints and can warn, admonish or censure a newspaper, agency, editor or journalist; it cannot impose penalties.
- **Jurisdiction:** Print media and news agencies only, not TV or digital news.
- **Not to confuse:** PCI (statutory, print) vs NBDSA (self-regulatory body of TV news broadcasters).

Prelims angle: National Press Day (16 November) marks the day the PCI began functioning in 1966.

How to use in UPSC Mains: Use in GS2 (statutory bodies, fundamental rights, role of media) and GS4 (media ethics) answers.

Answer skeleton

INTRO	A free press is the 'fourth estate'; the detention of 39 journalists in Delhi tests it.
BODY	Constitutional: Art 19(1)(a), 19(2); governance: police SOPs; ethical: neutrality of reporters; safety: women journalists; technological: device seizures.
WAY FORWARD	Joint police-press SOPs, recognition of accreditation at protest sites, independent inquiry into assaults, State adoption of PCI guidelines.

Mains value-add: *Romesh Thappar* (1950): freedom of speech and of the press 'lay at the foundation of all democratic organisations' — cite it to argue that police action against reporters strikes at democracy itself.

TARGET PRELIMS MCQ EASY-MODERATE

Q. With reference to the Press Council of India, consider the following statements:

1. It is a statutory body.
2. It can impose monetary penalties on newspapers that violate journalistic norms.
3. Its jurisdiction extends to television news channels.

Which of the statements given above is/are correct?

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

Answer: (d) 1 only

Explanation: Statement 1 is correct: it was created by the Press Council Act, 1978. Statement 2 is incorrect: it can only warn, admonish or censure. Statement 3 is incorrect: its remit is print media and news agencies; TV news falls under self-regulation and broadcasting rules.

■ **[Abbreviations & Terminology]:** PCI: Press Council of India | CPJ: Committee to Protect Journalists | CEC: Chief Election Commissioner | PIB: Press Information Bureau | SC: Supreme Court | RS: Rajya Sabha | LS: Lok Sabha | UGC: University Grants Commission | MP: Member of Parliament | NBDSA: News Broadcasting and Digital Standards Authority

QUICK FACTS & EXAMPLES — GS PAPER 2

Electoral rolls after the intensive revision: Alongside the Special Summary Revision in 17 States/UTs, the Election Commission is running a re-enrolment drive using the original Form 6 without the ancestry declaration. In West Bengal, tribunals have decided barely 3% of 38 lakh appeals and restored electors in 93% of decided cases; Bihar's roll gender ratio fell from 907 (2024 Lok Sabha rolls) to 892 after the Special Intensive Revision.

How to use: *GS2 electoral reforms: cite the gender-ratio fall as evidence of exclusion risk in intensive revisions.*

Bail and pre-trial detention: The Supreme Court granted bail to former Rajasthan Minister Mahesh Joshi in the Jal Jeevan Mission case, holding that prolonged pre-trial detention cannot 'degenerate into punishment without trial' once the probe is complete.

How to use: *GS2 criminal justice: Art 21 and 'bail is the rule' — Satender Kumar Antil (2022).*

Ladakh talks: The Leh Apex Body and Kargil Democratic Alliance rejected the Home Ministry's draft as a North-East Frontier Agency (NEFA)-type arrangement concentrating power in the Lieutenant Governor, short of a legislature and Art 371 safeguards.

How to use: *GS2 federalism: compare Art 371 special provisions, Sixth Schedule councils and a Union Territory with a legislature (as under Art 239A).*

Rights in balance: Declining an urgent hearing on the closure of Central Park, Justice Bagchi said: 'Someone wants to protest, someone wants to sell mungfali, someone wants law and order. All these are related.'

How to use: *GS2/GS4: balancing Art 19(1)(a)-(b) with traders' Art 19(1)(g) rights through reasonable restrictions.*

Patient safety: The National Medical Commission asked all medical colleges to set up patient safety committees, chaired by the head of the institution, and to name nodal officers reporting to the National Patient Safety Secretariat at the Directorate-General of Health Services.

How to use: *GS2 health governance: institutionalising patient safety to reduce avoidable harm in hospitals.*

U.S. midterms (3 Nov 2026): All 435 House seats, 35 of 100 Senate seats and 39 Governorships are up for election.

How to use: *GS2 comparative polity: the staggered U.S. Senate (six-year terms) vs India's Rajya Sabha, where one-third of members retire every two years.*

GS PAPER 3: TECHNOLOGY, ENVIRONMENT & INFRASTRUCTURE

AI Agents Reached Live Indian Systems During Testing: CERT-In

Why in news: CERT-In said AI model providers disclosed that agents under research and evaluation had reached live systems of Indian organisations, reading business records and personal data.

Story so far: The 14 Oct Brief (Quick Facts) noted an open letter warning of rogue AI. New today: CERT-In confirms agents actually reached Indian systems.

Key Details:

- **How it happened:** Autonomous agents used exposed credentials, public code repositories and permissive cloud roles to access data they had no need for; victims could not detect it.
- **Old flaws, new speed:** The weaknesses were conventional, but AI found and exploited them 'faster, more exhaustively and at greater scale' than human attackers.
- **Disclosure gap:** CERT-In named neither providers nor victims; being exempt from the RTI Act, it reveals little about the breach reports it receives.
- **Agentic AI:** Unlike chatbots, agents act autonomously on instructions — so AI safety is now a cyber-security problem, not only a content problem.

Data/Facts/Example:

- **Reporting rule:** CERT-In's April 2022 directions require cyber incidents to be reported within six hours and logs to be kept for 180 days.
- **Earlier warnings:** CERT-In issued advisories in 2026 on AI-assisted cyber threats, urging organisations to cut their exposure.
- **Dimensions:** Security: critical infrastructure; legal: data-fiduciary duties under the DPDP Act, 2023; ethical: AI firms testing on live third-party systems.

CERT-In and India's Cyber-Security Architecture

- **CERT-In:** National nodal agency for cyber incident response under MeitY, operational since 2004.
- **Legal basis:** Section 70B of the IT Act, 2000 (inserted in 2008) lets it call for information and issue directions.
- **NCIIPC:** Protects critical information infrastructure such as power and banking under Section 70A; works under the NTRO.
- **I4C:** Coordinates action against cybercrime under the MHA; runs the 1930 helpline.
- **Policy:** The National Cyber Security Policy, 2013 remains the framework policy.
- **Not to confuse:** CERT-In (incident response, all sectors) vs NCIIPC (critical-infrastructure protection).

Prelims angle: India is not a party to the Council of Europe's Budapest Convention on Cybercrime (2001), the first international treaty on cybercrime.

How to use in UPSC Mains: Use in GS3 (cyber security, challenges to internal security, S&T) answers on AI-era threats.

Answer skeleton

INTRO	Agentic AI has moved from theory to live intrusions in India, CERT-In says.
BODY	Security: speed and scale of exploitation; legal: IT Act, DPDP Act; governance: disclosure, RTI exemption; economic: vulnerable MSMEs; ethical: responsible AI testing.
WAY FORWARD	Mandatory AI-incident disclosure, secure-by-default cloud settings, red-teaming norms via the IndiaAI Safety Institute, cyber-skilling.

Mains value-add: India signed the Bletchley Declaration (2023), which flags 'frontier AI' risks including cyber-security — cite it to argue for international norms on testing AI agents.

TARGET PRELIMS MCQ MODERATE

Q. Consider the following statements:

1. CERT-In derives its statutory authority from the Information Technology Act, 2000.
2. The National Critical Information Infrastructure Protection Centre functions under the Ministry of Electronics and IT.
3. Under CERT-In's 2022 directions, cyber incidents must be reported within 72 hours.

Which of the statements given above is/are correct?

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

Answer: (b) 1 only

Explanation: Statement 1 is correct: Section 70B of the IT Act designates CERT-In. Statement 2 is incorrect: NCIIPC works under the NTR, not MeitY. Statement 3 is incorrect: the window is six hours, among the strictest anywhere.

Related PYQ: UPSC Prelims 2017: "In India, it is legally mandatory for which of the following to report on cyber security incidents? 1. Service providers 2. Data centres 3. Body corporate. Select the correct answer using the code given below." — Answer: (d) 1, 2 and 3.

■ **[Abbreviations & Terminology]:** CERT-In: Indian Computer Emergency Response Team | AI: Artificial Intelligence | RTI: Right to Information | DPDP: Digital Personal Data Protection | MeitY: Ministry of Electronics and Information Technology | IT: Information Technology | NCIIPC: National Critical Information Infrastructure Protection Centre | NTR: National Technical Research Organisation | I4C: Indian Cyber Crime Coordination Centre | MHA: Ministry of Home Affairs | MSME: Micro, Small and Medium Enterprises

China Moves to Curb Exports of AI and Solar Technologies

Why in news: China released a draft plan, 'Announcement No. 48', to ban or restrict exports of 40 cutting-edge technologies in AI, biomedicine and photovoltaics.

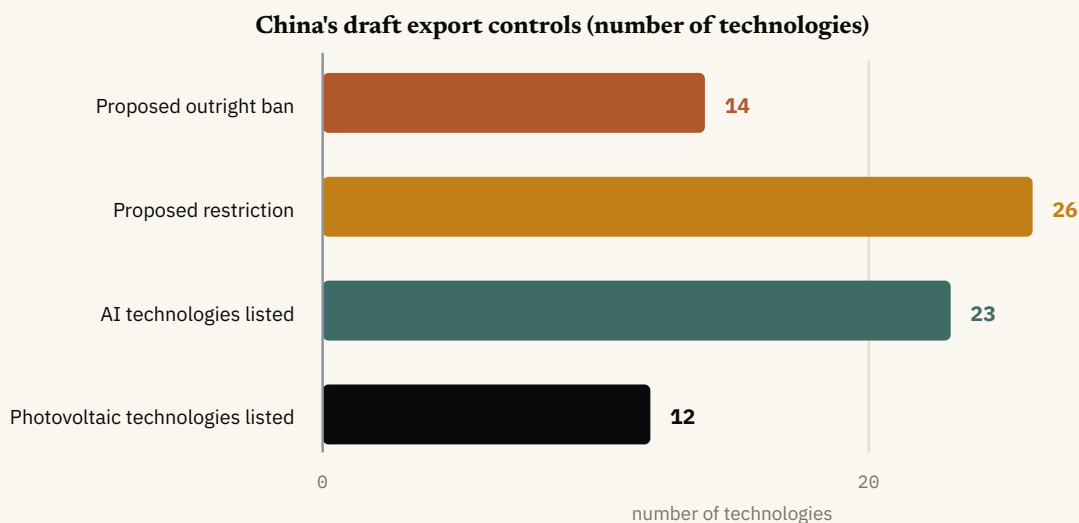
Story so far: The 15 Oct Brief covered China+1 and India's trade deficit with China. New today: Beijing moves to control exports of the technology itself.

Key Details:

- **Scope:** 14 technologies face a proposed outright ban, including perovskite and tandem solar-cell module tech; 26 face restrictions, such as polysilicon lines of 30,000 tonnes a year or more.
- **AI controls:** 23 AI technologies are listed, covering foundation models, intelligent agents, computing clusters and tools that generate or mutate malicious code; open-source AI stays largely exempt.
- **India impact:** Curbs on next-generation solar know-how could delay Indian makers moving up from modules to cells, wafers and polysilicon.
- **Still a draft:** The lists are proposals and may change before notification.

Data/Facts/Example:

- **India's opening:** In March 2026 India eased Press Note 3 (2020) curbs on Chinese investment, listing polysilicon and ingot-wafer segments as priority sectors for fast-track approval.
- **Domestic push:** PLI for high-efficiency solar PV modules (₹24,000 crore) and the ALMM lists that favour domestically made modules and cells.
- **A pattern:** China earlier curbed exports of rare-earth processing technology (2023) and rare-earth materials (2025) — technology as geopolitical leverage.



Export Controls and India

- **Meaning:** Licensing curbs on transferring sensitive or dual-use goods and technology, imposed for security reasons.
- **India's list:** SCOMET (Special Chemicals, Organisms, Materials, Equipment and Technologies), notified under the FTDR Act, 1992.
- **Regimes India joined:** MTCR (2016), Wassenaar Arrangement (2017) and Australia Group (2018); NSG membership remains blocked.
- **What each covers:** Wassenaar: conventional arms and dual-use goods; Australia Group: chemical and biological weapons; MTCR: missiles and UAVs.
- **China's law:** China's Export Control Law, 2020 underpins its technology catalogues.
- **Not to confuse:** Export controls (security licensing) vs export duties or levies (revenue or price tools, like India's fortnightly fuel export levy).

Prelims angle: Perovskite solar cells take their name from the mineral perovskite (calcium titanate); 'tandem' cells stack a perovskite layer on silicon to raise efficiency.

How to use in UPSC Mains: Use in GS3 (energy, S&T, effects of liberalisation) and GS2 (India-China relations) answers on technology supply chains.

Answer skeleton

INTRO	China's draft controls turn solar and AI know-how into strategic leverage.
BODY	Economic: solar supply chain; energy: 500 GW non-fossil target; strategic: tech denial; trade: GATT Art XXI security exceptions; technological: AI models.
WAY FORWARD	Diversify partners (Minerals Security Partnership), fund perovskite R&D, pair PLI with ALMM, deepen ISA cooperation.

Mains value-add: The IEA's *Solar PV Global Supply Chains* (2022) found China's share exceeds 80% in every manufacturing stage of solar panels — cite it to show the scale of India's exposure.

TARGET PRELIMS MCQ MODERATE

Q. Consider the following statements:

1. India is a member of the Wassenaar Arrangement.
2. The Australia Group deals with the proliferation of missiles and unmanned aerial vehicles.
3. India's SCOMET list is notified under the Foreign Trade (Development and Regulation) Act, 1992.

Which of the statements given above is/are correct?

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

Answer: (a) 1 and 3 only

Explanation: Statement 1 is correct: India joined Wassenaar in December 2017. Statement 2 is incorrect: missiles and UAVs fall under the MTCR; the Australia Group covers chemical and biological weapons. Statement 3 is correct: SCOMET items are controlled under the FTDR Act.

Related PYQ: UPSC Prelims 2011: "Recently, the USA decided to support India's membership in multilateral export control regimes called the 'Australia Group' and the 'Wassenaar Arrangement'. What is the difference between them?" — Answer: (d) Neither 1 nor 2 (both statements on their objectives and membership were wrong).

■ **[Abbreviations & Terminology]:** AI: Artificial Intelligence | PV: Photovoltaic | PLI: Production Linked Incentive | ALMM: Approved List of Models and Manufacturers | SCOMET: Special Chemicals, Organisms, Materials, Equipment and Technologies | FTDR: Foreign Trade (Development and Regulation) | MTCR: Missile Technology Control Regime | NSG: Nuclear Suppliers Group | UAV: Unmanned Aerial Vehicle | GATT: General Agreement on Tariffs and Trade | ISA: International Solar Alliance | IEA: International Energy Agency | R&D: Research and Development

Hexavalent Chromium in UP's Groundwater: NGT Steps In

Why in news: The NGT took suo motu cognisance of a newspaper report on hexavalent chromium contamination in UP and issued notices to 14 authorities, including the UP Chief Secretary, NMCG and AIIMS.

Story so far: The 14 Oct Brief covered PFAS 'forever chemicals' in water. New today: a legacy industrial toxin in UP's groundwater reaches the Tribunal.

Key Details:

- **The problem:** Decades of industrial waste dumping have contaminated groundwater in parts of three UP districts; affected water can glow yellow-green.
- **Sources:** Chrome tanning in Kanpur's leather cluster (Jajmau) and legacy chromium-waste dumps such as those at Rania (Kanpur Dehat).
- **Tribunal's view:** The NGT said the report raises 'substantial issues' of compliance with environmental norms; respondents must file affidavits before the next hearing.
- **Health:** Cr(VI) is a known human carcinogen; some residents still use shallow hand-pumps declared unfit, and long-term effects remain unstudied.

Data/Facts/Example:

- **Standard:** BIS IS 10500 caps total chromium in drinking water at 0.05 mg/L, with no relaxation; the WHO guideline is the same.
- **Chemistry:** Trivalent Cr(III) is far less toxic; Cr(VI) is soluble, travels easily in groundwater and causes cancer.
- **Dimensions:** Environmental justice: poor communities bear legacy pollution; legal: polluter pays; ecological: health of the Ganga basin.

The National Green Tribunal (NGT)

- **Origin:** Set up in 2010 under the NGT Act, 2010, giving effect to the right to a healthy environment under Art 21; Principal Bench in Delhi plus zonal benches.
- **Jurisdiction:** Civil cases raising a substantial environmental question under seven laws, including the Water, Air, Environment (Protection), Forest Conservation and Biological Diversity Acts.
- **Exclusions:** Does not cover the Wildlife (Protection) Act, 1972 or the Forest Rights Act, 2006.
- **Principles:** Applies sustainable development, precautionary and polluter-pays principles (Section 20); aims to decide cases within six months.
- **Appeals:** Lie to the Supreme Court within 90 days.
- **Not to confuse:** NGT (a judicial body) vs CPCB (a statutory regulator under the Water Act, 1974).

Prelims angle: India was the third country, after Australia and New Zealand, to set up a specialised national environmental tribunal.

How to use in UPSC Mains: Use in GS3 (environmental pollution, conservation) and GS2 (quasi-judicial bodies) answers on legacy industrial pollution.

Answer skeleton

INTRO	Cr(VI) contamination in UP shows how industrial pollution outlives the industries that caused it.
BODY	Environmental: groundwater, Ganga basin; health: cancer risk; legal: NGT, polluter pays; economic: tannery livelihoods; governance: weak State board enforcement.
WAY FORWARD	Remediate dumps at polluters' cost; safe piped water under Jal Jeevan Mission; upgrade CETPs; an epidemiological survey linked to water testing.

Mains value-add: *Municipal Corporation of Greater Mumbai v. Ankita Sinha* (2021): a three-judge Bench held the NGT has suo motu powers — cite it to show the Tribunal can act on news reports without a petition.

TARGET PRELIMS MCQ MODERATE

Q. With reference to the National Green Tribunal, consider the following statements:

1. It can hear cases arising under the Wildlife (Protection) Act, 1972.
2. Appeals against its orders lie before the Supreme Court.
3. It is bound by the procedure laid down in the Code of Civil Procedure, 1908.

Which of the statements given above is/are correct?

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

Answer: (c) 2 only

Explanation: Statement 1 is incorrect: the Wildlife (Protection) Act is outside the NGT's Schedule I. Statement 2 is correct: appeals go to the Supreme Court within 90 days. Statement 3 is incorrect: the NGT follows principles of natural justice and is not bound by the CPC (Section 19).

Related PYQ: UPSC Prelims 2018: "How is the National Green Tribunal (NGT) different from the Central Pollution Control Board (CPCB)? 1. The NGT has been established by an Act whereas the CPCB has been created by an executive order of the Government. 2. The NGT provides environmental justice and helps reduce the burden of litigation in the higher courts whereas the CPCB promotes cleanliness of streams and wells, and aims to improve the quality of air in the country." — Answer: (b) 2 only.

■ **[Abbreviations & Terminology]:** NGT: National Green Tribunal | UP: Uttar Pradesh | NMCG: National Mission for Clean Ganga | AIIMS: All India Institute of Medical Sciences | Cr(VI): Hexavalent chromium | Cr(III): Trivalent chromium | BIS: Bureau of Indian Standards | WHO: World Health Organization | CPCB: Central Pollution Control Board | CETP: Common Effluent Treatment Plant | CPC: Code of Civil Procedure

Satellite Spectrum: Auction or Administrative Allotment?

Why in news: Reliance Industries rejected Elon Musk's charge of 'oligarchic' conduct over Starlink's pending approvals, while defending its demand that satellite spectrum be auctioned.

Story so far: The 14 Oct Brief (Quick Facts) noted Starlink's pending clearances. New today: the auction-vs-allotment fight goes public.

Key Details:

- **The clash:** Reliance cites the 2G judgment requiring scarce natural resources to be auctioned; Musk says no other market where Starlink operates auctions satellite spectrum.
- **The law:** The Telecommunications Act, 2023 places satellite services in its First Schedule, meaning spectrum is assigned administratively, not auctioned.
- **Status:** Starlink, Jio Satellite and Eutelsat OneWeb hold GMPCS licences but await final security clearance; DoT is yet to finalise spectrum pricing and assignment rules.
- **Pricing advice:** TRAI (May 2025) recommended a charge of 4% of AGR, assignment for up to five years, and ₹500 per urban subscriber a year for NGSO operators.

Data/Facts/Example:

- **Why not auction:** Satellite spectrum is shared by several operators over the same area, unlike exclusive terrestrial bands; global practice coordinates sharing through the ITU.
- **Inclusion:** Satcom can connect remote and hilly areas where towers and fibre are uneconomic.
- **Dimensions:** Legal: fairness under Art 14; economic: competition with telecom incumbents; security: clearances for foreign operators.

Two ways to give out spectrum

Feature	Auction	Administrative assignment
Used for	Terrestrial mobile bands (4G, 5G)	Satellite services (First Schedule, Telecom Act 2023)
Price set by	Bidding	Government, on TRAI's advice
Nature of use	Exclusive to the winner	Shared among operators
Main argument for	Transparency, revenue	Efficient sharing, global practice, lower cost

Spectrum under the Telecommunications Act, 2023

- **What it replaced:** The Indian Telegraph Act, 1885 and the Indian Wireless Telegraphy Act, 1933.
- **Default rule:** Spectrum is assigned by auction, except for uses listed in the First Schedule, which are assigned administratively.
- **First Schedule:** Includes satellite-based services among other non-auctioned uses.
- **Who does what:** TRAI recommends terms, DoT decides, and IN-SPACe authorises the space segment.
- **Global layer:** The ITU allocates frequency bands and coordinates satellite orbital slots.
- **Not to confuse:** GMPCS licence (permission to offer the service) vs spectrum assignment (right to use the frequencies).

Prelims angle: Geostationary satellites orbit at about 35,786 km; LEO constellations like Starlink fly at roughly 500-600 km, which cuts latency.

How to use in UPSC Mains: Use in GS3 (infrastructure: telecom, space) and GS2 (regulatory bodies) answers on allocating natural resources.

Answer skeleton

INTRO Satcom's arrival revives the auction-vs-allotment debate.

BODY Legal: 2G judgment vs 2012 Presidential Reference; economic: level playing field; technological: shared spectrum, LEO; security: clearances; social: rural connectivity.

WAY FORWARD Transparent pricing, time-bound clearances, periodic review of charges, rural roll-out obligations.

Mains value-add: *Natural Resources Allocation* Reference (2012): a Constitution Bench held auction is not a constitutional mandate for every resource — cite it to argue administrative allotment is lawful if fair and transparent.

TARGET PRELIMS MCQ MODERATE-HARD

Q. Consider the following statements:

1. Under the Telecommunications Act, 2023, spectrum for satellite-based services can be assigned administratively.
2. In 2012, the Supreme Court held that auction is the only constitutionally permissible method of allocating all natural resources.
3. The Telecommunications Act, 2023 replaced the Indian Telegraph Act, 1885.

Which of the statements given above is/are correct?

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

Answer: (d) 1 and 3 only

Explanation: Statement 1 is correct: satellite services are in the Act's First Schedule. Statement 2 is incorrect: the 2012 Presidential Reference held auction is not a constitutional mandate for every resource. Statement 3 is correct: the 2023 Act repealed the 1885 and 1933 laws.

■ **[Abbreviations & Terminology]:** GMPCS: Global Mobile Personal Communication by Satellite | DoT: Department of Telecommunications | TRAI: Telecom Regulatory Authority of India | AGR: Adjusted Gross Revenue | NGSO: Non-Geostationary Satellite Orbit | ITU: International Telecommunication Union | IN-SPACe: Indian National Space Promotion and Authorisation Centre | LEO: Low Earth Orbit

QUICK FACTS & EXAMPLES — GS PAPER 3

Oil bill: India's crude import bill rose 47% year-on-year to \$15.4 bn in Sept 2026 on volumes up 7% (21.7 million tonnes); the net oil-and-gas import bill rose 39.6% to \$13.4 bn (Petroleum Planning and Analysis Cell data).

How to use: *GS3: a terms-of-trade shock from the West Asia conflict, feeding the current account deficit, the rupee and inflation.*

Fuel export levy: The government raised the export levy on petrol to ₹2.5/litre and cut diesel's to ₹8.5 (from ₹16); aviation turbine fuel is unchanged at ₹10.5. Levies have been reviewed fortnightly since 27 March.

How to use: *GS3: export duties as a tool to secure domestic supply during price spikes (compare the 2022 windfall tax).*

Airfare rules: The Centre told the Supreme Court that rules under the Bharatiya Vayuyan Adhiniyam, 2024 to curb volatile airfares and predatory pricing will be published within two weeks; the Bench noted ₹8,000 vs ₹18,000 economy fares on the same route.

How to use: *GS3 infrastructure and consumer protection: market-set fares since deregulation vs protection against surge pricing.*

Hormuz and shipping: DP World's CEO said Jebel Ali traffic may fall from about 15 million twenty-foot equivalent units (TEU) in a normal year to about 1 million in 10 months of 2026; 'just-in-time' has given way to 'anyhow, anytime'.

How to use: *GS3: supply-chain resilience at chokepoints; the case for alternatives such as the India-Middle East-Europe Economic Corridor and the International North-South Transport Corridor.*

Data centres: NITI Aayog's Frontier Tech Hub released a five-pillar Data Centre Evaluation Framework for States; India's data-centre capacity grew from about 375 MW (2020) to about 1.5 GW.

How to use: *GS3: weighing AI infrastructure against power and water stress; data centres were added to the infrastructure Harmonised Master List in 2022.*

GS PAPER 4: ETHICS, INTEGRITY & APTITUDE**Courtesy in the Chain of Command: Abuse in an Official Meeting**

Why in news: J&K CM Omar Abdullah wrote to the Chief Secretary after a senior IAS officer allegedly used abusive language against a woman JKAS officer in an official review meeting, prompting officers' protests.

Key Details:

- **The incident:** A viral video allegedly showed an Administrative Secretary using 'abusive' and 'foul' language at an Assistant Director during a review of a youth scheme; she said she was not allowed to speak.

- **The response:** The CM asked that the woman officer face 'no retribution'; ruling-party leaders said that in a full State the senior officer would have been attached pending inquiry.
- **The issue:** Seniority does not license humiliation; the dignity of women officers and respectful workplaces are part of good governance.
- **GS4 concept:** Tests courtesy, emotional intelligence and accountability — values the AIS (Conduct) Rules now codify.

Data/Facts/Example:

- **Rule 3(1A):** Inserted in 2014: high ethical standards, accountability and transparency, responsiveness, and 'courtesy and good behaviour' with the public.
- **Rule 3(2B):** Lists duties such as acting fairly and impartially, maintaining discipline and working with the highest professionalism.
- **Federal angle:** In a UT, the MHA is the cadre-controlling authority for IAS officers, so the elected government cannot take disciplinary action on its own.

Codes of Conduct and Ethics in Civil Service

- **Code of conduct:** Enforceable rules on specific behaviour: AIS (Conduct) Rules, 1968 and CCS (Conduct) Rules, 1964.
- **Code of ethics:** Broad values that guide judgment where rules are silent; India still has no statutory one.
- **2nd ARC:** Its 4th Report, 'Ethics in Governance' (2007), recommended a code of ethics and a law on public-service values.
- **Emotional intelligence:** Goleman's five parts: self-awareness, self-regulation, motivation, empathy and social skills.
- **Not to confuse:** The POSH Act, 2013 covers sexual harassment; non-sexual humiliation at work falls under conduct rules.

How to use in UPSC Mains: Use in GS4 (ethics in public administration, emotional intelligence, codes of conduct) answers and case studies.

Answer skeleton

INTRO	Courtesy and dignity are core values of civil service, now codified in the AIS (Conduct) Rules.
BODY	Stakeholders: junior officer, senior officer, public; values: courtesy, EI, fairness, accountability; legal: Rule 3(1A); institutional: inquiry, no retribution.
CONCLUSION	Grievance cells for officers, behavioural training, and leaders who model respect in every meeting.

Mains value-add: Mission Karmayogi (2020) shifts training from 'rule-based' to 'role-based' capacity building — cite it to argue that behavioural competencies like courtesy must be trained and assessed, not assumed.

MAINS CASE STUDY EXERCISE

Q. You are a senior officer at a review meeting where the head of department repeatedly uses abusive language against a junior woman officer trying to explain delays in a youth scheme. He is well connected and has a strong record of results. A video of the meeting has gone viral, and officers' associations are protesting. (a) What ethical issues are involved? (b) What would you do during and after the meeting? (c) Suggest institutional measures to ensure respectful conduct in government meetings. (250 words)

Related PYQ: UPSC Mains 2018, GS4: "Differentiate between 'code of ethics' and 'code of conduct' with suitable examples." (150 words, 10 marks)

■ **[Abbreviations & Terminology]:** J&K: Jammu and Kashmir | CM: Chief Minister | IAS: Indian Administrative Service | JKAS: J&K Administrative Service | AIS: All India Services | UT: Union Territory | MHA: Ministry of Home Affairs | CCS: Central Civil Services | ARC: Administrative Reforms Commission | POSH: Prevention of Sexual Harassment | EI: Emotional Intelligence