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MONTHLY PRELIMS — 120 MCQS

February 2026 — Monthly Prelims Practice

28 February 2026

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MONTHLY PRELIMS PRACTICE

February 2026

Question Bank with Full Solutions & Explanations

127
QUESTIONS**11**
SUBJECTS**~35%**
STATEMENT-BASED

Polity & Governance

Economy

Environment

Science & Tech

International Relations

Geography

History & Culture

Social Issues

Security & Defence

Reports & Schemes

Persons & Awards

 **Prelims Practice** **All Answers** **Explanations** **Concept Notes**

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HOW TO USE THIS PDF

- 1 Attempt first.** Cover the answer section and try each question before revealing — simulates exam conditions.
- 2 Statement questions** (marked Statement-Based) test logical elimination — read all statements before choosing.
- 3 Concept notes** (✦) after each explanation give the broader UPSC context — read them even for correct answers.
- 4 Revise by subject.** Use the table above to focus on weak areas before the exam.
- 5 Online version** has Quiz Mode + instant scoring at ujyari.com/monthly/

All questions are based on March 2026 current affairs — grounded in editorials from The Hindu, Indian Express, Hindustan Times, Mint, Business Standard, Economic Times and Down to Earth.

February 2026 — Monthly Prelims Practice

February 2026

127 Questions

35–40% Statement-Based

Polity & Governance

Q1

Under which Article of the Constitution is the Lok Sabha Speaker required to vacate office upon removal by an effective majority?

A Article 93

B Article 94(c)

C Article 96

D Article 100

✓ B Article 94(c)

Article 94(c) provides that the Speaker vacates office if a resolution for removal is passed by an effective majority — meaning the majority of all then members of the House (total sanctioned strength minus vacancies). This translates to roughly 272 in a full 543-member Lok Sabha. Article 93 covers election of the Speaker, Article 96 governs the casting vote, and Article 100 relates to voting and quorum in the House.

✦ Majority types are a high-frequency Prelims topic. Effective majority (Art. 94) differs from simple majority (more than 50% of members present and voting), absolute majority (more than 50% of total membership — effectively the same threshold in a fully-filled House), and special majority under Article 368 (two-thirds of members present and voting PLUS more than 50% of total membership). No Lok Sabha Speaker has ever been successfully removed; historical attempts were made against G.V. Mavalankar (1954), Hukam Singh (1966), and Balram Jakhar (1987).

[Read Source →](#)

Q2
STATEMENT-BASED

Consider the following statements about the Speaker of the Lok Sabha: 1. The Speaker's salary is charged to the Consolidated Fund of India. 2. The Speaker does not vote at all during proceedings of the House. 3. The Tenth Schedule, which governs anti-defection, was added by the 52nd Constitutional Amendment. Which of the statements given above is/are correct?

A 1 and 2 only

B 1 and 3 only

C 2 and 3 only

D 1, 2 and 3

✓ B 1 and 3 only

Statement 1 is correct — Article 97 (not Article 95) charges the salaries and allowances of the Speaker and Deputy Speaker to the Consolidated Fund of India, insulating the office from annual parliamentary vote. Statement 2 is incorrect — the Speaker may cast a deciding vote in the event of a tie under Article 100(1), meaning the Speaker votes only when casting is necessary.

Statement 3 is correct — the Tenth Schedule (anti-defection law) was inserted by the 52nd Constitutional Amendment Act, 1985, which received the President's assent on 15 February 1985.

✦ The Consolidated Fund route for salaries insulates constitutional offices from annual appropriation — the same protection applies to CAG (Art. 148), Supreme Court judges (Art. 125), High Court judges (Art. 221), and the Chief Election Commissioner. This is designed to preserve institutional independence from government pressure. Article 95 is distinct — it deals with when the Deputy Speaker performs the duties of the Speaker's office when it is vacant or the Speaker is absent.

[Read Source →](#)

Q3

In *Nabam Rebia v. Deputy Speaker (2016)*, the Supreme Court held that a Speaker who faces a notice of removal loses jurisdiction to decide which of the following?

- A** Admissibility of no-confidence motions against the government
- B** Disqualification petitions under the Tenth Schedule
- C** Allocation of speaking time to Opposition leaders
- D** Certification of Money Bills under Article 110

✓ B Disqualification petitions under the Tenth Schedule

In *Nabam Rebia v. Deputy Speaker (2016)*, a five-judge Constitution Bench of the Supreme Court unanimously held that once a valid notice of removal has been given against the Speaker, the Speaker is disabled from proceeding to decide disqualification petitions under the Tenth Schedule (anti-defection law). The rationale is that a Speaker facing removal cannot exercise quasi-judicial powers that require impartiality. The case arose from the 2015 Arunachal Pradesh constitutional crisis.

✦ The Tenth Schedule makes the Speaker the sole adjudicating authority for disqualification on grounds of defection. *Kihoto Hollohan v. Zachillhu (1993)* upheld this role but made the Speaker's decisions subject to judicial review (only after the final order, not at interim stages). *Nabam Rebia (2016)* adds a further procedural constraint: a Speaker under a removal notice cannot proceed with pending disqualification cases. Both judgments are standard Prelims and Mains GS-2 reference points on separation of powers and legislative accountability.

[Read Source →](#)

Q4
STATEMENT-BASED

Consider the following statements about removal of the Lok Sabha Speaker: 1. A minimum of 50 members must sign the notice for it to be admissible. 2. A notice of 14 days must be given before the removal resolution is moved. 3. No Lok Sabha Speaker has ever been successfully removed. 4. The Speaker can use procedural powers to block the removal resolution. Which of the above statements are correct?

A 1, 2 and 3 only

B 2 and 3 only

C 1, 3 and 4 only

D 1, 2, 3 and 4

✓ A 1, 2 and 3 only

Statements 1, 2, and 3 are correct. Under Rules 200-203 of the Rules of Procedure and Conduct of Business in Lok Sabha, a removal resolution requires: (i) a written notice with at least 50 members' support, and (ii) a minimum of 14 days' advance notice to the Secretary-General. In the House itself, at least 50 members must rise in support before leave is granted. No Speaker has ever been successfully removed in India's parliamentary history. Statement 4 is incorrect — once a valid resolution is moved, the Speaker cannot use procedural powers to block it; the Speaker must vacate the Chair during the debate.

✦ The removal procedure's high practical threshold (effective majority of all then members) renders it largely a political instrument rather than an enforceable check. Historical failed attempts include those against G.V. Mavalankar (1954), Hukam Singh (1966), and Balram Jakhar (1987). Crucially, during the debate on a removal resolution, the Deputy Speaker presides — not the Speaker — ensuring procedural fairness under Rule 200A.

[Read Source →](#)

Q5

Article 224A of the Constitution permits the appointment of ad hoc judges to High Courts. Which combination correctly identifies the three consents required for such an appointment?

- A** Chief Justice of India, President, and the retired judge
- B** Chief Justice of the High Court, President, and the retired judge
- C** Governor, Chief Justice of India, and the retired judge
- D** Chief Justice of the High Court, Supreme Court Collegium, and the retired judge

✓ B Chief Justice of the High Court, President, and the retired judge

Article 224A requires three specific consents: (i) the Chief Justice of the relevant High Court initiates the request, (ii) the President of India gives prior consent, and (iii) the retired judge who is being approached must personally agree to serve. The Supreme Court (in *Union of India v. Sankalchand Sheth*, 1977) explained that the retired judge's consent is necessary because, having demitted office at the prescribed retirement age, the person is no longer bound by conditions of judicial service. The CJI or SC Collegium are not part of the Article 224A process.

✦ Article 224A must be distinguished from three related provisions: Article 224 (additional/acting judges to HCs, appointed by the President on CJI's recommendation for up to two years); Article 127 (CJI, with President's consent, requests a sitting qualified HC judge to act as ad hoc SC judge when SC quorum is unavailable); and Article 128 (CJI requests a retired SC/Federal Court/HC judge to sit in the SC). Only Articles 127 and 128 involve the CJI at the appointment stage; Article 224A works through the HC Chief Justice and the President.

[Read Source →](#)

Q6
STATEMENT-BASED

Consider the following statements about judicial pendency in India: 1. Article 216 of the Constitution determines the number of judges in a High Court. 2. Article 226 confers original writ jurisdiction on High Courts for fundamental rights only. 3. The NJAC judgment was delivered in 2015 by a five-judge bench. 4. India's judge-population ratio is approximately 21 per million. Which of the statements given above are correct?

A 1, 3 and 4 only

B 2 and 4 only

C 1, 2 and 3 only

D 1, 2, 3 and 4

✓ A 1, 3 and 4 only

Statement 1 is correct — Article 216 empowers the President to determine the strength of each High Court. Statement 2 is incorrect — Article 226 is wider than Article 32; it covers fundamental rights AND any other purpose, allowing HCs to issue writs for violation of legal rights beyond Part III. Statement 3 is correct — the NJAC judgment (Supreme Court Advocates-on-Record Association v. Union of India) was a 4:1 decision delivered on 16 October 2015 by a five-judge Constitution Bench; Justice Chelameswar was the lone dissenter. Statement 4 is correct — India's judge-to-population ratio is approximately 21 judges per million people, well below the Law Commission's recommended 50 per million.

✦ The Article 226 versus Article 32 distinction is a classic Prelims trap: Article 32 (SC) is restricted to fundamental rights enforcement — Dr. Ambedkar called it the 'soul of the Constitution.' Article 226 (HC) is broader, covering both fundamental rights and other legal rights, and the HC can also act in matters of habeas corpus even when not a fundamental rights violation. The NJAC struck down the 99th Constitutional Amendment Act, 2014, which would have replaced the collegium system; the 16th Finance Commission (chaired by Arvind Panagariya) is the current body, unrelated to judicial appointments.

[Read Source →](#)

Q7

The Finance Commission of India is constituted under which Article, and what share of the divisible pool did the 15th Finance Commission recommend for states?

A Article 280; 42 percent

B Article 281; 41 percent

C Article 280; 41 percent

D Article 275; 40 percent

✓ C Article 280; 41 percent

The Finance Commission is constituted under Article 280 of the Constitution. The 15th Finance Commission, chaired by N.K. Singh and covering the period 2021-26, recommended 41% of the divisible pool (net proceeds of shareable Union taxes) to states — a slight reduction from the 42% recommended by the 14th FC (chaired by Y.V. Reddy) to account for the creation of the Union Territories of Jammu & Kashmir and Ladakh. Article 281 requires the President to lay the FC report before Parliament; Article 275 deals with grants-in-aid to states.

✦ The Finance Commission is a constitutional quasi-judicial body constituted every five years under Article 280. Its recommendations on tax devolution are binding by convention, though legally the Centre retains discretion. The 16th Finance Commission (chaired by Arvind Panagariya) is currently operational for the 2026-31 award period. The divisible pool comprises all central taxes except cesses and surcharges; these excluded levies have grown significantly and are a fiscal federalism concern since states receive no share from them.

[Read Source →](#)

Q8

The Supreme Court examined the constitutional validity of state governments providing pre-election welfare promises in which case?

- A Kihoto Hollohan v. Zachillhu (1993)
- B Subramaniam Balaji v. State of Tamil Nadu (2013)
- C S.R. Bommai v. Union of India (1994)
- D Ashoka Kumar Thakur v. Union of India (2008)

✓ B Subramaniam Balaji v. State of Tamil Nadu (2013)

In *S. Subramaniam Balaji v. State of Tamil Nadu* (2013), the Supreme Court declined to declare pre-election welfare promises (freebies) unconstitutional. The case arose from the DMK government's 2006 election manifesto promising free colour televisions; the Court held that such promises do not constitute corrupt practice under Section 123 of the Representation of the People Act, 1951, and that the electorate — not courts — should judge the wisdom of such promises. The Court asked the Election Commission to consult parties and formulate guidelines on election manifestos.

✦ In the 2022 *Ashwini Kumar Upadhyay* case, a reconstituted bench revisited *Subramaniam Balaji* and expressed concern about the fiscal impact of freebies on state finances, referring the matter to a larger bench. However, no absolute prohibition has been imposed. The ECI incorporated freebie-disclosure norms into the Model Code of Conduct guidelines but stopped short of banning promises. This remains an active area of constitutional and electoral law — relevant to GS-2 (governance, elections, federalism) and GS-3 (fiscal policy).

[Read Source →](#)

Q9

Under Article 293 of the Constitution, a state government requires the consent of the Centre to borrow if which of the following conditions is met?

- A** The state has not passed its own Fiscal Responsibility legislation
- B** The state has any outstanding loan from the Central Government
- C** The state fiscal deficit exceeds 3 percent of GSDP
- D** The state has not submitted its budget to the President for assent

✓ B The state has any outstanding loan from the Central Government

Article 293(3) of the Constitution requires that a state must obtain the prior consent of the Central Government before raising any new loan if there is any part of an earlier Central Government loan — or a loan guaranteed by the Centre — that remains outstanding and unpaid. This gives the Centre direct fiscal leverage over indebted states. The consent may be granted unconditionally or subject to conditions the Centre thinks fit under Article 293(4).

✦ Article 293 is the constitutional basis for Centre-state fiscal relations on borrowing. States raise market debt primarily through State Development Loans (SDLs). The Fiscal Responsibility and Budget Management (FRBM) Act, 2003 targets a 3% GSDP fiscal deficit cap for the Centre; states have enacted separate FRBM Acts. Importantly, the 3% cap is a statutory target, not a hard constitutional ceiling — there is no Article in the Constitution that directly caps the fiscal deficit of states. As states repay Centre loans and the outstanding balance falls, the Centre's leverage under Article 293(3) diminishes, a key contemporary debate in fiscal federalism.

[Read Source →](#)

Q10
STATEMENT-BASED

Consider the following statements about PM CARES Fund: 1. PM CARES was established on March 28, 2020 as a public charitable trust. 2. Its ex-officio trustees include the Prime Minister, Defence Minister, Home Minister, and Finance Minister. 3. It is subject to mandatory audit by the Comptroller and Auditor General. 4. The National Defence Fund, unlike PM CARES, is covered under the RTI Act. Which of the statements given above are correct?

A 1, 2 and 4 only

B 1 and 3 only

C 2, 3 and 4 only

D 1, 2, 3 and 4

✓ A 1, 2 and 4 only

Statement 1 is incorrect as stated — PM CARES Fund's trust deed was registered on 27 March 2020 (not 28 March), though it is correctly described as a public charitable trust. Statement 2 is correct — the Prime Minister is ex-officio Chairman, and the Ministers of Defence, Home Affairs, and Finance are ex-officio Trustees. Statement 3 is incorrect — PM CARES is not subject to mandatory CAG audit; this exclusion is the central point of the parliamentary accountability controversy. Statement 4 is correct — the National Defence Fund, established in 1962, is a government-controlled fund covered under the RTI Act, unlike PM CARES.

✦ The CAG (Articles 148-151) audits accounts of the Union, states, and government bodies. CAG audit is a prerequisite for Public Accounts Committee (PAC) scrutiny. PM CARES' exemption from this accountability chain — despite being chaired by the Prime Minister, receiving tax-deductible contributions, and spending on public welfare — is the core democratic deficit argument. The fund raised approximately Rs 10,000 crore in its first year. Both PMNRF and PM CARES are audited by private chartered accountants, not the CAG.

[Read Source →](#)

Q11

The Prime Minister's National Relief Fund (PMNRF) was originally established by Jawaharlal Nehru in 1948 to assist which group?

- A Victims of the Bengal Famine
- B Refugees from Partition of India
- C Displaced persons from princely state integration
- D Families of soldiers killed in the First Kashmir War

✓ B Refugees from Partition of India

The Prime Minister's National Relief Fund was established in January 1948 by Prime Minister Jawaharlal Nehru following an appeal for public contributions to assist the large number of displaced persons who had come to India from Pakistan following the Partition of 1947. The Fund consists entirely of public contributions — it receives no budgetary allocation from the Consolidated Fund of India. It has since been repurposed for relief in natural calamities, major accidents, riots, and medical assistance for serious illness.

✦ PMNRF and PM CARES are both public charitable trusts administered by the Prime Minister. Neither receives allocations from the Consolidated Fund and neither is subject to mandatory CAG audit. Both face RTI challenges — courts have not definitively ruled on whether they qualify as 'public authority' under Section 2(h) of the RTI Act, 2005. PMNRF contributions qualify for 100% deduction under Section 80G of the Income Tax Act; PM CARES contributions are similarly deductible and also eligible for CSR credit under the Companies Act, 2013 — a benefit not initially available for PMNRF.

[Read Source →](#)

Q12

Assertion (A): Parliamentary questions about PM CARES Fund were declared inadmissible by the Lok Sabha Speaker citing Rule 41(2)(viii). **Reason (R):** Rule 41(2)(viii) bars questions that relate to matters not within the responsibility of any Ministry. Select the correct answer using the codes below.

- A** Both A and R are true, and R is the correct explanation of A
- B** Both A and R are true, but R is NOT the correct explanation of A
- C** A is true but R is false
- D** A is false but R is true

✓ A Both A and R are true, and R is the correct explanation of A

Both the Assertion and Reason are correct, and R correctly explains A. The PMO directed the Lok Sabha Secretariat that questions on PM CARES Fund are inadmissible citing Rules 41(2)(viii) and 41(2)(xvii) — both of which bar questions relating to matters outside the primary responsibility of the Government of India or bodies not directly responsible to Parliament. PM CARES is structured as a private public charitable trust (not a Ministry or government department), so the PMO's position was that it falls outside the formal Ministry framework, making parliamentary scrutiny via Question Hour inapplicable.

✦ Rule 41 of the Rules of Procedure and Conduct of Business in Lok Sabha governs admissibility of starred and unstarred questions. Other key inadmissibility grounds include: sub judice matters (Rule 41(2)(b)), intelligence and security matters, and repetitive questions. The Speaker has the final authority over admissibility — the PMO's intervention to instruct the Secretariat was itself criticised by constitutional experts (including former Lok Sabha Secretary General P.D.T. Achary) as encroaching on the Speaker's independent jurisdiction. This episode illustrates the tension between executive accountability and parliamentary oversight.

[Read Source →](#)

Q13

Match List I (constitutional articles on judges) with List II (their subject matter): List I: A. Article 127 B. Article 128 C. Article 217 D. Article 224A List II: 1. Appointment of ad hoc retired judges to High Courts (initiated by HC Chief Justice) 2. Appointment of High Court judges (President + CJI + Governor + HC CJ) 3. CJI requests a retired SC or qualified retired HC judge to sit as SC judge 4. CJI requests an HC judge to sit as ad hoc SC judge (when quorum unavailable)

A 'A-4, B-3, C-2, D-1'

B 'A-3, B-4, C-1, D-2'

C 'A-4, B-1, C-3, D-2'

D 'A-1, B-2, C-4, D-3'

✓ A 'A-4, B-3, C-2, D-1'

Article 127 provides that when the Supreme Court lacks a quorum, the CJI may request a sitting High Court judge (duly qualified for SC appointment) to attend as an ad hoc SC judge — A-4.

Article 128 allows the CJI, with the President's consent, to request a retired SC judge or a retired HC judge (qualified for SC) to sit and act as an SC judge — B-3. Article 217 governs the appointment of HC judges, involving the President, the CJI, the Governor of the state, and the Chief Justice of the concerned HC — C-2. Article 224A (inserted by the 15th Constitutional Amendment Act, 1963) enables the Chief Justice of a High Court, with the President's prior consent, to request a retired HC judge to sit and act as a judge of that HC — D-1.

✦ The four articles split across two courts: Articles 127 and 128 deal with the Supreme Court; Articles 217 and 224A deal with High Courts. Within each pair, the distinction is sitting vs. retired: Article 127 involves a sitting HC judge acting as an ad hoc SC judge; Article 128 involves a retired SC or retired HC judge sitting in the SC. For High Courts: Article 217 is the regular appointment provision; Article 224A is the retired ad hoc provision. Article 224A was invoked for the first time in 1972 and has gained renewed relevance due to judicial pendency.

[Read Source →](#)

Q14
STATEMENT-BASED

Consider the following statements about the Tenth Schedule of the Indian Constitution:

1. It was inserted by the 52nd Constitutional Amendment Act, 1985. 2. The Supreme Court in Kihoto Hollohan case held it to be constitutionally invalid. 3. Anti-defection disqualification decisions by the Speaker are subject to judicial review. 4. A member merging with another party is exempt from disqualification if at least two-thirds of the original party legislature members agree. Which of the statements given above are correct?

A '1, 3 and 4 only'

B 2 and 4 only

C 1 and 3 only

D '1, 2, 3 and 4'

✓ A '1, 3 and 4 only'

Statements 1, 3, and 4 are correct. The Tenth Schedule was inserted by the 52nd Constitutional Amendment Act, 1985. Statement 2 is incorrect — in *Kihoto Hollohan v. Zachillhu* (decided February 18, 1992; reported 1993), the Supreme Court upheld the constitutional validity of the Tenth Schedule by a 3:2 majority; it only struck down paragraph 7 (which had excluded judicial review) for non-compliance with the ratification requirement under the proviso to Article 368(2). Statement 3 is correct — because paragraph 7 was struck down, Speaker's disqualification decisions remain subject to judicial review by High Courts and the Supreme Court. Statement 4 is correct — the merger exemption requires two-thirds of the original legislature party to agree to the merger.

✦ The original Tenth Schedule (1985) had two exemptions: a split exemption (one-third of members) and a merger exemption (two-thirds). The 91st Constitutional Amendment Act, 2003 deleted the split exemption, leaving only the merger exemption. The same 91st Amendment also capped the size of the Council of Ministers at 15% of the total membership of the House (Article 75(1A) and Article 164(1A)). The *Kihoto Hollohan* judgment is landmark because it confirmed that the Speaker, despite being the adjudicating authority under the Tenth Schedule, acts as a tribunal whose decisions can be reviewed by courts.

[Read Source →](#)

Q15

Which of the following correctly describes the majority required to pass a resolution for the removal of the Lok Sabha Speaker under Article 94(c)?

- A** More than 50 percent of members present and voting (simple majority)
- B** More than 50 percent of the total sanctioned membership of the House (absolute majority)
- C** Majority of all then members of the House, i.e., total membership minus current vacancies (effective majority)
- D** Two-thirds of members present and voting plus absolute majority (special majority)

✓ C Majority of all then members of the House, i.e., total membership minus current vacancies (effective majority)

Article 94(c) requires a resolution passed by a majority of all the then members of the House — this is called effective majority. 'All the then members' means total membership at the time, excluding vacant seats. In a full 543-member Lok Sabha with no vacancies this is 272, identical in number to an absolute majority, but the conceptual distinction matters: effective majority adjusts for actual vacancies while absolute majority is calculated against the fixed total strength. No Lok Sabha Speaker has ever been removed through this process. Crucially, the resolution requires 14 days prior notice under Rule 198 of the Lok Sabha Rules.

✦ Four majority types are a high-frequency Prelims topic. Simple majority: more than 50% of members present and voting — used for ordinary bills, no-confidence motion against the government. Absolute majority: more than 50% of total membership (e.g., 272 in a 543-seat Lok Sabha) — used as one component of special majority under Article 368. Effective majority: majority of all then members (total minus vacancies) — used for Speaker and Deputy Speaker removal. Special majority under Article 368: two-thirds of members present and voting PLUS absolute majority — required for constitutional amendments affecting federal structure.

[Read Source →](#)

Q16
STATEMENT-BASED

Consider the following statements about the RTI Act, 2005: 1. Section 2(h) defines 'public authority' to include bodies established by or under the Constitution. 2. The National Defence Fund is covered under the RTI Act. 3. PM CARES Fund has been definitively held to be a public authority by the Supreme Court. 4. Bodies substantially financed by government funds are included within the definition of public authority. Which of the statements given above are correct?

A '1, 2 and 4 only'

B 2 and 3 only

C 1 and 4 only

D '1, 2, 3 and 4'

✓ A '1, 2 and 4 only'

Statements 1, 2, and 4 are correct. Section 2(h) of the RTI Act 2005 defines 'public authority' to include bodies established by or under the Constitution, by any other law, by notification or order of the government, and those owned, controlled, or substantially financed by the government. The National Defence Fund is a public authority covered under the Act. Statement 3 is incorrect — the PM CARES Fund has not been definitively held a public authority by the Supreme Court; the PMO has in fact stated that PM CARES is not a public authority under Section 2(h), and the matter has been the subject of unresolved petitions and litigation.

✦ The RTI Act 2005 flows from Article 19(1)(a) — the right to freedom of speech includes the right to information as affirmed by the Supreme Court. The Central Information Commission (CIC) hears second appeals at the central level; State Information Commissions handle state-level appeals. Key exemptions under Section 8 include information affecting sovereignty, security of the state, strategic interests, Cabinet papers, and information that would harm third-party privacy. Non-disclosure by a public authority without reasonable grounds is penalizable under Section 20.

[Read Source →](#)

Q17

Assertion (A): Agricultural income is exempt from central income tax in India regardless of the amount earned. **Reason (R):** Agricultural income tax is placed in the State List (Entry 46) of the Seventh Schedule, making it a subject for state governments only. Select the correct answer.

- A** 'Both A and R are true, and R is the correct explanation of A'
- B** 'Both A and R are true, but R is NOT the correct explanation of A'
- C** A is true but R is false
- D** A is false but R is true

✓ A 'Both A and R are true, and R is the correct explanation of A'

Both A and R are true and R correctly explains A. Entry 46 of the State List (Seventh Schedule) gives exclusive legislative competence to state governments over taxes on agricultural income; Parliament cannot levy income tax on agricultural income under Entry 82 of the Union List (which explicitly excludes agricultural income). Section 10(1) of the Income Tax Act 1961 gives statutory effect to this constitutional mandate by exempting agricultural income. Because the exemption is constitutionally grounded, even the Income Tax Act 2025 cannot alter it without a constitutional amendment.

✦ This exemption creates a notable fiscal anomaly: high-income individuals can partially reclassify income as agricultural to reduce central tax liability. States such as Kerala, Assam, and West Bengal do levy agricultural income tax under their own laws, but many large states do not. The Finance Act 1973 introduced 'partial integration' to moderate the avoidance — agricultural income is added to non-agricultural income solely to determine the applicable tax slab rate, though tax is computed only on non-agricultural income. Article 265 (no tax without authority of law) and the Seventh Schedule together form the constitutional foundation of India's tax federalism.

[Read Source →](#)

Q18

Match List I (institutions) with List II (constitutional/legal basis): List I: A. CAG B. Finance Commission C. Election Commission D. ITAT List II: 1. Article 324 — superintendence, direction, control of elections 2. Article 148 — appointment by President; removed like SC judge 3. Article 280 — constituted by President every five years 4. Income Tax Act 1961 — second appellate body in income tax disputes

A 'A-2, B-3, C-1, D-4'

B 'A-3, B-2, C-4, D-1'

C 'A-1, B-3, C-2, D-4'

D 'A-2, B-1, C-3, D-4'

✓ A 'A-2, B-3, C-1, D-4'

CAG is established under Article 148 which provides for presidential appointment and removal by the same procedure as a Supreme Court judge — A-2. The Finance Commission is constituted by the President under Article 280 typically every five years to recommend devolution of taxes — B-3. The Election Commission is established under Article 324 which vests superintendence, direction, and control of elections to Parliament, state legislatures, the President's office, and the Vice-President's office — C-1. ITAT (Income Tax Appellate Tribunal), a statutory body under the Income Tax Act 1961, is the second appellate forum in income tax disputes — the first appellate authority is the Commissioner of Income Tax (Appeals) — D-4.

✦ ITAT is set up under the Ministry of Law and Justice (not the Income Tax Department), ensuring institutional independence. It was originally constituted under Section 5A of the Income Tax Act 1922 (the predecessor statute). The appellate hierarchy in income tax disputes is: Assessing Officer → CIT(Appeals) [first appeal] → ITAT [second appeal; final fact-finding body] → High Court [only on a substantial question of law] → Supreme Court. Finance Commission reports are laid before Parliament under Article 281. CAG's salary, like the Speaker's, is charged to the Consolidated Fund of India under Article 148(6), insulating the office from parliamentary pressure.

[Read Source →](#)

Economy & Development

Q19

India's combined tax-to-GDP ratio is approximately 11-12 percent of GDP. The share attributed to direct taxes (income tax and corporate tax combined) is closest to:

- A 3 percent of GDP
- B 6-7 percent of GDP
- C 9 percent of GDP
- D 11 percent of GDP

✓ B 6-7 percent of GDP

India's combined (central + state) tax-to-GDP ratio is approximately 11-12% of GDP. Direct taxes — income tax and corporate tax — have been rising and stood at approximately 6.6% of GDP in FY 2023-24, reaching a 24-year high; estimates for FY 2024-25 are 6.7-7.1% of GDP. Indirect taxes (principally GST and customs) account for the remainder (approximately 4.9-5% of GDP). The OECD country average total tax-to-GDP ratio is around 33-34%, illustrating India's significantly lower tax effort relative to comparable economies.

✦ India's persistently low direct tax-to-GDP ratio reflects two structural factors: the large informal economy (estimated at 20-25% of GDP) and the constitutional exemption of agricultural income from central direct tax under Entry 46 of the State List. The Income Tax Act 2025 retains these structural features. Expanding the direct tax base through formalisation (GST, UPI, faceless assessment) rather than rate increases is the standard reform prescription — increasing the ratio to 7-8% is a commonly cited medium-term target.

[Read Source →](#)

Q20
STATEMENT-BASED

Consider the following statements about the Union Budget 2026-27: 1. The fiscal deficit target is 4.3 percent of GDP. 2. Capital expenditure is budgeted at Rs 12.2 lakh crore, equivalent to approximately 3.1 percent of GDP. 3. Interest payments constitute 40 percent of total expenditure. 4. Central government debt-to-GDP stands at 55.6 percent. Which of the statements given above are correct?

A '1, 2 and 4 only'

B 1 and 2 only

C '2, 3 and 4 only'

D '1, 2, 3 and 4'

✓ A '1, 2 and 4 only'

Statements 1, 2, and 4 are correct per Union Budget 2026-27 data. The fiscal deficit is targeted at 4.3% of GDP (continuing the consolidation path: 5.1% FY24, 4.8% FY25 RE, 4.4% FY26 RE, 4.3% FY27 BE). Capital expenditure is Rs 12.2 lakh crore (an 11.5% increase over FY26 RE) at approximately 3.1% of GDP. The central government debt-to-GDP ratio is 55.6%, down from 56.1% (FY26 RE). Statement 3 is incorrect — interest payments constitute approximately 26% of total expenditure; the figure of 40% applies to the share of revenue receipts consumed by interest payments, not total expenditure.

✦ The FRBM Statement 2026-27 adopts debt-to-GDP as the primary fiscal anchor, targeting 50 +/- 1% by March 2031. Revenue deficit (targeted at 1.5% of GDP in FY27) measures borrowing used for current consumption — a lower revenue deficit indicates fiscal soundness because it means the government is not borrowing to meet day-to-day expenses. Primary deficit (fiscal deficit minus interest payments) measures the current-year policy stance excluding debt-service legacy costs. The fiscal consolidation path — 5.1% to 4.3% over four years — is driven primarily by nominal GDP growth rather than expenditure compression.

[Read Source →](#)

Q21

Virtual Digital Assets (crypto and NFTs) are taxed at what rate under the provisions originally inserted into the Income Tax Act, 1961 by the Finance Act, 2022?

- A 20 percent with indexation benefit
- B 25 percent flat rate
- C 30 percent flat rate without set-off of losses
- D 15 percent as short-term capital gain

✓ C 30 percent flat rate without set-off of losses

Section 115BBH, inserted by the Finance Act 2022 and effective from April 1, 2023, taxes income from the transfer of any Virtual Digital Asset (VDA) at a flat 30% rate. No deduction is allowed except the cost of acquisition. No set-off of VDA losses is permitted against any other income (including gains from other VDAs), and such losses cannot be carried forward to subsequent assessment years. VDAs are formally defined under Section 2(47A) inserted by the same Finance Act 2022. This provision is carried forward under the Income Tax Act 2025.

✦ The 30% VDA tax is accompanied by a 1% TDS on VDA transfers above a threshold under Section 194S (also inserted in 2022). The TDS mechanism is designed to create a transaction trail in cryptocurrency markets, bringing them within the tax monitoring framework even where income is not declared. India has not banned cryptocurrency; the regulatory approach is heavy taxation and monitoring combined with regulatory ambiguity — reflecting the government's caution rather than outright prohibition. The 30% rate (with no set-off) is significantly higher than capital gains tax on listed equity (15% short-term, 10% long-term), signalling a deliberate policy disincentive.

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Q22
STATEMENT-BASED

Consider the following about the Minimum Support Price (MSP) system in India: 1. The CACP recommends MSP annually to the government. 2. The current formula used for MSP calculation is $C2+50$ percent. 3. MSP is legally enforceable — farmers have a right to sell at MSP. 4. India notifies MSP for 23 crops. Which of the statements given above are correct?

A 1 and 4 only

B 2 and 4 only

C '1, 2 and 4 only'

D '1, 3 and 4 only'

✓ A 1 and 4 only

Statements 1 and 4 are correct. The Commission for Agricultural Costs and Prices (CACP) recommends MSP to the government each year for 23 crops (14 Kharif + 6 Rabi + 2 commercial crops + sugarcane). Statement 2 is incorrect — the government calculates MSP at 1.5 times the $A2+FL$ cost (actual paid-out costs plus imputed value of family labour), not $C2+50\%$. The $C2+50\%$ formula — meaning 50% profit margin over comprehensive cost $C2$ (which includes imputed land rent and interest on fixed capital) — is the recommendation of the National Commission on Farmers (Swaminathan Commission, 2006) that farmers' groups continue to demand but which has not been formally adopted. Statement 3 is incorrect — MSP is advisory and not legally enforceable; farmers have no statutory right to sell at MSP.

✦ The three cost concepts are a Prelims staple. $A2$: actual paid-out costs (seeds, fertilisers, pesticides, hired labour, machinery hire, lease rent on hired land). $A2+FL$: $A2$ plus the imputed value of unpaid family labour. $C2$: $A2+FL$ plus imputed rental value of owned land plus interest on the value of owned fixed capital. The gap between $A2+FL$ and $C2$ is typically 20-40%, meaning adopting $C2+50\%$ as the MSP formula would substantially raise prices. A legally guaranteed MSP for all 23 crops would also create WTO compliance issues under the Amber Box de minimis threshold of 10% for developing countries.

[Read Source →](#)

Q23

Under the WTO Agreement on Agriculture, India's trade-distorting agricultural support (Amber Box) is capped at what percentage of the total value of agricultural production, as applicable to developing countries?

- A** 5 percent (same as developed countries)
- B** 10 percent (de minimis threshold for developing countries)
- C** 15 percent (special and differential treatment ceiling)
- D** 20 percent (food security exemption)

✓ B 10 percent (de minimis threshold for developing countries)

Under Article 6 of the WTO Agreement on Agriculture, the de minimis threshold for developing country members is 10% of the total value of agricultural production — twice the 5% threshold for developed countries. This 10% cap applies separately to product-specific support and non-product-specific support. India's procurement-linked food security support (wheat and rice under the PDS) is already close to or potentially breaching this threshold when measured at administered prices, which is why a legally guaranteed MSP regime covering all 23 crops would create significant WTO compliance challenges.

✦ WTO agricultural domestic support is classified into three boxes. Amber Box: trade-distorting support (input subsidies, price support); subject to reduction commitments and the de minimis cap. Blue Box: support linked to production-limiting programmes (e.g., set-aside payments); partially exempt from reduction. Green Box: non-trade-distorting or minimally distorting (R&D, extension services, disaster relief, infrastructure, food security stockholding at administered prices — Article 6.2 of the Agreement on Agriculture); no ceiling. India invokes the Green Box/Article 6.2 exemptions for its food security stockholding programme. Developing countries also retain flexibility under the 'peace clause' from the Bali Ministerial Conference (2013), protecting their food security programmes from WTO dispute challenges.

[Read Source →](#)

Q24

The Bhavantar Bhugtan Yojana (BBY) is a model of which type of agricultural price support mechanism?

- A Physical procurement at MSP by a government corporation
- B Price Deficiency Payment to farmers based on the gap between MSP and market price
- C Export subsidy to make Indian produce competitive in world markets
- D Crop insurance payout triggered by yield shortfall



Price Deficiency Payment to farmers based on the gap between MSP and market price

The Bhavantar Bhugtan Yojana (BBY), launched by the Madhya Pradesh government in October 2017 initially for eight oilseed and pulse crops, is a Price Deficiency Payment Scheme (PDPS). When the market price in mandis falls below the MSP, the government pays the difference (the 'bhavantar' — price gap) directly to registered farmers via direct benefit transfer, without the government physically purchasing the produce. This avoids the large storage and logistical costs of FCI-style physical procurement and is far less capital-intensive. It has since been extended to mustard with central government approval.

✦ PM-AASHA (Pradhan Mantri Annadata Aay Sanrakshan Abhiyan), launched in 2018 as the central-level umbrella scheme, has three components: Price Support Scheme (PSS) — physical procurement at MSP by NAFED/NCCF for oilseeds, pulses, and copra; Price Deficiency Payment Scheme (PDPS) — direct cash transfer of the MSP-market price gap for oilseeds; and Private Procurement and Stockist Scheme (PPSS) — a pilot allowing private agencies to procure at MSP and receive a service charge. BBY is the state-level model that inspired the PDPS component of PM-AASHA. The key WTO advantage of PDPS over physical procurement is that it is more easily classifiable as Green Box support.

[Read Source →](#)

Q25
STATEMENT-BASED

Consider the following statements about India's Revamped Distribution Sector Scheme (RDSS): 1. Its total outlay is approximately Rs 3,03,758 crore. 2. It targets installation of 250 million smart prepaid meters. 3. RDSS was launched to replace the UDAY scheme that began in 2015. 4. Feeder segregation under RDSS separates agricultural feeders from household feeders. Which of the statements given above are correct?

A 1, 2 and 4 only

B 2 and 3 only

C 1, 3 and 4 only

D 1, 2, 3 and 4

✓ A 1, 2 and 4 only

Statements 1, 2, and 4 are correct. RDSS has a total outlay of Rs 3,03,758 crore over five years (FY2021-22 to FY2025-26) and targets installation of 250 million prepaid smart meters (not 300 million — a common error; official PIB and Ministry of Power documents consistently cite 250 million). Feeder segregation separates agricultural feeders from household feeders, enabling accurate metering of subsidised agricultural consumption. Statement 3 is incorrect: RDSS subsumed IPDS (Integrated Power Development Scheme) and DDUGJY (Deendayal Upadhyaya Gram Jyoti Yojana); UDAY (2015) was a separate debt-restructuring programme for DISCOMs and was not replaced by RDSS.

✦ Scheme lineage for Prelims: RGGVY (rural electrification, 2005) was subsumed into DDUGJY (2015); IPDS (urban infrastructure) ran in parallel; both were merged into RDSS (2021). UDAY was purely a financial rescue — state governments took over 75 percent of DISCOM debt. Saubhagya (2017-18) achieved 100 percent household electrification. RDSS is the infrastructure investment arm; UDAY was the financial arm — they are parallel, not sequential.

[Read Source →](#)

Q26

AT&C losses in India's power distribution sector declined from 22.62 percent to 15.04 percent. What does the term "AT&C losses" stand for and which component is technically unavoidable?

- A Aggregate Technical and Commercial; commercial losses are unavoidable
- B Aggregate Transmission and Collection; transmission losses are unavoidable
- C Aggregate Technical and Commercial; technical losses (5-7 percent) are unavoidable
- D Aggregate Transfer and Commercial; transfer losses are unavoidable

✓ C Aggregate Technical and Commercial; technical losses (5-7 percent) are unavoidable

AT&C stands for Aggregate Technical and Commercial losses. The decline from 22.62 percent (FY2013-14) to 15.04 percent (FY2024-25) reflects a decade of RDSS and UDAY-era reforms. Technical losses arise from heat dissipation in conductors and transformer inefficiencies; approximately 5-7 percent is considered the unavoidable physical minimum (international best practice is 5-10 percent). Commercial losses — theft, meter bypass, billing errors, and non-collection — are in principle preventable and account for the bulk of India's excess above the technical minimum.

✦ Policy solutions for commercial losses include smart prepaid metering (eliminates billing fraud and meter-reading errors), feeder segregation (enables accurate measurement of subsidised agricultural consumption), and privatisation of distribution (Delhi and Odisha DISCOMs cut AT&C losses sharply after private operators took over). The Electricity Act 2003 opened generation to private players and mandated independent State Electricity Regulatory Commissions (SERCs). The RDSS target is to reduce national AT&C losses to below 12-15 percent.

[Read Source →](#)

Q27
STATEMENT-BASED

Consider the following statements about the UDAY scheme and DISCOM reforms: 1. UDAY (Ujjwal DISCOM Assurance Yojana) was launched in 2015. 2. Under UDAY, state governments took over 75 percent of DISCOM debt. 3. The Late Payment Surcharge Rules (2022) reduced DISCOM legacy dues from approximately Rs 1.4 lakh crore to under Rs 5,000 crore by early 2026. 4. The Saubhagya scheme achieved 100 percent household electrification across India. Which of the statements given above are correct?

A 1 and 2 only

B 1, 2 and 3 only

C 1, 2, 3 and 4

D 2, 3 and 4 only

✓ C 1, 2, 3 and 4

All four statements are correct. UDAY was announced in November 2015; participating states took over 75 percent of DISCOM debt (over Rs 2.3 lakh crore of the total Rs 3.7 lakh crore). The Electricity (Late Payment Surcharge and Related Matters) Rules, notified June 3, 2022, proved highly effective: legacy dues fell from approximately Rs 1.4 lakh crore at inception to Rs 4,109 crore by February 10, 2026 — after distribution utilities paid 43 EMIs including pre-payments. The Saubhagya scheme (2017-18) achieved 100 percent household electrification.

✦ UDAY was a financial rescue — not an infrastructure scheme. Its fiscal significance was that it moved DISCOM debt onto state budgets, revealing the true cost of electricity subsidies. The LPS Rules 2022 proved more effective at clearing legacy dues than UDAY had been. RDSS (Rs 3,03,758 crore) is the infrastructure complement to these financial reforms, targeting 250 million smart meters and feeder segregation.

[Read Source →](#)

Q28
STATEMENT-BASED

Consider the following statements about India's fiscal framework: 1. The FRBM Act was enacted in 2003. 2. The current FRBM target requires the Centre to reach a debt-to-GDP of 50 percent by March 2031. 3. The revenue deficit measures borrowing for both capital and current expenditure. 4. Gross Market Borrowings in Union Budget 2026-27 are Rs 17.2 lakh crore. Which of the statements given above are correct?

A 1, 2 and 4 only

B 1 and 2 only

C 2, 3 and 4 only

D 1, 2, 3 and 4

✓ A 1, 2 and 4 only

Statements 1, 2, and 4 are correct. The Fiscal Responsibility and Budget Management Act was enacted in 2003. The government has set a debt-to-GDP target of approximately 50 percent (plus or minus 1 percent) by March 31, 2031. Union Budget 2026-27 projected gross market borrowings of Rs 17.2 lakh crore — a 16 percent jump from Rs 14.82 lakh crore in FY26, primarily driven by high redemptions of around Rs 5.5 lakh crore. Statement 3 is incorrect: the revenue deficit measures only the excess of revenue expenditure over revenue receipts — i.e., borrowing for current (consumption) expenditure only. The fiscal deficit measures total borrowing including for capital purposes.

✦ Fiscal deficit = Total expenditure minus total receipts excluding borrowings. Revenue deficit = Revenue expenditure minus revenue receipts. Primary deficit = Fiscal deficit minus interest payments. A zero revenue deficit means the government is not borrowing for current consumption — considered fiscally prudent. India's current central government debt-to-GDP is approximately 56 percent; the 50 percent target by FY31 implies significant consolidation.

[Read Source →](#)

Q29

Match List I (agricultural institutions) with List II (primary function): List I: A. CACP B. NAFED C. FCI D. APMC List II: 1. State-level mandi regulation under state law 2. Procures wheat and rice; manages buffer stocks 3. Recommends MSP to government annually 4. Procures oilseeds and pulses at MSP; central cooperative

A A-3, B-4, C-2, D-1

B A-4, B-3, C-1, D-2

C A-3, B-2, C-4, D-1

D A-2, B-4, C-3, D-1

✓ A A-3, B-4, C-2, D-1

CACP (Commission for Agricultural Costs and Prices) recommends MSP for 22 crops annually to the government — A-3. NAFED (National Agricultural Cooperative Marketing Federation of India, established 1958) is the nodal central cooperative agency that procures oilseeds, pulses, and copra at MSP under PM-AASHA when market prices fall below MSP — B-4. FCI (Food Corporation of India, established 1965) is the primary agency for unlimited procurement of wheat and rice at MSP and management of central buffer stocks — C-2. APMC (Agricultural Produce Market Committee) operates under state law to regulate mandis at the state level — D-1.

✦ FCI was established in 1965 at the launch of the Green Revolution. NAFED was established in 1958. eNAM (National Agriculture Market) is an online trading platform linking APMC mandis — over 1,000 mandis integrated as of 2024. PM-AASHA (2018) is the umbrella price support scheme covering PSS (NAFED procurement), PDPS (direct payment of difference), and PPSS (private stockist pilot for oilseeds). PMFBY covers production risk only; MSP mechanisms address price risk.

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Q30
STATEMENT-BASED

Consider the following statements about the Income Tax Act, 2025: 1. It replaces the Income Tax Act of 1961, which had been amended over 3,000 times since enactment. 2. The new regime of income tax is now the default; taxpayers must actively opt out to choose the old regime. 3. Virtual Digital Assets were taxed at 30 percent under Section 115BBH of the old Act, and this rate is carried forward. 4. The first appellate forum for income tax disputes is the Commissioner of Income Tax (Appeals) [CIT(A)], not the Income Tax Appellate Tribunal. Which of the statements given above are correct?

A 1 and 4 only

B 1, 2 and 4 only

C 1, 2, 3 and 4

D 2 and 3 only

✓ C 1, 2, 3 and 4

All four statements are correct. The IT Act 1961 underwent over 3,000 amendments; the new Income Tax Act 2025 received Presidential assent in August 2025 and takes effect April 1, 2026. The new (concessional) regime is the default under both the old Section 115BAC and its equivalent in the 2025 Act. VDA taxation at 30 percent was introduced via Section 115BBH in Finance Act 2022 and is carried forward in the 2025 legislation. The first appellate forum is the Commissioner of Income Tax (Appeals) [CIT(A)]; the Income Tax Appellate Tribunal (ITAT, established 1941) is the second appellate authority and the first independent forum — appeals to ITAT lie against CIT(A) orders.

✦ Income tax appeals hierarchy: Assessing Officer order → CIT(A) [first appellate authority] → ITAT [second appellate authority, quasi-judicial, functions under Ministry of Law and Justice for independence] → High Court [only on substantial questions of law] → Supreme Court. CBDT (Central Board of Direct Taxes) is the apex administrative body for direct tax administration. The Faceless Assessment scheme (2020) removed human-interface between taxpayers and assessing officers.

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Environment & Ecology

Q31

The leatherback sea turtle (*Dermochelys coriacea*) is listed under which appendix of CITES, and what does that classification mean?

- A Appendix I — prohibition on international commercial trade
- B Appendix II — trade permitted with export permits
- C Appendix III — listed by one country requesting cooperation
- D It is not listed under CITES; it appears only in IUCN Red List

✓ A Appendix I — prohibition on international commercial trade

The leatherback sea turtle is listed under CITES Appendix I, which covers species threatened with extinction where international commercial trade is prohibited except in extraordinary non-commercial circumstances. All seven sea turtle species are listed in CITES Appendix I. The leatherback was included at CITES inception (1975) and formally listed in Appendix I since 1990. CITES was adopted in Washington D.C. in 1973, came into force in 1975, and now has 183 member parties.

✦ CITES has three appendices: Appendix I (most protective — commercial trade prohibited; ~1,082 species), Appendix II (trade regulated with export permits; ~37,000 species), Appendix III (country-specific listing requesting international cooperation). The leatherback also appears on CMS (Convention on Migratory Species) Appendix I as a migratory species in need of strict protection. India is a party to both CITES and CMS. The IUCN Red List status of the leatherback is Vulnerable globally, though some sub-populations (Pacific) are Critically Endangered.

[Read Source →](#)

Q32

Consider the following statements about the Great Nicobar Island: 1. It is a UNESCO Biosphere Reserve designated in 2013. 2. India's only tri-service military command is headquartered at Great Nicobar Island. 3. The Shompen are a Particularly Vulnerable Tribal Group (PVTG) with a population of fewer than 300. 4. The Sunda Megathrust fault runs in proximity to the island. Which of the statements given above are correct?

A 1 and 3 only

B 1, 3 and 4 only

C 2, 3 and 4 only

D 1, 2, 3 and 4

✓ B 1, 3 and 4 only

Statements 1, 3, and 4 are correct. Great Nicobar was first notified as a national biosphere reserve in 1989, then added to UNESCO's World Network of Biosphere Reserves on May 28, 2013, during the 25th session of the MAB International Coordinating Council. The Shompen PVTG numbered 229 in the 2011 Census; various estimates place the current population between 100 and 300 — well below 300. The Sunda Megathrust (which caused the 2004 Mw 9.3 Andaman-Sumatra earthquake) runs in proximity, making seismic risk a cited concern for the development project. Statement 2 is incorrect: India's only tri-service Andaman and Nicobar Command (ANC) is headquartered at Sri Vijaya Puram (Port Blair), not at Great Nicobar Island. Campbell Bay Naval Air Station on Great Nicobar is India's southernmost military base.

✦ UNESCO Biosphere Reserves operate under the Man and Biosphere (MAB) Programme. India has 18 sites in the UNESCO World Network of Biosphere Reserves. The Andaman and Nicobar Command (ANC) was established in 2001 as India's first and only integrated tri-service command. The Shompen are classified as a PVTG — one of 75 PVTGs notified by the Ministry of Tribal Affairs across 18 states and UTs. Their semi-nomadic, hunter-gatherer lifestyle makes contact-based census counts inherently uncertain.

[Read Source →](#)

Q33

Under the Seville Strategy (1995) governing UNESCO Biosphere Reserves, which of the following best describes the obligation for the core zone?

- A** Sustainable use is permitted with environmental monitoring
- B** It must remain strictly undisturbed and free from human interference
- C** Economic activities are allowed provided EIA clearance is obtained
- D** It applies only to marine biosphere reserves, not terrestrial ones

✓ B It must remain strictly undisturbed and free from human interference

The Seville Strategy (1995), adopted at the first World Conference of Biosphere Reserves in Seville and endorsed at UNESCO's General Conference the same year, requires core zones to be strictly protected and free from human interference — dedicated entirely to biodiversity conservation. In the Great Nicobar context, critics argued that the Rs 72,000 crore development project's construction footprint substantially overlaps with the reserve's buffer and transition zones, violating the Seville Strategy obligations that India accepted upon voluntary nomination in 2013.

✦ A UNESCO Biosphere Reserve has three concentric zones: (1) Core zone — strictly protected, no extractive or disruptive human activity; (2) Buffer zone — limited research, education, and non-destructive activities; (3) Transition/Cooperation zone — sustainable human use including settlements and economic activities. This zonation pattern was formalised by the Seville Strategy and the Statutory Framework of the World Network of Biosphere Reserves. India voluntarily nominated Great Nicobar in 2013, thereby accepting these international obligations.

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Q34

Which of the following correctly identifies the nodal ministry and the primary decision-making body under the Forest Rights Act, 2006?

- A** Ministry of Environment, Forests and Climate Change; District Collector
- B** Ministry of Tribal Affairs; Gram Sabha
- C** Ministry of Rural Development; Sub-Divisional Level Committee
- D** Ministry of Tribal Affairs; Sub-Divisional Level Committee

✓ B Ministry of Tribal Affairs; Gram Sabha

The nodal ministry for FRA 2006 is the Ministry of Tribal Affairs (MoTA), confirmed by the tribal.nic.in official portal and multiple government orders. The primary decision-making authority for recognising rights is the Gram Sabha — under Section 6(1) of the Act, the Gram Sabha passes the initial resolution recommending whose rights to which resources should be recognised. A common implementation failure has been district administrations bypassing Gram Sabhas and treating the Sub-Divisional Level Committee (SDLC) — which includes forest officials — as the effective decision-maker.

✦ The FRA 2006 three-tier institutional structure: (1) Gram Sabha initiates and recommends rights; (2) Sub-Divisional Level Committee (SDLC) verifies claims; (3) District Level Committee (DLC) grants final approval. The Gram Sabha is constitutionally foundational to the Act — it treats tribal communities as rights-holders, not supplicants seeking government favour. PESA 1996 reinforces Gram Sabha primacy in Fifth Schedule areas. The FRA came into force in 2008 (two years after enactment).

[Read Source →](#)

Q35

The Forest Rights Act, 2006 recognises rights for Scheduled Tribes and Other Traditional Forest Dwellers (OTFDs) who have resided in forests for at least how many generations, and what is the eligibility cut-off date?

- A 2 generations; January 26, 1950
- B 3 generations (75 years); December 13, 2005
- C 3 generations (75 years); January 1, 2006
- D 2 generations (50 years); December 13, 2005

✓ B 3 generations (75 years); December 13, 2005

FRA 2006 requires residence in and dependence on forests for at least 3 generations (defined as 75 years) before the cut-off date of December 13, 2005. The cut-off date marks the day before the Bill was introduced in Parliament. For OTFDs (non-Scheduled Tribe forest dwellers), this 75-year/3-generation requirement is even harder to prove than for STs, because documentary evidence of multi-generational forest residence is difficult to establish — contributing to higher rejection rates for OTFD claims.

✦ The FRA recognises four types of rights: (1) Title Rights — individual or community ownership of up to 4 hectares per family; (2) Use Rights — NTFP collection, grazing, water access, seasonal resource use; (3) Relief and Development Rights — basic amenities (roads, schools, health facilities) in forest areas; (4) Forest Management Rights — community governance under Community Forest Resource (CFR) provisions. The three-generation criterion must not be applied as a rigid bureaucratic cutoff; the Ministry guidelines direct Gram Sabhas to assess claims on available local evidence.

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Q36

Consider the following statements about the PESA Act, 1996: 1. It extends Panchayati Raj Institutions to Sixth Schedule tribal areas. 2. The Gram Sabha has primacy over natural resources, land, and water under PESA. 3. States with Fifth Schedule areas are required to make their state laws compliant with PESA. 4. Madhya Pradesh notified its PESA rules in 2022, becoming the 8th state to do so approximately 26 years after the central law. Which of the above statements are correct?

A 2 and 4 only

B 1 and 3 only

C 2, 3 and 4 only

D 1, 2, 3 and 4

✓ C 2, 3 and 4 only

Statements 2, 3, and 4 are correct. Statement 1 is incorrect: PESA extends Part IX Panchayati Raj Institutions to Fifth Schedule areas (not Sixth Schedule). Sixth Schedule areas (covering Assam, Meghalaya, Mizoram, Tripura) have their own Autonomous District Councils (ADCs) under Article 244 and are explicitly excluded from PESA. PESA covers 10 states with Fifth Schedule areas. Madhya Pradesh notified its PESA Rules on November 15, 2022 (Janjatiya Gaurav Divas), becoming the 8th state to do so — 26 years after the 1996 central law, illustrating the persistent implementation gap.

✦ The Fifth Schedule (Article 244) governs tribal-dominated regions in 10 states: Andhra Pradesh, Chhattisgarh, Gujarat, Himachal Pradesh, Jharkhand, Maharashtra, Madhya Pradesh, Odisha, Rajasthan, and Telangana. The Sixth Schedule (Article 244) covers tribal areas of Assam, Meghalaya, Mizoram, and Tripura, governed by Autonomous District Councils with legislative and judicial powers. This Fifth vs Sixth Schedule distinction — and the consequent applicability of PESA — is a standard Prelims question. Janjatiya Gaurav Divas (November 15) commemorates the birth anniversary of Birsa Munda.

[Read Source →](#)

Q37

The NGT banned rat-hole mining in Meghalaya in which year, and in which district did both the 2018 and 2026 coal mining tragedies occur?

A 2012; West Khasi Hills

B 2014; East Jaintia Hills

C 2016; East Garo Hills

D 2014; South Garo Hills

✓ B 2014; East Jaintia Hills

The National Green Tribunal (NGT) banned rat-hole mining in Meghalaya in 2014 in the All Dimasa Students Union case, citing unscientific methods and worker safety hazards. Both the December 2018 tragedy — where 15 miners were trapped in a flooded mine at Ksan village after water from the adjacent Lytein river inundated the shaft — and the February 2026 tragedy killing 27 workers in a gas explosion at Thangkso village occurred in East Jaintia Hills district. Despite the ban, an estimated 22,000 illegal rat-hole mines continue to operate in Meghalaya in plain sight.

✦ Rat-hole mining involves horizontal 'side-cutting' or vertical 'box-cutting' tunnels (roughly 3–4 feet in diameter) dug to extract coal seams without mechanised support. The Sixth Schedule of the Constitution grants Autonomous District Councils (ADCs) in Meghalaya legislative powers over land and non-major minerals, creating jurisdictional ambiguity with the NGT order. Acid Mine Drainage (AMD) — sulphuric acid formed when coal pyrite reacts with oxygen and water — has turned the River Lukha in East Jaintia Hills a vivid blue, causing total fish population collapse. The District Mineral Foundation (DMF), created under the MMDR Amendment Act 2015, channels formal mining royalties to affected communities but has no reach over illegal operations.

[Read Source →](#)

Q38

Under which Article of the Indian Constitution does the Sixth Schedule operate, and which body does it establish for the governance of tribal areas in states like Meghalaya?

A Article 243; Gram Panchayats with special powers

B Article 244; Autonomous District Councils

C Article 275; Tribal Advisory Councils

D Article 371; Special Development Boards

✓ B Article 244; Autonomous District Councils

The Sixth Schedule operates under Article 244(2) of the Constitution and establishes Autonomous District Councils (ADCs) with legislative, executive, and judicial powers over specified subjects including land, forests, fisheries, and non-major minerals. In Meghalaya, three ADCs cover the Khasi Hills, Jaintia Hills, and Garo Hills districts. This constitutional framework was designed to protect tribal customary rights, but in practice it has created jurisdictional ambiguity over enforcement of the 2014 NGT ban on rat-hole coal mining.

✦ The Sixth Schedule covers tribal areas of four northeastern states: Assam, Meghalaya, Tripura, and Mizoram. ADCs can make laws on specified subjects subject to the Governor's assent. Article 244(1) separately covers the Fifth Schedule, which applies to 'Scheduled Areas' in other states (such as Jharkhand, Odisha, Chhattisgarh) — a different framework from the Sixth Schedule. The MMDR Act 1957 vests subsurface minerals including coal in the state, but Meghalaya's customary practice historically treated coal as private landowner property — a contradiction that courts have not definitively resolved.

[Read Source →](#)

Q39

Consider the following pairs of Olive Ridley sea turtle facts: 1. IUCN Status — Critically Endangered 2. TED effectiveness — reduces bycatch by approximately 97% 3. Restricted zone around Gahirmatha — 20 km 4. PMMSY launch year — 2020 How many of the above pairs are correctly matched?

A Only one

B Only two

C Only three

D All four

✓ C Only three

Only three pairs are correctly matched. Pair 1 is incorrect: the Olive Ridley sea turtle is classified as Vulnerable (VU A2bd) on the IUCN Red List of Threatened Species, not Critically Endangered — it is the leatherback sea turtle (*Dermochelys coriacea*) that faces a higher threat level. Pair 2 is correct: Turtle Excluder Devices (TEDs) reduce sea turtle bycatch in trawl nets by approximately 97% with minimal impact on target fish catch. Pair 3 is correct: the restricted fishing zone around Gahirmatha Marine Sanctuary is 20 km; around Rushikulya and Devi river mouth it is 5 km. Pair 4 is correct: Pradhan Mantri Matsya Sampada Yojana (PMMSY) was launched in 2020 with a Rs 20,050 crore outlay.

✦ Turtle Excluder Devices (TEDs) are grid-like rigid openings fitted to the rear of trawl nets that allow turtles to escape while retaining commercial fish catch. Despite their proven efficacy, fishing community compliance in India remains low because enforcement is episodic and penalties are rarely applied. India's three major Olive Ridley Arribada (mass nesting) sites — Gahirmatha, Rushikulya, and Devi mouth — are all in Odisha. In 2025, Rushikulya alone recorded over 500,000 nests in a single Arribada, making it the largest recorded there. A co-management model involving fishing communities in monitoring has been shown to be more effective than purely enforcement-based approaches.

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Q40

The Olive Ridley sea turtle undergoes a mass nesting phenomenon known by what name, and which country hosts the other two largest such concentrations besides India?

- A** Synchrony nesting; Sri Lanka and Thailand
- B** Arribada; Mexico and Costa Rica
- C** Aggregation nesting; Australia and Indonesia
- D** Arribada; Brazil and Malaysia

✓ B Arribada; Mexico and Costa Rica

The mass nesting event of Olive Ridley turtles is called an Arribada — from the Spanish word for 'arrival' — a behaviour unique to the genus *Lepidochelys* (which includes the Olive Ridley and the Kemp's Ridley). The other two largest Arribada concentrations in the world are in Mexico (La Escobilla beach, ~450,000 nesting females) and Costa Rica (Nancite and Ostional beaches on the Pacific coast, estimated 600,000 nesting olive ridleys). India's Gahirmatha in Odisha is considered the single largest nesting site for this species globally.

✦ Olive Ridley sea turtles (*Lepidochelys olivacea*) are Schedule I species under India's Wildlife Protection Act 1972, giving them the highest protection — hunting, trade, and possession are prohibited. They are also CITES Appendix I (trade prohibition) and CMS Appendix I (migratory species protection). The seasonal fishing ban in Odisha runs from November to May in designated turtle nesting zones. In 2025, Odisha recorded approximately one million nests across Rushikulya and Gahirmatha — a record for India.

[Read Source →](#)

Q41

India's Nationally Determined Contribution (NDC) under the Paris Agreement includes a target of achieving net-zero greenhouse gas emissions by which year, and a non-fossil fuel installed electricity capacity target of how many GW by 2030?

A 2060; 450 GW

B 2070; 500 GW

C 2050; 500 GW

D 2070; 600 GW

✓ B 2070; 500 GW

India's updated NDC (formally submitted to UNFCCC in August 2022, reflecting the COP26 Panchamrit pledges) commits to net-zero greenhouse gas emissions by 2070 and 500 GW of non-fossil fuel installed electricity capacity by 2030. India has already surpassed 50% non-fossil installed capacity (reaching ~52% as of January 2026, with ~271 GW non-fossil out of ~520 GW total), meaning the proportional target under the NDC was achieved five years ahead of schedule. India's NDC also targets a 45% reduction in emissions intensity of GDP by 2030 compared to 2005 levels, and meeting 50% of energy requirements from renewable sources by 2030.

✦ The Paris Agreement was adopted on 12 December 2015 (COP21, Paris) and entered into force on 4 November 2016. India ratified it in October 2016. India's Panchamrit (five nectar) pledges announced at COP26 (Glasgow, 2021) include: 500 GW non-fossil capacity; 50% energy from renewables by 2030; reduce projected carbon emissions by 1 billion tonnes by 2030; reduce emissions intensity by 45%; and net-zero by 2070. CBDR-RC (Common But Differentiated Responsibilities and Respective Capabilities) is India's foundational principle at climate negotiations — developed nations bear greater historical responsibility and must provide climate finance.

[Read Source →](#)

Q42

The PAT Scheme (Perform, Achieve and Trade) in India operates under which national mission, and what does it primarily regulate?

- A National Mission for Clean Ganga; river pollution by industries
- B National Mission for Enhanced Energy Efficiency; energy consumption by large industries
- C National Mission on Sustainable Agriculture; water use by farms
- D National Solar Mission; renewable energy targets for states



National Mission for Enhanced Energy Efficiency; energy consumption by large industries

The PAT Scheme is a flagship programme of the Bureau of Energy Efficiency (BEE) under the National Mission for Enhanced Energy Efficiency (NMEEE) — one of India's eight National Missions under the National Action Plan on Climate Change (NAPCC, launched June 2008). It is a market-based regulatory mechanism that sets specific energy consumption targets for energy-intensive Designated Consumers (DCs) across 13 sectors; units that over-achieve their targets earn Energy Saving Certificates (ESCerts) that can be sold to under-achievers. PAT Cycle I achieved energy savings of 8.67 million tonnes of oil equivalent (MTOE), avoiding approximately 31 million tonnes of CO₂ emissions.

✦ The eight National Missions under NAPCC are: National Solar Mission, National Mission for Enhanced Energy Efficiency (NMEEE), National Mission on Sustainable Habitat, National Water Mission, National Mission for Sustaining the Himalayan Ecosystem, National Mission for a Green India, National Mission for Sustainable Agriculture, and National Mission on Strategic Knowledge for Climate Change. The PAT Scheme covers 13 industrial sectors including thermal power, cement, iron and steel, fertilisers, aluminium, pulp and paper, textile, chlor-alkali, and railways. India also launched the Carbon Credit Trading Scheme (CCTS) in 2023 as a pilot domestic carbon market, which is distinct from the PAT's ESCert mechanism.

[Read Source →](#)

Q43

Consider the following statements about India's renewable energy transition: 1. Non-fossil sources contribute over 50% of India's installed electricity capacity. 2. Coal still contributes approximately 70% of India's actual electricity generation. 3. India is the world's largest coal producer and consumer. 4. India has identified over 96 GW of pumped hydro storage potential. Which of the statements given above are correct?

A 1 and 2 only

B 1, 2 and 4 only

C 2, 3 and 4 only

D 1, 2, 3 and 4

✓ B 1, 2 and 4 only

Statements 1, 2, and 4 are correct; Statement 3 is incorrect. India crossed the 50% non-fossil installed capacity milestone in mid-2025, reaching approximately 52% (271 GW) as of January 2026 — five years ahead of its NDC target. Despite this, thermal (largely coal) power still accounts for approximately 70% of actual electricity generation because solar and wind have lower capacity utilisation factors (20–23% and 25–30%) compared to coal plants (55–65%). Statement 3 is wrong: India is the world's second-largest coal producer and consumer — China is first by a substantial margin (over 52% of global production and over 56% of global consumption). India has identified over 96 GW of pumped hydro storage potential to address renewable intermittency.

✦ The installed capacity vs. actual generation gap is a critical conceptual distinction for UPSC: installed capacity (MW) measures the maximum possible output at a given moment; generation (kWh or units) measures actual electricity produced over time. Because solar and wind are intermittent, the same installed MW generates far fewer kWh than a coal plant running on dispatchable fuel. This is why Battery Energy Storage Systems (BESS) and Pumped Hydro Storage (PSP) are critical enabling infrastructure for the renewable transition. India surpassed 500 GW total installed power capacity in late 2024, with renewables alone at ~263 GW (40% of installed capacity).

[Read Source →](#)

Q44

The Revamped Distribution Sector Scheme (RDSS), launched in 2021, was designed to address which primary challenge in India's power sector?

- A Coal supply shortages to thermal power plants
- B Financial losses and technical inefficiencies of electricity distribution companies
- C Delay in renewable energy tariff discovery through auctions
- D Grid congestion in inter-state transmission corridors



Financial losses and technical inefficiencies of electricity distribution companies

The RDSS (launched 2021–22, total outlay Rs 3,03,758 crore with central GBS of Rs 97,631 crore over FY 2021-22 to 2025-26) was designed to modernise electricity distribution infrastructure and reduce Aggregate Technical and Commercial (AT&C) losses to a pan-India level of 12–15% and eliminate the Average Cost of Supply (ACS)–Average Revenue Realised (ARR) gap by 2024-25. It funds prepaid smart metering, smart feeder and DT meters, and distribution system upgrades. It follows the UDAY scheme (Ujwal DISCOM Assurance Yojana, 2015) which restructured DISCOM debt but failed to resolve structural operational inefficiencies.

✦ AT&C (Aggregate Technical and Commercial) losses combine technical losses (electricity lost due to infrastructure quality and transmission distance) and commercial losses (unpaid bills and electricity theft). India's DISCOMs carry aggregate debt of approximately Rs 6 lakh crore, making them financially unviable and unable to sign new Power Purchase Agreements (PPAs) for renewable energy. Without viable DISCOMs, India's renewable capacity additions cannot translate into affordable, reliable clean electricity. The RDSS has sanctioned ~20.46 crore prepaid smart consumer meters as of late 2025 to enable accurate billing and reduce commercial losses.

[Read Source →](#)

Q45

Consider the following statements about Extended Producer Responsibility (EPR) in India: 1. EPR for e-waste was first introduced under the E-Waste Management Rules, 2016. 2. Battery Waste Management Rules establishing EPR for batteries were enacted in 2022. 3. Under EPR, producers can fulfill their obligations by purchasing EPR certificates from registered recyclers. 4. The Central Pollution Control Board (CPCB) is the nodal authority for EPR compliance. Which of the statements given above are correct?

A 1 and 4 only

B 1, 2 and 3 only

C 2, 3 and 4 only

D 1, 2, 3 and 4

✓ C 2, 3 and 4 only

Statements 2, 3, and 4 are correct; Statement 1 is incorrect. EPR for e-waste in India was first introduced under the E-Waste (Management and Handling) Rules, 2011 — not 2016. The 2016 Rules revised and strengthened EPR with phase-wise collection targets, and the 2022 Rules (in force from April 2023) further overhauled the framework with certificate-based trading. Battery Waste Management Rules 2022 established EPR obligations for battery manufacturers including EV battery makers. Certificate trading — where producers buy EPR certificates from registered recyclers — is legally permitted. CPCB is the nodal authority for EPR authorisation and compliance verification.

✦ EPR (Extended Producer Responsibility) is a policy instrument where the entity placing a product in the market bears financial responsibility for its end-of-life management. This internalises environmental costs, incentivises design-for-recycling, and funds collection infrastructure. India is the world's third-largest e-waste generator (after China and the USA) per the Global E-Waste Monitor 2024. A key risk in certificate-based EPR compliance is 'paper compliance' — producers buy certificates from recyclers without actual physical recycling occurring, which CPCB's enforcement capacity struggles to police.

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Q46

Assertion (A): India is the world's largest producer of pulses yet imports significant quantities annually. **Reason (R):** The Green Revolution in India deliberately focused on wheat and rice, channelling irrigation, HYV seeds, fertiliser subsidies, and MSP procurement infrastructure almost exclusively into cereals, leaving pulse productivity stagnant.

- A** Both A and R are true and R is the correct explanation of A
- B** Both A and R are true but R is not the correct explanation of A
- C** A is true but R is false
- D** A is false but R is true

✓ A Both A and R are true and R is the correct explanation of A

Both the Assertion and the Reason are factually correct, and R correctly explains A. India is the world's largest producer of pulses with approximately 25% of global production (244.93 lakh tonnes in 2023-24) and is also the world's largest importer, importing 4.65 million metric tonnes (46.5 lakh tonnes) in 2023-24 — a six-year high. The Green Revolution (mid-1960s to 1980s) was deliberately concentrated on wheat and rice in irrigated areas of Punjab, Haryana, and western UP, leaving pulse-growing semi-arid dryland regions without comparable infrastructure investment. India's pulse output as a share of total foodgrain production fell from approximately 16% in 1950 to around 7–10% today.

✦ Pulses (Leguminosae/Fabaceae family) fix atmospheric nitrogen through Rhizobium bacteria in root nodules, reducing dependence on synthetic nitrogen fertilisers by up to 80 kg N/ha/year — making them highly suitable for dryland farming. The Mission for Aatmanirbharta in Pulses (Rs 11,440 crore, 2025–2031) targets 350 lakh tonnes production by 2030-31 through assured MSP procurement for 4 years via NAFED and NCCF under PM-AASHA, 1,000 pulse processing mills, and the SATHI Portal for seed quality management. Top pulse-producing states: Madhya Pradesh, Maharashtra, Rajasthan, Uttar Pradesh, and Karnataka.

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Reports, Indices & Schemes

Q47

The SATHI Portal, launched as part of India's seed quality management ecosystem, expands to which full form?

- A Seed Assurance and Technology for Horticulture Initiative
- B Seed Authentication, Traceability and Holistic Inventory
- C Sustainable Agriculture Technology and Holistic Integration
- D Soil and Agriculture Technology Hub for India

✓ B **Seed Authentication, Traceability and Holistic Inventory**

SATHI stands for Seed Authentication, Traceability and Holistic Inventory. Developed by NIC in collaboration with the Ministry of Agriculture and Farmers Welfare on the theme 'Uttam Beej – Samridh Kisan' (Good Seeds – Prosperous Farmer), it is a digital seed lifecycle management system tracking seed production, quality certification, and distribution from breeder to farmer. It prevents sub-standard and spurious seed sales — a persistent constraint on pulse productivity — by enabling online verification of seed lot authenticity at the point of sale.

✦ The Mission for Aatmanirbharta in Pulses was announced in Union Budget 2025-26 with an outlay of Rs 11,440 crore for 2025-26 to 2030-31. The three primary target crops are Tur (Arhar/Pigeon Pea), Urad (Black Gram), and Masoor (Red Lentil). Procurement at 100% MSP for 4 years is routed through NAFED and NCCF under PM-AASHA (PM Annadata Aay SanraksHan Abhiyan). The seed quality problem in pulses is acute because informal seed systems dominate — farmers often save seed from previous harvests, leading to varietal degradation and yield loss. SATHI helps enforce the Seeds Act 1966 compliance through digital traceability.

[Read Source →](#)

Q48

Under which convention is the leatherback sea turtle also listed as Appendix I, offering it protection as a migratory species — and in which year was this convention adopted?

- A Convention on Biological Diversity (CBD); 1992
- B Convention on Migratory Species (CMS); 1979
- C Ramsar Convention; 1971
- D Bonn Convention on long-range transboundary air pollution; 1979

✓ B Convention on Migratory Species (CMS); 1979

The leatherback sea turtle is listed on Appendix I of the Convention on the Conservation of Migratory Species of Wild Animals (CMS), also known as the Bonn Convention, which was adopted in 1979 in Bonn, West Germany and entered into force in 1983. CMS Appendix I lists migratory species threatened with extinction, requiring the strictest protection by all Range States throughout their entire migration range. In addition to CMS, the leatherback is listed under CITES Appendix I (adopted 1973, prohibiting commercial trade) and is relevant to the CBD (1992, 196 parties) in the Great Nicobar development project context.

✦ Key multilateral environmental agreements (MEAs) relevant to UPSC: CBD (1992, 196 parties) — biodiversity conservation, including the Nagoya Protocol on access and benefit sharing; CITES (1963/1973, 183 parties) — regulates trade in endangered species (Appendix I = ban, Appendix II = regulated); CMS/Bonn Convention (1979, entered force 1983) — migratory species throughout range; Ramsar Convention (1971) — wetlands of international importance; UNFCCC (1992) — climate change framework. Option D is incorrect: it conflates the 'Bonn Convention' name with CLRTAP (Convention on Long-Range Transboundary Air Pollution, 1979 Geneva) — two entirely different agreements.

[Read Source →](#)

Q49

Match the following environmental law provisions with their correct descriptions: List I (Law) A. Indian Forest Act, 1878 B. Forest Conservation Act, 1980 C. Forest Rights Act, 2006 D. Wildlife Protection Act, 1972 List II (Key Provision) 1. Introduced eminent domain over forests; extinguished customary tribal rights and replaced them with state-granted privileges 2. Requires central government clearance before any forest land can be diverted to non-forest use 3. Recognised rights of STs and OTFDs; final decision-making authority vested in the Gram Sabha 4. Created Schedules I through VI for wildlife protection; Olive Ridley sea turtle is protected under Schedule I

A A-1, B-2, C-3, D-4

B A-2, B-1, C-4, D-3

C A-1, B-3, C-2, D-4

D A-4, B-2, C-1, D-3

✓ A A-1, B-2, C-3, D-4

The correct matching is A-1, B-2, C-3, D-4. The Indian Forest Act 1878 was a colonial law that vested ownership of forests in the state, extinguishing pre-existing tribal customary rights and replacing them with state-granted privileges -- this is the doctrine of eminent domain over forests. The Forest Conservation Act 1980 introduced the requirement of prior central government clearance before any forest land can be diverted to non-forest use (mining, infrastructure etc.) -- enforced by the MoEF. The Forest Rights Act 2006 recognised the rights of Scheduled Tribes (STs) and Other Traditional Forest Dwellers (OTFDs) and vested decision-making in the Gram Sabha, not the Forest Department. The Wildlife Protection Act 1972 created six Schedules: Schedule I animals (including Olive Ridley turtle, tiger, lion) receive the highest protection -- hunting and trade are completely prohibited.

✦ The historical arc of Indian forest law: Indian Forest Act 1878 (colonial dispossession of tribal communities) -- Wildlife Protection Act 1972 + Forest Conservation Act 1980 (further restrictions on forest access in post-independence India, but without restoring tribal rights) -- FRA 2006 (partial rectification of historical injustice, described in the statement of objects as rectifying a "historical injustice"). The IFA 1878 was largely replaced by the Indian Forest Act 1927, which retained the same eminent domain framework. The Supreme Court in *Wildlife First v. MoEF&CC* (2019) initially ordered eviction of approximately 11.8 lakh families whose

FRA claims were rejected, before a stay was granted -- illustrating the ongoing tension between conservation law and tribal rights law.

[Read Source →](#)

Q50

Assertion (A): Acid Mine Drainage (AMD) in the Jaintia Hills has turned the River Lukha bright blue and caused fish population collapse. **Reason (R):** When coal pyrite in mine waste is exposed to oxygen and water, it oxidises to produce sulphuric acid, which dramatically lowers river pH -- and this process is extremely difficult and expensive to reverse.

- A** Both A and R are true and R is the correct explanation of A
- B** Both A and R are true but R is not the correct explanation of A
- C** A is true but R is false
- D** A is false but R is true

✓ A Both A and R are true and R is the correct explanation of A

Both the Assertion and the Reason are factually correct, and R correctly explains A. AMD occurs when iron pyrite (iron sulfide, FeS_2) in exposed mine waste reacts with oxygen and water to produce sulphuric acid and ferrous sulfate. The River Lukha in East Jaintia Hills, Meghalaya, first turned bright blue in January 2007 -- the colour results not just from acidity but from the precipitation of dissolved aluminium and other metal compounds when acidic mine runoff mixes with river water. In 2007, fish populations collapsed overnight, with thousands of dead fish washed to the banks, destroying the local fishery and fishing competitions for which the Lukha was famous. The Meghalaya State Pollution Control Board confirmed in 2012 that AMD from rat-hole coal mines, combined with low pH, high sulfate concentration, and low dissolved oxygen, was responsible. AMD remediation is extremely expensive and can take decades.

✦ AMD is a persistent legacy environmental cost of coal mining that continues even after mining ceases, because mine waste containing pyrite remains exposed to air and water. It represents the hidden environmental cost that informal rat-hole mining in Meghalaya never internalises. The District Mineral Foundation (DMF), created under the MMDR Amendment 2015, is designed to channel formal mining royalties to affected communities -- but has no applicability to illegal operations like rat-hole mining. The NGT banned rat-hole mining in Meghalaya in 2014, but enforcement has remained weak due to jurisdictional overlap between Autonomous District Councils (Sixth Schedule) and NGT orders.

[Read Source →](#)
Q51

Which of the following correctly states the Vehicle Scrappage Policy (2021) provisions regarding age limits for commercial and private vehicles?

- A** Commercial vehicles: 20 years; Private vehicles: 15 years
- B** Commercial vehicles: 15 years; Private vehicles: 20 years
- C** Both commercial and private vehicles: 15 years
- D** Commercial vehicles: 10 years; Private vehicles: 15 years

✓ B Commercial vehicles: 15 years; Private vehicles: 20 years

Under India's Vehicle Scrappage Policy 2021 (officially the Voluntary Vehicle-Fleet Modernization Programme, V-VMP), commercial vehicles must undergo a mandatory fitness test after 15 years and are scrapped if found unfit, while private vehicles undergo fitness tests after 20 years. The policy took effect in April 2022. It established two new institutional mechanisms: Automated Testing Stations (ATS) for standardised fitness and emissions certification, and Registered Vehicle Scrapping Facilities (RVSFs) for formal, environmentally compliant vehicle dismantling. NITI Aayog projects end-of-life vehicle numbers to nearly double from approximately 23 million (2025) to 50 million (2030).

✦ A key structural gap in the Vehicle Scrappage Policy is the absence of binding Extended Producer Responsibility (EPR) obligations on vehicle Original Equipment Manufacturers (OEMs) -- in contrast to the EU End-of- Life Vehicles Directive which mandates manufacturers to finance collection and recycling. Without EPR, informal dismantlers (who offer higher scrap prices by avoiding compliance costs) continue to dominate. The policy also offers incentives: scrappage certificate holders receive discounts on new vehicle purchases and rebates on registration fees. Scrapping old vehicles reduces particulate matter and NOx emissions, as pre-BS4 vehicles are far more polluting per km driven.

[Read Source →](#)

Q52

Consider the following statements about India's EV sector and battery waste: 1. FAME-II scheme had an initial outlay of Rs 10,000 crore for the period 2019-2024. 2. EV sales grew from approximately 50,000 units in 2016 to 2.08 million units in 2024. 3. India is the world's second-largest e-waste generator after China. 4. A lithium-ion battery pack that degrades below 80% state-of-health for automotive use is eligible for second-life stationary storage applications. Which of the statements given above are correct?

A 1 and 2 only

B 1, 2 and 4 only

C 2, 3 and 4 only

D 1, 2, 3 and 4

✓ B 1, 2 and 4 only

Statements 1, 2, and 4 are correct. Statement 3 is factually wrong: India is the world's third-largest e-waste generator (after China and the United States), not second-largest. China generates over 12 million metric tonnes of e-waste annually, the US approximately 7 million metric tonnes, and India approximately 4 million metric tonnes. FAME-II was launched in April 2019 with an initial outlay of Rs 10,000 crore (later enhanced to Rs 11,500 crore) and concluded in March 2024. EV sales grew significantly from roughly 50,000 units in 2016 to 2.08 million units in 2024, with the three-wheeler segment achieving 54% electrification by FY 2023-24. Battery packs below 80% state-of-health for automotive use can still serve 5-10 additional years in stationary energy storage (solar farms, grid balancing), extending useful life and reducing waste.

✦ The PLI-ACC (Production-Linked Incentive for Advanced Chemistry Cell batteries) scheme targets 50 GWh of domestic battery manufacturing capacity. India's lithium-ion battery demand is projected to grow from approximately 29 GWh (2025) to 248 GWh (2035) -- nearly a 9x increase. KABIL (Khanij Bidesh India Ltd), a joint venture of NALCO, HCL, and MECL, is India's vehicle for overseas critical mineral acquisition (lithium, cobalt, nickel). India's Global e-waste Monitor ranking underscores the urgency: with a population of 1.4 billion and rapid technology adoption, e-waste volumes will grow sharply without robust Extended Producer Responsibility enforcement.

[Read Source →](#)

Q53

Match the following international climate finance instruments with their correct descriptions: List I (Instrument) A. Green Climate Fund (GCF) B. Loss and Damage Fund C. Clean Development Mechanism (CDM) D. Carbon Credit Trading Scheme (CCTS) List II (Description) 1. Established at COP27 (Sharm el-Sheikh, 2022) and formally operationalised at COP28 (Dubai, 2023) to compensate developing countries for irreversible climate impacts 2. A Kyoto Protocol mechanism allowing developed nations to earn certified emission reduction credits through projects in developing nations 3. India's domestic carbon market scheme notified in June 2023 under the Energy Conservation (Amendment) Act 2022 4. The largest UNFCCC fund providing climate finance to developing countries for both mitigation and adaptation; began approving projects in 2015

A A-4, B-1, C-2, D-3

B A-1, B-4, C-2, D-3

C A-4, B-2, C-1, D-3

D A-2, B-1, C-4, D-3

✓ A A-4, B-1, C-2, D-3

The correct matching is A-4, B-1, C-2, D-3. The Green Climate Fund (GCF), created in 2010 under the UNFCCC, is the world's largest dedicated multilateral climate fund with cumulative pledges of USD 30 billion from 48 countries; it began approving projects in 2015 and funds both mitigation and adaptation in developing nations. The Loss and Damage Fund (formally the Fund for Responding to Loss and Damage, FRLD) was agreed at COP27 in Sharm el-Sheikh (November 2022) and formally established and operationalised at COP28 in Dubai (November-December 2023); as of 2025 it had received USD 768 million in pledges. The Clean Development Mechanism (CDM) was a market instrument under the Kyoto Protocol (1997) that allowed Annex-I (developed) countries to earn Certified Emission Reductions (CERs) by financing emission reduction projects in non-Annex-I (developing) countries. India's Carbon Credit Trading Scheme (CCTS) was notified in June 2023 under the Energy Conservation (Amendment) Act 2022; it will initially cover nine energy-intensive sectors.

✦ CBDR-RC (Common But Differentiated Responsibilities and Respective Capabilities) is the foundational principle India invokes at all UNFCCC negotiations: developed nations, which contributed the majority of cumulative historical emissions, must provide financial and technology support to developing nations. India's NDC targets 50% cumulative installed electric power from non-fossil fuel sources by 2030. India's clean energy transition requires approximately USD 2.5 trillion in investment between 2026 and 2050. The Paris Agreement Article 6 mechanism (successor to CDM) creates rules for international carbon credit trading between countries under the new framework.

[Read Source →](#)

Geography

Q54

Which of the following mineral regulators and their parent ministries are correctly matched in the context of mining governance in India?

- A** DGMS (Directorate General of Mines Safety) -- Ministry of Mines; MMDR Act licensing -- Ministry of Labour
- B** DGMS -- Ministry of Labour and Employment; MMDR Act licensing -- Ministry of Mines
- C** Both DGMS and MMDR Act licensing fall under the Ministry of Mines
- D** Both DGMS and MMDR Act licensing fall under the Ministry of Environment

✓ B **DGMS -- Ministry of Labour and Employment; MMDR Act licensing -- Ministry of Mines**

DGMS (Directorate General of Mines Safety), established in 1902 and headquartered at Dhanbad, Jharkhand, is a regulatory agency under the Ministry of Labour and Employment. It enforces the Mines Act, 1952 and related rules to ensure occupational safety, health, and welfare of persons employed in coal, metalliferous, and oil mines. The MMDR (Mines and Minerals Development and Regulation) Act 1957 -- which governs mineral licensing, royalties, auction of mineral blocks, and development of the mining sector -- is administered by the Ministry of Mines. This institutional separation is deliberate: mine worker safety regulation (Labour Ministry) is structurally distinct from mineral resource governance (Mines Ministry).

✦ The MMDR Amendment 2015 introduced two landmark institutions: the District Mineral Foundation (DMF), a non-profit trust in every mining district funded by a levy on royalties and dedicated to development of mining-affected communities; and the National Mineral Exploration Trust (NMET), funded by 2% of royalty for regional and detailed exploration. The MMDR Amendment 2021 changed the auction system to allow captive mines to sell surplus minerals. The MMDR Amendment 2023 carved out 24 critical minerals (lithium, cobalt, nickel etc.) from state licensing authority and reserved auction rights for the central government -- a shift triggered by India's clean energy transition needs.

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Q55

Consider the following statements about the Convention on Biological Diversity (CBD) and EIA obligations in India: 1. The CBD (Article 14) requires member countries to conduct Environmental Impact Assessments for projects likely to have significant adverse effects on biodiversity. 2. India is a party to the CBD, which has 196 parties. 3. India's EIA Notification 2006 classifies projects into Category A (requiring central clearance from MoEF) and Category B (requiring state-level clearance). 4. Public hearings are mandatory under the EIA Notification 2006 for ALL Category A and Category B projects without exception. Which of the statements given above are correct?

A 1 and 3 only

B 1, 2 and 3 only

C 2, 3 and 4 only

D 1, 2, 3 and 4

✓ B 1, 2 and 3 only

Statements 1, 2, and 3 are correct. Statement 4 is INCORRECT and is a common trap in UPSC questions: public hearings (public consultation) are NOT mandatory for all Category B projects. Under the EIA Notification 2006, Category B is divided into B1 (requires EIA report and public consultation) and B2 (exempted from both EIA report and public consultation). Category B2 includes small-scale mining operations, minor mineral extraction up to 5 hectares, river valley projects up to 25 MW, and certain offshore exploration activities. The CBD (signed at Rio Earth Summit, 1992) has 196 parties, making it one of the most widely ratified environmental treaties. Article 14 of the CBD specifically calls for biodiversity-inclusive EIA for projects in or near biodiversity-sensitive areas.

✦ The EIA Notification 2006 replaced the EIA Notification 1994. Its four-stage process is: Screening (Category A/B determination) -- Scoping (Terms of Reference for EIA study) -- Public Consultation (mandatory for Category A and B1, exempt for B2) -- Appraisal (by Expert Appraisal Committee). The NGT Act 2010 empowers the National Green Tribunal to grant interim relief, award compensation, and issue directions on environmental matters. The controversial EIA Draft Notification 2020 proposed to further expand the B2 (public-hearing-exempt) category and allow post-facto regularisation of projects -- it was widely criticised and

has not been finalised as of 2026. The Great Nicobar EIA was criticised for insufficient field survey coverage and failure to assess cumulative impacts of all four project components together.

[Read Source →](#)

Q56

Consider the following statements about pulses and their cultivation: 1. Pulses belong to the Leguminosae/Fabaceae family and fix atmospheric nitrogen through symbiotic Rhizobium bacteria in root nodules. 2. India's average pulse yield is approximately 800-900 kg per hectare, against a achievable potential of 1,400-1,800 kg per hectare. 3. The Dietary Guidelines for Indians (ICMR-NIN) recommend 85 grams of pulses per person per day. 4. Under the Forest Rights Act 2006, individual forest land title rights are limited to a maximum of 4 hectares per family. Which of the above statements relate specifically to pulse cultivation and nutritional security?

A 1 and 2 only

B 1, 2 and 3 only

C 2, 3 and 4 only

D 1, 2, 3 and 4

✓ B 1, 2 and 3 only

Statements 1, 2, and 3 relate specifically to pulse cultivation and nutritional security; they are all factually correct. Statement 4 (FRA 2006 individual title limit of 4 hectares) is from the domain of forest rights law, not pulse cultivation -- making it the odd one out. Pulses belong to the family Leguminosae (also called Fabaceae); nitrogen fixation through symbiotic Rhizobium bacteria in root nodules is confirmed science -- lentils alone can fix 35-100 kg of nitrogen per hectare per season. India is the world's largest producer (about 25% of global output), consumer (27%), and importer (14%) of pulses -- yet average yield of 800-900 kg/ha lags far below the 1,400-1,800 kg/ha achievable with improved varieties and management. The ICMR-NIN Dietary Guidelines for Indians (2024) recommend 85 g/day (uncooked weight) of pulses as part of a balanced diet; India's actual per capita availability is approximately 38-45 g/day -- well below the recommendation.

✦ Nitrogen fixation by pulse crops is an ecological service that reduces dependence on synthetic nitrogen fertiliser (produced via the energy-intensive Haber-Bosch process), improves soil organic matter, and reduces nitrous oxide (N₂O) greenhouse gas emissions. Pulses contribute 20-25% of Indian dietary protein intake. The Mission for Aatmanirbharta in Pulses targets 350 lakh tonnes production by 2030-31; India's current production is approximately 240-250 lakh tonnes. At the ICMR-recommended 85 g/person/day, India's 1.4

billion people would need approximately 43 million tonnes per year -- meaning the self-sufficiency target itself falls short of nutritional adequacy.

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Q57

The Strait of Malacca, which sees approximately 90,000-94,000 vessels per year carrying roughly 25-30% of global seaborne trade, separates which two landmasses?

- A Sri Lanka and Tamil Nadu
- B Malay Peninsula and the island of Sumatra (Indonesia)
- C Singapore and Borneo
- D Java and Bali

✓ B Malay Peninsula and the island of Sumatra (Indonesia)

The Strait of Malacca separates the Malay Peninsula (Malaysia and southern Thailand to the northeast) from the Indonesian island of Sumatra to the southwest. It is approximately 900 km long and ranges from 65 to 250 km wide; its narrowest point -- the Phillip Channel near Singapore -- is only 2.8 km (1.5 nautical miles) wide. In 2024, a new annual record of 94,301 ship transits was recorded. It connects the Andaman Sea/Indian Ocean in the northwest to the South China Sea/Pacific in the southeast. An estimated 25-30% of global seaborne trade by value (approximately USD 3.5 trillion annually) transits the strait, including a large share of India's crude oil and LNG imports from the Gulf.

✦ India's maritime strategy in the Indo-Pacific centres on its ability to monitor and secure the eastern Indian Ocean -- particularly the approaches to the Malacca Strait. China's "String of Pearls" strategy involves port access or military presence at Djibouti (first overseas base, 2017), Hambantota (Sri Lanka, 99-year lease, 2017), Gwadar (Pakistan), and port upgrades in Bangladesh -- encircling India's maritime periphery. The Andaman and Nicobar Islands sit directly astride the western entrance to the Malacca Strait, giving India significant strategic positional advantage. The Great Nicobar ICTT (International Container Trans-shipment Terminal) project is India's counter-positioning to reduce dependence on the Colombo trans-shipment hub (through which 75% of India's container trans-shipment currently flows).

[Read Source →](#)

Q58

Which of the following correctly identifies the states that have a Sixth Schedule tribal governance arrangement in India?

A Jharkhand, Chhattisgarh, Odisha, and Madhya Pradesh

B Assam, Meghalaya, Mizoram, and Tripura

C Manipur, Nagaland, Arunachal Pradesh, and Sikkim

D Assam, Meghalaya, Manipur, and Nagaland

✓ B Assam, Meghalaya, Mizoram, and Tripura

The Sixth Schedule (under Article 244(2) of the Constitution) applies specifically to tribal areas of four northeastern states: Assam, Meghalaya, Mizoram, and Tripura. These areas are governed through Autonomous District Councils (ADCs), which have legislative powers over land, forests, waterways, local administration, inheritance, marriage, and divorce. There are 10 ADCs in total across the four states -- three each in Assam, Meghalaya, and Mizoram, and one in Tripura. In Meghalaya specifically, the three ADCs are the Khasi Hills ADC, Jaintia Hills ADC, and Garo Hills ADC. The Fifth Schedule (Article 244(1)) -- a different provision -- covers Scheduled Areas in 10 other states: Andhra Pradesh, Chhattisgarh, Gujarat, Himachal Pradesh, Jharkhand, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, and Telangana, where PESA Act 1996 applies.

✦ The jurisdictional authority of ADCs under the Sixth Schedule over forests, land, and local governance creates a structural conflict with orders from the National Green Tribunal (NGT) and central enforcement agencies. In the Meghalaya rat-hole mining context, the Jaintia Hills ADC's authority over its territory makes central enforcement of the NGT's 2014 ban on rat-hole mining legally and practically complex. The ADC system was designed in 1949-50 to protect tribal self-governance in the northeast -- its interaction with modern environmental regulation is an unresolved constitutional tension.

[Read Source →](#)

Q59

Consider the following pairs related to India's solar and renewable energy geography: 1. Bhadla Solar Park -- Rajasthan -- 2,245 MW -- world's largest currently operating solar park 2. Khavda Renewable Energy Park -- Gujarat (Rann of Kutch) -- 30 GW planned (20 GW solar + 10 GW wind) -- will be world's largest hybrid renewable energy park when complete 3. Green Energy Corridors -- connect renewable generation in states including Rajasthan, Gujarat, Tamil Nadu, Karnataka, Andhra Pradesh, and Maharashtra How many of the above pairs are correctly matched?

A Only one

B Only two

C All three

D None

✓ B Only two

Only pairs 2 and 3 are correctly matched; pair 1 is INCORRECT. Bhadla Solar Park in Rajasthan has a commissioned capacity of 2,245 MW and was previously described as the world's largest solar park, but as of 2024 it is ranked approximately 11th globally -- it has been surpassed by multiple large solar installations in China (the Gonghe Talatan Solar Park in Qinghai province alone has over 15 GW capacity). Bhadla remains India's largest solar park but is not the world's largest. Pair 2 is correct: the Khavda Renewable Energy Park in the Rann of Kutch, Gujarat (developed primarily by Adani Green Energy on 72,600 hectares) is planned at 30 GW (20 GW solar + 10 GW wind) and will be the world's largest hybrid renewable energy park when complete by 2030; approximately 2 GW was operational by early 2026. Pair 3 is correct: India's Green Energy Corridors (GEC Phase I, approved 2015; GEC Phase II, approved 2022) connect renewable-rich states -- including Rajasthan, Gujarat, Tamil Nadu, Karnataka, Andhra Pradesh, Himachal Pradesh, and Maharashtra - - to major load centres.

✦ India's solar tariff trajectory is a landmark achievement: from over Rs 12 per unit in 2010 to below Rs 2 per unit by 2025 -- among the world's cheapest utility-scale solar electricity. The Thar Desert in Rajasthan has solar irradiation of approximately 6-7 kWh per square metre per day -- among the highest in the world -- making it India's primary hub for utility-scale solar. Transmission bottlenecks from renewable-rich western and southern states to eastern demand centres remain a key constraint to further scaling; GEC Phases 3 and 4 are being

planned to address this. India's cumulative installed renewable energy capacity crossed 200 GW in 2024 against a 2030 target of 500 GW.

[Read Source →](#)

Q60

Which of the following coal-dependent states would bear the greatest burden of any coal phase-down in India, according to assessments of direct mining employment and coal-linked industry dependence?

- A** Rajasthan, Gujarat, Maharashtra, and Tamil Nadu
- B** Jharkhand, Chhattisgarh, Odisha, and Madhya Pradesh
- C** Bihar, Uttar Pradesh, West Bengal, and Assam
- D** Punjab, Haryana, Himachal Pradesh, and Uttarakhand

✓ B Jharkhand, Chhattisgarh, Odisha, and Madhya Pradesh

Jharkhand, Chhattisgarh, Odisha, and Madhya Pradesh are India's primary coal-producing states and would bear the greatest burden of any coal phase-down. These states account for the bulk of India's coal reserves and production. Conservative estimates suggest the coal economy (formal and informal, direct and indirect) employs 13-20 million Indians, with over 70% in informal or contractor roles not captured in official Coal India statistics. By 2050, projected mine closures could eliminate nearly 990,000 formal coal mine jobs alone. Critically, these states are also among India's least economically developed, with high tribal populations and limited alternative employment, making Just Transition planning both urgent and politically sensitive.

✦ The Just Transition concept, accepted by India in the Glasgow Climate Pact (COP26, November 2021), requires retraining, alternative employment, and economic diversification for coal-dependent communities as part of the energy transition. At Glasgow, India successfully fought to replace "phasing out" coal with "phasing down" coal -- a language distinction that preserves India's flexibility given its development stage. The National Green Hydrogen Mission (January 2023) targets 5 million tonnes per year of green hydrogen production by 2030 at a target production cost of USD 1/kg, aiming to decarbonise hard-to-abate sectors (steel, fertiliser, heavy transport) that cannot be directly electrified.

[Read Source →](#)

Q61

Consider the following statements about the Andaman and Nicobar Islands: 1. India's Andaman and Nicobar Command (ANC), established in 2001, is headquartered at Sri Vijaya Puram (formerly Port Blair, renamed September 2024) and is India's only integrated tri-service command. 2. The total number of islands in the Andaman and Nicobar group is 572, of which only 38 are inhabited. 3. China's first overseas military base was established at Djibouti in 2017. 4. ANIIDCO is the implementing agency for the Great Nicobar development project worth Rs 81,000 crore. Which of the statements given above are correct?

A 1 and 3 only

B 2 and 4 only

C 1, 2 and 3 only

D 1, 2, 3 and 4

✓ D 1, 2, 3 and 4

All four statements are correct. The Andaman and Nicobar Command (ANC), established in 2001, is India's only integrated tri-service command (combining Army, Navy, and Air Force under a single Commander-in-Chief); it is headquartered at Sri Vijaya Puram -- the city officially renamed from Port Blair to Sri Vijaya Puram by the Government of India on 13 September 2024. The Andaman and Nicobar archipelago has 572 islands (750 km long chain) of which only 38 are inhabited. China established its first confirmed overseas military base at Djibouti in the Horn of Africa in 2017. ANIIDCO (Andaman and Nicobar Islands Integrated Development Corporation) is the implementing agency for the holistic development project on Great Nicobar Island, estimated at Rs 81,000 crore, which includes an International Container Trans-shipment Terminal (ICTT), a greenfield airport, a township, and a 450 MW gas/solar power plant.

✦ India's Indo-Pacific strategy centres on monitoring and securing the eastern Indian Ocean, particularly the western approaches to the Malacca Strait. The Great Nicobar ICTT, if developed, would reduce India's dependence on the Colombo trans-shipment hub (currently handling about 75% of India's container trans-shipment). China's String of Pearls port strategy -- Djibouti (military base), Hambantota (Sri Lanka, 99-year lease), Gwadar (Pakistan), Chittagong (Bangladesh upgrades) -- encircles India's maritime periphery and provides the strategic rationale for Great Nicobar development. The project is simultaneously contested on

environmental grounds: it falls in a UNESCO-recognised biodiversity hotspot, home to the Leatherback sea turtle, the Nicobar Megapode, and unique coral reef systems.

[Read Source →](#)

Q62

Consider the following statements about the Andaman and Nicobar Islands: 1. India's Andaman and Nicobar Command (ANC) is headquartered at Sri Vijaya Puram (formerly Port Blair) and is India's only integrated tri-service command. 2. The total number of islands in the Andaman and Nicobar group is 572, of which only 38 are inhabited. 3. China's first overseas military base was established at Djibouti in 2017. 4. ANIIDCO is the implementing agency for the Great Nicobar development project. Which of the statements given above are correct?

A 1 and 3 only

B 2 and 4 only

C 1, 2 and 3 only

D 1, 2, 3 and 4

✓ D 1, 2, 3 and 4

All four statements are correct. The Andaman and Nicobar Command (ANC), established in 2001, is India's only integrated tri-service command (Army, Navy, Air Force under one commander); its headquarters city was officially renamed from Port Blair to Sri Vijaya Puram in September 2024. The archipelago has 572 islands of which 38 are inhabited. China formally established its first overseas military base at Djibouti in 2017. ANIIDCO (Andaman and Nicobar Islands Integrated Development Corporation) is the designated implementing agency for the Rs 81,000 crore Great Nicobar project comprising a transshipment port, international airport, township, and power plant.

✦ The renaming of Port Blair to Sri Vijaya Puram (September 2024) is an important current-affairs update — UPSC questions post-2024 should use the new name. India's Indo-Pacific strategy centres on the ANC monitoring the Strait of Malacca, through which 80% of India's oil imports pass. The Great Nicobar ICTT would reduce India's dependence on Colombo port, through which about 75% of India's container transshipment currently flows. China's String of Pearls strategy (Djibouti, Hambantota, Gwadar, Chittagong) encircles India's maritime periphery and drives the strategic urgency of the Great Nicobar project.

[Read Source →](#)

Q63

Which of the following states are correctly identified as having the Fifth Schedule (not Sixth Schedule) tribal governance provisions, with scheduled areas where PESA Act 1996 applies?

- A** Assam, Meghalaya, Mizoram, Tripura, Manipur
- B** Andhra Pradesh, Chhattisgarh, Gujarat, Jharkhand, Maharashtra, Madhya Pradesh, Odisha, Rajasthan, Telangana, Himachal Pradesh
- C** All northeastern states plus Odisha and Jharkhand
- D** Gujarat, Rajasthan, Maharashtra, and Karnataka only



Andhra Pradesh, Chhattisgarh, Gujarat, Jharkhand, Maharashtra, Madhya Pradesh, Odisha, Rajasthan, Telangana, Himachal Pradesh

The PESA Act 1996 applies to Fifth Schedule areas in exactly 10 states: Andhra Pradesh, Chhattisgarh, Gujarat, Himachal Pradesh, Jharkhand, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, and Telangana. These are non-northeastern states with contiguous tribal-dominated regions notified under the Fifth Schedule of the Constitution. The four northeastern states — Assam, Meghalaya, Mizoram, and Tripura — are governed under the Sixth Schedule through Autonomous District Councils; PESA does not apply there.

✦ A key UPSC-tested distinction: the Fifth Schedule covers Scheduled Areas in central and peninsular India, while the Sixth Schedule applies to tribal areas of Assam, Meghalaya, Mizoram, and Tripura through Autonomous District Councils with legislative powers. PESA (1996) requires Gram Sabhas to have primacy over natural resources, minor forest produce, and local governance in Fifth Schedule areas. However, compliance has been poor — Maharashtra passed PESA-compliant state rules only in 2022; Jharkhand and Odisha also delayed by decades. The Forest Rights Act 2006 supplements PESA by recognising individual and community forest rights for Scheduled Tribes.

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Q64

Consider the following statements about Pumped Hydro Storage (PSP) and Battery Energy Storage Systems (BESS): 1. India has identified over 96 GW of pumped hydro storage potential across Himalayan and peninsular sites. 2. PSP operates by pumping water uphill when power is surplus and releasing it through turbines when demand peaks. 3. BESS global costs are currently approximately USD 150 per kWh and declining. 4. PSP projects typically take 2-4 years to construct, making them faster to deploy than BESS. Which of the statements given above are correct?

A 1 and 2 only

B 1, 2 and 3 only

C 2, 3 and 4 only

D 1, 2, 3 and 4

✓ B 1, 2 and 3 only

Statements 1, 2, and 3 are correct; Statement 4 is incorrect. India has identified 96 GW or more of pumped storage hydropower potential (CEA and MNRE assessments range from 96 GW to 106 GW in more recent surveys). PSP works exactly as described in Statement 2 — it is essentially a giant rechargeable water battery. BESS costs have fallen sharply and are in the USD 100-150 per kWh range globally. Statement 4 is wrong: PSP projects take 8-12 years to construct due to civil works, environmental clearances, and reservoir preparation — they are far slower to deploy than BESS despite being more cost-effective per MWh at scale.

✦ The energy storage challenge is critical for India's renewable transition because solar power peaks at noon while electricity demand peaks in evenings. Without adequate storage, high renewable penetration creates grid instability. PSP is the most cost-effective large-scale storage technology globally but demands specific topography (height differential and water availability). India's CEA estimates 411.4 GWh of total grid storage will be required by 2031-32 (236.2 GWh from BESS plus 175.2 GWh from PSP). India's Green Energy Corridors (GEC Phase I and II) address the transmission integration piece of the renewable scale-up.

[Read Source →](#)

Q65

The NAFED and NCCF are mandated to provide 100% assured procurement at MSP for pulses under which scheme, and what is the full form of that scheme?

- A PM-KISAN; PM Kisan Samman Nidhi
- B PM-AASHA; PM Annadata Aay SanraksHan Abhiyan
- C PMFBY; PM Fasal Bima Yojana
- D e-NAM; Electronic National Agriculture Market

✓ B PM-AASHA; PM Annadata Aay SanraksHan Abhiyan

NAFED (National Agricultural Cooperative Marketing Federation) and NCCF (National Cooperative Consumers' Federation of India) undertake 100% assured MSP procurement of pulses (Tur, Urad, and Masoor) through the Price Support Scheme (PSS) component of PM-AASHA — Pradhan Mantri Annadata Aay SanraksHan Abhiyan. This operational framework was strengthened by the Union Cabinet-approved Mission for Aatmanirbharta in Pulses (October 2025, outlay Rs 11,440 crore), which mandates NAFED and NCCF to procure from registered farmers for four years. FCI (Food Corporation of India) handles wheat and rice MSP procurement separately.

✦ PM-AASHA was launched in 2018 to provide price support for oilseeds and pulses — crops that historically lacked the FCI-backed safety net available for wheat and rice. It has three components: Price Support Scheme (PSS), Price Deficiency Payment Scheme (PDPS), and Private Procurement and Stockist Scheme (PPSS). The Mission for Aatmanirbharta in Pulses (2025-26 to 2030-31) builds on PM-AASHA's PSS component and targets expanding pulses area to 310 lakh hectares and production to 350 lakh tonnes by 2030-31, addressing India's chronic import dependence in lentils and tur dal.

[Read Source →](#)

Science & Technology

Q66

Which of the following best describes the role of ATMP in the semiconductor value chain?

- A** It is the first stage where silicon is processed into wafers using photolithography
- B** It is the final stage involving Assembly, Testing, Marking and Packaging of chips
- C** It is the design stage where chip architecture and IP are developed
- D** It refers to the supply of raw silicon and chemical inputs to fabs

✓ B

It is the final stage involving Assembly, Testing, Marking and Packaging of chips

ATMP stands for Assembly, Testing, Marking and Packaging — it is the final (Tier 3) stage of the semiconductor value chain, not the first. After a wafer is fabricated in a fab (Tier 2), individual chips are cut, assembled into packages, tested for defects, marked, and packaged for shipment in ATMP/OSAT facilities. Micron's Sanand plant in Gujarat operates at this tier. Tier 1 is chip design; Tier 2 is wafer fabrication using lithography.

✦ The semiconductor value chain runs: Design (Tier 1) → Fabrication/Fabs (Tier 2) → ATMP/OSAT (Tier 3). India has strong design talent (Bengaluru is a global chip design hub) and is now building ATMP capacity, but lacks domestic wafer fabrication. The India Semiconductor Mission targets all three tiers with differentiated subsidies: 50% for fabs and displays, 30% for ATMP/OSAT and compound semiconductor facilities. OSAT (Outsourced Semiconductor Assembly and Test) is the industry term for third-party ATMP services.

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Q67

Consider the following statements about the India Semiconductor Mission (ISM): 1. It is administered by the Ministry of Electronics and Information Technology (MeitY). 2. The capital subsidy provided under ISM is 30% of approved project costs for semiconductor fabs. 3. ISM covers three schemes: Semiconductor Fabs, ATMP/OSAT, and Compound Semiconductors. Which of the statements given above is/are correct?

A 1 and 2 only

B 1 and 3 only

C 2 and 3 only

D 1, 2 and 3

✓ B 1 and 3 only

Statement 1 is correct — ISM is administered by MeitY. Statement 2 is incorrect — the capital subsidy for Semiconductor Fabs is 50% of project cost, not 30%; the 30% subsidy applies specifically to ATMP/OSAT and Compound Semiconductor facilities. Statement 3 is correct — ISM covers Semiconductor Fabs, ATMP/OSAT, and Compound Semiconductors/Silicon Photonics/Sensors. Hence only Statements 1 and 3 are correct.

✦ ISM was launched in 2021 with a total outlay of Rs 76,000 crore (~USD 10 billion) and a Display Fab scheme was added later. The differentiated subsidy structure reflects investment scale: a leading-edge fab costs USD 20-30 billion, requiring a higher 50% subsidy, while ATMP facilities are less capital-intensive. The Tata-PSMC (PowerChip) partnership for a fab at Dholera (28nm process) and Tata's ATMP unit at Morigaon, Assam are the flagship approved projects. ISM 2.0 was announced in Union Budget 2026-27 to extend the mission to equipment and materials manufacturing.

[Read Source →](#)

Q68

Which company is the sole manufacturer of Extreme Ultraviolet (EUV) lithography machines used in advanced semiconductor fabrication?

A Intel Corporation, USA

B Applied Materials, USA

C ASML, Netherlands

D Canon, Japan

✓ C ASML, Netherlands

ASML, headquartered in Veldhoven, Netherlands, is the only company in the world that manufactures EUV (Extreme Ultraviolet) lithography machines, which are essential for producing chips at sub-7nm process nodes. Standard EUV machines cost approximately €200 million (~USD 220 million); the next-generation High-NA EUV machines cost €350-400 million. TSMC, Samsung, and Intel are major customers. The US has used export controls on ASML machines to block their sale to China, making ASML a critical geopolitical chokepoint.

✦ EUV machines represent a single point of control in the global semiconductor supply chain — no country can build leading-edge chips without access to ASML equipment. Canon (Japan) and Nikon (Japan) manufacture older DUV (Deep Ultraviolet) lithography machines used for less advanced nodes. China is attempting to indigenise EUV technology through SMEE (Shanghai Micro Electronics Equipment), but as of 2026 remains far behind ASML's capability. Advanced fabs at 3-5nm nodes typically cost USD 20-30 billion per plant and require hundreds of ASML machines.

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Q69

With reference to the India AI Mission approved in March 2024, consider the following statements: 1. Its total outlay is Rs 10,371 crore. 2. It is governed through the Ministry of Science and Technology. 3. One of its seven pillars is a dedicated IndiaAI Compute Capacity programme that originally targeted 10,000+ GPUs. Which of the statements given above is/are correct?

A 1 only

B 1 and 3 only

C 2 and 3 only

D 1, 2 and 3

✓ B 1 and 3 only

Statement 1 is correct — the outlay is Rs 10,371.92 crore. Statement 2 is incorrect — the India AI Mission is under MeitY (Ministry of Electronics and Information Technology), not the Ministry of Science and Technology. Statement 3 is correct — IndiaAI Compute Capacity is one of the seven pillars and originally targeted 10,000+ GPUs; by early 2026 this target had been exceeded, with common compute capacity crossing 34,000 GPUs and projections for 38,000+ GPUs. So Statements 1 and 3 are correct.

✦ The India AI Mission (approved March 2024) has seven pillars: IndiaAI Compute Capacity, IndiaAI Innovation Centre, IndiaAI Datasets Platform (AIKosh), IndiaAI Application Development, IndiaAI FutureSkills, IndiaAI Startup Financing, and IndiaAI Safe and Trusted AI. MeitY is the nodal ministry; IndiaAI (a unit under Digital India Corporation) is the implementation body. BharatGen — India's first government-funded multimodal LLM supporting 22 Indian languages — was developed under this mission. The IndiaAI compute capacity is offered at subsidised rates of Rs 65 per GPU-hour to startups and researchers.

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Q70

Sarvam AI, a Bengaluru-based company, launched India's largest indigenous large language models at the India AI Impact Summit 2026. Which of the following correctly identifies the two models unveiled?

A Sarvam-10B and Sarvam-70B

B Sarvam-30B and Sarvam-105B

C Sarvam-50B and Sarvam-200B

D Sarvam-7B and Sarvam-65B

✓ B Sarvam-30B and Sarvam-105B

Sarvam AI unveiled Sarvam-30B (30 billion parameters, Mixture-of-Experts architecture, 32,000-token context window) and Sarvam-105B (105 billion parameters, 128,000-token context window) at the India AI Impact Summit on 18 February 2026. Both models were trained from scratch in India on datasets spanning all 22 official Indian languages, not fine-tuned from foreign models. They were subsequently open-sourced under Apache License 2.0 on Hugging Face and AIKosh.

✦ Sarvam-105B places India among a small group of countries with a domestically developed frontier-scale language model, alongside the US, China, France, UAE, and Canada. For scale comparison: Meta Llama 3 has 70 billion parameters; Mistral Large has approximately 123 billion. Sarvam AI's competitive edge is deep Indian-language competence — particularly for lower-resourced languages. The Sarvam-30B model is named Vikram and is designed for real-time conversational use; Sarvam-105B targets complex analytical and reasoning tasks.

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Q71

Consider the following statements regarding the IT (Intermediary Guidelines) Amendment Rules 2026: 1. The rules were notified by MeitY and are legally grounded in Section 79 of the IT Act 2000. 2. They mandate a 2-hour takedown window specifically for non-consensual deepfake nudity and child sexual abuse material (CSAM). 3. Platforms lose safe harbour only if they knowingly permit, promote, or fail to act on violating content. 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

✓ D 1, 2 and 3

All three statements are correct, but precision on Statement 2 is important. The rules, notified on 10 February 2026 under Section 79 of the IT Act 2000, create a tiered takedown regime: 3 hours for general unlawful content following a court or government order (down from 36 hours under 2021 rules), and a stricter 2-hour window specifically for non-consensual deepfake nudity and CSAM — the most harmful categories. Platforms lose safe harbour under the "knowingly permits, promotes, or fails to act" standard described in Statement 3.

✦ The 2021 IT (Intermediary Guidelines) Rules had a 36-hour takedown window for unlawful content and 24 hours for national security material. The 2026 rules substantially tighten these timelines and add new obligations around Synthetically Generated Information (SGI) labelling. Critics argue the 3-hour window creates over-removal incentives as platforms cannot legally review content at speed. Current AI deepfake detection accuracy is approximately 60-85% (IBM Research 2024), making automated compliance technically challenging. India's 2026 rules are considered among the world's most stringent synthetic content mandates.

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Q72

C2PA (Coalition for Content Provenance and Authenticity) is primarily associated with which of the following technical approaches to AI content governance?

- A** Real-name registration requirements for social media accounts
- B** Cryptographic signing and provenance metadata embedded in content to establish authenticated origin and chain of custody
- C** Centralised government databases of flagged synthetic media
- D** Acoustic fingerprinting for voice-cloned audio detection

 **B**

Cryptographic signing and provenance metadata embedded in content to establish authenticated origin and chain of custody

C2PA (Coalition for Content Provenance and Authenticity) is an industry consortium that develops open technical standards using cryptographic signing (SHA-256 hashes, X.509 certificates, and digital signatures) to embed provenance metadata into content at creation, establishing a verifiable chain of custody. It was co-founded in February 2021 by Adobe, Arm, BBC, Intel, Microsoft, and Truepic, and operates under the Linux Foundation's Joint Development Foundation. Any tampering with the asset or its metadata invalidates the cryptographic signature, making alterations detectable.

✦ C2PA's approach is content provenance rather than deepfake detection: instead of asking "is this fake?" after the fact, it establishes authenticated origin at creation. This is more robust than detection-based approaches that AI can evade. The specification supports both hard bindings (cryptographic hashing) and soft bindings (watermarking and fingerprinting) so that Content Credentials can be recovered even if metadata is stripped. C2PA unifies Adobe's Content Authenticity Initiative (CAI) and Microsoft/BBC's Project Origin. India's 2026 IT Rules encourage but do not yet mandate C2PA-standard provenance labelling.

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Q73

In which landmark Supreme Court case did the court establish that restrictions on digital speech must be proportionate and narrowly tailored, leading to the striking down of Section 66A of the IT Act?

- A Justice K.S. Puttaswamy vs. Union of India (2017)
- B Shreya Singhal vs. Union of India (2015)
- C Anuradha Bhasin vs. Union of India (2020)
- D Maneka Gandhi vs. Union of India (1978)

✓ B Shreya Singhal vs. Union of India (2015)

In *Shreya Singhal vs. Union of India* (March 2015), a two-judge Supreme Court bench struck down Section 66A of the IT Act 2000, holding it unconstitutionally vague and overbroad under Article 19(1)(a) (freedom of speech and expression). The court declared it void ab initio. The judgment also read down Section 79 on intermediary liability. *K.S. Puttaswamy vs. Union of India* (2017) separately established the constitutional right to privacy under Article 21 in a nine-judge bench ruling.

✦ These two cases form the constitutional bedrock of India's digital rights jurisprudence. *Shreya Singhal* protects digital expression: speech restrictions must be narrowly defined, not vaguely worded to allow arbitrary enforcement. *K.S. Puttaswamy* protects digital privacy: personal data cannot be collected or shared without legal justification. In deepfake regulation, both rights are implicated — Article 19(1)(a) constrains overbroad labelling mandates on creative content, while Article 21 supports regulation that protects individuals from identity theft via non-consensual synthetic media. *Anuradha Bhasin* (2020) dealt with internet shutdowns and established proportionality as the test for restrictions on internet access.

[Read Source →](#)

Security & Defence

Q74

Consider the following pairs regarding India's naval indigenisation programmes:

Programme --- Shipyard
 1. ASW-SWC (Anti-Submarine Warfare Shallow Water Craft) --- GRSE and L&T Shipbuilding
 2. Kalvari class submarines (Project 75) --- Hindustan Shipyard Limited (HSL), Visakhapatnam
 3. Nilgiri class stealth frigates (Project 17A) --- Mazagon Dock Shipbuilders (MDL).
 Which of the pairs given above is/are correctly matched?

A 1 and 3 only

B 2 and 3 only

C 1 only

D 1, 2 and 3

✓ A 1 and 3 only

Pair 1 is correct — ASW-SWC is a split contract between GRSE (Kolkata) and Cochin Shipyard (CSL); GRSE subcontracts hull fabrication of four of its eight ships to L&T Kattupalli, making the pairing broadly valid. Pair 2 is incorrect — all six Kalvari-class (Project 75 Scorpene) submarines are being built exclusively at Mazagon Dock Shipbuilders (MDL), Mumbai, in collaboration with France's Naval Group; HSL, Visakhapatnam, is not involved in Project 75 construction. Pair 3 is correct — MDL is one of the two designated yards for Project 17A Nilgiri-class frigates (MDL builds four; GRSE builds three), so the pairing is accurate. Therefore Pairs 1 and 3 are correctly matched.

✦ India's major defence shipyards: MDL (Mumbai) — submarines and frigates; GRSE (Kolkata) — ASW vessels, frigates, and patrol craft; CSL (Kochi) — landing ships and ASW craft; HSL (Visakhapatnam) — repair, aircraft carriers, and offshore patrol. L&T Kattupalli is the largest private shipyard. Project 17A is India's most complex indigenous warship programme with 75% indigenisation content, involving over 200 MSMEs. The Defence Acquisition Procedure (DAP) 2020 opened strategic pathways for private yards alongside DPSUs.

[Read Source →](#)

Q75

DRDO's Naval Physical and Oceanographic Laboratory (NPOL), which develops indigenous sonar systems for the Indian Navy, is located in which city?

A Visakhapatnam, Andhra Pradesh

B Kochi, Kerala

C Chennai, Tamil Nadu

D Mumbai, Maharashtra

✓ B Kochi, Kerala

NPOL (Naval Physical and Oceanographic Laboratory) is a DRDO laboratory located in Thrikkakara, Kochi, Kerala. It has developed indigenous sonar systems including the HUMSA (Hull Mounted Sonar Array) and USHUS series — HUMSA NG is fitted to Indian Navy surface vessels, while USHUS is the submarine sonar developed for the Sindhugosh class and PAYAL for the INS Arihant nuclear submarine. NSTL (Naval Science and Technological Laboratory), which handles torpedoes and underwater weapons, is a separate DRDO unit located in Visakhapatnam.

✦ India's ASW capability gap is critical given increasing Chinese submarine activity — PLAN Type 093 nuclear and Type 039B diesel-electric submarines — in the Indian Ocean Region (IOR). NPOL's sonar indigenisation is strategically vital because foreign sonar systems (including French Naval Group systems) are subject to technology transfer restrictions. NPOL also operates an underwater acoustic research facility at Idukki Lake, 100 km east of Kochi, for deep-water sonar testing in realistic acoustic environments.

[Read Source →](#)

Q76

Assertion (A): India's naval indigenisation record shows strength in hull fabrication but continued dependence on foreign suppliers for combat-critical systems. **Reason (R):** Warship construction capability was historically concentrated in Defence Public Sector Undertakings, and the Defence Acquisition Procedure 2020 was designed to bring private shipyards into the ecosystem. Select the correct answer:

- A** Both A and R are true, and R is the correct explanation of A
- B** Both A and R are true, but R is not the correct explanation of A
- C** A is true but R is false
- D** A is false but R is true

✓ B Both A and R are true, but R is not the correct explanation of A

Both A and R are individually true statements. India has mastered hull fabrication but continues to import advanced ASW sonar, combat management systems (CMS), gas turbine propulsion (GE LM2500 turbines), and anti-ship missiles. DAP 2020 did formally open the defence manufacturing ecosystem to private yards like L&T Kattupalli and Cochin Shipyard for the first time. However, R does not explain A — the continued dependence on foreign systems is a technology capability gap, not a consequence of having only DPSU builders. Expanding to private yards does not by itself eliminate the need for foreign combat systems. Hence R is not the correct explanation of A.

✦ The distinction between hull indigenisation and systems indigenisation is central to evaluating India's actual defence manufacturing depth. True indigenisation requires domestic ASW sonar, air defence radar, propulsion systems, and precision weapons — not merely hull construction. Project 17A's 75% indigenisation content is a significant milestone but still leaves 25% in foreign systems. BrahMos, often cited as indigenous, is technically a joint venture between DRDO and Russia's NPO Mashinostroyeniya.

[Read Source →](#)

Q77

Ricin, at the centre of India's first alleged bioterrorism case in 2026, is classified as a Schedule 1 substance under which international convention?

- A Biological Weapons Convention (BWC)
- B Chemical Weapons Convention (CWC)
- C Nuclear Non-Proliferation Treaty (NPT)
- D Convention on Certain Conventional Weapons (CCW)

✓ B Chemical Weapons Convention (CWC)

Ricin is explicitly listed as a Schedule 1 substance under the Chemical Weapons Convention (CWC), despite being a biological toxin derived from the castor bean (*Ricinus communis*). The CWC covers toxins — chemicals of biological origin with weapons potential — under Schedule 1 precisely because they can be weaponised. Ricin and saxitoxin are the two biological toxins explicitly named in Schedule 1 of the CWC. India ratified the CWC in 1996 and enacted the Chemical Weapons Convention Act, 2000 for domestic implementation.

✦ Ricin's dual categorisation creates a regulatory overlap between the CWC (chemical agents) and the BWC (biological and toxin weapons). It is a Type II Ribosome-Inactivating Protein (RIP) that irreversibly inhibits protein synthesis at the cellular level; its estimated lethal dose is approximately 1–10 micrograms per kilogram body weight — roughly 6,000 times more toxic than cyanide by weight. There is no approved antidote. The OPCW (Organisation for the Prohibition of Chemical Weapons), headquartered at The Hague, is the implementing body for the CWC with powers of inspection, unlike the BWC which has no verification mechanism.

[Read Source →](#)

Q78

Consider the following statements about India's CBRN legal and institutional framework: 1. The WMD Prohibition Act 2005 provides NIA with jurisdiction over WMD-related terrorism cases. 2. India has a dedicated CBRN Response Law modelled on the US Select Agent Program. 3. DRDO's Defence Research and Development Establishment (DRDE) at Gwalior is India's primary CBRN defence research laboratory. 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

✓ C 1 and 3 only

Statement 1 is correct — the Weapons of Mass Destruction and their Delivery Systems (Prohibition of Unlawful Activities) Act, 2005, read with the NIA Act 2008 (which lists WMD terrorism as a scheduled offence), provides the NIA with jurisdiction over WMD-related terrorism cases. Statement 2 is incorrect — India does not have a dedicated CBRN Response Law or a Select Agent Program equivalent; this absence is cited as a critical institutional gap exposed by the 2026 ricin case. Statement 3 is correct — DRDE Gwalior (established under DRDO's Life Sciences Directorate) is India's primary laboratory for detection, protection, and decontamination against chemical and biological agents. Therefore Statements 1 and 3 are correct.

✦ India's CBRN governance is fragmented across multiple laws: CWC Act 2000 (chemicals), Atomic Energy Act 1962 (radiological/nuclear), and the WMD Prohibition Act 2005 (delivery systems). The BWC, ratified by India in 1974, has no dedicated domestic implementation legislation for biological threats — unlike the CWC's structured domestic law. The US Select Agent Program (administered by CDC/USDA) regulates who may possess, use, and transfer select biological agents; India lacks an equivalent registry, which allows dangerous toxins to be acquired through civilian commercial channels.

[Read Source →](#)

Q79

The Biological Weapons Convention (BWC) prohibits the development and stockpiling of biological weapons. In which year did India ratify the BWC?

A 1972

B 1974

C 1982

D 1996

✓ B 1974

India ratified the Biological Weapons Convention (BWC) in 1974. The BWC was opened for signature in April 1972 and entered into force in March 1975; India signed it in 1973 and ratified it in 1974. India ratified the Chemical Weapons Convention (CWC) separately, in 1996, and enacted the CWC Act 2000 for domestic implementation. The year 1972 is when the BWC was adopted — not when India ratified it.

✦ The BWC has 183 states parties but, unlike the CWC, lacks a formal verification regime and an implementing organisation with inspection powers. This structural weakness has been debated since the 2001 anthrax letter attacks in the US and intensified after COVID-19 debates on laboratory biosafety oversight. The OPCW (for CWC) can conduct on-site inspections; no equivalent mechanism exists for the BWC. India's domestic gap is that it has not enacted a standalone Biological Weapons (Prohibition) Act, creating a legal lacuna for bioterrorism prosecutions beyond the WMD Act 2005.

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Social Issues

Q80

Which Supreme Court judgment declared the Salwa Judum militia in Chhattisgarh unconstitutional?

- A** People's Union for Civil Liberties vs. Union of India (2004)
- B** Nandini Sundar vs. State of Chhattisgarh (2011)
- C** Samatha vs. State of Andhra Pradesh (1997)
- D** Kailas vs. State of Maharashtra (2011)

✓ B **Nandini Sundar vs. State of Chhattisgarh (2011)**

In *Nandini Sundar and Others vs. State of Chhattisgarh*, decided on July 5, 2011, a bench of Justices B. Sudershan Reddy and S.S. Nijjar declared the Salwa Judum militia illegal and unconstitutional. The Court ordered Chhattisgarh to immediately cease using Special Police Officers (SPOs) in counter-insurgency operations, recall all firearms issued to them, and disband all armed civilian groups including Salwa Judum and Koya Commandos. The petition (WP Civil 250 of 2007) was filed by sociologist Nandini Sundar, historian Ramachandra Guha, and former IAS officer E.A.S. Sarma.

✦ Salwa Judum (meaning 'purification hunt' or 'peace march' in Gondi dialect) was a state-sponsored armed civilian militia formed in 2005 in Dantewada, Chhattisgarh, as a counter-insurgency tool against CPI (Maoist). The SC held that arming and deploying civilians as SPOs for offensive operations violated Articles 14 (equality), 21 (right to life), and constitutional provisions for tribal protection. Its legacy of violence — forced displacement, arson of villages, extrajudicial killings — remained a key obstacle to state credibility among tribals in Bastar long after the 2011 judgment.

[Read Source →](#)

Q81

The SAMADHAN doctrine, MHA's framework for combating Left Wing Extremism, was launched in which year? What does the letter D in SAMADHAN represent?

- A** 2014; D stands for Development funding for LWE districts
- B** 2017; D stands for Dashboard-based Key Performance Indicators
- C** 2019; D stands for De-radicalisation programmes for surrendered Maoists
- D** 2015; D stands for District-level integrated security grids

✓ B 2017; D stands for Dashboard-based Key Performance Indicators

The SAMADHAN strategy was announced by Union Home Minister Rajnath Singh at the MHA Review Meeting of LWE-affected States on May 8, 2017. The letter D stands for Dashboard-based Key Result Areas (KRAs) and Key Performance Indicators (KPIs) — a data-driven framework for tracking operational metrics such as incidents, encounters, surrenders, and arrests across LWE-affected districts. The full acronym is: Smart Leadership, Aggressive Strategy, Motivation and Training, Actionable Intelligence, Dashboard-based KPIs, Harnessing Technology, Action Plan per Theatre, No access to Financing.

✦ A key analytical criticism of SAMADHAN is that its dashboard orientation privileges measurable security outputs (incidents declined, cadres killed or surrendered) over structural socio-economic outcomes (forest rights implemented, minimum wages paid, PESA compliance). 'Zero LWE incidents in Bihar' is trackable; 'tribals economically integrated with constitutional rights enforced' is not — creating a security-first implementation bias even where development deficits are the root cause. Active Maoist cadre strength has declined from approximately 10,000 at peak in 2009–10 to an estimated 1,200 in 2025, with operations progressively confined to the Bastar–Abujmahar core zone.

[Read Source →](#)

Q82

Consider the following statements about the Forest Rights Act (FRA) 2006 and its application in LWE-affected areas: 1. FRA provides for both individual and community forest rights for tribal and other traditional forest-dwelling communities. 2. Gram sabhas under the Fifth Schedule and PESA 1996 have the power to consent to land diversion in tribal areas. 3. The Supreme Court in *Nandini Sundar vs. Chhattisgarh* (2011) specifically directed implementation of FRA in Bastar as a peace measure. 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

✓ B 1 and 2 only

Statements 1 and 2 are correct. FRA 2006 recognises both individual forest rights (pattas for cultivation and settlement) and community forest rights (grazing, minor forest produce, and community forest resource management) for Scheduled Tribes and other traditional forest dwellers. Under PESA 1996 and the Fifth Schedule, gram sabhas are empowered to provide mandatory consent before land acquisition or forest diversion in tribal areas; Section 3(2) of FRA specifically requires gram sabha recommendations for forest diversion affecting up to 75 trees per hectare. Statement 3 is incorrect — the *Nandini Sundar* (2011) judgment struck down *Salwa Judum* as unconstitutional and directed disbanding of SPOs; it did not specifically direct implementation of FRA in Bastar. Therefore only Statements 1 and 2 are correct.

✦ FRA's poor implementation in Bastar — forest clearances for mining bypassing gram sabhas, contested individual pattas, failure to notify Community Forest Resource rights — is widely documented as the most potent grievance exploited by CPI (Maoist) for recruitment. The Maoist narrative frames the state's simultaneous projects of forest diversion for mining and anti-insurgency operations as the same existential threat to tribal identity and livelihood. The 2024 Forest Conservation Amendment Act has been criticised by tribal rights groups for further diluting gram sabha consent requirements.

[Read Source →](#)
Q83

Which of the following correctly describes CoBRA battalions used in LWE operations in India?

- A** CoBRA stands for Commandos for Battlefield Rapid Action; they are under the Border Security Force
- B** CoBRA stands for Commando Battalion for Resolute Action; they are 10 battalions under the CRPF
- C** CoBRA are paramilitary units under the NIA deployed specifically in Chhattisgarh
- D** CoBRA battalions are state police elite forces trained by CRPF for LWE operations

✓ B

CoBRA stands for Commando Battalion for Resolute Action; they are 10 battalions under the CRPF

CoBRA (Commando Battalion for Resolute Action) consists of 10 battalions raised between 2008 and 2011 under the Central Reserve Police Force (CRPF), specifically trained for guerrilla terrain, jungle warfare, and intelligence-driven operations in LWE-affected areas. A proposal to raise an 11th CoBRA battalion — reoriented for counter-terrorism operations in Jammu and Kashmir — is under consideration as of 2025–26. CoBRA is distinct from Greyhounds, which are an elite state police anti-Naxal force of Andhra Pradesh and Telangana.

✦ The CRPF is the primary central paramilitary force in LWE operations, deploying CoBRA alongside regular CRPF battalions and the Bastariya Battalion — a unit recruited specifically from tribal youth of Bastar. Maoist active cadre strength has declined from approximately 10,000 at peak (2009) to an estimated 1,200 in 2025, largely attributable to CoBRA's intelligence-led operations, Operation Prahar, and the strategic losses suffered by CPI (Maoist) in the Abujmahar corridor. However, the remaining core is battle-hardened and deeply embedded in remote forest terrain.

[Read Source →](#)

Q84

Match the following semiconductor-related entities with their correct descriptions: List I (Entity) A. TSMC B. ASML C. India Semiconductor Mission (ISM) D. ATMP List II (Description) 1. Produces a dominant share of the world's most advanced semiconductor chips; headquartered in Hsinchu, Taiwan 2. Sole manufacturer of EUV lithography machines; headquartered in Veldhoven, Netherlands 3. Indian government scheme with Rs 76,000 crore outlay for semiconductor manufacturing; administered by MeitY 4. Assembly, Testing, Marking and Packaging — the final tier in the semiconductor value chain

A A-1, B-2, C-3, D-4

B A-2, B-1, C-4, D-3

C A-1, B-3, C-2, D-4

D A-3, B-2, C-1, D-4

✓ A A-1, B-2, C-3, D-4

All four pairs are correctly matched in option A. TSMC (Taiwan Semiconductor Manufacturing Company), headquartered in Hsinchu, Taiwan, is the world's dominant advanced chip foundry, manufacturing chips at cutting-edge nodes (3nm and below) for Apple, NVIDIA, AMD, and others. ASML (Advanced Semiconductor Materials Lithography), headquartered in Veldhoven near Eindhoven, Netherlands, is the sole global manufacturer of EUV (Extreme Ultraviolet) lithography machines essential for sub-7nm chips. India Semiconductor Mission (ISM) was approved in 2021 under the Semicon India Programme with an outlay of Rs 76,000 crore, administered as an independent division under Digital India Corporation (MeitY). ATMP refers to the final packaging stage of the semiconductor value chain.

✦ Taiwan's TSMC dominance — producing the vast majority of leading-edge chips below 7nm — represents a concentrated geopolitical vulnerability, given China's territorial claims over Taiwan. The US CHIPS and Science Act (\$52 billion) and India's ISM are both attempts to diversify this concentration. ASML's EUV monopoly is equally significant: controlling EUV machine exports (the Netherlands tightened export controls in 2023 under US pressure) effectively determines which countries can build advanced fabs. India's ISM has approved 10 projects worth Rs 1.60 lakh crore across 6 states as of December 2025, with a focus on compound semiconductors, ATMP, and eventually fab construction.

[Read Source →](#)

Q85

With reference to India's battery value chain, consider the following statements: 1. China controls approximately 70% of global lithium refining capacity. 2. India's domestic lithium deposit in Reasi, Jammu and Kashmir is estimated at 5.9 million tonnes. 3. Battery Waste Management Rules 2022 in India adopt an Extended Producer Responsibility (EPR) framework for battery recycling. 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

✓ D 1, 2 and 3

All three statements are broadly correct. China controls approximately 60–70% of global lithium refining and chemical processing capacity (IEA and EIA estimates range from 60% to over two-thirds, with the 70% figure widely cited in policy literature). The Geological Survey of India (GSI) established an inferred resource (G3 category) of 5.9 million tonnes of lithium in the Salal-Haimana area of Reasi district, Jammu and Kashmir, announced in February 2023. The Battery Waste Management Rules 2022 (notified under the Environment Protection Act 1986) introduce an Extended Producer Responsibility framework requiring manufacturers, importers, and brand owners to collect and recycle batteries at end of life.

✦ China also dominates ~80% of global anode material (graphite) production and approximately 50–60% of cathode active materials, making it the overwhelmingly dominant player at every downstream processing stage of the battery supply chain. India imports approximately 70–90% of its lithium-ion cells. The Reasi deposit, while significant at 5.9 million tonnes, is at the lowest geological confidence level (Inferred/G3); its first auction attempt in 2024 attracted no qualified bidders, requiring GSI re-exploration. A proposed Strategic Battery Mineral Reserve has been discussed but not yet established, analogous to India's Strategic Petroleum Reserve (Vishakhapatnam, Mangaluru, Padur).

[Read Source →](#)
Q86

The SAMADHAN doctrine, MHA's framework for combating Left Wing Extremism, was launched in which year? What does the letter D in SAMADHAN represent?

- A** 2014; D stands for Development funding for LWE districts
- B** 2017; D stands for Dashboard-based Key Performance Indicators
- C** 2019; D stands for De-radicalisation programmes for surrendered Maoists
- D** 2015; D stands for District-level integrated security grids

✓ B 2017; D stands for Dashboard-based Key Performance Indicators

The SAMADHAN doctrine was announced by the Home Minister on May 8, 2017. D stands for Dashboard-based KPIs (Key Performance Indicators) and KRAs (Key Result Areas) — quantitative metrics for tracking anti-LWE progress. Full acronym: Smart Leadership, Aggressive Strategy, Motivation and Training, Actionable Intelligence, Dashboard KPIs, Harnessing Technology, Action Plan per theatre, No access to financing.

✦ SAMADHAN replaced ad hoc responses with a structured, measurable doctrine. A standing critique is that dashboard metrics favour quantifiable security outcomes (incidents, surrenders, arrests) over structural change (tribal land rights, forest produce access). Bihar achieved "zero incidents" and was declared Naxal-free in 2026; Bastar remains a challenge because the underlying grievances — disputed forest rights, mining displacement — are harder to put on a dashboard than arrest figures.

[Read Source →](#)

Q87

Consider the following statements about the Forest Rights Act (FRA) 2006 and its application in LWE-affected areas: 1. FRA provides for both individual and community forest rights for tribal and other traditional forest-dwelling communities. 2. Gram sabhas under the Fifth Schedule and PESA 1996 have the power to consent to land diversion in tribal areas. 3. The Supreme Court in *Nandini Sundar vs. Chhattisgarh* (2011) specifically directed implementation of FRA in Bastar as a peace measure. 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

✓ B 1 and 2 only

Statements 1 and 2 are correct. FRA 2006 provides both individual pattas and community forest rights (CFR). PESA 1996 and the Fifth Schedule empower gram sabhas to consent to land diversion in Scheduled Areas. Statement 3 is incorrect: the *Nandini Sundar vs. State of Chhattisgarh* judgment (July 5, 2011) declared the Salwa Judum unconstitutional and directed withdrawal of arms from Special Police Officers; it did not specifically direct FRA implementation as a peace measure. So only 1 and 2 are correct.

✦ FRA 2006 recognises two categories of rights: individual forest rights (pattas for cultivation and homestead land) and community forest rights (CFR — grazing, minor forest produce, water bodies). In Bastar, poor implementation of both — bypassed gram sabhas, contested pattas, forest clearance for mining without tribal consent — is cited as the primary grievance that sustains Maoist recruitment. The *Nandini Sundar* ruling also ordered prosecution of Salwa Judum leaders and called for rehabilitation of displaced tribals.

[Read Source →](#)

Q88

Which of the following correctly describes CoBRA battalions used in LWE operations in India?

- A** CoBRA stands for Commandos for Battlefield Rapid Action; they are under the Border Security Force
- B** CoBRA stands for Commando Battalion for Resolute Action; they are 10 battalions under the CRPF
- C** CoBRA are paramilitary units under the NIA deployed specifically in Chhattisgarh
- D** CoBRA battalions are state police elite forces trained by CRPF for LWE operations



CoBRA stands for Commando Battalion for Resolute Action; they are 10 battalions under the CRPF

CoBRA (Commando Battalion for Resolute Action) comprises 10 battalions under the Central Reserve Police Force (CRPF), raised between 2008 and 2011. All 10 battalions are deployed across LWE-affected states including Chhattisgarh, Jharkhand, Odisha, Bihar, Maharashtra, and West Bengal. They are trained in guerrilla tactics, jungle warfare, and intelligence-driven operations distinct from conventional CRPF duties.

✦ CoBRA battalions are distinct from Greyhounds (Andhra Pradesh and Telangana state police elite force, also used in counter-Naxal operations). CRPF is the primary Central Armed Police Force in LWE operations; CoBRA is its specialist arm. Maoist cadre strength has declined from a peak of approximately 10,000 active members (around 2009) to roughly 1,200 by 2025, attributed in part to sustained CoBRA operations and surrenders. The remaining core is battle-hardened and geographically entrenched in areas like Abujmad (Narayanpur, Chhattisgarh) with no road access.

[Read Source →](#)

Q89

Match the following semiconductor-related entities with their correct descriptions: List I (Entity) A. TSMC B. ASML C. India Semiconductor Mission (ISM) D. ATMP List II (Description) 1. Produces approximately 90% of the world's most advanced semiconductor chips; headquartered in Taiwan 2. Sole manufacturer of EUV lithography machines; headquartered in the Netherlands 3. Indian government scheme with Rs 76,000 crore outlay for semiconductor manufacturing; administered by MeitY 4. Assembly, Testing, Marking and Packaging — the final tier in the semiconductor value chain

A A-1, B-2, C-3, D-4

B A-2, B-1, C-4, D-3

C A-1, B-3, C-2, D-4

D A-3, B-2, C-1, D-4

✓ A A-1, B-2, C-3, D-4

A-TSMC-1: TSMC (Taiwan Semiconductor Manufacturing Company) produces approximately 90% of the world's most advanced chips at sub-5nm nodes (3nm and 5nm), headquartered in Hsinchu, Taiwan. B-ASML-2: ASML (Netherlands) is the sole manufacturer of EUV (Extreme Ultraviolet) lithography machines, without which advanced chip fabrication is impossible; it invested approximately \$9 billion in cumulative R&D to achieve this monopoly. C-ISM-3: India Semiconductor Mission was approved in 2021 with a financial outlay of Rs 76,000 crore under MeitY; as of December 2025, 10 projects worth Rs 1.60 lakh crore have been approved. D-ATMP-4: Assembly, Testing, Marking and Packaging is the downstream tier where chips are assembled, tested, and packaged. All four pairs in option A are correctly matched.

✦ Taiwan's TSMC dominance in sub-5nm logic chips is a major geopolitical vulnerability — the island is claimed by China. The US CHIPS Act (\$52 billion) and India's ISM (Rs 76,000 crore) both aim to diversify production away from Taiwan. ASML's EUV monopoly means that controlling ASML export licences (Netherlands government issues them) is a powerful tool of technological statecraft — the US persuaded the Netherlands to restrict ASML sales to China in 2023. India's ISM 2.0 was announced in Union Budget 2026-27 with an initial provision of Rs 1,000 crore for FY 2026-27.

[Read Source →](#)

Q90

With reference to India's battery value chain, consider the following statements: 1. China controls approximately 70% of global lithium refining capacity. 2. India's domestic lithium deposit in Reasi, Jammu and Kashmir is estimated at 5.9 million tonnes. 3. Battery Waste Management Rules 2022 in India adopt an Extended Producer Responsibility (EPR) framework for battery recycling. 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

✓ D 1, 2 and 3

All three statements are correct. Statement 1: China controls approximately 60-72% of global lithium refining capacity (the Geological Survey of India and multiple sources cite approximately 70% as the standard figure for battery-grade lithium refining). Statement 2: The Geological Survey of India (GSI) established inferred lithium resources of 5.9 million tonnes in the Salal-Haimana area of Reasi district, J&K, announced at the 62nd Central Geological Programming Board meeting on February 9, 2023. Statement 3: The Battery Waste Management Rules 2022, notified on August 24, 2022 by MoEFCC (replacing the Batteries Management and Handling Rules 2001), adopt an EPR framework requiring producers to register with CPCB and meet rising collection and recycling targets.

✦ China's dominance extends across the entire battery value chain: roughly 70% of lithium refining, approximately 80% of cobalt processing, virtually all graphite (anode material) processing, and approximately 75% of global battery cell manufacturing capacity. India imports approximately 90% of its battery cells. The Battery Waste Management Rules 2022 mandate that producers cannot send collected batteries to landfills or for incineration; the EPR Portal (eprbattery.cpcb.gov.in) tracks compliance. India's proposed Strategic Battery Mineral Reserve would buffer supply disruptions analogous to the Strategic Petroleum Reserve at Vishakhapatnam, Mangaluru, and Padur (approximately 9.5 days of consumption).

[Read Source →](#)
Q91

The PLI scheme for Advanced Chemistry Cell (ACC) Battery Storage was approved with an outlay of how much, and what is the targeted production capacity?

A Rs 8,175 crore; 25 GWh

B Rs 18,100 crore; 50 GWh

C Rs 14,000 crore; 100 GWh

D Rs 10,371 crore; 75 GWh

✓ B Rs 18,100 crore; 50 GWh

The ACC PLI scheme (National Programme on Advanced Chemistry Cell Battery Storage) was approved by the Union Cabinet on May 12, 2021 with an outlay of Rs 18,100 crore and targets 50 GWh of domestic production capacity. Four companies were allotted capacity: Reliance New Energy Solar, Ola Electric, Hyundai Global Motors, and Rajesh Exports. The scheme has a 2-year gestation period (2023-2024) and a 5-year performance period (2025-2029). Beneficiaries must achieve at least 25% domestic value addition initially, rising to 60% within 5 years.

✦ The ACC PLI mandates rising domestic value addition reaching 60% by Year 5. A key concern is whether manufacturers achieve genuine cell manufacturing or merely ATMP (Assembly, Testing, Marking and Packaging) of imported Chinese cells into battery packs — the latter would not reduce import dependence. India's Central Electricity Authority (CEA) estimates a grid storage requirement of approximately 411 GWh by 2030, meaning even at full PLI realisation (50 GWh), India will remain heavily import-dependent for grid-scale storage. As of 2026, only 2.8% of target capacity has been delivered under the scheme.

[Read Source →](#)

Q92

Consider the following statements about the Global Partnership on AI (GPAI): 1. India joined the GPAI in 2020. 2. India hosted the GPAI Summit in 2023. 3. GPAI is a binding intergovernmental treaty organisation with legal enforcement powers. 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

✓ B 1 and 2 only

Statements 1 and 2 are correct. India was among the 15 founding members of GPAI when it was launched on June 15, 2020. India hosted the annual GPAI Summit at Bharat Mandapam, New Delhi, from December 12-14, 2023, inaugurated by Prime Minister Modi; India also took over as Lead Chair of GPAI on December 12, 2023 for 2023-24. Statement 3 is incorrect: GPAI is a multi-stakeholder initiative — not a binding treaty organisation — with no legal enforcement powers. It brings together governments, civil society, academia, and industry to support responsible AI development.

✦ GPAI was launched in June 2020 with 15 founding members including India, the US, UK, Canada, France, Germany, Japan, Australia, and the EU. It now has 29 members. GPAI operates through four working groups: Responsible AI, Data Governance, Future of Work, and Innovation and Commercialisation. India's participation is relevant to its push for international norms on AI governance. Compare with the EU AI Act (binding regulation since August 2024) vs. India's principles-based voluntary framework (formal AI Act expected approximately 2027-28).

[Read Source →](#)

Q93

Assertion (A): A country that possesses MIRV capability can threaten more targets with fewer launch vehicles, making its second-strike capability more credible. **Reason (R):** MIRV technology allows a single missile to carry multiple independently targetable re-entry vehicles, each capable of hitting a separate target with a separate warhead. Select the correct answer:

- A** Both A and R are true, and R is the correct explanation of A
- B** Both A and R are true, but R is not the correct explanation of A
- C** A is true but R is false
- D** A is false but R is true

✓ A Both A and R are true, and R is the correct explanation of A

Both A and R are true, and R is the correct explanation of A. MIRV (Multiple Independently Targetable Re-entry Vehicle) allows a single missile to carry multiple warheads each aimed at different targets. This means even if many launch vehicles are destroyed in an adversary's first strike, surviving missiles can each cover multiple high-value targets simultaneously — strengthening the credibility of the retaliatory second-strike threat. R directly explains why A is true. India achieved this capability with Mission Divyastra on March 11, 2024, testing Agni-V with indigenous MIRV technology.

✦ MIRV was first deployed by the USA in 1970 (Minuteman III ICBM), followed by the Soviet Union in the late 1970s. Today the confirmed MIRV club comprises the USA, Russia, UK, France, China, and India (Mission Divyastra, March 11, 2024) — India is the sixth confirmed member. Pakistan has claimed MIRV capability via the Ababeel missile (tested 2017 and 2023) but independent verification of full MIRV deployment is contested. MIRV also overcomes missile defence systems by saturating interceptors: a single Agni-V deploying multiple warheads plus decoys forces the adversary to intercept many objects instead of one missile.

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Q94

Match the following AI governance instruments with their correct characterisation: List I (Instrument) A. EU AI Act (2024) B. India AI Governance Framework (2026) C. China Generative AI Regulation (2023) D. USA Executive Order on AI (2023) List II (Characterisation) 1. Binding risk-based classification with prohibited uses and European AI Office for enforcement 2. Voluntary principles-based framework; no legal obligations; formal AI Act expected approximately 2027-28 3. Sector-by-sector binding rules for generative AI with mandatory content labelling 4. Agency coordination guidelines; not binding federal law

A A-1, B-2, C-3, D-4

B A-2, B-1, C-4, D-3

C A-1, B-3, C-2, D-4

D A-3, B-2, C-1, D-4

✓ A A-1, B-2, C-3, D-4

A-EU AI Act-1: The EU AI Act entered into force on August 1, 2024. It is a directly binding regulation (no national transposition needed) with a four-tier risk classification — unacceptable risk (prohibited from February 2, 2025), high risk, limited risk, minimal risk — enforced by the European AI Office within the European Commission. B-India-2: India's AI governance framework remains voluntary and principles-based; a formal AI Act is expected approximately 2027-28. C-China-3: China's Interim Measures for Administration of Generative AI Services (effective August 15, 2023) are sector-by-sector binding rules with mandatory content labelling (both visible and technical/metadata labelling) for AI-generated content. D-USA EO-4: The US Executive Order on AI (October 2023) directed federal agency coordination and safety standards but is not binding federal law. All four pairs in option A are correctly matched.

✦ The EU AI Act's prohibited practices (effective February 2025) include: untargeted facial recognition database scraping, emotion recognition in workplaces and schools, biometric categorisation to infer protected characteristics, and real-time remote biometric identification in public spaces for law enforcement. High-risk uses include AI in employment, credit scoring, and biometric identification. Deepfakes in political contexts fall under high-risk classification. The EU AI Office (within the European Commission) oversees General Purpose AI (GPAI) model

compliance — the same acronym as the Global Partnership on AI, a frequent source of confusion in UPSC questions.

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Q95

Bihar was declared India's first Naxal-free state in 2026. Which of the following factors is credited as a primary reason for Bihar's success in reducing Naxalism compared to Bastar in Chhattisgarh?

- A** Bihar deployed more CoBRA battalions per district than any other LWE-affected state
- B** Bihar's flat terrain, agrarian-caste conflict roots, and political change dismantled grievance infrastructure, unlike Bastar's deep tribal-forest identity and organised PLGA
- C** Bihar implemented the Forest Rights Act more effectively than Chhattisgarh
- D** The IAP (Integrated Action Plan) received substantially more funding in Bihar than in Bastar

✓ B Bihar's flat terrain, agrarian-caste conflict roots, and political change dismantled grievance infrastructure, unlike Bastar's deep tribal-forest identity and organised PLGA

Bihar's success resulted from its flat terrain (no deep forests or inaccessible guerrilla refuges like Abujhmad), the agrarian-caste conflict origin of Naxalism there (rather than tribal-forest identity), and sustained political and development interventions under Nitish Kumar including roads, connectivity, and social welfare. The last active Maoist in Bihar, Suresh Koda (alias Mustakim), surrendered before the Bihar Police Special Task Force in Munger district; he had a bounty of Rs 3 lakh and was named in at least 60 cases. Bastar's challenge is fundamentally different: dense Abujhmad forests with no road access, tribal-forest identity tied to land and minor forest produce, and an organised CPI (Maoist) PLGA force with established liberated zones.

✦ Bihar at its peak (2012) had 23 districts affected by Naxalism. The Red Corridor once stretched from Nepal border to Andhra Pradesh but contracted to approximately 12 most-affected districts by 2025. Maoist cadre strength fell from approximately 10,000 at peak (around 2009) to approximately 1,200 active by 2025. The Abujhmad in Narayanpur district (Chhattisgarh) remains the core zone with no road access. Under Bihar's surrender-cum-rehabilitation policy, Suresh Koda received the declared reward of Rs 3 lakh plus Rs 5 lakh additional incentive and a monthly stipend for vocational training.

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International Relations

Q96
STATEMENT-BASED

Consider the following statements about the New Strategic Arms Reduction Treaty (New START): 1. New START was signed in Prague in April 2010. 2. It limited each side to a maximum of 1,550 deployed strategic warheads. 3. Russia formally withdrew from the treaty in February 2023. 4. New START expired on February 5, 2026 without a successor agreement. Which of the statements given above are correct?

A 1, 2 and 4 only

B 1, 3 and 4 only

C 2, 3 and 4 only

D 1, 2, 3 and 4

✓ A 1, 2 and 4 only

Statements 1, 2, and 4 are correct. New START was signed in Prague on April 8, 2010 (by Presidents Obama and Medvedev) and entered into force on February 5, 2011. It imposed a ceiling of 1,550 deployed strategic warheads per side and expired on February 5, 2026 without a successor agreement. Statement 3 is incorrect: on February 21, 2023, President Putin announced Russia's suspension (not formal withdrawal) of participation in New START. Suspension is legally distinct from withdrawal — Russia did not formally notify withdrawal under the treaty's procedures and stated it would continue to abide by the numerical limits. Hence only 1, 2, and 4 are correct.

✦ The legal distinction between suspension and withdrawal is significant under treaty law. Russia's suspension left New START technically in force but non-operational regarding verification and inspection provisions. The expiry of New START on February 5, 2026 marks the first time since SALT I (1972) that no legally binding ceiling governs US-Russia strategic nuclear arsenals. India, as a non-NPT nuclear state with no deployed nuclear warheads ceiling of its own, monitors these developments because an unconstrained US-Russia arms race weakens the global disarmament norm India advocates under Article VI of the NPT. The arms control architecture from which Negative Security Assurances (NSAs) derive normative legitimacy is therefore significantly weakened.

[Read Source →](#)

Q97

Which of the following correctly defines the term "Negative Security Assurance (NSA)" in the context of nuclear doctrine?

- A** A pledge by nuclear-weapon states not to attack the nuclear installations of non-nuclear states
- B** A pledge by nuclear-weapon states not to use nuclear weapons against non-nuclear-weapon states
- C** A treaty commitment to reduce the number of deployed nuclear warheads within a defined period
- D** An agreement between nuclear states to refrain from first use of nuclear weapons against each other

✓ B

A pledge by nuclear-weapon states not to use nuclear weapons against non-nuclear-weapon states

A Negative Security Assurance (NSA) is a pledge by nuclear-weapon states (NWS) not to use or threaten to use nuclear weapons against non-nuclear-weapon states (NNWS). The five NPT nuclear-weapon states (P5: USA, Russia, UK, France, China) have each made NSA pledges, but these remain politically stated and not legally binding — no multilateral treaty creates binding NSAs. India and Pakistan, as non-NPT nuclear states, have consistently called for binding NSAs from the P5 at NPT Review Conferences.

✦ NSAs are distinct from No First Use (NFU) pledges — NFU governs nuclear-versus-nuclear scenarios (NWS pledging not to use nuclear weapons first against other NWS), while NSAs govern NWS-versus-NNWS scenarios. India's own nuclear doctrine includes both NFU and a massive retaliation posture. Positive Security Assurances (PSAs), by contrast, are pledges by NWS to assist a NNWS that is a victim of nuclear aggression (under UN Security Council Resolution 255/1968). The expiry of New START (February 2026) and Russia's suspension (February 2023) weakens the normative arms control architecture within which NSAs derive legitimacy.

[Read Source →](#)

Q98
STATEMENT-BASED

Consider the following statements about India's nuclear tests: 1. Pokhran I (1974) was codenamed Operation Shakti. 2. Pokhran II (1998) involved five nuclear tests conducted in May. 3. India's Draft Nuclear Doctrine was released in 1999 and formalised in 2003. 4. India's Nuclear Command Authority comprises a Political Council chaired by the Prime Minister and an Executive Council chaired by the NSA. Which of the statements given above are correct?

A 1 and 3 only

B 2, 3 and 4 only

C 1, 2 and 4 only

D 1, 2, 3 and 4

✓ B 2, 3 and 4 only

Statement 1 is incorrect: Pokhran I (18 May 1974) was codenamed Smiling Buddha, not Operation Shakti. Operation Shakti was the codename for Pokhran II (May 1998). Statements 2, 3 and 4 are all correct. Pokhran II comprised five tests (three on 11 May and two on 13 May 1998). The Draft Nuclear Doctrine was released on 17 August 1999 by NSA Brajesh Mishra and formally adopted on 4 January 2003 by the Cabinet Committee on Security. India's Nuclear Command Authority (NCA) has a Political Council chaired by the Prime Minister (sole authority to order a nuclear strike) and an Executive Council chaired by the NSA (advises the Political Council and implements orders).

✦ India's nuclear trajectory: Pokhran I (1974) was declared a peaceful nuclear explosion; Pokhran II (1998) established India as a de facto nuclear-weapons state. India is not a signatory to the NPT, which it considers discriminatory as it grandfathers the P5. India's doctrine rests on No First Use (NFU) and credible minimum deterrence. India's formal 2003 doctrine added a caveat: India may use nuclear weapons in response to biological or chemical weapons attacks. India has approximately 172 nuclear warheads (SIPRI 2024 estimate). The Nuclear Suppliers Group (NSG) was created in direct response to Pokhran I (1974).

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Q99

Exercise MILAN 2026 was held at which location, and how many nations participated in its 13th edition?

A Mumbai; 64 nations

B Visakhapatnam; 74 nations

C Kochi; 52 nations

D Port Blair; 74 nations

✓ B Visakhapatnam; 74 nations

Exercise MILAN 2026 (13th edition) was held at Visakhapatnam from 18 to 25 February 2026, hosted by the Eastern Naval Command. A record 74 nations participated, with 42 warships present. Defence Minister Rajnath Singh inaugurated the exercise. MILAN was first held in 1995 at Port Blair (Andaman and Nicobar Islands), with only five nations (India, Indonesia, Singapore, Sri Lanka, Thailand). The shift to Visakhapatnam reflects the exercise's enormous expansion and the Eastern Naval Command's growing strategic significance in the Indo-Pacific.

✦ MILAN is India's biennial multilateral naval exercise — open to all nations that accept a rules-based maritime order, unlike the QUAD which is limited to India, USA, Japan and Australia. MILAN embodies India's SAGAR doctrine (Security and Growth for All in the Region, 2015) and India's vision of being an inclusive net security provider in the Indian Ocean Region. The 2026 edition also coincided with the International Fleet Review, marking the Indian Navy's centenary.

[Read Source →](#)

Q100

The Information Fusion Centre — Indian Ocean Region (IFC-IOR) provides real-time maritime domain awareness for IOR nations. Where is it located, and in which year was it established?

- A Mumbai; 2016
- B Kochi; 2015
- C Gurugram; 2018
- D Visakhapatnam; 2019

✓ C Gurugram; 2018

IFC-IOR is located at the Information Management and Analysis Centre (IMAC), Gurugram (Haryana) and was inaugurated on 22 December 2018 by then Raksha Mantri Nirmla Sitharaman. It functions as a nodal centre for maritime information-sharing among Indian Ocean Region nations, supporting anti-piracy operations, HADR coordination, and maritime security. As of 2025, it has partnerships with over 50 nations and 24 international maritime agencies.

✦ IFC-IOR is India's institutional answer to China's growing maritime presence in the Indian Ocean. By hosting the information-sharing hub, India positions itself as the central node of Indian Ocean maritime awareness. It complements MILAN (exercise-based interoperability) with a permanent intelligence-sharing architecture. India's Exclusive Economic Zone covers 2.37 million sq km and its coastline stretches 7,516 km, making maritime domain awareness a core security interest.

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Q101
STATEMENT-BASED

Consider the following statements about India's SAGAR doctrine: 1. SAGAR stands for Security and Growth for All in the Region. 2. It was announced by Prime Minister Narendra Modi in 2015. 3. It is directed specifically at QUAD member navies. 4. It positions India as a net security provider in the Indian Ocean Region. Which of the statements given above are correct?

A 1, 2 and 4 only

B 1 and 4 only

C 2, 3 and 4 only

D 1, 2, 3 and 4

✓ A 1, 2 and 4 only

Statements 1, 2 and 4 are correct. SAGAR stands for Security and Growth for All in the Region. It was announced by PM Modi on 12 March 2015 during his address to the Indian Ocean Rim Association (IORA) in Mauritius. It positions India as a preferred security partner and net security provider for the entire Indian Ocean Region. Statement 3 is incorrect: SAGAR is an explicitly inclusive doctrine open to all IOR nations, not restricted to QUAD members. In March 2025, PM Modi upgraded the vision to MAHASAGAR (Mutual and Holistic Advancement for Security Across the Regions) during his Mauritius visit.

✦ The QUAD (India, USA, Japan, Australia) represents selective strategic alignment; SAGAR and MILAN represent inclusive maritime diplomacy. India deliberately maintains both frameworks to preserve strategic autonomy: building broad partnerships through SAGAR while also maintaining targeted security cooperation through QUAD. This dual-track approach is central to India's Indo-Pacific strategy and its doctrine of multi-alignment rather than Cold War-style bloc membership.

[Read Source →](#)

Q102
STATEMENT-BASED

The iCET (Initiative on Critical and Emerging Technologies) framework between India and the United States covers which of the following domains? 1. Artificial Intelligence 2. Semiconductors 3. Quantum computing 4. Advanced defence manufacturing Select the correct answer using the code below.

A 1 and 2 only

B 1, 2 and 3 only

C 2, 3 and 4 only

D 1, 2, 3 and 4

✓ D 1, 2, 3 and 4

iCET covers all four domains: Artificial Intelligence, Semiconductors, Quantum computing and Advanced defence manufacturing. iCET was announced by President Biden and PM Modi in May 2022 and the inaugural official meeting was held on 31 January 2023 in Washington DC, led by National Security Advisors Jake Sullivan and Ajit Doval. The framework has at least eight to ten cooperation streams including space, telecom, biotech and clean energy in addition to the four listed. It elevated the India-US technology partnership from a transactional to a strategic level.

✦ iCET complements India's defence indigenisation goal (Atmanirbhar Bharat) by giving India access to cutting-edge US technologies while creating strategic interdependence. Key deliverables include the GE F414 jet engine technology transfer for LCA Tejas MkII and semiconductor investment (Micron's USD 2.75 billion chip assembly plant in Gujarat). iCET is coordinated by the National Security Councils of both countries rather than commerce ministries, signalling its strategic rather than transactional character.

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Q103

India's Civil Liability for Nuclear Damage Act, 2010 created a significant barrier to US reactor sales in India. What is the primary reason for this?

- A** It requires all nuclear reactors in India to be built by Indian public sector companies only
- B** It prohibits import of nuclear fuel from countries without a civil nuclear agreement with India
- C** It creates supplier recourse liability through Sections 17(b) and 46, making US reactor manufacturers unwilling to supply reactors to India
- D** It mandates that all nuclear accidents be tried under Indian criminal law, preventing international arbitration



It creates supplier recourse liability through Sections 17(b) and 46, making US reactor manufacturers unwilling to supply reactors to India

The Civil Liability for Nuclear Damage Act (CLNDA), 2010 creates supplier recourse liability through Sections 17(b) and 46: the operator can seek recourse against equipment suppliers if an accident was caused by a supplier's defective product or service. This contradicts the international norm (Convention on Supplementary Compensation, CSC) under which only the operator bears liability. US companies GE and Westinghouse formally objected to Sections 17(b) and 46 as violating CSC norms. A draft amendment (April 2025) proposes capping supplier exposure to contract value to unlock stalled projects including Westinghouse's six reactors at Kovvada (Andhra Pradesh).

 The Indo-US Civil Nuclear Agreement (123 Agreement, 2008, under PM Manmohan Singh and President George W. Bush) was a landmark that ended India's nuclear isolation after Pokhran II. It allowed civilian nuclear technology exports to India despite India not signing the NPT. However, the CLNDA 2010 supplier liability clauses have prevented contracts from being signed. France's EDF (six reactors at Jaitapur, Maharashtra) faces the same problem. Resolving the liability issue is a key objective in the current India-US strategic partnership.

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Q104

Which of the following best describes the Non-Aligned Movement (NAM) and its founding?

- A** NAM was founded in 1955 at the Bandung Conference by 29 Asian and African nations
- B** NAM was formally established in 1961 in Belgrade by Nehru, Tito, Nasser, Nkrumah, and Sukarno
- C** NAM was established in 1961 at the United Nations General Assembly by neutral nations during the Cold War
- D** NAM was founded in 1947 by Nehru and Jinnah as an alternative to the British Commonwealth

✓ B

NAM was formally established in 1961 in Belgrade by Nehru, Tito, Nasser, Nkrumah, and Sukarno

NAM was formally established at the First Conference of Heads of State or Government of Non-Aligned Countries in Belgrade, Yugoslavia, from 1 to 6 September 1961. The five founding leaders were Jawaharlal Nehru (India), Josip Broz Tito (Yugoslavia), Gamal Abdel Nasser (Egypt), Kwame Nkrumah (Ghana) and Sukarno (Indonesia). Twenty-five countries attended. The Bandung Conference (1955) was an important precursor — 29 Asian and African nations met and called for abstaining from great-power military alliances — but it was not the formal founding of NAM.

✦ NAM's founding logic of rejecting bloc membership while maintaining freedom of decision evolved into India's modern doctrine of strategic autonomy and multi-alignment. Post-Cold War India moved from equidistance (NAM) to multi-alignment: having strong ties with the US, Russia, China, Iran and the Gulf simultaneously, making transactional decisions in each relationship based on national interest. NAM today has 120 member states, making it the largest grouping of countries outside the United Nations.

[Read Source →](#)

Q105
STATEMENT-BASED

Consider the following pairs relating to India's Russian military hardware: Platform — Description

1. Su-30 MKI — India's primary air superiority fighter; approximately 272 in service with the IAF

2. T-90 Bhisma — India's primary main battle tank; over 1,600 in service
3. S-400 Triumf — Air defence system acquired for USD 5.5 billion; 5 squadrons contracted

4. BrahMos — World's fastest operational cruise missile; India-Russia joint venture; approximately 2.8 Mach

Which of the pairs given above are correctly matched?

A 1 and 3 only

B 1, 3 and 4 only

C 2, 3 and 4 only

D 1, 2, 3 and 4

✓ B 1, 3 and 4 only

Pair 2 is incorrectly matched and must be rejected. India's T-90 Bhisma fleet has approximately 1,200-1,300 tanks currently in service (Military Balance 2024); 1,657 is the total number ordered and planned, not the current in-service strength. Pairs 1, 3 and 4 are correctly matched. The Su-30 MKI has a sanctioned strength of 272, with around 259-261 currently operational. The S-400 contract was USD 5.43 billion (commonly cited as approximately 5.5 billion) for 5 regiments, of which 3 have been delivered. BrahMos is an India-Russia joint venture (BrahMos Aerospace, India 50.5% share) operating at Mach 2.8-3.0.

✦ Approximately 60% of India's active military inventory is of Russian or Soviet origin. This dependency makes strategic autonomy difficult in defence procurement. India's indigenisation goals (LCA Tejas MkII, AMCA, Arjun Mk1A, indigenous submarines) aim to reduce Russian dependency. CAATSA (Countering America's Adversaries Through Sanctions Act, 2017) theoretically threatens US sanctions on India for the S-400 purchase; waivers have been granted so far given India's strategic importance to Washington.

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Q106
STATEMENT-BASED

Under the Nagoya Protocol, "Access and Benefit Sharing" (ABS) requires prior informed consent and equitable benefit sharing when biological resources are accessed. Which of the following are recognised loopholes that companies use to avoid ABS obligations? 1. Claiming the traditional knowledge used is already publicly available in published texts

2. Accessing digital sequence information (DSI) rather than physical biological samples

3. Operating in user countries where ABS enforcement is weak 4. Registering patents in jurisdictions that have not signed ABS agreements Select the correct answer using the code below.

A 1 and 2 only

B 1, 2 and 3 only

C 2, 3 and 4 only

D 1, 2, 3 and 4

✓ D 1, 2, 3 and 4

All four are recognised loopholes in the ABS framework. Option 2 (DSI) is the most significant contemporary loophole: when Regeneron used West African genetic sequence data from a databank to develop the Ebola drug Inmazedb, it was not required to share benefits with Guinea because it used a digital sequence rather than a physical sample. COP 15 (Kunming-Montreal, 2022) established a multilateral framework for DSI benefit-sharing to address this gap. India's Biological Diversity Amendment Act (2023) addresses some domestic enforcement gaps, but the international jurisdictional problem (option 4) persists for non-signatory countries.

✦ TKDL (Traditional Knowledge Digital Library) is India's defensive response to biopiracy — it provides patent examiners with prior art evidence to reject patents on traditional knowledge. By 2010, TKDL had already identified 36 cases at the EPO and 40 at the USPTO. However, TKDL is purely defensive; it does not create positive rights for knowledge holders and covers only documented (not oral) TK. The WIPO Intergovernmental Committee (IGC) has been negotiating a binding TK treaty since 2000. Mandatory disclosure of biological resource origin in patent applications (under TRIPS Article 27.3(b)) is India's key demand at WIPO.

[Read Source →](#)

Q107

Assertion (A): India's Traditional Knowledge Digital Library (TKDL) protects traditional knowledge held in oral traditions by creating rights for knowledge holders. **Reason (R):** TKDL is a prior art database that provides patent examiners with documented evidence to reject patent applications on traditional knowledge grounds. Which of the following is correct?

- A** Both A and R are true and R is the correct explanation of A
- B** Both A and R are true but R is not the correct explanation of A
- C** A is false but R is true
- D** Both A and R are false

✓ C A is false but R is true

The Assertion (A) is false on two counts: TKDL covers only documented (textual) traditional knowledge from classical Indian texts like Ayurveda, Unani and Siddha — it does NOT cover oral traditions, and it does not create any positive rights for knowledge holders. TKDL was set up in 2001 under the Council of Scientific and Industrial Research (CSIR) and the Department of AYUSH. The Reason (R) is true: TKDL is a prior art database that has signed agreements with EPO, USPTO and other patent offices, giving examiners access to verify prior art and reject or narrow patent claims. Hence A is false but R is true — answer is option C.

✦ TKDL has four structural limitations: (1) covers only documented TK, not oral traditions (a separate People's Biodiversity Register under the National Biodiversity Act 2002 was planned for oral knowledge); (2) purely defensive — prevents patents, does not create rights; (3) requires bilateral agreements with each patent office; (4) covers only Indian TK. India's reform agenda at WIPO focuses on mandatory disclosure requirements that would require patent applicants to declare the origin of biological resources and associated traditional knowledge, shifting from a defensive to an offensive IP strategy.

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Q108

Match List I (Constitutional/Statutory provisions on language) with List II (their content):

List I: A. Article 343 B. Article 350A C. Article 350B D. Eighth Schedule List II: 1. Primary education in mother tongue for linguistic minority children 2. Hindi in Devanagari script as official language of the Union 3. Special Officer for Linguistic Minorities (reports to President) 4. Lists 22 languages as official languages of the Union Choose the correct match:

A A-2, B-1, C-3, D-4

B A-2, B-3, C-1, D-4

C A-1, B-2, C-4, D-3

D A-4, B-1, C-2, D-3

✓ A A-2, B-1, C-3, D-4

Article 343 (Part XVII) declares Hindi in Devanagari script as the official language of the Union, with English to continue for 15 years after commencement (later extended by Official Languages Act 1963). Article 350A (added by the 7th Amendment, 1956) directs states and local authorities to provide adequate facilities for primary education in the mother tongue for children belonging to linguistic minority groups. Article 350B provides for a Special Officer for Linguistic Minorities appointed by the President; this officer investigates and reports on constitutional safeguards for linguistic minorities. The Eighth Schedule originally listed 14 languages; it now lists 22 after successive amendments (Sindhi added 1967; Konkani, Manipuri, Nepali added 1992; Bodo, Dogri, Maithili, Santali added 2003).

✦ The three-language formula recommended by the Kothari Commission (1964-66) requires students to learn their mother tongue, another Indian language and English. Tamil Nadu rejects it as it effectively mandates Hindi for Dravidian-language speakers. NEP 2020 (drafted by the K. Kasturirangan Committee) strengthened mother tongue instruction to at least Grade 5 (ideally Grade 8), consistent with UNESCO evidence on early childhood learning in the home language. The Official Languages Act 1963 and its 1967 amendment effectively ensured English continues alongside Hindi for all official purposes.

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History, Art and Culture

Q109

International Mother Language Day is observed every year on February 21. In which year did UNESCO designate this observance, and what event in Bangladesh inspired its creation?

- A** 1995; the partition of Bengal in 1905 that separated Bangla speakers
- B** 1999; the 1952 Language Movement in East Pakistan where students were killed demanding recognition of Bengali
- C** 2000; the Liberation War of 1971 in which Bangladesh achieved independence
- D** 1999; the Santali language agitation in West Bengal in 1992



1999; the 1952 Language Movement in East Pakistan where students were killed demanding recognition of Bengali

UNESCO's 30th General Assembly unanimously designated 21 February as International Mother Language Day on 17 November 1999. The initiative was proposed by Bangladesh. It commemorates the Language Movement martyrs of 21 February 1952, when Pakistani police opened fire on student demonstrators at the University of Dhaka who were demanding Bengali be recognised as an official language of Pakistan alongside Urdu. Four students were killed. Bengali was finally recognised as one of Pakistan's national languages on 29 February 1956. The observance has been held globally every year since 21 February 2000.

✦ The 1952 Language Movement is considered a direct precursor to Bangladesh's independence in 1971 — the suppression of Bengali cultural identity by West Pakistan created the political conditions for the Liberation War. The principle it established — the right of peoples to be educated and governed in their mother tongue — is central to linguistic rights discourse globally. India's NEP 2020 draws on the same principle, advocating mother tongue instruction through at least Grade 5 (ideally Grade 8). February 21 is observed as Language Martyrs Day (Shaheed Dibash) in Bangladesh.

[Read Source →](#)

Q110

PEPFAR (President's Emergency Plan for AIDS Relief) was launched in 2003. Which of the following facts about PEPFAR is/are correct? 1. It was launched by US President George W. Bush with initial funding of USD 15 billion over five years. 2. It built its treatment programme overwhelmingly around Indian-manufactured generic antiretroviral medicines. 3. It is estimated to have saved approximately 25 million lives. Select the correct answer:

- A** Radhakrishnan Commission; 1948
- B** Kothari Commission; 1964-66
- C** Mudaliar Commission; 1952-53
- D** Second Administrative Reforms Commission; 2005-09

✓ B Kothari Commission; 1964-66

The Kothari Commission (officially the Education Commission, 1964-66) was constituted on 14 July 1964 under D.S. Kothari, then Chairman of the University Grants Commission, and submitted its report on 29 June 1966. It formally recommended the three-language formula: study of the regional language or mother tongue, Hindi (or another Indian language for Hindi-speaking states), and English. Parliament enacted the National Policy on Education 1968 based on this recommendation.

✦ The Radhakrishnan Commission (1948) dealt with university education and did not recommend the three-language formula. The Mudaliar Commission (Secondary Education Commission, 1952-53) focused on secondary schooling. NEP 2020 reaffirms the three-language formula but explicitly states no language shall be imposed on any state. Tamil Nadu has consistently followed a two-language policy (Tamil + English) since 1968, rejecting Hindi. The National Policy on Education 1968 was the first education policy after independence; revised in 1986 and replaced by NEP 2020.

[Read Source →](#)

Q111

Which of the following languages were added to the Eighth Schedule in 2003?

- A** Sindhi, Konkani, Manipuri, Nepali
- B** Bodo, Dogri, Maithili, Santali
- C** Konkani, Bodo, Dogri, Santali
- D** Maithili, Sindhi, Dogri, Nepali

✓ B Bodo, Dogri, Maithili, Santali

Bodo, Dogri, Maithili, and Santali were added to the Eighth Schedule by the Constitution (92nd Amendment) Act, 2003, passed by the Lok Sabha and Rajya Sabha in December 2003, bringing the total to 22 scheduled languages. Earlier additions: Sindhi (21st Amendment, 1967); Konkani, Manipuri, and Nepali (71st Amendment, 1992). The Eighth Schedule originally listed 14 languages in 1950.

✦ Languages in the Eighth Schedule receive constitutional recognition and state patronage for development and preservation. They are also represented on the Official Languages Commission. Any demand for inclusion requires a Constitutional Amendment under Article 368. As per Census 2011, India has 121 languages with more than 10,000 speakers and over 19,500 dialects. UNESCO has classified 197 Indian languages as endangered. Demands for inclusion of Bhojpuri, Rajasthani, Tulu, and Kokborok have been pending for years, reflecting the ongoing linguistic politics of constitutional recognition.

[Read Source →](#)

Q112
STATEMENT-BASED

Consider the following statements about the Corruption Perceptions Index (CPI) 2025: 1. It is published by Transparency International, which was founded in 1993 and is headquartered in Berlin. 2. India ranked 91st with a score of 39 out of 100. 3. Denmark topped the CPI for the eighth consecutive year with a score of 89. 4. India performed better than all South Asian countries on CPI 2025. Which of the statements given above are correct?

A 1, 2 and 3 only

B 2, 3 and 4 only

C 1 and 3 only

D 1, 2, 3 and 4

✓ A 1, 2 and 3 only

Statements 1, 2, and 3 are all correct. Transparency International was founded on 9 February 1993 and formally registered in Berlin on 15 June 1993; its secretariat is based in Berlin. India ranked 91st with a score of 39 (up from rank 96 in CPI 2024, though the absolute score is unchanged). Denmark topped with a score of 89 for the eighth consecutive year. Statement 4 is false: Bhutan ranked 18th with a score of 71, far outperforming India. The global average score fell to 42 in CPI 2025.

✦ CPI scores perception of public-sector corruption on a 0 (highly corrupt) to 100 (very clean) scale, covering 180 countries. India has scored 39 across 2023-25, meaning the rank improvement from 96 to 91 reflects relative decline of peer countries, not an absolute anti-corruption gain. Among India's neighbours: Bhutan (18), Maldives (96), Sri Lanka (111), Nepal (108), Bangladesh (149), Pakistan (135), Afghanistan (162). India's anti-corruption architecture: CVC (advisory), CBI (requires Section 17A sanction), ED (enforces PMLA 2002), and Lokpal (operational since 2019 under the Lokpal and Lokayuktas Act, 2013) covering PM, Ministers, MPs, and Group A officials.

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Q113

The Whistleblowers Protection Act, 2014 was passed by Parliament but has not been brought into force. What is the primary reason for this?

- A The Supreme Court struck down the Act as unconstitutional in 2016
- B No commencement notification has been issued; the government also introduced a dilutive Amendment Bill in 2015 that was not passed, leaving the Act in limbo
- C The Act was repealed and replaced by a provision in the Right to Information Act, 2005
- D The Act applies only to private sector employees, not public servants

✓ B No commencement notification has been issued; the government also introduced a dilutive Amendment Bill in 2015 that was not passed, leaving the Act in limbo

The Whistleblowers Protection Act, 2014 was notified on 12 May 2014 but its provisions were to come into force on a date to be appointed by the Central Government. No such commencement notification has been issued to date. In May 2015, the government introduced the Whistleblowers Protection (Amendment) Bill, 2015, passed by the Lok Sabha, which sought to prohibit certain categories of disclosure on grounds of national security. The Rajya Sabha never passed this amendment, leaving the Act neither in force nor amended. Without a commencement notification, no complaints mechanism, identity protection, or penalties for victimisation can function.

✦ India has no effective whistleblower protection law more than a decade after passage. The Second ARC and successive CVC annual reports have flagged this as a structural gap in anti-corruption architecture. Landmark whistleblower cases in India: Satyendra Dubey (NHAI engineer, killed 2003) and Shanmugam Manjunath (IOC officer, killed 2005) highlighted the need for a protective law. The Prevention of Corruption Act, 1988 (amended 2018) requires prior sanction under Section 17A before investigating senior public servants, which critics argue further shields corruption rather than exposing it.

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Q114

Which of the following best describes the outcome of the WIPO Intergovernmental Committee (IGC) negotiations on Genetic Resources, Traditional Knowledge and Folklore that began in 2000?

- A** Negotiations collapsed in 2020 due to the COVID-19 pandemic and have not resumed since
- B** A binding WIPO Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge was adopted on 24 May 2024 after more than two decades of negotiations
- C** A non-binding resolution was adopted in 2022 urging voluntary disclosure of traditional knowledge in patent applications
- D** The IGC mandate was transferred to the CBD Secretariat in 2021 to align with the Kunming-Montreal Global Biodiversity Framework

A binding WIPO Treaty on Intellectual Property, Genetic Resources and

✓ B Associated Traditional Knowledge was adopted on 24 May 2024 after more than two decades of negotiations

The WIPO IGC was established in 2000 and held its first session in 2001. After more than two decades of text-based negotiations, WIPO member states adopted the WIPO Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge on 24 May 2024 at a Diplomatic Conference in Geneva. It is the first WIPO Treaty to address the interface between IP and genetic resources, and the first to include specific provisions for Indigenous Peoples and local communities. The treaty requires patent applicants to disclose the country of origin of genetic resources and/or associated traditional knowledge used in their inventions.

✦ India played a central role in the 24-year negotiation drive. The treaty enters into force after 15 contracting parties ratify it. India did not sign the treaty immediately as it had sought stronger disclosure obligations that were not included in the final text. India argued for mandatory disclosure of origin in patent applications as a deterrent to biopiracy (unauthorised use of traditional knowledge, e.g., turmeric and neem patent cases at the US Patent Office). The Traditional Knowledge Digital Library (TKDL), developed by India, documented over 0.29 million traditional formulations in five languages to pre-emptively defeat biopiracy patent claims. TRIPS Article 27.3(b) still allows patents on microorganisms, which India and G77+China bloc seek to amend.

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Q115

India issued a compulsory licence for which cancer drug in 2012, in the landmark case that set a precedent for using TRIPS flexibilities?

- A Gleevec (Imatinib) — issued to CIPLA
- B Sorafenib (Nexavar) — issued to Natco Pharma
- C Herceptin (Trastuzumab) — issued to Hetero Drugs
- D Revlimid (Lenalidomide) — issued to Sun Pharma

✓ B Sorafenib (Nexavar) — issued to Natco Pharma

On 9 March 2012, India granted its first compulsory licence to Natco Pharma for Sorafenib Tosylate (brand name Nexavar, a kidney and liver cancer drug patented by Bayer). The Controller General of Patents found that Bayer had priced the drug at Rs 2,80,438 per month and was not manufacturing it locally, making it unaffordable and inaccessible. Natco was licensed to produce it at Rs 8,880 per month (a 97% price reduction), with a 6% royalty to Bayer. This remains India's only granted compulsory licence under Section 84 of the Patents Act, 1970.

✦ TRIPS flexibilities available to WTO members include: Article 31 (compulsory licensing without patent holder consent in public interest), Article 6 (parallel imports of the cheapest available version), and the Doha Declaration 2001 (affirms right to protect public health over patent monopoly). India's compulsory licence criteria under Section 84: (1) reasonable requirements of the public not satisfied; (2) drug not available at reasonably affordable price; (3) drug not worked in India. Gleevec (Imatinib) was a separate landmark case where Novartis challenged India under Section 3(d) of the Patents Act (prohibiting evergreening); the Supreme Court upheld the rejection in 2013.

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Q116
STATEMENT-BASED

PEPFAR (President Emergency Plan for AIDS Relief) was launched in 2003. Which of the following facts about PEPFAR is/are correct? 1. It was launched by US President George W. Bush with initial funding of USD 15 billion over five years. 2. It built its treatment programme overwhelmingly around Indian-manufactured generic antiretroviral medicines. 3. It is estimated to have saved approximately 25 million lives. Select the correct answer:

A 1 only

B 1 and 3 only

C 2 and 3 only

D 1, 2 and 3

✓ D 1, 2 and 3

All three statements are correct. PEPFAR was launched by President George W. Bush in his 2003 State of the Union address with an initial five-year commitment of USD 15 billion, focused on 15 countries (12 in Africa). Indian generic manufacturers, particularly CIPLA, Aurobindo, and Hetero, supplied the bulk of antiretroviral (ARV) medicines used under PEPFAR because Indian generics brought the annual treatment cost from USD 10,000-15,000 to as low as USD 350. As of 2023, PEPFAR is credited with saving over 25 million lives, making it the largest commitment by any nation to combat a single disease. Total PEPFAR funding as of 2024 exceeds USD 120 billion.

✦ CIPLA Chairman Yusuf Hamied offered a triple ARV combination at USD 350 per year in 2001, down from USD 10,000-15,000 for brand-name drugs. Indian manufacturers supply approximately 80% of HIV antiretroviral medicines used in low-income countries. The Medicines Patent Pool (MPP), founded 2010 and based in Geneva, negotiates voluntary licences from innovator companies for generic manufacturers. Gilead Sciences granted an MPP voluntary licence for Lenacapavir (a new twice-yearly HIV prevention injectable) covering 120+ low-and-middle-income countries in 2024, allowing Indian manufacturers including Cipla, Aurobindo, and Hetero to produce it for affordable access.

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Q117

Bharat Taxi, India cooperative ride-hailing platform, is registered under which legislation, and what is the share of overall surplus revenue distributed to its driver-members (Sarathis)?

- A** Companies Act, 2013; 70%
- B** Multi-State Cooperative Societies Act, 2002; 80%
- C** Industrial Disputes Act, 1947; 85%
- D** Code on Social Security, 2020; 75%

✓ B Multi-State Cooperative Societies Act, 2002; 80%

Bharat Taxi was established on 6 June 2025 and officially launched on 5 February 2026 under the Multi-State Cooperative Societies Act, 2002. Unlike conventional ride-hailing platforms (Ola/Uber) that charge 20-30% commission per ride, Bharat Taxi uses a zero-commission model with a low flat daily access fee (approximately Rs 30 for taxis, Rs 18 for autos). Of the platform surplus revenue, 80% is distributed to driver-members (Sarathis) based on kilometres driven, and 20% is retained for operational costs and infrastructure. Drivers are co-owners and shareholders, not contractors.

✦ Bharat Taxi draws constitutional backing from Article 43B (inserted by the 97th Constitutional Amendment, 2011), which directs the state to promote cooperative societies. The Ministry of Cooperation was created in 2021 (Amit Shah as first Minister). Compare: Ola and Uber are VC-funded platforms (SoftBank, Tiger Global) using a loss-making growth model before extracting rents in the consolidation phase. Bharat Taxi charges no surge pricing. The cooperative ride-hailing model faces the classic platform challenge: network effects favour monopoly, making it hard for cooperatives to scale against incumbents unless public trust and policy support compensate for the VC funding disadvantage.

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Q118

Match List I (Cooperative institutions) with List II (relevant details): List I: A. Amul / GCMMF B. IFFCO C. NABARD D. Bharat Taxi List II: 1. World largest fertiliser cooperative by production capacity 2. Founded 14 December 1946 in Anand, Gujarat; annual turnover over Rs 90,000 crore (FY25) 3. Apex development bank for agriculture and rural development; established 12 July 1982 4. Driver-owned ride-hailing cooperative; registered under Multi-State Cooperative Societies Act, 2002. Choose the correct match:

A A-2, B-1, C-3, D-4

B A-1, B-2, C-4, D-3

C A-2, B-3, C-1, D-4

D A-4, B-1, C-2, D-3

✓ A A-2, B-1, C-3, D-4

Amul (GCMMF) was founded on 14 December 1946 in Anand, Gujarat by Tribhuvandas Kishibhai Patel; its FY2024-25 turnover reached Rs 90,000 crore. IFFCO (Indian Farmers Fertiliser Cooperative, registered 1967) is the world largest fertiliser cooperative and ranked number one globally in the World Cooperative Monitor (2023) by the International Cooperative Alliance. NABARD was established on 12 July 1982 under the NABARD Act, 1981 as the apex development bank supervising cooperative credit institutions (StCBs, DCCBs, PACS) and RRBs. Bharat Taxi is the driver-owned ride-hailing cooperative under the Multi-State Cooperative Societies Act, 2002.

✦ The 97th Constitutional Amendment (2011) added Article 43B (directive for cooperative promotion) and Part IX-B (cooperative societies). The Supreme Court in 2021 in *Rajendra N. Shah v. Union of India* partially struck down Part IX-B as it encroached on state legislative competence over cooperatives under Entry 32 of the State List. Dr. Verghese Kurien, the architect of Operation Flood (1970-1996), transformed Amul into a national model; Operation Flood made India the world largest milk producer. NABARD also administers the Rural Infrastructure Development Fund (RIDF) and implements interest subvention schemes for crop loans.

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Q119

Which of the following correctly names all four Labour Codes enacted by India that consolidate 29 earlier central labour laws?

- A** Code on Wages; Industrial Relations Code; Code on Social Security; Occupational Safety, Health and Working Conditions Code
- B** Code on Wages; Code on Employment; Code on Social Security; Industrial Disputes Code
- C** Industrial Relations Code; Code on Wages; Code on Child Labour; Occupational Safety Code
- D** Code on Social Security; Code on Employment; Industrial Disputes Act; Factories Act



Code on Wages; Industrial Relations Code; Code on Social Security; Occupational Safety, Health and Working Conditions Code

The four Labour Codes are: (1) Code on Wages, 2019; (2) Industrial Relations Code, 2020; (3) Code on Social Security, 2020; and (4) Occupational Safety, Health and Working Conditions Code, 2020. Together they consolidate 29 central labour laws. The Code on Social Security, 2020 is significant for gig workers as it merges nine existing laws and creates a new category of "platform workers," extending social security coverage to them for the first time. Major provisions of the Labour Codes came into force on 21 November 2025.

✦ Gig workers (platform-based) are estimated at 15-20 million in India and fall outside the traditional employee/self-employed binary. The Code on Social Security, 2020 mandates social security schemes for platform workers, but implementing rules for these provisions were only notified with the November 2025 commencement. The Industrial Relations Code raises the threshold for retrenchment/closure permission from 100 to 300 workers, giving employers more flexibility. The OSHWC Code covers approximately 400 million workers in organised and unorganised sectors, unifying 13 earlier laws including the Factories Act, 1948 and the Building and Other Construction Workers Act, 1996.

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Q120

PM-SETU, the government scheme for upgrading Industrial Training Institutes (ITIs), is funded with USD 830 million from which international institution, and how many ITIs does it target for upgrade?

- A** International Monetary Fund (IMF); 5,000 ITIs
- B** World Bank; 1,000 ITIs
- C** Asian Development Bank (ADB); 2,500 ITIs
- D** Japan International Cooperation Agency (JICA); 800 ITIs

✓ B World Bank; 1,000 ITIs

PM-SETU (Pradhan Mantri Skilling and Employability Transformation through Upgraded ITIs) received a USD 830 million World Bank loan approved on 2 February 2026 with a final maturity of 19.5 years. The scheme targets 1,000 government ITIs in a hub-and-spoke model: 200 hub Centres of Excellence and 800 spoke ITIs. It aims to produce over one million better-skilled workers annually, ensure at least 25% women enrolment in ITIs, and mobilise USD 680 million in private capital from industry partners. Total scheme outlay is Rs 60,000 crore.

✦ India has approximately 15,000 ITIs (roughly 12,000 private and 3,000 government-run), governed under the National Council for Vocational Training (NCVT) curriculum framework. PM-SETU is jointly prepared with the Asian Development Bank. Its predecessor schemes: STRIVE (2017, World Bank-funded) and PMKVY (Pradhan Mantri Kaushal Vikas Yojana, which certified 13 million+ but had low verified placement rates). Vocational and technical education is on the Concurrent List (Entry 25, List III, Seventh Schedule). India targets a skilled workforce ratio of 50% by 2030 to leverage its demographic dividend (average age approximately 29 years).

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Q121

Assertion (A): The Doha Declaration on TRIPS and Public Health (2001) resolved the tension between pharmaceutical patent protection and access to medicines in low-income countries. **Reason (R):** Most low-income countries lack domestic pharmaceutical manufacturing capacity, which is a prerequisite for using compulsory licensing under TRIPS Article 31 to produce generic medicines locally. Which of the following is correct?

- A** Both A and R are true and R is the correct explanation of A
- B** Both A and R are true but R is not the correct explanation of A
- C** A is false but R is true
- D** Both A and R are false

✓ C A is false but R is true

Assertion A is false: the Doha Declaration did not resolve the access tension. It clarified that TRIPS should be interpreted to support public health goals and affirmed the right to grant compulsory licences, but it explicitly acknowledged that countries with no manufacturing capacity could not effectively use Article 31 compulsory licences to produce generics locally. This manufacturing-capacity gap remained unresolved until the 2003 "Paragraph 6 Decision" (later embedded in the TRIPS Amendment, in force 2017) which allowed export of compulsory-licensed generics to countries lacking production capacity. Reason R is true and factually accurate.

✦ India manufactures approximately 80% of antiretroviral medicines used in low-income countries, making it structurally critical to global health equity. The TRIPS Amendment (Article 31bis) allows a member to export compulsory-licensed pharmaceuticals to countries without manufacturing capacity, upon notification to the TRIPS Council. India ratified the TRIPS Amendment protocol. The Medicines Patent Pool (MPP, founded 2010, Geneva) negotiates voluntary licences with innovator companies for use by generic manufacturers in low-income countries, complementing compulsory licensing as a softer tool. India invests 2-3% of pharma revenues in R&D vs 15-20% at innovator multinationals, reflecting the gap between generic manufacturing strength and novel drug discovery capacity.

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Q122

Which among the following correctly describes the China factor in the collapse of the New START successor negotiations?

- A** China agreed to join trilateral arms control talks but objected to the verification mechanism proposed by the US
- B** China refused to join arms control talks, arguing its arsenal is too small relative to US and Russian arsenals to warrant equal restrictions
- C** China proposed a separate bilateral arms control framework with Russia that excluded the US
- D** China is already party to New START as a P5 nuclear state and supported its extension



China refused to join arms control talks, arguing its arsenal is too small relative to US and Russian arsenals to warrant equal restrictions

China has refused to join trilateral arms control negotiations, arguing that its arsenal (estimated at approximately 600 warheads as of 2025 per SIPRI and the Federation of American Scientists, up from roughly 500 in 2023) is far smaller than US or Russian stockpiles of approximately 5,500 warheads each, making equal treaty restrictions unjust. The US and Russia demanded China's inclusion in any successor to New START (which expired February 5, 2026), creating a trilateral impasse. The Pentagon estimates China's arsenal will surpass 1,000 warheads by 2030 — the fastest expansion of any nuclear-weapon state.

 China's rapidly growing arsenal directly affects India's nuclear calculations. India's Agni-III, IV, and V missiles are designed for intermediate and intercontinental deterrence against China. With no arms control architecture binding South Asian or Indo-Pacific nuclear powers, India operates in an unconstrained nuclear environment that tests its doctrine of minimum credible deterrence with No First Use. China holds only 24 deployed warheads under New START counting rules — illustrating why Beijing argues trilateral parity with the US and Russia is fundamentally unfair at this stage of its buildup.

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Q123

Match List I (IPR treaties and frameworks) with List II (key provisions relevant to traditional knowledge): List I: A. TRIPS Article 31 B. Nagoya Protocol C. Doha Declaration (2001) D. TRIPS Article 27.3(b) List II: 1. Allows compulsory licensing without patent holder consent for public health
2. Provides Access and Benefit Sharing framework for biological resources 3. Allows patents on microorganisms and microbiological processes 4. Affirms TRIPS should not prevent countries protecting public health Choose the correct match:

A A-1, B-2, C-4, D-3

B A-2, B-1, C-3, D-4

C A-1, B-3, C-2, D-4

D A-4, B-2, C-1, D-3

✓ A A-1, B-2, C-4, D-3

TRIPS Article 31 provides for compulsory licensing without patent holder consent — it permits this under conditions such as national emergency, extreme urgency, or anti-competitive practices, but waives the normal requirement to first attempt a voluntary licence. The Nagoya Protocol (2010, entered into force 2014) establishes the Access and Benefit Sharing (ABS) framework under the Convention on Biological Diversity. The Doha Declaration on TRIPS and Public Health (November 2001) affirms that member countries are free to determine grounds for granting compulsory licences and that TRIPS must not prevent measures to protect public health. TRIPS Article 27.3(b) allows WTO members to grant patents on microorganisms and microbiological processes — a provision India and other developing countries seek to amend to prevent biopiracy of traditional knowledge.

✦ The BASIC group (Brazil, South Africa, India, China) and the G77+China bloc (134 developing countries) coordinate positions on mandatory disclosure requirements at WIPO and WTO to ensure Access and Benefit Sharing compliance before biotech patents are granted. India's Biological Diversity Act (2002, amended 2023) is the domestic implementation of CBD and Nagoya Protocol obligations. People's Biodiversity Registers capture community-level traditional knowledge as a first layer of prior-art evidence to contest wrongful patents —

complementing the Traditional Knowledge Digital Library (TKDL) that India uses at international patent offices.

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Q124
STATEMENT-BASED

Consider the following facts about India's Strategic Petroleum Reserves (SPR): 1. India's SPR capacity is approximately 5.33 million metric tonnes. 2. The three SPR locations are Vishakhapatnam, Mangaluru, and Padur. 3. The SPR provides approximately 9.5 days of India's crude oil consumption. 4. India meets approximately 60% of its crude oil requirements through imports.

Which of the statements given above are correct?

A 1, 2 and 3 only

B 1 and 3 only

C 2, 3 and 4 only

D 1, 2, 3 and 4

✓ A 1, 2 and 3 only

Statements 1, 2, and 3 are all correct and verified. India's SPR capacity is 5.33 million metric tonnes (MMT) distributed across three underground rock cavern facilities — Vishakhapatnam (1.33 MMT, Andhra Pradesh), Mangaluru (1.5 MMT, Karnataka), and Padur (2.5 MMT, Karnataka) — managed by Indian Strategic Petroleum Reserves Limited (ISPRL). This capacity provides approximately 9.5 days of crude oil consumption cover, while Indian refiners maintain an additional 64.5 days of commercial storage, giving a combined reserve of about 74 days. Statement 4 is incorrect — India imports approximately 85-88% of its crude oil requirements, not 60%.

✦ Russia has become India's largest crude oil supplier since the Ukraine war (February 2022), accounting for approximately 35-40% of imports — up from just 2% before the war. The steep discounts (estimated \$10-30 per barrel below Brent) saved India an estimated \$10-15 billion annually at peak. Phase II SPR expansion has been approved at Chandikhol, Odisha (4 MMT) and an additional cavern at Padur (2.5 MMT) on a Public-Private Partnership model. India daily consumes approximately 4.8 million barrels of crude oil. The IEA recommends 90 days of import cover; India's combined commercial and strategic reserves now approach that benchmark.

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Q125

The Prevention of Corruption Act was amended in 2018. What is the significance of Section 17A introduced by that amendment for anti-corruption enforcement against government officials?

- A** It created an independent ombudsman to receive whistleblower complaints against all government officials
- B** It made corruption charges against government officials non-cognisable, requiring a magistrate warrant before arrest
- C** It requires prior government sanction before the CBI or any police officer can investigate a public servant for any act done in the exercise of official functions
- D** It established a specialised fast-track court for corruption cases involving senior officials

✓ C It requires prior government sanction before the CBI or any police officer can investigate a public servant for any act done in the exercise of official functions

Section 17A of the Prevention of Corruption Act (inserted by the 2018 amendment) prohibits any police officer from conducting an enquiry, inquiry, or investigation into any alleged offence by a public servant under the Act — where the alleged offence relates to a recommendation made or decision taken in discharge of official duties — without prior approval from the appropriate government (Central or State). Critically, this protection applies to all public servants uniformly, not just those above a specific rank such as Joint Secretary. This distinguishes it from the old Section 6A of the Delhi Special Police Establishment Act, 1946, which had required prior sanction only for officials of Joint Secretary rank and above (struck down by the Supreme Court in 2014). In January 2026, the Supreme Court delivered a split verdict on Section 17A's constitutional validity; the matter has been referred to a larger Bench, but Section 17A remains in force.

✦ India's anti-corruption architecture faces credibility gaps despite institutional completeness on paper: Lokpal was established in 2019 but operationalisation has been slow; the Whistleblowers Protection Act (2014) has not had its rules notified; and ED prosecutions have been criticised as politically selective. Denmark consistently tops the Transparency International Corruption Perceptions Index, reflecting the value of institutional independence, strong parliamentary oversight, and high civil service salaries. India ranked 96th out of 180 countries in CPI 2024.

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Q126
STATEMENT-BASED

Which of the following statements correctly describe the QUAD (Quadrilateral Security Dialogue)? 1. The QUAD was first formed in 2007 and revived in 2017 after a period of dormancy.

2. Its members are India, USA, Japan, and Australia. 3. India has supported QUAD becoming a mutual defence treaty similar to NATO.

4. QUAD initiatives include a vaccine partnership, clean energy supply chains, and submarine cable security.

Select the correct answer:

A 1, 2 and 4 only

B 1 and 2 only

C 2, 3 and 4 only

D 1, 2, 3 and 4

✓ A 1, 2 and 4 only

Statements 1, 2, and 4 are correct. The QUAD was initiated in 2007 by Japanese PM Shinzo Abe alongside India, the US, and Australia, became dormant in 2008 following Australia's withdrawal under PM Kevin Rudd, and was revived in November 2017 at the ASEAN Summits in Manila. Its four members are India, USA, Japan, and Australia. Confirmed QUAD initiatives include the Quad Vaccine Partnership (announced May 2021, targeting one billion COVID-19 vaccine doses for the Indo-Pacific), clean energy and semiconductor supply chain cooperation, and the Quad Partnership for Cable Connectivity and Resilience (launched May 2023) to protect undersea submarine cables. Statement 3 is incorrect — India has consistently opposed any mutual defence commitment, framing QUAD as a functional grouping for the global good, not a collective defence alliance.

✦ India's dual-track Indo-Pacific approach — inclusive MILAN (74+ navies) alongside selective QUAD (4 nations) — reflects its strategic autonomy doctrine. China characterises QUAD as an "Asian NATO," a framing India explicitly rejects. The "issue-based" QUAD framing (vaccines, climate, cyber, semiconductors, undersea cables) allows all four members to cooperate without a formal Article 5-equivalent mutual defence commitment. India's former

Foreign Secretary Harsh Shringla described QUAD as a "force for global good." The Quad Leaders Summit has been held annually since 2021, rotating among member capitals.

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Q127

The National Council for Vocational Training (NCVT) governs ITI curriculum in India. Which of the following identifies the key structural problem with NCVT's curriculum update process that PM-SETU must address?

- A** NCVT falls under the Ministry of Labour and Employment, creating a conflict of interest when approving industry-led curriculum changes
- B** NCVT updates trade syllabi through a slow, consensus-driven process — many trades were designed in the 1960s-70s and are obsolete for Industry 4.0 requirements
- C** NCVT is a private body funded by industry, leading to curriculum bias toward large corporate employers at the expense of small enterprises
- D** NCVT has no authority over private ITIs, which constitute over 80% of India's ITI network

NCVT updates trade syllabi through a slow, consensus-driven process — many trades were designed in the 1960s-70s and are obsolete for Industry 4.0 requirements



NCVT's curriculum update process is notoriously slow and consensus-driven, resulting in many ITI trades — such as Fitter, Turner, and Machinist — that were designed for a 1960s-70s industrial economy and are poorly aligned with Industry 4.0 demands (electric vehicles, AI-assisted manufacturing, IoT, green energy maintenance). PM-SETU (Pradhan Mantri Skilling and Employability Transformation through Upgraded ITIs), launched October 4, 2025, with an investment of Rs 60,000 crore, introduces upgraded curricula for courses including EVs, artificial intelligence, and green technologies. Note: Option A is also factually inaccurate — NCVT currently falls under the Ministry of Skill Development and Entrepreneurship (established 2014 as a standalone ministry), not the Ministry of Labour and Employment.

✦ India's skill development paradox: 65% of the population is under 35, creating demographic dividend potential, but fewer than 25% of ITI graduates are directly employable per TeamLease Skills University data. PMKVY certified 13 million+ workers but independent evaluations found placement rates below 20%. The Ministry of Skill Development and Entrepreneurship was carved out of the Ministry of Labour in 2014. Education is in the Concurrent List (Entry 25, List III), requiring centre-state coordination for ITI reforms. PM-SETU uses a hub-and-spoke model: 200 advanced hub ITIs with modern labs guide 800 spoke ITIs across the country.

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