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VIDHVATH IAS KAS ACADEMY & STUDY CENTRE

DAILY MCQ'S

FOR UPSC CIVIL SERVICE EXAMINATION

DATE: 28/09/2026 (MONDAY)

- **Static mcq's**
- **Current Affairs mcq's**
- **Mains Practice Questions**



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DAILY PRACTICE QUESTIONS FROM STATIC PART

Q1. Consider the following statements regarding the Industrial Revolution in Britain:

1. James Watt's improvement over Newcomen's atmospheric engine lay in the use of a separate condenser, which prevented the loss of heat caused by alternately heating and cooling the working cylinder.
2. The Cotton Mills Act of 1819 prohibited employment of children below nine years in cotton mills and, for the first time, provided for a system of paid government inspectors to enforce its provisions.

Which of the statements given above is/are correct?

(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

Answer: (a)

Explanation:

- Statement 1 is correct. In Newcomen's engine, steam was condensed inside the cylinder itself, so the cylinder had to be reheated every stroke, which wasted fuel. Watt's separate condenser (patented 1769) kept the cylinder hot and made the engine far more fuel-efficient.
- Statement 2 is incorrect. The 1819 Act (Peel's Act) did bar children below nine from cotton mills, but it had no effective enforcement machinery. Paid factory inspectors were introduced only by the Factory Act of 1833, which is why the 1819 Act remained largely a dead letter.

Q2. Which one of the following best describes the "Rivet Popper Hypothesis" in ecology?

(a) Many species in an ecosystem perform the same functional role, so a few can be lost with negligible effect on ecosystem functioning, and only the loss of a small set of critical species causes disruption.
(b) Every species contributes to ecosystem functioning, much like the rivets holding an aircraft wing together. Progressive species loss weakens the ecosystem, and it is impossible to predict in advance which loss will trigger collapse.
(c) Ecosystem functioning changes with species loss in an unpredictable and idiosyncratic way, because the effect of each species depends entirely on its own traits and its interactions with others.
(d) Only keystone species determine ecosystem stability, so conservation resources should be directed exclusively towards them, since the loss of other species has no bearing on ecosystem integrity.

Answer: (b)

Explanation:

- Option (b) is correct. The hypothesis was put forward by Paul and Anne Ehrlich. It compares species to the rivets in an aircraft wing. Losing a few rivets may not matter at first, but as more are lost the structure weakens, and eventually the loss of one critical rivet can bring the aircraft down. Because we cannot tell which species is the "critical rivet", every species is treated as important.
- Option (a) describes the **redundancy hypothesis** (Brian Walker). It holds that species are functionally overlapping, so many are expendable. It is the conceptual opposite of the rivet popper view, in which no species can safely be dismissed as surplus.

- Option (c) describes the **idiosyncratic response hypothesis** (Lawton). It denies any consistent pattern between species number and ecosystem function, whereas the rivet hypothesis predicts a cumulative, progressive weakening.
- Option (d) is incorrect. Keystone species do have a disproportionate effect on their communities, but the rivet popper hypothesis rejects the idea that non-keystone species are dispensable. It is also not a claim that conservation should target only keystone species.

Q3. Consider the following statements regarding environment and sustainable development:

1. According to the ecological economist Herman Daly, non-renewable resources should be depleted at a rate equal to the rate at which renewable substitutes are created.
2. When the extraction of renewable resources exceeds their rate of regeneration, the environment is said to have crossed its absorptive capacity.
3. The World Commission on Environment and Development, whose report *Our Common Future* popularised the concept of sustainable development, was chaired by Gro Harlem Brundtland and was set up by the UN General Assembly in 1983.

How many of the above statements are correct?

(a) Only one
(b) Only two
(c) All three
(d) None

Answer: (b)

Explanation:

- Statement 1 is correct. Daly's operating principles for sustainability are: harvest rates should not exceed regeneration rates; waste emissions should not exceed the assimilative capacity of the environment; and non-renewable resources should be depleted at the rate at which renewable substitutes are created.
- Statement 2 is incorrect. Crossing the regeneration rate leads to resource depletion. Absorptive capacity concerns waste: it is the environment's ability to absorb degradation, and it is crossed when waste generation exceeds that ability.
- Statement 3 is correct. The Commission was established by the UN General Assembly in 1983 and reported in 1987. Its definition, development that meets present needs without compromising the ability of future generations to meet theirs, is the standard one.

Q4. Consider the following statements regarding the evolution of the basic structure doctrine in India:

1. The doctrine of basic structure was propounded in *Kesavananda Bharati* (1973) by a 13-judge Bench by a 7:6 majority, and the Court in that case overruled the *Golaknath* ruling.
2. In *Minerva Mills* (1980), the Supreme Court struck down clauses (4) and (5) of Article 368 and also struck down Article 31C in its entirety.
3. In *I.R. Coelho* (2007), a nine-judge Bench held that laws placed in the Ninth Schedule after 24 April 1973 are open to judicial review on the touchstone of the basic structure.

4. The Twenty-fourth Amendment Act, 1971 made it obligatory for the President to give assent to a Constitution Amendment Bill and provided that Article 13 shall not apply to any amendment made under Article 368.

How many of the above statements are correct?

(a) Only one
(b) Only two
(c) Only three
(d) All four

Answer: (c)

Explanation:

- Statement 1 is correct. *Kesavananda Bharati* was decided by a 13-judge Bench by a 7:6 majority. It held that Parliament can amend any part of the Constitution but cannot alter its basic structure, and it overruled *Golaknath* (1967).
- Statement 2 is incorrect. *Minerva Mills* struck down clauses (4) and (5) of Article 368, inserted by the 42nd Amendment. It struck down only the expanded portion of Article 31C, which had extended protection to laws implementing all Directive Principles. The original Article 31C, protecting laws under Article 39(b) and (c), was not struck down in its entirety.
- Statement 3 is correct. *I.R. Coelho* (2007) treats 24 April 1973, the date of the *Kesavananda* judgment, as the cut-off. Ninth Schedule laws placed after it can be tested against Articles 14, 19, 21 and the basic structure.
- Statement 4 is correct. The 24th Amendment made presidential assent to amendment Bills obligatory and inserted Article 13(4) and Article 368(3) to overturn *Golaknath*.

Q5. Assertion (A): Despite India's dense river network, inland water transport carries only a very small share of the country's freight.

Reason (R1): Most peninsular rivers are rain-fed and seasonal, and their navigability is further limited by rapids and waterfalls.

Reason (R2): National Waterway-2, along the Ganga between Sadiya and Dhubri, is the longest inland waterway in India.

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Which one of the following is correct in the context of the above statements?

(a) A is correct; both R1 and R2 are correct, and both correctly explain A.
(b) A is correct; only R1 is correct and it correctly explains A.
(c) A is correct; only R2 is correct and it correctly explains A.
(d) A is incorrect; both R1 and R2 are correct.

Answer: (b)

Explanation:

- The Assertion is correct. Inland waterways account for only a very small share (roughly 2 percent) of India's freight movement.
- R1 is correct and explains A. Peninsular rivers depend on monsoon rainfall, so their flow is highly seasonal. Rapids, waterfalls and shallow stretches further restrict year-round navigation.

- R2 is incorrect on two counts. NW-2 is on the Brahmaputra between Sadiya and Dhubri, not on the Ganga. The longest waterway is NW-1, the Ganga-Bhagirathi-Hooghly stretch from Prayagraj (Allahabad) to Haldia, about 1,620 km. Even if R2 were true, a fact about one waterway's length would not explain the low overall share.

DAILY PRACTICE QUESTIONS FROM CURRENT AFFAIRS

Q1. Consider the following statements regarding the OneTag facility recently rolled out by the National Highways Authority of India:

1. It allows a vehicle owner to switch the issuer bank of the FASTag without replacing the physical RFID tag. The Tag ID and its linkage with the vehicle registration are retained, and NPCI's mapper database re-routes the toll debit authorisation to the new issuer.
2. After porting, the legacy issuer closes the old wallet and refunds the residual balance directly to the user, and a mandatory six-month gap is required between two consecutive porting requests.

Which of the statements given above is/are correct?

(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

Answer: (c)

Explanation:

- Statement 1 is correct. OneTag works like Mobile Number Portability for electronic toll collection. The windshield RFID tag and Tag ID stay the same, toll-plaza readers are unaffected, and only the backend routing across the NETC network changes.
- Statement 2 is correct. Old wallet balances and deposits are not transferred to the new issuer. The previous issuer audits them and refunds them directly to the user. A six-month cooling period applies between consecutive porting requests.
- Both statements are correct, so the trap is to assume that a balance-transfer or no-restriction claim was hidden inside them.

Q2. A settlement that continues to be administered by a Gram Panchayat but is classified as a "Census Town" by the Census of India must simultaneously satisfy which one of the following sets of conditions?

(a) A population of at least 5,000; at least 75 percent of the male main working population engaged in non-agricultural activities; and a population density of at least 400 persons per square kilometre.
(b) A population of at least 5,000; at least 75 percent of the total main working population (male and female) engaged in non-agricultural activities; and a population density of at least 400 persons per square kilometre.
(c) A population of at least 5,000; at least 75 percent of the male main working population engaged in non-agricultural activities; and a population density of at least 1,000 persons per square kilometre.

(d) A population of at least 10,000; at least 75 percent of the male main working population engaged in non-agricultural activities; and a population density of at least 400 persons per square kilometre.

Answer: (a)

Explanation:

- The Census Town criteria, unchanged since 1981, are a minimum population of 5,000, at least 75 percent of the male main workers in non-farm activity, and a density of at least 400 persons per sq km.
- Option (b) is wrong because the criterion counts male workers only. This is the very gender bias the Ministry of Housing and Urban Affairs has flagged.
- Option (c) is wrong because it confuses 400 per sq km with roughly 1,000 per sq mile, which is the same density in different units.
- Option (d) is wrong because the population threshold is 5,000, not 10,000.
- Census Towns are urban in character but are governed by Panchayati Raj institutions rather than statutory Urban Local Bodies (Municipalities or Nagar Panchayats).

Q3. Consider the following statements regarding the Combined Operational Review and Evaluation (CORE) Programme 2026:

1. The programme was organised by Headquarters Integrated Defence Staff and conducted by the Centre for Joint Warfare Studies (CENJOWS).
2. Besides the Chief of Defence Staff, the Chiefs of both the Army Staff and the Air Staff interacted directly with the course participants.
3. The deliberations included scenario-based exercises on cognitive warfare and strategic communication, with participation from academia and think tanks.

How many of the above statements are correct?

(a) Only one
(b) Only two
(c) All three
(d) None

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Answer: (b)

Explanation:

- Statement 1 is correct. PIB states that HQ IDS organised the five-day programme (14 to 18 September 2026) and CENJOWS conducted it at the Manekshaw Centre, New Delhi.
- Statement 2 is incorrect. The Chief of Defence Staff, the Chief of the Naval Staff and the CISC interacted with participants. From the Army and the Air Force, only the Vice Chief of Army Staff and the Vice Chief of Air Staff did.
- Statement 3 is correct. Scenario-based exercises on cognitive warfare and strategic communication were held. Subject Matter Experts, academia and think tanks also took part.
- Civil participation came from the Ministry of Defence, the Ministry of External Affairs and the Ministry of Home Affairs.

Q4. Consider the following statements regarding the Global Business Climate Survey 2026:

1. It captures the perspectives of Swedish companies on doing business abroad, and its 2026 edition covering 41 markets placed India first.
2. The ranking is computed from objective macroeconomic and regulatory indicators, such as GDP growth and tariff levels, rather than from the perceptions of surveyed firms.
3. The survey is the official successor to the World Bank's Doing Business report.

How many of the above statements are correct?

(a) Only one
(b) Only two
(c) All three
(d) None

Answer: (a)

Explanation:

- Statement 1 is correct. The survey, produced by Business Sweden with Swedish Chambers of Commerce, presents Swedish companies' views on operating in key export markets. The 2026 edition covers 41 markets, and India was ranked first.
- Statement 2 is incorrect. It is a perception-based business-sentiment survey covering profitability, outlook and expansion plans. It is not an index built on objective indicators.
- Statement 3 is incorrect. The World Bank discontinued Doing Business in 2021. This survey is a private-sector opinion benchmark of Swedish firms, not a multilateral successor or an official ranking of regulatory ease.

Q5. Consider the following statements regarding the Election Symbols (Reservation and Allotment) Order, 1968:

1. It is issued by the Election Commission under Article 324 of the Constitution, read with Section 29A of the Representation of the People Act, 1951 and Rules 5 and 10 of the Conduct of Elections Rules, 1961.
2. Under Paragraph 15, when rival sections of a recognised political party each claim to be that party, the Commission may decide that one of them, or none, is the recognised party, and its decision is binding on all the rival sections.
3. A decision of the Commission under Paragraph 15 is final and immune from judicial review.
4. A party recognised as a State party in at least four States is eligible for recognition as a national party under the Order.

How many of the above statements are correct?

(a) Only one
(b) Only two
(c) Only three
(d) All four

Answer: (c)

Explanation:

- Statement 1 is correct. This is the enabling authority cited in the Order's preamble.
- Statement 2 is correct. It reflects the wording of Paragraph 15. In practice the Commission applies the test of majority across the legislative and organisational wings. It falls back on legislators' affidavits when organisational records are contested.
- Statement 3 is incorrect. The Supreme Court upheld the validity of Paragraph 15 in *Sadiq Ali v. ECI* (1971), which arose from the 1969 Congress split, but the Commission's decisions remain open to judicial review. Pending a decision, the Commission may also freeze the name and symbol and give the factions interim names and symbols.
- Statement 4 is correct. Being recognised as a State party in four or more States is one of the alternative routes to national-party status. The others are vote-share plus seat conditions and a minimum share of Lok Sabha seats from at least three States.

Q6. On the map of North America and the Caribbean, which one of the following pairs correctly identifies the straits that connect the Gulf of Mexico to the Caribbean Sea and to the Atlantic Ocean, respectively?

(a) Yucatán Channel and Straits of Florida
(b) Straits of Florida and Yucatán Channel
(c) Windward Passage and Straits of Florida
(d) Yucatán Channel and Mona Passage

Answer: (a)

Explanation:

- The Yucatán Channel lies between the Yucatán Peninsula of Mexico and western Cuba. It links the Gulf of Mexico with the Caribbean Sea.
- The Straits of Florida lie between Florida and Cuba, with the Bahamas to the east. They link the Gulf with the Atlantic Ocean, and the Gulf Stream system passes through them.
- Option (b) reverses the two straits.
- Option (c) is wrong because the Windward Passage lies between Cuba and Hispaniola and connects the Atlantic with the Caribbean Sea, not the Gulf.
- Option (d) is wrong because the Mona Passage lies between Hispaniola and Puerto Rico, far from the Gulf.
- The countries with a coastline on the Gulf are the USA, Mexico and Cuba.

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DAILY PRACTICE QUESTIONS FOR MAINS ANSWER WRITING PRACTICE

(GS-1 | *Themes in Indian History, Part I*, Class XII, Ch. 4: Thinkers, Beliefs and Buildings) (20 marks, 300 words)

Q1. Stupas were not merely religious monuments; they were records of patronage, belief and social change. Discuss with reference to Sanchi and Amaravati.

Sample Answer:

Stupas began as mounds enshrining relics of the Buddha or revered monks. Ashoka is traditionally credited with distributing relics and raising stupas. Over centuries, Sanchi and Amaravati became rich archives of architecture, patronage and evolving belief.

Architecture and symbolism

- A hemispherical *anda* rests on a base and is crowned by a *harmika* and *chhatra*, with a central *yashti* (axis).
- A railing (*vedika*) encloses a circumambulation path (*pradakshinapatha*). At Sanchi, four gateways (*toranas*) mark the cardinal directions.
- The structure worked as a cosmic model and a place of ritual movement, not just a burial mound.

Patronage and society

- The core brick stupa at Sanchi is attributed to Ashoka. The stone casing and carved gateways were added between roughly the 1st century BCE and the 1st century CE.
- Inscriptions record donors: monks and nuns, merchants, guilds, women and local rulers. One gateway inscription names the ivory workers of Vidisha.



- This shows that Buddhism drew support from trading communities along routes, not only from the court.
- Sanchi survived largely because it lay off the beaten track, and the Begums of Bhopal later funded its conservation. Amaravati was discovered by Colin Mackenzie in 1797, and its slabs were dispersed and reused.

Evolution of belief

- Early Sanchi shows the Buddha through symbols: the empty seat, footprints, the wheel, the lotus and the bodhi tree. This is the aniconic phase.
- Later Buddhist art at Amaravati and Mathura depicts the Buddha in human form. This reflects the Mahayana emphasis on the Bodhisattva ideal and image worship.
- Jataka stories and tree and serpent motifs show that popular practices were absorbed into Buddhist art.

Stupas as historical sources

- Sculpture served as a visual sermon for people who could not read. Interpreting it needs textual knowledge.
- James Fergusson read Sanchi as a centre of tree and serpent worship because he did not know Buddhist literature. His mistake shows the risk of interpreting monuments without texts.

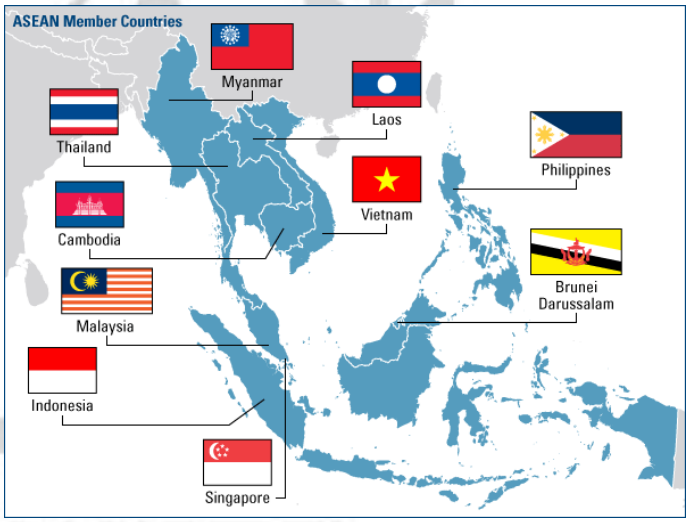
Conclusion: Sanchi and Amaravati together record who built India's early Buddhist monuments, why they gave, and how the religion itself changed. They are sources for social as well as religious history.

(GS-2 | *Contemporary World Politics*, Class XII, Ch. 4: Alternative Centres of Power) (20 marks, 300 words)

Q2. The EU and ASEAN represent two contrasting models of regional integration. Compare them and assess what lessons they hold for SAARC and BIMSTEC.

Sample Answer:
Both blocs arose from a wish to avoid conflict and to gain collective bargaining power. The EU pursued deep, rule-bound integration, while ASEAN chose a flexible, consensus-based path.

The two models



- **EU:** It grew from the Treaty of Rome (1957) and was formally established by the Maastricht Treaty (1992). It has a single market, a common currency for the eurozone, and supranational institutions, including the Commission, the Parliament and the Court of Justice. Member states pool sovereignty in defined areas, and Brexit (2020) showed that deep integration can also be reversed.
- **ASEAN:** It began with the Bangkok Declaration (1967) with five members and now has eleven. Its cooperation rests on the "ASEAN Way" of informality, consensus and non-interference. The ASEAN Charter (2008) gave it legal personality, and it works through three community pillars: political-security, economic and socio-cultural. Its wider platforms, the ARF, ASEAN+3 and the East Asia Summit, keep it central to regional diplomacy.

Key differences

- The EU has binding law and enforcement, while ASEAN relies on peer pressure and voluntary compliance.
- The EU has a supranational bureaucracy, while ASEAN decisions are intergovernmental.
- The EU is more integrated on trade, currency and mobility. ASEAN is more open to outside partners.

Lessons for South Asia

- **Economics first:** ASEAN and the EU both built trust through trade before tackling political disputes. Intra-SAARC trade is only around 5 percent of its members' total trade, well below ASEAN's.
- **Insulate cooperation from bilateral disputes:** SAARC has been stalled since the 2016 Islamabad summit was called off. The ASEAN habit of compartmentalising disputes offers a way around this.
- **Asymmetry:** India's size relative to its neighbours resembles Germany's in the EU. It needs to offer public goods such as connectivity, energy grids and lines of credit, and to accept some non-reciprocity.
- **Institutional depth:** BIMSTEC now has a Charter (2022) and a Dhaka secretariat. It should build on these with a functioning free trade agreement and sectoral mechanisms.
- **Flexible geometry:** Sub-regional projects, as in the BBIN motor-vehicles initiative, allow willing members to move ahead.

India's own record supports this approach. Its Look East policy (1991) became Act East (2014). India has a strategic partnership with ASEAN, but it walked out of the RCEP in 2019.

Conclusion: South Asia cannot copy the EU's depth or ASEAN's informality wholesale. A pragmatic mix of economic-first cooperation, institutional depth in BIMSTEC and flexible sub-regional projects is more realistic.

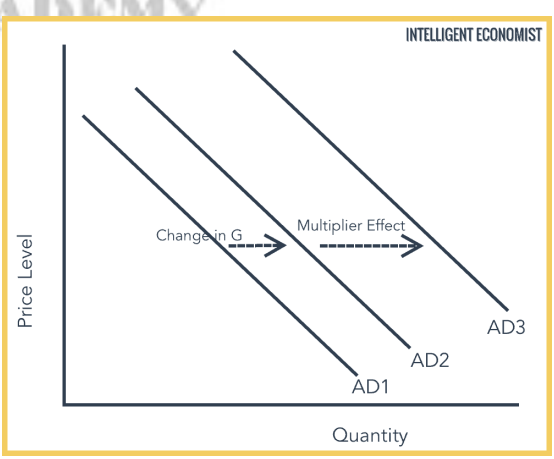
(GS-3 | *Macroeconomics*, Class XII, Ch. 4: Determination of Income and Employment) (20 marks, 300 words)

Q3. Explain the concept of the investment multiplier. Why is government capital expenditure considered to have a higher multiplier than revenue expenditure, and what limits its effectiveness in India?

Sample Answer:
In Keynesian theory, output in the short run is determined by aggregate demand, not only by supply. The multiplier explains why a change in autonomous spending changes national income by a larger amount.

The concept

- The multiplier is $1/(1 - \text{MPC})$, or $1/\text{MPS}$. If the marginal propensity to consume is 0.8, the multiplier is 5, so an extra ₹100 crore of autonomous spending raises income by about ₹500 crore.
- Spending becomes income for others, who spend a fraction of it in turn. The rounds continue with diminishing amounts.
- A related result is the paradox of thrift. If everyone saves more at once, income falls and total savings may not rise.



Why capex tends to have a higher multiplier

- Capex creates assets such as roads, railways, ports and power lines. It employs labour and materials directly, and it lowers costs for private firms. Economists call this "crowding in".
- Much revenue expenditure goes to interest payments, subsidies and salaries, so a large part of it leaks out through saving, imports or debt servicing.
- Estimates suggest a capex multiplier of roughly 2 to 2.5 against under 1 for revenue expenditure. The exact figures vary by study and period.

India's use of capex

- Union capital expenditure has risen roughly threefold since 2020-21.
- The Centre supports state capex through long-tenor, interest-free loans to states.
- The stimulus raised growth and construction employment when private investment was weak.

Limits on effectiveness

- **Fiscal space:** Higher debt raises interest costs and can crowd out private borrowing. The fiscal-deficit glide path and the debt-to-GDP target constrain a permanent expansion.
- **Execution delays:** Land acquisition, clearances and cost overruns slow the multiplier's pass-through.
- **Leakages:** Imported equipment and capital-intensive projects add less to domestic demand and jobs than the headline outlay suggests.
- **Weak private response:** If private capex does not follow, the crowding-in effect is muted.
- **Low employment intensity:** Highway and rail spending creates fewer jobs per rupee than rural works or services.
- **State finances:** Uneven capacity and fiscal stress in states limit the spread of capex across regions.

Way forward: Public investment should be continued but targeted at projects with high multipliers, such as logistics, power transmission and urban infrastructure, and completed on time. Fiscal consolidation should be protected by improving the quality of revenue expenditure, and jobs should be supported through labour-intensive sectors and skilling.

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Conclusion: The multiplier explains why public investment can lift growth. Its size depends on the quality of spending, the state of private demand and the fiscal space to sustain it.

(GS-4 | Ethics Case Study) (20 marks, 300 words)

Q4. You are the District Magistrate of a district. A large sugar-cum-distillery unit employs about 3,000 workers and buys cane from around 40,000 farmers. The State Pollution Control Board has reported that the unit is discharging untreated effluent into a river from which 25 villages draw drinking water. Villagers report skin diseases and cattle deaths. The local MLA, who is close to the owner, asks you to give the unit "six months to comply". The owner warns that closure will delay cane payments to farmers, and a local NGO threatens an agitation.

(a) Identify the ethical issues involved.
(b) Examine the options available to you.
(c) Which course of action would you adopt, and why?

Sample Answer:

(a) Ethical issues

- **Public health and right to life:** Article 21 has been read to include a right to clean water and a healthy environment. The harm is ongoing and falls on vulnerable villagers.
- **Conflict of duties:** My duty to protect life and enforce the law conflicts with concerns for jobs and farmers' payments.
- **Political pressure and integrity:** The MLA's request for delay is pressure to compromise impartiality. Yielding would be favouritism, and I must show neutrality and courage.
- **Precautionary principle and the "polluter pays" principle:** The unit, not the public, should bear the costs of its pollution.
- **Intergenerational and environmental justice:** The river is a shared resource, and its degradation also harms future users.
- **Stakeholders:** villagers, workers, farmers, the owner, the MLA, the Pollution Control Board, the NGO and the district administration.

(b) Options

1. **Accept the six-month delay.** This protects jobs in the short term but knowingly prolongs harm. It is ethically indefensible and legally risky.
2. **Order immediate closure.** This stops the pollution but hurts workers and farmers and may bring cane arrears. It is too blunt if a graded response is available.
3. **Graded action.** Enforce the Water (Prevention and Control of Pollution) Act, 1974 with a short, time-bound compliance order. Provide safe water to the villages immediately, and impose environmental compensation on the unit. Warn that closure or disconnection of power and water will follow if the deadlines are missed.

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(c) Course of action

- **Immediate relief:** Arrange tanker water and hand pumps for the 25 villages, and set up a health camp with the Chief Medical Officer.
- **Action against the unit:** Coordinate with the Pollution Control Board to serve a legal notice and require a working effluent treatment plant within a short, fixed period, with independent monitoring. Impose environmental compensation, and if the unit fails, initiate closure and disconnection.
- **Protecting livelihoods:** Talk to the owner about payment of cane dues and workers' wages, and engage the cane department so that farmers are not left unpaid.
- **Communication:** Explain the decision to the MLA courteously and in writing, citing the law and the health evidence. Keep the NGO and villagers informed so that agitation is unnecessary.

- **Record-keeping:** Document the reasons for every step, and inform the Divisional Commissioner and the Chief Secretary.

Values upheld: Integrity, impartiality, compassion, courage and accountability.

Conclusion: Jobs and environment need not be treated as a trade-off if the unit is compelled to reform. My duty is to protect life first while limiting avoidable harm to livelihoods.

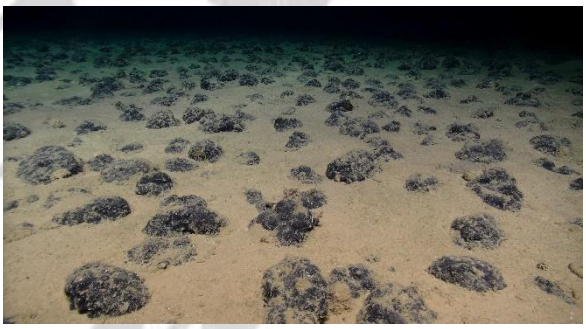
(Current Affairs | GS-3) (20 marks, 300 words)

Q5. India's deep-sea exploration under the Deep Ocean Mission raises a dilemma between critical mineral security and ecological stewardship. Critically examine, and suggest a way forward.

Sample Answer:
Deep-sea mining targets polymetallic nodules, polymetallic sulphides and cobalt-rich crusts on the ocean floor. These are rich in nickel, cobalt, copper and manganese, which are needed for batteries and clean-energy technologies.

Why India is interested

- India holds three exploration contracts with the International Seabed Authority (ISA), covering about 95,000 sq km. They lie in the Central Indian Ocean Basin, the Central Indian Ridge and the Carlsberg Ridge.



- Surveys indicate around 366 million tonnes of polymetallic nodules.
- The Deep Ocean Mission includes the MATSYA-6000 crewed submersible. The National Institute of Ocean Technology has tested a crawler-based seabed mining machine at around 5,270 m.
- India imports most of its critical minerals. Deep-sea resources could support the National Critical Mineral Mission and reduce dependence on a few suppliers.

Legal framework

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- UNCLOS Part XI declares the seabed beyond national jurisdiction (the Area) the "common heritage of mankind", administered by the ISA.
- The ISA has rules for exploration, but the exploitation code is still not finalised. Rules on royalties, liability and environmental standards remain open.

The ecological case for caution

- Nodules take millions of years to form. They are the only hard surface for many specialised deep-sea organisms, so removing them destroys habitat that will not recover on human timescales.
- Sediment plumes can travel long distances and smother filter feeders. Noise, vibration and light disturb a dark and silent environment.
- Baseline knowledge is thin. Research across 19 seamounts has catalogued about 1,300 organisms, including 23 new species, which shows how much remains undiscovered.

- The precautionary principle argues against irreversible harm when the science is incomplete.

Critical assessment

- Capability is not necessity. Recycling, substitution and urban mining can meet part of the demand, and mining the seabed may shift the environmental cost from land to a poorly understood ocean.
- However, exploration itself is not exploitation. Holding contracts secures a seat at the ISA table and builds technology and data. Withdrawing would give up influence over the rules to others.
- India's position is therefore stronger if it separates exploration from any commercial decision.

Way forward

- Keep activity at the scientific exploration stage, and use the Deep Ocean Mission to build biodiversity baselines.
- Set aside no-mining zones and protected areas within the contract blocks, including seamounts and hydrothermal vents.
- At the ISA, press for a precautionary approach. No exploitation contract should be approved until environmental thresholds and liability rules are legally codified.
- Expand battery recycling and material substitution under the National Critical Mineral Mission.
- Develop low-impact, non-destructive survey technologies.

Conclusion: India should treat the deep sea as a shared scientific and ecological trust before it treats it as a mineral reserve. Leading on precaution, transparency and technology would strengthen both its strategic interests and its standing in ocean governance.

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