QUESTION.1) - C

Statement Analysis:

I. Full Battery Electric Vehicles (BEVs)

- Power Source: Only batteries, Emission: Zero tailpipe emissions, Drive: Electric motor
- Alternative Powertrain?

 ✓ Yes

II. Hydrogen Fuel Cell Vehicles (FCVs)

- Power Source: Hydrogen (fuel cell), Emission: Water vapour,
 Drive: Electric motor
- Alternative Powertrain?

 ✓ Yes

III. Fuel Cell Electric Hybrid Vehicles

- Power Source: Combination of fuel cell and battery, Emission: Low/zero (depending on design), Drive: Electric motor

Conclusion:

All three types — BEVs, FCVs, and Fuel Cell Electric Hybrid Vehicles — qualify as alternative powertrain vehicles, as they replace or significantly reduce reliance on conventional internal combustion engines (ICEs) and fossil fuels.

Quick Comparison Table:

Vehicle Type	Power Source	Emissions	Alternative Powertrain?
BEV	Battery (Electricity)	Zero	∜ Yes
Hydrogen FCV	Hydrogen Fuel Cell	Water vapor	∜ Yes
Fuel Cell Electric Hybrid	Fuel Cell + Battery	Low/Zero	∜ Yes
Conventional Petrol/Diesel	Internal Combustion Engine	AS High cess	X No

SOURCES:

https://e-amrit.niti.gov.in/types-of-electric-vehicles

https://www.acea.auto/fact/alternative-powertrains/

QUESTION.2) – D

Statement-wise Analysis:

Statement 1: " All types of UAVs can do vertical landing. "

Incorrect

- Only rotary-wing UAVs (like multicopters and VTOL drones) can vertically land.
- Fixed-wing UAVs generally require a runway and cannot perform vertical landings.

Statement 2: "All UAVs can do automated hovering."

Incorrect

- Only rotary-wing UAVs (helicopters, quadcopters) can hover.
- Fixed-wing UAVs cannot hover; they need continuous forward motion for lift.

Statement 3: "All types of UAVs can use battery only as a source of power supply."

Incorrect

- While many small UAVs use batteries, larger or high-end UAVs use:
 - Internal combustion engines
 - Hybrid systems
 - Solar power (e.g., for high-endurance UAVs)

② Conclusion:

All three statements are incorrect.

SOURCES: https://pmc.ncbi.nlm.nih.gov/articles/PMC7672221/

QUESTION.3) - C

- Cobalt is used in cathode chemistries like LCO, NMC, and NCA.
- Lithium is part of all lithium-ion cathode compounds.
- Nickel is used in high-energy cathode formulations like NMC and NCA.
- Graphite is used in the anode, not the cathode.
- ➤ An electric battery consists of one or more electrochemical cells, each composed of three main components:
- Anode (negative electrode)
- Cathode (positive electrode)
- Electrolyte (medium for ion transport)

≯ How a Battery Works

When a battery is used to supply power:

- The anode releases electrons.
- These electrons flow through an external circuit, powering devices.
- Simultaneously, ions travel through the electrolyte from anode to cathode to maintain charge balance.

Batteries are broadly classified into two categories:

1. Primary Batteries

- **o** Disposable, single-use.
- Cannot be recharged.
- Common in devices like remote controls and clocks.

2. Secondary Batteries

- Rechargeable and reusable.
- Widely used in mobile phones, laptops, and electric vehicles (EVs).

Common Secondary Battery Types

Battery Type	Common Use	Cathode Material
Lead-acid	Automobiles	Lead dioxide (PbO₂)
Ni Cd	Older electronics	Nickel oxide hydroxide (NiOOH)
NiMH	Rechargeable AAs	Nickel oxide hydroxide (NiOOH)
Li-ion		Lithium compounds with Nickel, Cobalt, Manganese, or Iron

To Role of Nickel in Secondary Batteries

Nickel is a crucial cathode component in many secondary (rechargeable) battery types:

NiCd and NiMH: Use nickel-based cathodes.

Li-ion batteries: Common cathode chemistries like NMC
 (Nickel Manganese Cobalt) and NCA (Nickel Cobalt Aluminum)
 rely heavily on Nickel to increase energy density.

SOURCES: https://afdc.energy.gov/vehicles/electric-batteries

https://nickelinstitute.org/en/nickel-applications/nickel-in-batteries/

QUESTION.4) - C

Q Item-wise Analysis

- 1. Cigarette Butts: ✓ Contain Plastic
 - Why? The filters are made of cellulose acetate, a type of plastic that does not easily biodegrade.
- 2. Eyeglass Lenses: ✓ Contain Plastic
 - Why? Most modern lenses are made from polycarbonate, CR-39, or high-index plastics. These materials are lightweight, durable, and common.
- 3. Car Tyres: ✓ Contain Plastic
 - Why? They include synthetic rubber (a petroleum-based polymer) and reinforcement cords made of nylon or polyester, both of which are plastics.

Common Plastics in Daily Life

Plastic Type	Uses
PE (Polyethylene)	Plastic bags, bottles, films

Plastic Type	Uses
PP (Polypropylene)	Food containers, furniture, car parts
PVC (Polyvinyl Chloride)	Pipes, credit cards, window frames
PET (Polyethylene Terephthalate)	Water bottles, clothing fibers
PS (Polystyrene)	Disposable cups, packaging foams

SOURCES:

https://microplastics.springeropen.com/articles/10.1186/s43591-021-00008-w

https://www.sciencedirect.com/science/article/abs/pii/S03043894 20319816

QUESTION.5) – B



Substance-wise Analysis

Substance	Can Be Produced Using Coal Gasification?	Explanation
Ethanol	∜ Yes	Can be synthesized from syngas (CO + H ₂), a product of coal gasification.
Nitroglycerine	X No	Made by nitrating glycerol; glycerol is not derived from coal gasification.
Urea	∜ Yes	Requires ammonia, which needs H ₂ — can be obtained from coal syngas.

Final Answer: Ethanol and Urea are the correct options

Chemicals Derived from Syngas

Chemical	From Syngas?	Use
Methanol	∜ Yes	Solvent, fuel, feedstock
Ammonia (for Urea)	∜ Yes	Fertilizer
Fischer-Tropsch Fuels	∜ Yes	Synthetic petroleum alternatives
Ethanol (synthetic)	∜ Yes	Fuel, solvent, chemical feedstock
Dimethyl Ether (DME)	⊘ Yes	Diesel substitute, aerosol propellant

SOURCES: https://coal.gov.in/sites/default/files/ncgm/ncgm21-09-

21.pdf

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QUESTION.6) – B

- CL-20, HMX, and LLM-105 are high-energy explosives used in warheads and propellant formulations of advanced military platforms.
- In the context of cruise missiles, which require both powerful warheads and efficient propulsion systems, such compounds

are integral to achieving long range and high destructive potential.

Quick Reference Table

Compound	Туре	Energy Level	Used in
CL-20	High Explosive	Ultra High	Warheads, advanced missile systems
нмх	High Explosive	Verv High	Boosters, shaped charges, propellants
LLM-105	Insensitive Explosive	High	Safer warhead designs, military use

High-Energy Materials in Defence

- CL-20 (China Lake Compound #20): One of the most powerful non-nuclear explosives known.
- HMX: Used in solid rocket propellants and shaped charges.
- LLM-105: A newer, more stable explosive with reduced sensitivity.

SOURCES:

https://www.sciencedirect.com/science/article/abs/pii/S00220248 20302980

QUESTION.7) - C

Final Evaluation of Statements:

Statement	Correctness	Explanation	
I. Majorana 1 chip will enable quantum computing	∜ Correct	Majorana-based chips are being explored for topological quantum computing; Microsoft is actively researching this path.	
II. Majorana 1 chip has been introduced by AWS	X Incorrect	AWS supports quantum platforms (e.g., IonQ, Rigetti via Amazon Braket), but <i>Majorana 1</i> is associated with Microsoft, not AWS.	
III. Deep learning is a subset of machine learning		Standard and well-established hierarchy in AI: Deep learning ⊂ Machine learning ⊂ Artificial Intelligence.	

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Quick Revision Table

Concept	Details
Majorana Fermions	Quasiparticles theorized to be their own antiparticles, used in research for topological quantum computing.

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Answer Key (Complete Explanation)

Concept	Details
Topological Qubits	Qubits that are less error-prone due to topological protection—Microsoft's approach using Majorana fermions.
Amazon Web Services (AWS)	Offers cloud access to quantum hardware via Amazon Braket but does not develop Majorana- based chips.
Machine Learning (ML)	Subfield of AI where systems learn from data.
Deep Learning (DL)	Subset of ML using deep neural networks for complex tasks like image recognition, NLP, etc.



SOURCES:

https://indianexpress.com/article/technology/tech-newstechnology/microsoft-majorana-1-new-quantum-computing-chipexplained-9846515/

https://www.techtarget.com/searchenterpriseai/tip/AI-vs-machine-learning-vs-deep-learning-Key-differences

QUESTION.8)

Why in news

The Indian Council of Medical Research (ICMR) has developed the country's first indigenous monoclonal

UPSC PRELIMS 2025 (GS Paper - I) Set-A

Answer Key (Complete Explanation)

antibodies (mAbs) to treat Nipah virus. These have shown encouraging results in small animal trials.

Monoclonal Antibodies

- Monoclonal antibodies (also called moAbs or mAbs) are proteins made in laboratories that act like proteins called antibodies in our bodies.
- Antibodies are parts of our immune system. They seek out the antigens (foreign materials) and stick to them in order to destroy them.
- The word "monoclonal" refers to the fact that the antibodies created in the laboratory are clones. They are exact copies of one antibody.
- They are produced by cloning a single type of immune cell, known as a B cell, to generate large quantities of identical antibodies.
- This process creates highly specific antibodies that target a particular antigen, which could be a virus, bacteria, cancer cell, or other disease-related molecule.

SOURCES:

https://pmc.ncbi.nlm.nih.gov/articles/PMC11494970/

QUESTION.9) - D

Statement I: "No virus can survive in ocean waters."

∀ Verdict: False

- Reason: This statement is factually incorrect. Viruses are abundant and ecologically important in marine environments.
- Supporting Facts:
 - Marine viruses are the most numerous biological entities in the ocean — estimates suggest there are 10³⁰ viruses in marine waters.
 - They infect a wide range of marine hosts: bacteria (via bacteriophages), archaea, algae, and small eukaryotes.
 - Though viruses require a host to replicate, they can survive outside a host for varying periods depending on environmental conditions.
 - Marine viruses play essential roles in:
 - Regulating microbial populations
 - Driving nutrient and carbon cycling
 - Controlling algal blooms

Statement II: "No virus can infect bacteria."

∀ Verdict: False

Reason: This contradicts established scientific knowledge.

- Fact: *Bacteriophages* (or *phages*) are viruses that specifically infect and replicate within bacteria.
- Supporting Points:
 - Phages are ubiquitous in environments rich in bacteria (e.g., soil, oceans, human gut).
 - They are being explored for phage therapy as alternatives to antibiotics.

Statement III: "No virus can change the cellular transcriptional activity in host cells."

∀ Verdict: False

- Reason: Viruses commonly manipulate host transcription to facilitate their replication.
- Fact: Many viruses:
 - Reprogram host gene expression.
 - Suppress immune responses.
 - Hijack transcription factors and RNA polymerases.

SOURCES:

• https://pmc.ncbi.nlm.nih.gov/articles/PMC145303/

 https://www.nature.com/scitable/definition/virus-308/

Question.10) - B

Statements Overview:

1. Statement I:

"Activated carbon is a good and attractive tool to remove pollutants from effluent streams and to remediate contaminants from various industries."

✓ Correct – Activated carbon is widely used due to its high adsorption capacity for various pollutants (organics, heavy metals, chlorine, etc.).

2. Statement II:

"Activated carbon exhibits a large surface area and a strong potential for adsorbing heavy metals."

✓ Correct – The large surface area and porosity are key reasons for its effectiveness, particularly in adsorbing heavy metals and other substances.

3. Statement III:

"Activated carbon can be easily synthesized from environmental wastes with high carbon content."

✓ Correct, with nuance – It can be synthesized from agricultural or industrial waste, but "easily" is relative. The process involves carbonization and activation,

which may require controlled conditions and energy input.

Q Which Statements Explain Statement I?

- Statement II explains Statement I:
 - ✓ Yes Because it directly relates to the functional property (adsorption capacity) that makes activated carbon effective in pollutant removal.
- Statement III does NOT explain Statement I:
 X No While it discusses the source/material feasibility of producing activated carbon, it does not address the mechanism behind pollutant removal.

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? Final Conclusion:

- All three statements are factually correct.
- Only Statement II explains Statement I.
- Statement III is relevant but does not serve as an explanation for I.

SOURCES:

https://www.sciencedirect.com/topics/agricultural-and-biological-sciences/activated-carbon

QUESTION.11) - B

♦ Statement I:

"Studies indicate that carbon dioxide emissions from cement industry account for more than 5% of global carbon emissions."

√ Verdict: Correct

- Explanation:
 - Cement manufacturing is a 'hard-to-abate' sector due to its reliance on limestone calcination, which directly emits CO₂.
 - 。 CO₂ is emitted from: AS
 - 1. Calcination of limestone (CaCO₃ → CaO + CO₂)
 - 2. Combustion of fossil fuels in kilns.
 - According to the IPCC and other scientific studies, the cement industry contributes roughly 7–8% of global CO₂ emissions, so this "more than 5%" figure is accurate.

♦ Statement II:

"Silica-bearing clay is mixed with limestone while manufacturing cement."

✓ Verdict: Correct

- Explanation:
 - Cement is produced by heating a mixture of:
 - Limestone (CaCO₃) source of calcium.
 - Clay or shale provides silica (SiO₂), alumina (Al₂O₃), and iron oxide (Fe₂O₃).
 - This mixture is heated in a kiln to form clinker,
 which is then ground to make cement.
 - Thus, silica-bearing clay is indeed mixed with limestone in the raw feed.

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Statement III:

"Limestone is converted into lime during clinker production for cement manufacturing."

√ Verdict: Correct

• Explanation:

Clinker Formation:

- The lime (CaO) formed from calcination reacts
 with other raw materials such as:
- Silica (SiO₂) from clay

- Alumina (Al₂O₃) from bauxite or clay
- o Iron oxide (Fe₂O₃) from iron ore
- These materials are fired together in a rotary kiln at ~1400–1500°C, leading to the formation of clinker.
- Physical Form: Clinker appears as gray, pebble-like nodules.

3. Cement Production:

- Clinker is cooled and finely ground with a small amount of gypsum (CaSO₄·2H₂O).
- Gypsum regulates the setting time of cement.
- The resulting powder is Portland cement, ready for packaging and use in construction.
- **Q** Which Statement(s) Explain Statement I?
- Statement III explains Statement I

Statement I is about CO₂ emissions.

- Statement III explains how CO₂ is produced during clinker production, specifically via the calcination of limestone:
- This process is directly responsible for a large portion of the cement industry's carbon footprint.

X Statement II does NOT explain Statement I

- · Why:
 - While Statement II is factually correct and relates to raw material mixing, it does not explain the source of CO₂ emissions mentioned in Statement I.
 - It contributes to the context of cement manufacturing but not to the emissions aspect directly.

ExamIAS

SOURCES:

- https://www.ipcc-
 nggip.iges.or.jp/public/gp/bgp/3 1 Cement Productio
- https://www.weforum.org/stories/2024/09/cement-production-sustainable-concrete-co2-emissions/

QUESTION.12) - C

n.pdf

Statement I:

"At the 28th United Nations Climate Change Conference (COP28), India refrained from signing the 'Declaration on

Climate and Health'."

✓ Correct

- Multiple reports confirm India did not sign this declaration at COP28.
- Over 120 countries signed the declaration at COP28 in Dubai, but India was not among them.

Statement II:

"The COP28 Declaration on Climate and Health is a binding declaration; and if signed, it becomes mandatory to decarbonize health sector."

X Incorrect

ExamIAS

- The declaration is non-binding it reflects political intent, not legal obligation.
- It encourages, but does not mandate, decarbonization of health systems.

Statement III:

"If India's health sector is decarbonized, the resilience of its health-care system may be compromised."

X Correct

- India faces serious healthcare access and infrastructure challenges.
- Immediate decarbonisation could divert critical resources from expansion and accessibility of healthcare.
- A low-carbon transition involves significant investment, which may not be practical in the short term.
- Hence, India's pragmatic approach to prioritize basic healthcare needs over voluntary decarbonization goals is logical and reasonable.
- Conclusion: This statement accurately reflects the likely rationale behind India's stance.

The way to success

? Final Conclusion:

- Statement I is TRUE.
- Statement II is FALSE.
- Statement III is TRUE and provides a valid explanation for Statement I.
- Therefore, only Statement III is correct among the two explanatory statements.

SOURCES: https://cdn.who.int/media/docs/default-source/climate-change/cop28/cop28-uae-climate-and-health-declaration.pdf

QUESTION.13) - B

Statement I:

"Scientific studies suggest a shift is taking place in the Earth's rotation and axis."

✓ Correct

 Scientific studies have revealed that both Earth's rotation and its axis of rotation are undergoing shifts, primarily due to climate change and human activities. These changes are linked to melting ice, shifting groundwater, and overall changes in the planet's mass distribution.

Statement II:

"Solar flares and associated CMEs bombard the Earth's outermost atmosphere with tremendous energy."

✓ Correct

☆ Solar Flares & Coronal Mass Ejections (CMEs): Impact on Earth

- Solar Flares: Sudden bursts of electromagnetic radiation from the Sun's surface.
- CMEs: Large expulsions of plasma and magnetic field from the Sun's corona.
- ✓ What they affect on Earth:
- Magnetosphere: Interactions with Earth's magnetic field.
- Upper atmosphere: Cause ionization and disturbances.
- Observable effects:
- Auroras (Northern and Southern Lights)
- Geomagnetic storms

No significant impact on:

- · Earth's rotation speed
- Earth's axial tilt
- Mass distribution of Earth

Statement III:

"As the Earth's polar ice melts, the water tends to move towards the equator."

√Correct

 This redistribution of mass due to glacial melt is a known cause of changes in the Earth's rotational axis and polar motion.

 NASA and other geophysical studies confirm that melting ice and water flow toward lower latitudes affect Earth's moment of inertia, leading to a shift in axis and possibly slight changes in rotation.

Which Statement Explains Statement I?

Statement III correctly explains Statement I.

Statement II is factually true but unrelated to the shift in rotation and axis.

SOURCES:

- https://www.climate.gov/news-features/climate-ga/do-solar-storms-cause-heat-waves-earth
- https://science.nasa.gov/earth/climatechange/scientists-id-three-causes-of-earths-spin-axisdrift/

QUESTION.14) – A

Statement I:

"Article 6 of the Paris Agreement is frequently discussed in global forums concerning sustainable development and climate change."

◆ Correct – Because of its role in enabling both market and

non-market cooperation mechanisms, it's a focal point in climate negotiations.

Statement II:

"Article 6 sets out the principles of carbon markets."

◆ Correct – Article 6.2 and 6.4 lay down the framework for carbon trading and international carbon credit mechanisms (ITMOs, centralized systems).

Statement III:

"Article 6 intends to promote inter-country non-market strategies to reach climate targets."

- ◆ Correct Article 6.8 outlines non-market approaches (NMAs), including cooperation on finance, technology, and capacity building without carbon trading.
- Conclusion (Linking/Statements):ess
 - All three statements are correct.
 - Statement I is a broader assertion about why Article 6 is important.
 - Statements II and III explain Statement I by detailing what's in Article 6 (its market and non-market cooperation tools).

QUESTION.15) - A

The Asian Development Bank (ADB) launched a Nature Solutions Finance Hub at COP28 (held in 2023, UAE) to mobilize at least \$2 billion for investment in nature-based solutions in Asia and the Pacific.

Q Key Features of the ADB Nature Solutions Finance Hub:

- · Objective:
 - Attract \$2 billion in total investment programs involving nature-based solutions, especially through capital markets and private capital.
- De-risking Strategies:
 To encourage investment, the hub will use:
 - Guarantees
 - Impact-linked payments
 - Blended finance instruments
- Global Development Partner Support:
 ADB aims to raise around \$1 billion in de-risking funds from global development partners; discussions are already underway with several entities.

SOURCES:

https://www.adb.org/news/adb-and-partners-launchnature-financing-initiative-asia-and-pacific

QUESTION.16) - C

Why in news?

The <u>world's largest Direct Air Capture and Storage (DAC+S)</u> <u>plant</u>, Mammoth, has commenced operations in <u>Iceland</u>.

This <u>Swiss company Climeworks' second commercial DAC+S</u> <u>facility surpasses its predecessor, Orca</u>, in size.

Tirect Air Capture (DAC):

- D A climate mitigation technology that captures carbon dioxide (CO₂) directly from ambient air (as opposed to point sources like factories).
- How it works:
 - o Chemical absorption: CO₂ reacts with a liquid solvent (like potassium hydroxide).
 - Adsorption: CO₂ binds to solid sorbents, which are later heated to release the CO₂.

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Answer Key (Complete Explanation)

A Carbon Sequestration:

- The process of permanently storing CO₂ so it doesn't enter the atmosphere.
- CO₂ is enriched in greenhouse environments to stimulate plant growth, a practice known as CO₂ fertilization. Leads to higher crop yields, especially in controlled agricultural settings.
- DAC Used in carbonation of soft drinks and sparkling beverages.
- DAC-captured CO2 can be used as a building block in the production of synthetic fuels and polymers, which can then be used to make plastics.
- Direct air capture (DAC) technology can indeed be a source of carbon for producing synthetic low-carbon fuels in aviation, specifically through a process called "power-to-liquids" or "power-to-X". This involves capturing CO2 from the atmosphere using DAC, then combining it with hydrogen (typically produced from renewable energy sources like electrolysis) to create synthetic jet fuel.

SOURCES:

https://climeworks.com/direct-air-capture

https://www.iea.org/energy-system/carbon-captureutilisation-and-storage/direct-air-capture

QUESTION.17) - D

Peacock Tarantula (Gooty Tarantula)

IUCN Status: Critically Endangered

Programme Pro

- Native Region:
 - Endemic to a small forested area in Andhra Pradesh, India
 - Specifically found in degraded deciduous forests around the town of Gooty (hence the name)
- Habitat Type: ExamIAS
 - Arboreal species lives primarily in tree holes
 - Constructs asymmetrical webs in cavities and barks of trees

▶ Feeding Behavior

- It is carnivorous, feeding primarily on:
 - Insects
 - Other small arthropods

% Unique Features

- Striking metallic blue coloration makes it highly distinctive and sought after in the exotic pet trade
- This trait also contributes to its threatened status due to illegal capture and trade
 - Listed in Schedule I of the Indian Wildlife (Protection) Act, 1972
 - Also protected under CITES Appendix II

SOURCES:

https://focusedconservation.org/2023/07/27/the-endangered-peacock-tarantula/

QUESTION.18) - C

♦ Statement 1:

India's per capita CO₂ emissions were 0.5 t CO₂/capita.

X Incorrect

 According to Worldometer and other reliable sources like the Global Carbon Atlas and IEA, India's per capita CO₂ emissions in 2022 were approximately 1.89 metric tons per capita, not 0.5.

Hence, Statement 1 is not correct.

Statement 2: *India ranks second in the Asia-Pacific region in CO₂ emissions from fuel combustion.*

✓ Correct

- According to IEA (International Energy Agency):
 - China is the largest emitter in the Asia-Pacific region.
 - India ranks second, largely due to its reliance on fossil fuels for energy and industrial growth.
- Therefore, Statement 2 is correct.

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✓ Statement 3:

In India, the electricity and heat production sector is a major source of CO₂ emissions.

✓ Correct

- This sector includes thermal power plants, especially those using coal, which is the dominant source of electricity in India.
- The IEA and India's own energy statistics confirm that power generation is the largest contributor to CO₂ emissions in the country.

Hence, Statement 3 is correct.

SOURCES:

- https://www.iea.org/reports/co2-emissions-in 2023/the-changing-landscape-of-global-emissions
- https://www.iea.org/countries/india/emissions

QUESTION.19) – B

Statement 1: "Cassava (Manihot esculenta) is a perennial woody shrub."

Correct

- Cassava is indeed a perennial woody shrub.
- Origin: Native to South America, now cultivated widely in tropical and subtropical regions globally.
- Use: Important starchy root crop, major food source in Africa and Asia.

Statement 2: "Ginger is a herb that grows with a pseudo stem."

Correct

 The pseudo stem is made up of leaf sheaths, not a true stem.

 Grows annually, harvested for culinary and medicinal purposes.

Statement 3: "Malabar or climbing spinach (Basella alba) is a heat-loving vine."

⊘ Correct

- Malabar spinach is a fast-growing, heat-tolerant vine.
- Not a true spinach, but used similarly in cooking.
- Rich in vitamins A and C.
- Statement 4: "Mint is an annual shrub." The way to success
- X Incorrect
 - Mint (Mentha spp.) is a perennial herb, not a shrub.
 - Spreads via underground rhizomes. Grows back every year, especially in mild climates.
- Statement 5: "Papaya is a woody shrub."

X Incorrect

• Papaya (Carica papaya) is a herbaceous plant, often termed a "giant herb".

- It lacks true woody tissue, even though it can grow tall (up to 10 m).
- It has a soft, green stem that does not form woody secondary growth.

SOURCES:

- https://www.sciencedirect.com/topics/foodscience/cassava
- https://www.britannica.com/plant/ginger
- https://hort.extension.wisc.edu/articles/malabarspinach-basella-alba/

QUESTION.20) - B ExamIAS

Statement 1: "Rainforests produce more oxygen than oceans."

X Incorrect

- Scientific consensus: Oceans, especially phytoplankton, produce more oxygen than terrestrial ecosystems.
- Estimates suggest phytoplankton produce 50–80% of Earth's oxygen.
- Rainforests contribute about 20–28%.
- Statement 1 is not correct.

Statement 2: "Phytoplankton are a major source of oxygen on Earth."

√Correct

- Phytoplankton perform photosynthesis and release oxygen.
- Despite their small size, their vast numbers make them key oxygen producers.
- Found near the ocean surface where sunlight is available.
- Statement 2 is correct.

♦ Statement 3: "Surface water has more oxygen than air."

X Incorrect

- Air contains about 21% oxygen.
- Even saturated water holds only about 8–10 mg of oxygen per liter, much less than air.
- Oxygen in water comes from air diffusion and photosynthesis.
- Statement 3 is not correct.

SOURCES:

 https://oceanservice.noaa.gov/facts/oceanoxygen.html

- https://earthobservatory.nasa.gov/images/87465/oxygen-factories-in-the-southern-ocean
- https://www.drishtiias.com/daily-news-analysis/phytoplankton-biomass-in-bay-of-bengal

QUESTION.21) - C

∜ Statement I: "He possessed great love and respect for the traditional philosophical systems of the East."

✓ Correct

- Raja Ram Mohan Roy studied and revered ancient Indian scriptures such as the Vedas, Upanishads, and Vedanta.
- He respected Eastern philosophy, not as dogma, but as a source of rational spiritual insight.
- Conclusion: The statement reflects his synthesis of Eastern philosophical depth and rational reformist spirit.
- **⊘** Statement II: "He desired his countrymen to accept the rational and scientific approach and the principle of human dignity and social equality of all men and women."

✓ Correct

 He advocated Western education, especially in science, mathematics, and philosophy.

- He fought against social evils like Sati, child marriage, and caste discrimination—issues that undermined human dignity and equality.
- His campaign led to Sati's abolition in 1829 through legislation.

SOURCES:

https://www.nios.ac.in/media/documents/SecSocSciCour/English/Lesson-06.pdf

QUESTION.22) - C

- * Key Features of the Non-Cooperation Movement
- 1. Nature and Philosophy
 - Non-violent Protest: Inspired by Gandhi's principle of Ahimsa (non-violence) and Satyagraha.

2. Political Actions

- Boycott of Government Institutions:
 - Schools, colleges, courts, and legislative councils under the 1919 Government of India Act.
- Resignation from Government Jobs and local bodies.
- 3. Economic Boycott & Swadeshi
 - Boycott of Foreign Goods: Especially textiles—foreign clothes were publicly burnt.

Promotion of Swadeshi: Use of Charkha and Khadi.

4. Social Reforms

- Boycott of Liquor and Toddy Shops.
- Emphasis on removal of untouchability and women empowerment (indirect goals).

5. Parallel Institutions

- Establishment of National Schools and Universities:
 - e.g., Kashi Vidyapeeth, Bihar Vidyapeeth, Jamia
 Millia Islamia.
- Private Panchayats (people's courts) as alternatives to British courts.
- 6. Religious Unity
- The way to success
- Promotion of Hindu-Muslim unity.
- Congress-Muslim League cooperation, particularly post-Khilafat Movement.

7. Mass Mobilization

- "Jail Bharo Andolan" (Fill the jails movement).
- · Creation of Tilak Swaraj Fund:
 - o Target of ₹1 crore.
 - Aimed to fund constructive work and strengthen organizational capacity.

End of the Movement

- Chauri Chaura Incident (February 1922): A violent clash leading to the death of policemen.
- Gandhi called off the movement to prevent further violence, marking the end of the phase.

SOURCES:

https://ncert.nic.in/textbook/pdf/jess302.pdf

The *Araghatta* is a traditional mechanical device used to lift water, primarily for irrigation purposes.

Key Features:

- It is also known as the Persian wheel.
- Introduced in India during the early medieval period, it became widespread in medieval India.
- Typically used to draw water from open wells.
- It consists of a wheel with attached pots or buckets, which rotate with the help of animal power (often bullocks).

 As the wheel turns, the pots scoop water from the well and empty it into irrigation channels.

Significance:

- Represented an advancement in water-lifting technology over traditional methods like hand-drawn buckets.
- Allowed for continuous and efficient irrigation, boosting agricultural productivity.
- Widely used in northern and western India, especially in Punjab, Haryana, and Rajasthan.

SOURCES:

https://teachmint.storage.googleapis.com/public/3f7e3235 -562c-47ef-b9b1-4d47b1d793bc.pdf (chapter – 1)

QUESTION.24) - A

⊘ Mahendravarman I – Pallava Ruler (c. 600–630 CE)

A key ruler of the Pallava dynasty, known for his contributions to art, architecture, and literature.

 His reign marks the transition from wood to stone architecture in South India.

Intellectual & Literary Contributions:

Author of the satirical Sanskrit play Mattavilasa
 Prahasana – a satire on degenerate religious sects.

Architectural Achievements:

- Pioneered rock-cut architecture in Tamil Nadu.
- Commissioned cave temples at:
 - Mandagapattu (inscription mentions rejection of brick, mortar, and timber),
 - Vallam, and
 - Tiruchirappalli.

Political & Military Aspects:

- Faced early challenges from Pulakesin II of the Chalukya dynasty.
- Eventually stabilized and strengthened his kingdom.

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Titles and Their Significance:

Title	Meaning / Significance
Mattavilasa	"Drunken sport" – linked to the name of his satirical play.
Vichitrachitta	"Curious-minded" or "Wonderfully-minded" – reflects his creativity.
Gunabhara	"Bearer of virtues" or "Full of merits".

SOURCES:

https://ncert.nic.in/textbook/pdf/kefa105.pdf

QUESTION.25) – B

∜ Fa-Hien (Faxian) – Chinese Buddhist Pilgrim

2 Journey to India:

- Time Period: ~399 CE 412 CE
- Purpose: To collect Buddhist scriptures, especially related to the Vinaya Pitaka (monastic discipline).
- Spent several years visiting major Buddhist sites like:
 - Kapilavastu^{The way to success}
 - Lumbini
 - Kushinagara
 - Nalanda
 - Pataliputra (modern Patna)

Political Context:

- Visited India during the Gupta Empire.
- Chandragupta II Vikramaditya was the reigning monarch (c. 380–415 CE).
- Fa-Hien describes a peaceful, prosperous India with:

- Well-organized administration
- Law and order
- Flourishing trade and agriculture

Account:

- Book: Fo-Kuo Ki (A Record of Buddhist Kingdoms)
- Focus: Primarily on Buddhism, monastic practices, and the conditions of Buddhist sanghas.
- Also contains valuable observations on society, customs, legal systems, and urban life during the Gupta period.

SOURCES:

https://nios.ac.in/media/documents/SrSec315NEW/315 History Eng Lesson7.pdf

QUESTION.26) - C

⊘ Rajendra I's Naval Expedition Against Srivijaya (c. 1025 CE)

Sources:

- Tiruyilandurai inscription
- Leiden Grant (larger version)

 Tamil copper-plate inscriptions (e.g., Tamil version of the Leiden grant)

C Objective:

- To assert Chola dominance over the Southeast Asian maritime trade routes, especially those controlled by the Srivijaya empire.
- Control of Strait of Malacca: a vital chokepoint for the Indian Ocean-China maritime trade.

X Key Events:

- Rajendra I launched a long-distance naval expedition from the Coromandel Coast.
- The Chola navy attacked and captured several strategic points in:

 The way to success
 - Sumatra
 - 。 Java
 - Malay Peninsula
 - Possibly Palembang, the Srivijaya capital

QUESTION.27) – B

Pair I: Asmaka – Godavari → ♥ Correct

- Asmaka (Assaka) was one of the sixteen
 Mahajanapadas, located south of the Vindhyas, along the Godavari River.
- It is the only Mahajanapada located in South India (modern-day Telangana/Maharashtra).

Pair II: Kamboja – Vipas (Beas) → X Incorrect

- Kamboja was located in the northwestern frontier, covering parts of Afghanistan, Pakistan (Gilgit-Baltistan), and Kashmir.
- The Beas (Vipas) river flows well east of Kamboja's location.
- Kamboja was not directly associated with any major river system, certainly not with Vipas.

Pair III: Avanti – Mahanadi → X Incorrect

 Avanti was located in the Malwa region of western Madhya Pradesh, with capitals at Ujjain and Mahishmati.

 The Mahanadi River flows farther east, through Chhattisgarh and Odisha, with no direct geographical connection to Avanti.

Pair IV: Kosala – Sarayu → ♥ Correct

- Kosala was centered in the Awadh region of presentday Uttar Pradesh, with Ayodhya as a prominent city.
- The Sarayu River flows past Ayodhya and is frequently mentioned in Vedic and Puranic texts in connection with Kosala.

Final Conclusion:

Pair	Territorial Re <mark>gion</mark>	River	Correctness
I	Asmaka	Godavari	⊘ Correct
II	Kamboja	Vipas	X Incorrect
Ш	Avanti	Mahanadi	X Incorrect
IV	Kosala	Sarayu	⊘ Correct

• 2 Correctly matched pairs: I, IV

Incorrectly matched pairs : II, III

SOURCES:

Historicity of Ayodhya on JSTOR

https://ncert.nic.in/textbook/pdf/lehs102.pdf

QUESTION.28) - D

Establishment of Gandharva Mahavidyalaya:

• Founder: Pandit Vishnu Digambar Paluskar

• Year: 1901

 City: Lahore (then part of undivided India, now in Pakistan)

A Significance:

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- This was the first music school in India to provide structured and formal training in Hindustani classical music.
- It marked a shift from the guru-shishya parampara (teacher-disciple tradition) to a modern institutional model.
- It helped democratize music education, opening access to students from all castes and backgrounds.
- The Gandharva Mahavidyalaya also played a key role in reviving and standardizing musical notations.

SOURCES:

<u>Digital District Repository Detail | Digital District Repository | History Corner | Azadi Ka Amrit Mahotsav, Ministry of Culture, Government of India</u>

QUESTION.29) – B

Mathematical Report of the Mathematical Report

Ashoka's inscriptions, especially the Major Rock and Pillar Edicts, shed light on the administrative structure of the Mauryan Empire, revealing a decentralized but well-organized bureaucracy.

- 1. Pradeshika (District Administrator)
 - Function: Head of a Pradesha (district).
 - Duties:
 - Supervised general administration, revenue collection, and law and order.
 - Oversaw subordinate officers, including Yukta and others.
 - Acted as an intermediary between local administration and provincial authorities.

2. Rajuka (Judicial-cum-Administrative Officer)

- Original Role: Land surveyor and revenue assessor.
- Under Ashoka:
 - Given expanded responsibilities, especially in judicial matters (as per Pillar Edict IV).
- Significance: Symbol of Ashoka's Dhamma policy, as they were to ensure justice and welfare of the people.

3. Yukta (Executive/Clerical Officer)

- Role: Lower-level administrative officer.
- · Duties: ExamIAS
 - Handled accounts, record-keeping, and assisted in revenue collection.
 - Worked under the supervision of Pradeshikas and Rajukas.

Q Comparative Table of Roles

Officer	Role Summary	Administrative Level	Functions
Pradeshika	District Head/Admin Officer	Mid-Level	Revenue, law & order, general administration
Rajuka	Judicial & Revenue Officer (expanded role under Ashoka)	Upper-Mid	Revenue, land measurement, judicial powers
Yukta	Clerk/Executive Assistant	Lower-Level	Accounts, records, execution of directives

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SOURCES:

https://ncert.nic.in/textbook/pdf/lehs102.pdf

QUESTION.30) – C

Statement I Analysis:

"The Congress declared the attainment of 'Swaraj' by all legitimate and peaceful means to be its objective."

✓ Correct.

- At the Nagpur Session (1920) of the Indian National Congress, the goal of attaining Swaraj (self-rule) by peaceful and legitimate means was officially adopted.
- This marked a shift from seeking reforms within the British framework (e.g., Dominion Status) to a broader self-rule objective.
- Mahatma Gandhi's influence ensured the movement remained non-violent and within the framework of constitutional resistance.

Statement II Analysis:

"It was to be implemented in stages with civil disobedience and non-payment of taxes for the next stage only if 'Swaraj' did not come within a year and the Government resorted to repression."

✓ Correct.

- The Non-Cooperation Movement was strategically phased:
 - 1. Initial steps: Boycott of titles, honours, British courts, schools, foreign cloth.
 - 2. Escalation clause: If Swaraj was not achieved within a year and the government resorted to repression, the next stage would include civil disobedience and tax non-payment.

Summary Table

Quick Revision – Non-Cooperation Movement

Aspect	Details
Period	1920–1922
Key Leader	Mahatma Gandhi
Congress Session	Nagpur Session, 1920
Primary Objective	Attainment of Swaraj by peaceful means
Initial Actions	Boycott of British titles, courts, schools, goods
Next Steps (Conditional)	Civil disobedience, non-payment of taxes if Swaraj not achieved + government repression
Philosophy	Satyagraha (non-violence, truth, moral resistance)
End of Movement	Withdrawn after Chauri Chaura incident (1922)

SOURCES: https://ncert.nic.in/textbook/pdf/jess302.pdf

QUESTION.31) – B

Alternative Investment Funds (AIFs) are privately pooled investment funds, regulated by SEBI in India, that invest in ventures, startups, real estate, private equity, hedge funds, and other non-traditional assets.

Classified as AIFs:

1. Hedge Funds

- Use complex, high-risk strategies to generate high returns.
- Include leverage, derivatives, long-short positions, etc.
- Regulated under SEBI (AIF) Regulations, 2012 typically Category III AIFs.

2. Venture Capital

- Involves funding early-stage startups with high growth potential.
- Falls under Category I AIFs in SEBI classification.

X Not Classified as AIFs (Traditional Investments):

3. Bonds

 Debt instruments issued by governments or corporations.

- Typically low to moderate risk, traditional in nature.
- Not included under the AIF classification.

4. Stocks

- Equity instruments representing ownership in a company.
- Standard form of investment in public markets.
- Also not part of the AIF framework.

W Quick Comparison Table

Investment Type		Category (if applicable)	Notes
Hedge Funds	⊘ Yes	Category III AIF	High-risk, complex strategies
Venture Capital	⊘ Yes	Category I AIF	Startup/early-stage funding
Bonds	X No	N/A	Traditional debt instruments
Stocks	X No	N/A	Traditional equity instruments

Source:

https://www.sebi.gov.in/sebi_data/attachdocs/147151915 5273.pdf

QUESTION.32) – D

Analysis of Income Sources for RBI

Activity	RBI Income Source?	Explanation
I. Buying and selling government bonds	∜ Yes	Interest income from bonds held, and possible capital gains from Open Market Operations (OMO).
II. Buying and selling foreign currency	∜ Yes	Interest earned on foreign exchange reserves and valuation gains from currency management.
III. Pension fund management	X No y to	RBI does not manage pension funds for income; it's outside its mandate as a central bank.
IV. Lending to private companies	× No	RBI lends to banks, not directly to private companies; it's not a revenue source for RBI.
V. Printing and distributing currency notes	∜ Yes	Income via seigniorage—the difference between the face value of currency and production cost.

Correct Answer:

Statements I, II, and V are sources of income for the RBI.

Key Takeaway:

RBI's main income sources include:

- Interest on government securities it holds.
- Returns on foreign exchange reserves.
- Seigniorage from currency issuance.

• Additional Insight: Seigniorage

Term	Explanation		
Seigniorage	Profit earned by RBI when the face value of currency > production & handling cost.		
Mechanism	RBI issues currency in exchange for assets (e.g., govt. securities/FX reserves) which yield income.		
Significance	It contributes to RBI's surplus, transferred annually to the government (after provisioning).		

Quick Notes:

- RBI earns most of its income passively through asset holdings.
- It does not function like a commercial bank; income from direct lending to private firms or managing

pension funds is not applicable. SOURCES:

https://www.rbi.org.in/scripts/AnnualReportPublications.aspx?Id=1325

QUESTION.33) – B

Analysis of Key Directorates & Their Functions

Pair	Directorate	Function	Works Under	Correctly Matched?
	Directorate of Enforcement (ED)	Enforces the Fugitive Economic Offenders Act, 2018, PMLA, FEMA, etc.	Incorrect: Works under Dept. of Revenue, MoF, not MHA	
II	Directorate of Revenue Intelligence (DRI)	Enforces Customs Act, 1962 and other allied Acts	✓ Correct: Works under Dept. of Revenue, MoF	∜ Yes
III	DG Systems & Data Management	Performs data analytics to aid	✓ Correct: Under Dept. of	∜ Yes

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Answer Key (Complete Explanation)

Pair	Directorate	Function		Correctly Matched?
			Revenue, MoF	

2 Quick Revision Notes

Directorate of Enforcement (ED)

- Fugitive Economic Offenders Act (2018)
- Prevention of Money Laundering Act (PMLA)
- Foreign Exchange Management Act (FEMA)
- Ministry: Department of Revenue, Ministry of Finance

Directorate of Revenue Intelligence (DRI)

- Primary Role: Anti-smuggling intelligence and enforcement
- Acts Enforced:
 - Customs Act, 1962
 - NDPS Act, Arms Act, COFEPOSA, Wildlife Act, etc.
- Ministry: Department of Revenue, Ministry of Finance

DG Systems & Data Management

- Role: Big Data analytics for GST & tax policy, backend
 IT for indirect taxation
- Ministry: Department of Revenue, Ministry of Finance

Final Answer:

- Only Pairs II and III are correctly matched.
- Pair I is NOT correctly matched due to incorrect ministry (should be Finance, not Home Affairs).

SOURCE -

https://old.icegate.gov.in/About_DG_systems.html

QUESTION.34) – B

Statement I: "RBI mandates the submission of BRSR."

X Not Correct

ExamIAS

- The BRSR is mandated by SEBI, not the Reserve Bank of India.
- Applicable to the top 1,000 listed companies (by market capitalization) on Indian stock exchanges.
- Introduced as a step toward standardized ESG disclosures.

Statement II: "BRSR requires companies to make largely non-financial disclosures."

⊘ Correct

 BRSR focuses on Environmental, Social, and Governance (ESG) aspects.

- Disclosures include:
 - Resource usage (energy, water)
 - Emissions and waste management
 - Workforce diversity
 - CSR initiatives
 - Human rights, ethics, and transparency

2 Quick Revision: BRSR in Brief

Aspect	Details I A C
Mandated by	SEBI (not RBI) The way to success
Applies to	Top 1,000 listed companies by market cap
Nature	Non-financial reporting on ESG factors
Introduced in	Voluntary from FY 2021–22, mandatory from FY 2022–23
Replaced	The earlier Business Responsibility Report (BRR)
Objective	Enhance transparency, support sustainable business practices

Final Conclusion:

Statement I: X Incorrect

Statement II:

✓ Correct

SOURCE- https://cleartax.in/s/brsr-reporting

QUESTION.35) – D

Statement I:

"In India, income from allied agricultural activities like poultry farming and wool rearing in rural areas is exempted from any tax."

- . X Not Correct
- As per Section 2(1A) of the Income Tax Act:
 - Only income derived from land used for agricultural operations (e.g., crop cultivation) qualifies as agricultural income.
- Allied activities like:
 - Poultry farming
 - Dairy farming

These are classified as business income and are taxable.

Statement II:

"In India, rural agricultural land is not considered a capital asset under the provisions of the Income-tax Act, 1961."

- ✓ Correct
- Section 2(14) (iii) of the Income Tax Act excludes rural agricultural land from the definition of *capital asset*.
- If the land is:
 - Located outside specified municipal limits, and
 - Meets population and distance criteria, then gains from its sale are not taxed under capital gains.

W Quick Revision Table

Concept	Provision	Taxability
Income from Cron Cultivation	Section 2(1A) + 10(1)	Exempt (Agricultural Income)
Income from Poultry/Dairy/Wool	Business Income	Taxable

Concept	Provision	Taxability
Capital Asset Definition	Section 2(14)	Includes most property unless excluded
Rural Agricultural Land		Not a capital asset → No capital gains tax

SOURCES:

https://economictimes.indiatimes.com/wealth/tax/whatis-agriculture-income-different-types-of-agricultureincome/articleshow/104818288.cms?from=mdr

https://cleartax.in/s/capital-gains-tax-savings-on-sale-of-agricultural-land

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QUESTION.36) – C

Statement 1: "India joined the US-led Minerals Security Partnership (MSP) in June 2023."

Correct

- India officially joined the Minerals Security Partnership (MSP) in June 2023 during PM Modi's US visit.
- MSP is a strategic alliance of 14 countries + EU, aimed at securing critical mineral supply chains essential for clean energy and technological innovation.

Statement 2:"India is self-sufficient in all the 30 critical minerals it has identified."

X Not Correct

 India has identified 30 critical minerals (e.g., lithium, cobalt, nickel, REEs, graphite).

Key Supplementary Fact: MMDR Amendment Act, 2023

- Objective: Boost critical mineral exploration and reduce import dependency.
- Provision: Empowers Central Government to auction
 24 critical minerals.
- Enables participation of private and foreign investors.
- Focus: Deep-seated minerals and strategic resources.

W Quick Revision Table

Topic	Details
MSP (Minerals Security Partnership)	Strategic group of 14 nations + EU; India joined in June 2023
India's Critical Minerals List	30 minerals identified; includes lithium, cobalt, nickel, etc.

UPSC PRELIMS 2025 (GS Paper - I) Set-A

Answer Key (Complete Explanation)

Topic	Details
Self-Sufficiency Status	➤ Not self-sufficient in most; heavy import reliance, especially for battery minerals
MMDR Amendment Act, 2023	Empowers Centre to auction 24 minerals; accelerates exploration & FDI participation

SOURCES:

https://www.pib.gov.in/PressReleasePage.aspx?PRID=1946 416

QUESTION.37) - A ExamIAS

Statement 1: Bondholders face lower risk compared to stockholders.

Correct

- Bondholders receive fixed interest payments, making their income predictable.
- They face less volatility since their returns aren't tied to company profits.
- Their investment is generally secured or prioritized, hence lower risk.

Statement 2: Bondholders are creditors; stockholders are owners.

⊘ Correct

- Bondholders = Lenders/Creditors: They lend money to the company for a fixed term.
- Stockholders = Owners: They own a portion of the company and have voting rights.

Statement 3: Bondholders are paid before stockholders in liquidation.

Correct

- In bankruptcy or liquidation, the repayment hierarchy is:
 - 1. Secured creditors
 - 2. Unsecured creditors (including most bondholders)
 - 3. Stockholders last (both preferred and common)
- This priority in repayment lowers the risk for bondholders.

Quick Revision Table

UPSC PRELIMS 2025 (GS Paper - I) Set-A

Answer Key (Complete Explanation)

Aspect	Bondholders	Stockholders
Ownership	No (they are lenders)	Yes (they own equity)
Return Type	Fixed interest	Dividends (variable) + capital gains
Risk Level	Lower	Higher
Priority in Liquidation	Higher (paid before shareholders)	Lowest
Voting Rights	X No	✓ Yes (common stockholders)

SOURCES:

https://www.investopedia.com/terms/b/bondholder.asp

https://www.investopedia.com/terms/s/shareholder.asp

QUESTION.38) - A

Statement I: "India accounts for a very large portion of all equity option contracts traded globally thus exhibiting a great boom."

Correct ∜

• India (particularly NSE) has emerged as a global leader in equity derivatives trading.

- NSE often ranks #1 globally in terms of volume of equity option contracts traded.
- This reflects a significant boom in retail and institutional participation.

Statement II: "India's stock market has grown rapidly in the recent past even overtaking Hong Kong's at some point of time."

Correct ∜

- India's market cap has surged, buoyed by strong economic performance and IPO activity.
- In early 2024, India briefly overtook Hong Kong to become the 4th largest stock market globally.

X Statement III: "There is no regulatory body either to warn the small investors about the risks of options trading or to act on unregistered financial advisors in this regard."

Incorrect X

- SEBI (Securities and Exchange Board of India) is the regulatory authority.
- SEBI regularly:

- Issues investor alerts about risks in F&O (Futures and Options).
- Takes action against unregistered investment advisors and fraudulent schemes.
- Runs awareness campaigns like "Investors First" and online education modules.

Revision Table: India Financial Market Concepts

Concept	Brief Explanation		
Equity Option Contracts	Derivatives that give the buyer the right (but not the obligation) to buy or sell a stock at a specified price before or on a certain date.		
Stock Market Capitalization	The total market value of all outstanding shares of listed companies on an exchange. Calculated as share price × total outstanding shares.		
Regulatory Body (SEBI)	The Securities and Exchange Board of India regulates India's securities markets. SEBI ensures investor protection, transparency, and fair trading.		
Financial Advisors	Professionals offering financial advice. In India, Registered Investment Advisors (RIAs) must be SEBI-registered and comply with its guidelines.		

SOURCES:

https://timesofindia.indiatimes.com/business/indiabusiness/india-overtakes-hong-kong-as-worlds-fourthlargest-stock-market/articleshow/107065034.cms

QUESTION.39) - A

Circular Economy and Its Benefits

Statement	Content	Correct?	Explanation
1	Circular economy reduces GHG emissions by limiting energy-intensive production from virgin materials.	⊘ Yes	Reuse and recycling significantly lower emissions—20–90% compared to using virgin resources.
2	It reduces demand for virgin raw materials like minerals, metals, and fossil fuels.	mIA:	A key principle of circular economy is to keep materials in use through reuse, repair, and recycling—reducing extraction and pollution.
3	It eliminates waste by designing for durability, repairability, and recyclability.	∜ Yes	By closing material loops, the circular economy ensures minimal waste at each stage—refurbishment over disposal preserves materials and resources.

- Goal: Keep materials in use, eliminate waste, and reduce environmental impact.
- Strategies: Design for longevity, repair, reuse, recycle.
- Impact: Reduces GHG emissions, resource extraction, and landfill waste.

SOURCES:

https://www.circle-economy.com/news/circular-economystrategies-can-cut-global-emissions-by-39

QUESTION.40) - A

Examias

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Capital vs. Revenue Receipts

Statement	Assessment	Explanation
I. Capital receipts create a liability or reduce assets of the Government.	% Correct	This is the fundamental definition of capital receipts.
II. Borrowings and disinvestment are capital receipts.	⊘ Correct	Borrowings = create liability; Disinvestment = reduce assets.

UPSC PRELIMS 2025 (GS Paper - I) Set-A

Answer Key (Complete Explanation)

Statement	Assessment	Explanation
III. Interest received on loans creates a liability of the Government.	X Incorrect	Interest received is revenue income. It does not create any liability.

Revision Table: Revenue Receipts vs. Capital Receipts

Feature	Revenue Receipts	Capital Receipts
Creates Liability?	X No	✓ Yes (e.g., borrowings)
Reduces Assets?	X No	✓ Yes (e.g., disinvestment)
Recurring Nature?		Generally non-recurring (loan recoveries, disinvestment)
Examples	Taxes (GST, income tax), interest, dividends, fines, fees	Borrowings, loan recoveries, disinvestment, small savings schemes
Budget Classification	Used for regular functioning of government	Often used for asset creation or financing fiscal deficit

SOURCES:

https://cag.gov.in/uploads/old_reports/state/Punjab/rep 2001/comm_ch7.pdf

QUESTION.41) - B

○ North Atlantic Treaty Organization (NATO)

★ Established: 1949

- Nature: Intergovernmental military alliance
- Founding Goal: Collective defense against Soviet aggression during the Cold War.
- Core Principle: Article 5 An attack on one member is considered an attack on all.

NATO Membership-xam IAS

The way to success Founding Members (1949)	12 Countries
Belgium, Canada, Denmark, France, Iceland, Italy, Luxembourg, Netherlands, Norway, Portugal, UK, USA	

Current Membership:

- Recent Joiner: Sweden (Joined in 2024)
- Latest Before Sweden: North Macedonia (Joined in 2020)

Given Countries: NATO Status

Country	NATO Member?	Notes
Bulgaria	∜ Yes	Joined in 2004
Croatia	∜ Yes	Joined in 2009
Sweden	∜ Yes	Joined in 2024
North Macedonia	∜ Yes	Joined in 2020
Austria	X No	Military neutral
Serbia	×Nexai	Military neutral, close to Russia historically

Extra Notes

- Austria: Declared permanent neutrality in 1955.
- Serbia: Participates in NATO's Partnership for Peace but has not joined the alliance.

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SOURCES:

https://www.nato.int/cps/en/natohq/topics_52044.htm

QUESTION.42) - C



The Andes are the longest continental mountain range in the world, stretch along the western edge of South America, running from Venezuela in the north to Chile and Argentina in the south.

© Countries Covered

The Andes pass through 7 South American countries:

- 1. Venezuela
- 2. Colombia
- 3. Ecuador
- 4. Peru
- 5. Bolivia
- 6. Chile
- 7. Argentina

▲ Geographic & Physical Features

- Notable peaks include:
 - Aconcagua (Argentina) highest peak in South
 America (~6,961 m)
- Famous archaeological sites include Machu Picchu in Peru.

SOURCES: https://www.nasa.gov/image-article/chilean-andes/

QUESTION.43) – D

४ Lake Tanganyika

- Location: Central Africa (bordering Burundi, Zambia, Tanzania, DRC).
- Equator proximity: The northern tip lies just south of the Equator, but does not cross it.

✓ Lake Tonlé Sap

- Location: Cambodia, in Southeast Asia.
- Equator status: Cambodia lies entirely north of the Equator.

Patos Lagoon

 Location: Southern Brazil, in the state of Rio Grande do Sul.

The Equator passes through:

- · South America: Ecuador, Brazil, Colombia
- Africa: Sao Tome & Principe, Gabon, Republic of the Congo, Democratic Republic of the Congo (DRC), Uganda, Kenya, Somalia
- Asia & Oceania: Maldives, Indonesia, Kiribati

SOURCES: https://www.britannica.com/place/Lake-Tanganyika

https://www.britannica.com/place/Tonle-Sap

https://www.britannica.com/place/Patos-Lagoon

QUESTION.44) - D

Turmeric – Key Facts

- **♦** Botanical & Chemical Identity
 - Plant: Curcuma longa (Family: Zingiberaceae Ginger family)
 - Part used: Underground stem (rhizome)
 - Active compound: Curcumin responsible for its yellow color and known for anti-inflammatory, antioxidant, and antimicrobial properties.

Cultivation in India

- Grown in 20+ states, with over 30 varieties cultivated.
- Major producing states:
 - Maharashtra
 - Telangana
 - Karnataka
 - Tamil Nadu

- India's Global Position in Turmeric
 - India is the world's largest:
 - Producer
 - Consumer
 - Exporter of turmeric Key export markets include Bangladesh, UAE, the US, and Malaysia
 - In 2022–23:
 - Produced ~75% of global turmeric
 - Held ~62% of global export share

ExamIAS

Major Turmeric Trading Centres in India

Trading Centre	State	Significance
Erode	Tamil Nadu	Major turmeric market; holds GI tag for Erode turmeric
Sangli	Maharashtra	One of Asia's largest turmeric trading hubs

SOURCES:

https://icrier.org/pdf/Making-India-the-Global-Hub-for-Turmeric.pdf

https://www.pib.gov.in/PressReleasePage.aspx?PRID=1964 083

QUESTION.45) - C

© Continental Drift Theory – Alfred Wegener (1912)

♦ Core Idea:

- All continents were once joined in a supercontinent called Pangaea.
- Surrounded by a mega ocean called Panthalassa.
- Pangaea broke apart ~200 million years ago into:
 - Laurasia (North) AS
 - Gondwanaland (South) uccess
- These landmasses later split into the present-day continents.

V Evidences Supporting the Theory:

Type of Evidence	Details	Statement
1. Jig-Saw Fit	Coastlines of Africa and South America fit together remarkably.	⊘ Correct
2. Placer Deposits	Gold deposits in Ghana (no local source rock) are believed to originate from Brazilian plateau.	∜ Correct

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Answer Key (Complete Explanation)

Type of Evidence	Details	Statement
3. Tillite Evidence	Glacial tillite of the Gondwana system is found across India, Africa, Antarctica, Australia, etc., indicating a common glacial history.	⊘ Correct
4. Rock Formation Similarities	Rock strata across continents (e.g., Brazil and West Africa) match in age and type.	⊘ Implied
5. Fossil Distribution	Fossils like Mesosaurus found in South America and Africa show the continents were once joined.	⊘ Implied

Sources:

NCERT Class 11 - Geography Part 1

QUESTION.46) - C

Atmospheric Dust Distribution and Wind Dryness

Statement I: Dust Particles in the Atmosphere

Correct

Claim: Dust levels are higher in subtropical and temperate areas than in equatorial and polar regions.

- Reasoning:
 - Subtropics have large deserts (Sahara, Arabian,
 Gobi) → major dust sources.
 - Human activities (agriculture, industry) add dust,
 mostly in subtropical & temperate zones.
 - Equatorial regions have heavy rainfall and dense vegetation → wash out and reduce dust.
 - Polar regions covered in ice/snow → minimal dust generation.

ExamIAS

Statement II: Dry Winds in Subtropical and Temperate Areas

Incorrect

- Claim: Subtropical and temperate areas have less dry winds.
- · Reasoning:
 - Subtropical highs produce dry descending air, origins of dry trade winds carrying dust (e.g., Sahara dust storms).
 - Temperate regions have a mix: moist oceanic winds and dry continental winds.

- Equatorial regions mostly have humid, moist air.
- Polar regions have cold, dry air but less dust due to ice cover.

Comparison Table: Dust & Wind Characteristics

Feature	Subtropical & Temperate Areas	Equatorial Regions	Polar Regions
Atmospheric Dust	High — deserts, human activity	rainfall, dense	Low — ice/snow cover, sparse activity
Wind Dryness			Cold and dry but limited dust

Additional Factors Affecting Atmospheric Dust

- Sources: Natural (deserts, volcanic eruptions), Anthropogenic (construction, agriculture).
- Wind: Must be strong and dry to lift dust.
- Precipitation: Washes dust from atmosphere.
- Surface Cover: Vegetation, moisture, and ice reduce dust.

SOURCES: https://ncert.nic.in/textbook/pdf/kegy207.pdf

QUESTION.47) – A

- Isotherms and Temperature Distribution
- ♦ Isotherms are lines on a map connecting places with equal temperature. They help visualize temperature distribution across the globe.
- ◆ Statement I:"The isotherms deviate from the general trend more in January than in July."

Correct

- In January, the Northern Hemisphere experiences winter.
- The land cools faster than water, creating stronger temperature contrasts.
- Hence, isotherms show greater deviation due to differential heating between land and sea.
- In July, temperature distribution is more uniform, especially over oceans.
- ◆ Statement II: "This is because the effect of landmass and ocean currents is more pronounced in the Northern Hemisphere."
- **⊘** Correct

The Northern Hemisphere has more landmass, which heats and cools rapidly.

- Warm ocean currents (e.g., Gulf Stream, North Atlantic Drift) in the North Atlantic warm up the adjacent air → poleward (northward) bending of isotherms over oceans.
- On land (like Europe), colder air causes the isotherms to bend equatorward (south).

♦ Conclusion:

- ✓ Both Statement I and II are correct.
- ✓ Statement II explains Statement I.
 - ➤ The differential influence of land and sea, especially in January, explains why isotherms deviate more prominently then.

③ Visual Pattern in January:

Region	Isotherm Behaviour	Cause
North Atlantic Ocean		Warm currents (Gulf Stream, NAD)
Europe & Asia		Cold continental air, land cooling

SOURCES: NCERT - Class 11 - Geography Part 1

QUESTION.48) - C

Porosity and Permeability of Rocks: Chalk vs Clay

- Chalk is highly porous and permeable to percolate easily.
- Clay is porous but impermeable due to tiny pore spaces, which restrict water flow.

♦ Statement 2: Chalk contains microscopic pores and can hold and transmit water.

Correct ⋖

- It acts like an aquifer in some regions (e.g., Southern England).
- Can store and transmit water due to its interconnected pores.

X Statement 3: Clay is porous. However, it is made up of extremely fine particles, which create very small spaces between them. These small spaces make it difficult for water to move through the clay.

- Incorrect X
- While the statement is factually correct, it contradicts the idea that clay is impermeable despite being porous, which was likely the focus.

Revision Table: Chalk vs Clay

Property	Chalk Chalk	Clay
Туре	Sedimentary rock	Fine-grained sedimentary rock
Porosity	High	High
Permeability	High (water moves freely)	Low (water movement is slow)
Texture	Soft, white, porous	Soft, compact, fine particles
Aquifer Role	Often a good aquifer	Acts as aquiclude (blocks flow)

SOURCES: https://kentdowns.org.uk/wp-content/uploads/2023/05/What-is-Chalk.pdf

https://www.deq.louisiana.gov/assets/docs/Water/DWP P_forkidsandeducators/PorosityandPermeability.pdf

QUESTION.49) – C

Role of the Atmosphere in Regulating Earth's Temperature

Statement I: "Without the atmosphere, temperature would be well below freezing point everywhere on the Earth's surface."

✓ Correct

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- Without the greenhouse effect, Earth's average temperature would be ~ -18°C instead of +15°C.
- Example: The Moon, which has no atmosphere, faces extreme temperature variation (over 100°C during the day, below -170°C at night).

Statement II: "Heat absorbed and trapped by the atmosphere maintains our planet's average temperature."

✓ Correct

Describes the natural greenhouse effect.

 Keeps Earth's climate stable and suitable for life by preventing rapid temperature changes.

Statement III: "Atmosphere's gases, like carbon dioxide, are particularly good at absorbing and trapping radiation."

✓ Correct

- CO₂, CH₄ (methane), N₂O, H₂O vapor are efficient infrared absorbers.
- Their molecular structure allows them to absorb & reemit heat → critical for the warming effect.

Revision Table: Earth's Atmosphere & Temperature

Concept	Explanation
Greenhouse Effect	Natural process where gases trap heat and warm Earth's surface
Without Atmosphere	Earth's average temperature would drop to ~ -18°C
Greenhouse Gases	CO₂, CH₄, N₂O, water vapor – absorb infrared radiation

Concept	Explanation
Energy Flow	Sunlight (shortwave) in → Earth emits infrared (longwave) → gases trap heat
Life Support Role	Enables liquid water, stable climate, and biological diversity

SOURCES: https://scied.ucar.edu/learning-zone/atmosphere/what-is-atmosphere

QUESTION.50) - CExamIAS

≪ Rashtriya Gokul Mission: Summary & Analysis

Statement I: "It is important for the upliftment of rural poor as majority of low producing indigenous animals are with small and marginal farmers and landless labourers."

Correct

Indigenous breeds are mostly reared by economically weaker sections — small and marginal farmers or landless labourers.

 Enhancing productivity, nutrition, and health of these animals increases rural income, ensuring livelihood security and rural upliftment.

Statement II: "It was initiated to promote indigenous cattle and buffalo rearing and conservation in a scientific and holistic manner."

Correct

- Why? The core goal of the Rashtriya Gokul Mission is the scientific conservation, breeding, and development of indigenous bovine breeds.
- Interventions include:
 - Gokul Grams (Integrated Cattle Development Centres)
 - Awards like Gopal Ratna & Kamdhenu
 - Breed improvement programs
 - Use of genomics and sex-sorted semen technologies

Revision Table: Rashtriya Gokul Mission (RGM)

Aspect	Details
Launched Under	National Programme for Bovine Breeding and Dairy Development (NPBBⅅ)
Ministry	Ministry of Fisheries, Animal Husbandry & Dairying

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Answer Key (Complete Explanation)

Aspect	Details
Focus	Conservation, genetic improvement, and development of indigenous breeds
Key Beneficiaries	Small & marginal farmers, landless labourers
Key Components	Gokul Grams, National Bovine Genomic Centre, E-Pashuhaat, Breed Awards
Approach	Scientific & Holistic (breeding, nutrition, health, marketing support)
Objective	Improve productivity, sustainability, and rural livelihood

ExamiAS

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SOURCES:

https://agri.gujarat.gov.in/Home/gldb/RashtriyaGokulMission

QUESTION.51) - D

X Statement I: "Panchayats at the intermediate level are mandatory for all states."

Incorrect X

- As per Article 243B, states with a population not exceeding 20 lakhs are exempted from constituting Panchayats at the intermediate level (block level).
- Example: Smaller states like Goa, Sikkim, Manipur, etc., may choose to have only village and district level Panchayats.

X Statement II: "Minimum age to contest Panchayat election is 25 years."

Incorrect X

Article 243F(1)(a) clearly states:

A person shall not be disqualified for being chosen as a member of a Panchayat if he has attained the age of 21 years.

• So, 21 years is the minimum age to contest Panchayat elections (village, intermediate, or district levels).

X Statement III: "The Chief Minister constitutes the State Finance Commission to review Panchayat finances."

Incorrect X

 As per Article 243I, it is the Governor of the State who constitutes the State Finance Commission every five years.

Revision Table: Panchayati Raj (73rd Amendment, 1992)

Feature	Details
Constitutional Status	Provided by 73rd Amendment Act, 1992
Part & Schedule	Added Part IX and 11th Schedule (contains 29 functional items)
Three-tier System	Village → Intermediate (Block) → District
Intermediate Level Optional	Only if population > 20 lakh
Minimum Age to Contest	21 years for all levels
Tenure	5 years (from the first meeting)
Disqualification Grounds	As per State Legislature and minimum age (21 years)
Finance Commission (State)	Constituted by Governor every 5 years to review Panchayat finances
Reservation	For SCs, STs, and women (1/3rd of seats)

SOURCE:

https://ncert.nic.in/textbook/pdf/keps208.pdf

QUESTION.52) – D

♥ Statement I: "BIMSTEC comprises 7 member states: Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka, and Thailand."

- As of January 2025, BIMSTEC has 7 members, all located around or connected to the Bay of Bengal region.
- These include 5 from South Asia (Bangladesh, Bhutan, India, Nepal, Sri Lanka) and 2 from Southeast Asia (Myanmar, Thailand).

X Statement II: "BIMSTEC came into existence with the adoption of the Bangkok Declaration, 1997."

- BIMSTEC traces its origin to BIST-EC, formed on June 6, 1997, through the Bangkok Declaration.
- The original founding members were:
 - Bangladesh, India, Sri Lanka, and Thailand (thus BIST-EC).

X Statement III: "All current member states were part of BIMSTEC since 1997."

 1997: Formed as BIST-EC by Bangladesh, India, Sri Lanka, and Thailand

- Later in 1997: Myanmar joined → renamed BIMST-EC
- o 2004: Nepal and Bhutan joined → renamed BIMSTEC

X Statement IV: "In BIMSTEC, the sub-sector of 'tourism' is led by Nepal."

- The lead country for the Tourism sector in BIMSTEC is Nepal, not India.
- **Quick Revision Table: BIMSTEC Overview**

Aspect	Details
Full Form	Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation The way to success
Members (7)	Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka, Thailand
Origin Name	BIST-EC (1997)
Bangkok Declaration	June 6, 1997 – Birth of BIST-EC
Evolution of Name	BIST-EC → BIMST-EC (with Myanmar) → BIMSTEC (with Nepal & Bhutan in 2004)
India's Lead Sectors	Counter-Terrorism and Transnational Crime, Disaster Management, Energy.

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Answer Key (Complete Explanation)

Aspect	Details
Secretariat	Dhaka, Bangladesh (since 2014)

SOURCE: <u>https://bimstec.org/history</u>

QUESTION.53) – C

Gandhi Peace Prize: Key Facts

Instituted: In 1995 to commemorate the 125th birth anniversary of Mahatma Gandhi.

- Purpose: To honor individuals and institutions for their contributions to:
 - Social, economic, and political transformation through non-violence and Gandhian methods.
- Awarded by: The President of India, typically at a ceremony in Rashtrapati Bhavan.

M Gandhi Peace Prize Jury Composition

- The jury has five members, chaired by the Prime Minister of India.
- Permanent Members:
 - 1. Prime Minister (Chairperson)

- 2. Chief Justice of India
- 3. Leader of Opposition in Lok Sabha (or Leader of the largest Opposition Party, if no LoP is officially recognized)
- Nominated Members:
 - Two eminent persons are nominated by the Prime
 Minister for a term of three years.

Recent Recipients

Year	Recipient	Contribution
2021	Gita Press, Gorakhpur	through literature
2020	Sulkha International	Work in sanitation and community development
2019	Oman's late Sultan Qaboos bin Said Al Said	For strengthening India-Oman ties
2018	Yohei Sasakawa (Japan)	Work against leprosy

• Note: Sometimes the award is given retrospectively or with a gap, not necessarily every year.

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Answer Key (Complete Explanation)

SOURCES:

https://indianexpress.com/article/india/venkaiah-naidunominated-member-gandhi-peace-prize-jury-8993856/

QUESTION.54) – D

Statement-wise Analysis

Statement	Content	Correctness	Reason
I	Designed to provide additional accuracy and integrity	⊘ Correct	GAGAN corrects GPS signal errors and enhances reliability using SBAS infrastructure
II	Enables X a more The way uniform and high-quality air traffic management	to success ♦ Correct	Improves route efficiency, safety, and airspace capacity via precision navigation
III	Provides benefits only in aviation, not in other modes	X Incorrect	GAGAN supports multiple sectors: maritime, road, rail, agriculture, mapping, telecom, defense

Correct Answer: Statements I and II are correct

Quick Revision Table: GAGAN Overview

Feature	Description
Туре	Satellite-Based Augmentation System (SBAS)
Developed by	ISRO + Airports Authority of India (AAI)
Satellites Used	GSAT-8, GSAT-10, GSAT-15
Ground Infrastructure	INCOIS (monitoring), MCC (Bengaluru – processing)
Primary Sector	Civil Aviation (en route to precision approach)
Other Beneficiaries	Maritime, Railways, Roads, Agriculture, Survey, Telecom, Defense, Public users
Interoperability	Compatible with WAAS (US), EGNOS (EU), MSAS (Japan)
Key Benefits	Accuracy < 7m, integrity, continuity, and availability of signal

SOURCES: https://www.ursc.gov.in/navigation/gagan.jsp

QUESTION.55) – A

Statement-wise Analysis

Statement	Content	Correctness	Explanation
I	Al Action Summit in Paris (3rd), co- chaired by India and France	⊘ Correct	Follows the Bletchley Park (UK, 2023) and Seoul (South Korea, 2024) Summits
II	"Inclusive and Sustainable AI" Joint Statement signed by 58 countries including US and UK	TAS Incorrect to success	US and UK did not sign; they expressed concerns about overregulation

Quick Revision Table: Global AI Summits

Summit	Host Country	Year	Key Highlights
1st: Bletchley Park	UK	2023	Bletchley Declaration – 28 countries supported safe, ethical, human-centric Al

Summit	Host Country	Year	Key Highlights
2nd: Seoul Summit	South Korea	2024	27 countries reaffirmed cooperation, proposed network of AI Safety Institutes
3rd: Paris (Al Action Summit)	France (co- chaired with India)	2025	Focused on inclusivity, governance, and sustainability of Al

Key Fact Check – Statement II

- The Joint Statement on "Inclusive and Sustainable AI for People and the Planet" was signed by 58 countries, including:
 - 。 India, China, EU members
 - NOT signed by: United States and United Kingdom
 - Reason: Concerns over excessive regulation and potential innovation stifling.

SOURCES: https://www.thehindu.com/sci-tech/technology/india-57-others-sign-paris-joint-statement-on-inclusive-sustainable-ai/article69207937.ece

QUESTION.56) -D

Pair	Year	Theme	Status
I	2026	International Year of the Woman Farmer	⊘ Correct
II	2027	International Year of Sustainable and Resilient Tourism	⊘ Correct
III	2025	International Year of Peace and Trust	⊘ Correct
IV	2029	International Year of Asteroid Awareness and Planetary Defence	⊘ Correct

Examias

SOURCES:

- https://unric.org/en/2025-year-of-glaciers-peace-quantum-science-cooperatives/
- https://asteroidday.org/resources/event-resources/theinternational-year-of-asteroid-awareness-and-planetarydefence/
- https://www.fao.org/mountainpartnership/news/newsroom/news-detail/UN-General-Assembly-declares-2027-the-International-Year-of-Sustainable-and-Resilient-Tourism/en
- https://www.fao.org/familyfarming/detail/en/c/1682465/#:~:text=The%20UN%20Genera l%20Assembly%20has,and%20supported%20by%20the%20FA O.

QUESTION.57) - A

- The 16th BRICS Summit took place in Kazan, Russia, from October 22 to 24, 2024, under Russia's chairmanship.
- On January 6, 2025, Brazil, holding the BRICS presidency for 2025, announced Indonesia's official entry into the BRICS bloc as a full member.
 - Indonesia's membership was approved at the Johannesburg Summit in August 2023 and formalized after the formation of its new government in 2024.
 - The official theme of the 16th BRICS Summit was indeed "Strengthening Multilateralism for Just Global Development and Security."
 - The word "Multilateralism" (not Multiculturalism) is key and officially documented in the Kazan Declaration 2024.
- **Statement I:** "The 16th BRICS Summit was held under the Chairmanship of Russia in Kazan."
- **∜** Statement II: "Indonesia has become a full member of BRICS."
- X Statement III: "The theme of the 16th BRICS Summit was Strengthening Multiculturalism for Just Global Development and Security."

SOURCES:

- https://www.mea.gov.in/pressreleases.htm?dtl/38455/Prime_Minister_participates_in_t
 he_16th_BRICS_Summit
- https://infobrics.org/post/43160/
- https://infobrics.org/post/43160/

QUESTION.58) – A

X Statement I:"The power of Lokpal applies to public servants of India, but not to the Indian public servants posted outside India."

 As per Lokpal and Lokayuktas Act, 2013, the jurisdiction of Lokpal extends to public servants within and outside India.

Hence, public servants posted outside India are also under Lokpal's purview.

X Statement II: "The Chairperson or a Member shall not be a Member of the Parliament or a Member of the legislature of any State or Union Territory and only the Chief Justice of India, whether incumbent or retired, has to be its Chairperson."

It is correct that the Chairperson or a Member shall not be an MP/MLA.

- However, it is not mandatory that the Chairperson must be a Chief Justice of India (retired or incumbent).
- Eligible persons for Chairperson:
 - A former Chief Justice of India, or
 - A former Judge of the Supreme Court, or
 - An eminent person with expertise of at least 25 years in public affairs.

Statement III: "The Chairperson or a Member shall not be a person of less than forty-five years of age on the date of assuming office..."

This is explicitly mentioned in the Lokpal and Lokayuktas Act.

• The age requirement is minimum 45 years.

X Statement IV: "Lokpal cannot inquire into the allegations of corruption against a sitting Prime Minister of India."

- **Lokpal can inquire into corruption allegations against the Prime Minister.
- However, restrictions apply in cases related to:
 - International relations
 - Internal & external security
 - Public order
 - Atomic energy
 - Space ExamiA
- Also, approval of the full bench with 2/3rd majority is needed.

SOURCES: https://dopt.gov.in/sites/default/files/407_06_2013-AVD-IV-09012014_0.pdf

QUESTION.59) - A

Q Explanation:

Statement I is correct:

The first Kho-Kho World Cup was indeed held at the Indira Gandhi Indoor Stadium, New Delhi, India.

X Statement II is incorrect:

The Indian men's team defeated Nepal 54–36, not 78–40.

X Statement III is incorrect:

The Indian women's team defeated Nepal 78-40, not 54-36.

Revised Match Info :=

Category	Winner	Runner-up	Final Score
Men	India	Th Nepal to s	54 - 36
Women	India	Nepal	78–40

SOURCES:

https://www.olympics.com/en/news/kho-kho-world-cup-2025-final-india-vs-nepal-men-women-match-report

QUESTION.60) – B

Q Statement Analysis:

X Statement I: "In the finals of the 45th Chess Olympiad held in 2024, Gukesh Dommaraju became the world's youngest winner after defeating the Russian player Ian Nepomniachtchi."

- Gukesh D. became the youngest-ever World Chess
 Champion by defeating Ding Liren of China in the World
 Chess Championship 2024 held in Singapore.
- The Chess Olympiad and World Chess Championship are different tournaments.

✓ Statement II: "Abhimanyu Mishra, an American chess player, holds the record of becoming world's youngest ever Grandmaster."

 Abhimanyu Mishra earned the GM title in June 2021 at the age of 12 years, 4 months, 25 days, breaking Sergey Karjakin's record.

SOURCES:

https://www.hindustantimes.com/sports/others/world-chess-championship-d-gukesh-scripts-historic-win-vs-chinas-ding-liren-becomes-youngest-ever-champ-101734010307665.html

https://www.chess.com/news/view/erdogmus-becomes-worlds-youngest-grandmaster-at-12#:~:text=Twelve-year-old%20Turkish%20chess%20sensation%20IM%20Yagiz%20Kaan%20Erdogmus,and%20his%20title%20is%20pending%20approval%20from%20FIDE

QUESTION.61) - A

Explanation:

✓Statement I: Some rare earth elements are used in the manufacture of flat television screens and computer monitors.

 Rare earth elements (REEs) such as europium, terbium, and yttrium are essential components in display technologies.

✓ Statement II: Some rare earth elements have phosphorescent properties.

• Elements like europium (red phosphor) and terbium (green phosphor) are known for their phosphorescent/luminescent properties, which make them ideal for use in colour displays.

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Why II explains I:

- The phosphorescent properties (Statement II) of rare earth elements are the reason they are used in display technologies like TVs and monitors (Statement I).
- Thus, Statement II provides the scientific explanation for the use mentioned in Statement I.

SOURCES: https://ncert.nic.in/textbook/pdf/legy205.pdf

QUESTION.62) – A

Q Statement Analysis

X Statement I: "Indian Railways have prepared a National Rail Plan (NRP) to create a future-ready railway system by 2028."

• The National Rail Plan (NRP) aims to create a futureready railway system by 2030, not 2028.

XStatement II: "'Kavach' is an Automatic Train Protection (ATP) system developed in collaboration with Germany."

 Kavach is an indigenously developed system by RDSO (India) in collaboration with Indian vendors, not Germany

♦ Statement III: "'Kavach' system consists of RFID tags fitted on tracks in station sections."

 Kavach involves the installation of RFID tags on tracks, especially in station and block sections, to support automatic train protection.

Key Features of Kavach:

- ✓ Indigenously Developed by the Research Designs and Standards Organisation (RDSO) in collaboration with Indian vendors — without any foreign assistance.
- \checkmark Kavach has achieved Safety Integrity Level 4 (SIL-4) the highest level of safety certification in railway signalling. This signifies a failure rate of only one in 10,000 years, highlighting extreme reliability.

SOURCES:

https://www.pib.gov.in/PressReleasePage.aspx?PRID=208271

QUESTION.63) – C

★ Microgravity Research and Indian & International Space Missions

- Microgravity refers to a condition where gravity is greatly reduced, such as in orbit.
- Enables scientists to study fundamental physical, chemical, and biological processes in the absence of Earth's gravity.

International Initiative: Axiom Mission 4 (Ax-4)

- Operated by: Axiom Space (USA)
- Vehicle Used: SpaceX Crew Dragon
- Mission Type: Private human spaceflight to International Space Station (ISS)
- Purpose:
 - Conduct microgravity experiments, including:
 - Growth of salad seeds in space
 - Studying effects on edible microalgae

SpaDeX (Space Docking Experiment) – ISRO

 Primary Goal: Demonstrate in-space docking between two small satellites.

- Launch Vehicle: PSLV
- Significance for Microgravity:
 - Though the core focus is docking technology, SpaDeX includes low-cost microgravity experiments.
 - Encourages development of in-space tech platforms for future research.

2. Gaganyaan Mission

- India's first human spaceflight mission (under development by ISRO).
- Mission Profile:
 - 3 astronauts
 - 3-day mission
 - ~400 km Low Earth Orbit (LEO)
- Microgravity Focus:
 - Designed to support Indian scientific experiments in microgravity.
 - Potential collaborations with international missions like Ax-4.
 - Helps India build foundational capability for long-term space research.

Applications of Microgravity Research

- Space pharmaceuticals
- Biological studies (e.g., muscle and bone loss)
- Material science
- Space agriculture

SOURCES: https://www.nasa.gov/

https://www.isro.gov.in/mission_SpaDeX.html

QUESTION.64) – B

Pair 1: Dornier-228 – Maritime patrol aircraft

✓ Correctly matched.

 Used by Indian Navy & Coast Guard for maritime surveillance, reconnaissance, search and rescue, etc.

Pair 2: IL-76 − Supersonic combat aircraft **X** Incorrectly matched.

- IL-76 is a strategic airlifter (transport aircraft), not a combat or supersonic aircraft.
- Designed for cargo & troop movement, not for air combat.

Pair 3: C-17 Globemaster III – Military transport aircraft **∜** Correctly matched.

Used by the Indian Air Force for strategic airlift operations –
 carries troops, tanks, humanitarian aid.

△ Key Concept Table:

Aircraft	Туре	Speed Classification	Role
Dornier-228	Maritime Patrol Aircraft	Subsonic	Surveillance, rescue, coastal security
IL-76	Transport Aircraft	Subsonic	Strategic lift, cargo & troop movement

Aircraft	Туре	Speed Classification	Role
C-17 Globemaster III	Strategic Transport	Subsonic	Heavy lift, intercontinental airlift, troop deployment

SOURCES: https://idrw.org/iafs-il-76-aircraft-lands-in-manila-amid-speculation-of-brahmos-missile-delivery-to-the-philippines/#google_vignette

QUESTION.65) - A

Artificial Rain and Cloud Seeding: Key Points

- Artificial rain is the process of inducing precipitation by cloud seeding, a weather modification technique.
- Cloud seeding works by dispersing chemicals such as silver iodide, potassium iodide, and dry ice into clouds, usually via aircraft or helicopters.
- These chemicals serve as condensation nuclei, encouraging water vapor to form larger droplets that fall as rain.
- The technique is used primarily to:
 - Enhance rainfall
 - Combat drought
 - Reduce air pollution by washing particulate matter from the atmosphere.

 The success of cloud seeding depends heavily on sufficient moisture in the atmosphere and appropriate weather conditions.

SOURCES: https://www.business-standard.com/india-news/combating-air-pollution-with-artificial-rain-cloud-seeding-explained-123111000854 1.html

QUESTION.66) - A

Article 72: Pardoning Power of the President

- Grants the President power to grant pardons, reprieves, respites, remissions, or to suspend, remit, or commute sentences in:
 - 1. Offences under Union laws
 - 2. Court Martial cases
 - 3. Death sentences

Initially, it was debated if the President's pardoning power was immune from judicial scrutiny.

- Supreme Court rulings clarified:
 - Maru Ram v. Union of India (1980): Power exercised on aid and advice of Central Government; not a personal power.
 - Kehar Singh v. Union of India (1988): Judicial review possible if the decision is arbitrary, malafide, or based on irrelevant considerations.

- Epuru Sudhakar v. Govt. of Andhra Pradesh (2006):
 Presidential orders subject to judicial review for lack of application of mind, arbitrariness, malafide, or extraneous grounds.
- Judicial review focuses on process and grounds, not on merits or humanitarian aspects.

President's Power to Act Independently

- Article 74(1) states the President acts on aid and advice of the Council of Ministers (Prime Minister and Cabinet).
- statement I is correct
- Statement II is incorrect

The pardoning power under Article 72 is included in these functions.

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Power	Meaning	Example
Pardon	Complete forgiveness; removes all penalties, punishments, and disqualifications.	A death sentence is fully annulled, and the offender is freed.
Commutation	Substitutes a harsher punishment with a lighter one.	Death penalty changed to life imprisonment.
Remission	sentence without altering its	5 years rigorous imprisonment reduced to 3 years.

Answer Key (Complete Explanation)

Power	Meaning	Example
Respite	Gives a lesser sentence due to special circumstances.	Reduced sentence because the offender is pregnant.
Reprieve	sentence (usually death) to	Execution delayed pending mercy petition consideration.

SOURCES: https://ncert.nic.in/textbook/pdf/keps204.pdf

QUESTION.67) – D

Statement I: Speaker continues after dissolution

Constitutional Basis: Article 94

"The Speaker shall not vacate his office until immediately before the first meeting of the House of the People after the dissolution."

This ensures continuity in the presiding officer's role until a new Speaker is elected.

X Statement II: Speaker must resign from party

- No such mandate in the Constitution.
- Although neutrality is expected, especially in conduct, resignation from the political party is not constitutionally required.
- Anti-defection law (Tenth Schedule) provides exemption to the Speaker in certain cases.

Statement III: Removal procedure for Speaker

Constitutional Basis: Article 94(c)

- Removal by a resolution passed by a majority of all the then members (i.e. effective majority).
- Requires 14 days' notice before the resolution is moved.

Pinal Answer:

- Correct Statements:

 Statement I and

 Statement III
- Incorrect Statement:

 X Statement II

Speaker of Lok Sabha – Quick Facts AS

Feature	Detail y to success
Elected by	Lok Sabha from among its members
Tenure	Usually coterminous with Lok Sabha, continues after dissolution till new Speaker is elected
Removal	By a resolution with effective majority + 14 days' prior notice
Party Resignation	X Not constitutionally required
Neutrality	Expected, but not enforced by law
Money Bill certification	Done by the Speaker

Feature	Detail
•	Speaker decides on disqualification of members

SOURCES:

https://www.constitutionofindia.net/articles/article-94vacation-and-resignation-of-and-removal-from-the-offices-ofspeaker-and-deputy-speaker/

https://ncert.nic.in/textbook/pdf/iess404.pdf

QUESTION.68) - D ExamIAS

Statement I: "If a question arises about whether an MP has become subject to disqualification under the 10th Schedule, the President's decision, in accordance with the opinion of the Council of Ministers, shall be final."

As per the Constitution: Article 102(2):

"If any question arises as to whether a member of either House of Parliament has become subject to disqualification under the Tenth Schedule, the question shall be referred for the decision of the Chairman (Rajya Sabha) or the Speaker (Lok Sabha) and his decision shall be final."

- President has no role in decisions under the 10th Schedule.
- **♥** The Speaker/Chairman is the authority

♥ Statement II: "There is no mention of the word 'political party' in the Constitution of India."

- The term 'political party' is mentioned multiple times in the 10th Schedule, which is part of the Constitution since the 52nd Amendment (1985).
 - Examples:
 - Para 2(1)(a): "voluntarily gives up membership of such political party..."
 - Para 3 & 4: "split in political party", "merger of political parties"

2 So, the word 'political party' is definitely part of the Constitution.

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Statement	Claim	Actual Position	Correctness
I	President decides 10th Schedule disqualification	Speaker/Chairman decides (Art. 102(2))	X Incorrect
II	No mention of 'political party' in Constitution	Mentioned in 10th Schedule	X Incorrect

SOURCES:

https://prsindia.org/

https://www.mea.gov.in/Images/pdf1/S10.pdf

QUESTION.69) – D

♥ Statement I: "State Governments have no power to make rules for granting concessions related to the extraction of minor minerals EVEN though such minerals are located in their territories"

- Section 15 of the MMDR Act, 1957 explicitly grants State
 Governments the authority to:
 - Make rules for regulating the grant of quarry leases, mining leases, and other mineral concessions for minor minerals.
 - Set rules on rents, royalties, fees, and conditions of concessions.
- Therefore, Statement I is factually incorrect.

♥ Statement II:"The Central Government has the power to notify which minerals are classified as 'minor minerals'."

- Section 3(e) of the MMDR Act:
 - Defines "minor mineral" to include specific materials like sand, clay, etc.
 - Grants the Central Government the power to declare any other mineral as a minor mineral by notification in the Official Gazette.

☑ Thus, Statement II is correct.

Quick Revision Table

Aspect	Major Minerals	Minor Minerals
Regulation by	Central Government	State Government (under Central Act)
Definition Authority	Fixed in MMDR Act (residual)	Central Government via notification (Section 3(e))
Leases/Concessions Rules by	Central Govt.	State Govt. (Section 15)
Revenue (Royalty, etc.)	Accrues to State, rates by Centre	Accrues to State, rates fixed by State

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SOURCES:

https://mines.gov.in/

https://ibm.gov.in/writereaddata/files/10252016173841Mineral% 20digest%20PartI.pdf

QUESTION.70) - A

⊘ Nature Restoration Law (NRL) – EU Initiative

Enacted by: European Union (EU)

Adopted on: June 17, 2024 by the EU Environment Council

***** Key Features:

- Part of: EU Biodiversity Strategy for 2030 (under the European Green Deal)
- Nature of Law: First continent-wide, legally binding restoration regulation in the world.
- Aim to restore degraded ecosystems across Europe.
- Primary Objectives: xam AS
 - Reverse biodiversity loss uccess
 - Restore at least 20% of the EU's land and sea areas by 2030.
 - Achieve full restoration of all ecosystems in need by 2050.

Focus Areas:

- Ecosystems with high carbon sequestration potential.
- Ecosystems that can mitigate natural disasters (e.g., wetlands, forests, rivers).
- Pollinator populations and urban green spaces.

SOURCES: https://iucn.org/news/202406/eu-adopts-its-new-

nature-restoration-law

QUESTION.71) - D

Types of Budget Deficits

Deficit Type	Formula	Interpretation	
Revenue Deficit	Revenue Expenditure – Revenue Receipts	Indicates government is unable to meet its routine expenses with current income.	
Fiscal Deficit	Total Expenditure – (Revenue Receipts + Capital Receipts excluding Borrowings)	Shows total borrowing needs of the government.	
	Or simply: Fiscal Deficit = Borrowings + Other y to su Liabilities	ccess	
Primary Deficit		Reflects borrowing excluding interest burden from past debt.	

- Revenue Deficit=Revenue Expenditure-Revenue Receipts
 =80,000 crores-60,000 crores=20,000 crores
- Fiscal Deficit=Borrowings=10,000 crores
- Primary Deficit=Fiscal Deficit-Interest Payments
 =10,000 crores=6,000 crores=4,000 crores

SOURCES: https://ncert.nic.in/textbook/pdf/leec1dd.zip

QUESTION.72) - A

International North-South Transport Corridor (INSTC)

• Length: ~7,200 km

Mode: Multimodal – Sea + Rail + Road

• Purpose: Enhance connectivity between India, Iran, Central Asia, Russia, and Europe.

Str. Route

1. Starts: Mumbai (India)

2. Sea Route: To Bandar Abbas or Chabahar Port (Iran)

3. Land Route: Through Iran via rail and road

4. Caspian Sea: Transport across the sea

5. Russia & Europe: Through rail/road networks to Russia, Eastern & Northern Europe to Success

The Example 2 Key Regions Connected

- India
- Iran
- Central Asia: Kazakhstan, Turkmenistan, Azerbaijan, Uzbekistan
- Russia
- Europe

SOURCES:

https://www.pib.gov.in/Pressreleaseshare.aspx?PRID=1892221

QUESTION.73) - D

**** Global Ethanol Production: Key Facts**

V Leading Producers

- United States: World's largest ethanol producer
 - Produced 15+ billion gallons in both 2021 & 2022
 - Feedstock: Corn (primary raw material)
- Brazil: Second-largest producer
 - Feedstock: Sugarcane
 - Ethanol is a major component of its biofuel policy (Flexfuel vehicles

O Uses of Ethanol

ExamIAS

- Blended with petrol (gasoline) to reduce fossil fuel use (e.g., E10, E20)
- Cleaner-burning fuel: Reduces CO₂ and particulate emissions
- Used in industrial, chemical, and pharmaceutical sectors

S India's Ethanol Strategy (Contextual Relevance)

- Ethanol Blending Programme (EBP) aims for:
 - 20% blending by 2025-26 (E20 target)
- Part of India's push toward energy security and reduction of oil imports

SOURCES:

https://indianexpress.com/article/world/india-brazil-wto-sugar-related-dispute-9008032/

QUESTION.74) - B

Wet-Bulb Temperature (WBT)

- A measure that combines air temperature and humidity.
- Represents the lowest temperature to which air can be cooled via evaporation.
- Critical for evaporative cooling (like sweating in humans).

♦ Why is 35°C WBT Dangerous?

- At ≥35°C WBT, sweat cannot evaporate effectively, even with water and shade.
- Human and animal survival is at risk due to inability to regulate body temperature.
- · Can lead to heat stress, heatstroke, and death.

Q Statement Analysis

Statement	Description	Relevance to 35°C WBT Threat	Correctness
	"Peninsular India will suffer from flooding, cyclones, droughts."	Describes broader climate impacts, not specific to WBT or its physiological effects.	X Incorrect
II	be affected due to	Directly addresses the physiological implication of WBT ≥35°C.	∜ Correct

Correct Answer: The way to success

Statement II is correct. It best reflects the immediate implication of the World Bank's warning regarding wet-bulb temperatures exceeding 35°C.

Quick Revision Table: Wet-Bulb Temperature & Survival

Aspect	Explanation
WBT Definition	Lowest temperature via evaporative cooling (temp + humidity combined)
≥35°C WBT	Evaporation of sweat stops → body can't cool itself

Aspect	Explanation
Health Impact	Heat stress → Heatstroke → Death
Most Vulnerable	Outdoor workers, elderly, children, urban poor
Global Context	South Asia (India, Pakistan), Persian Gulf, and parts of SE Asia face highest risk of WBT > 35°C

SOURCES:

https://health.economictimes.indiatimes.com/news/industry/record-heat-waves-push-india-closer-to-limit-of-human-survival/99038100

QUESTION.75) - A ExamIAS

- Primary Deficit Interest Payments
 - **Fiscal Deficit = Rs 50,000 crores**
 - o Interest Payments = Rs 1,500 crores.
 - Primary Deficit= Rs 50,000 crores- Rs 1,500 crores= Rs 48,500 crores.

SOURCES: https://ncert.nic.in/textbook/pdf/leec1dd.zip

QUESTION.76) - C

Q Statement-wise Analysis:

Statement	Analysis	Correct / Incorrect
I. ₹4,800 crore grant to incentivize States for education (2022–2026)		√ Correct
II. 45% of net Union taxes to be devolved to States	X Incorrect — XVFC recommended 41%, same as 14th FC (reduced from 42% to adjust for UTs of J&K and Ladakh).	X Incorrect
III. ₹45,000 crore performance- based incentive for agricultural reforms	★ This was proposed to incentivize States that implement key agri reforms.	√ Correct
IV. Reintroduction of 'tax effort' criterion	✓ Assigned 2.5% weight in horizontal devolution to reward States with better tax-GSDP ratios. ✓ Assigned 2.5% weight in horizontal devolution to the second states with better tax-	√ Correct

Quick Revision: 15th Finance Commission Highlights

Area	Recommendation
Devolution	41% of net Union taxes to States
Education Incentives	₹4,800 crore (2022–26) for outcomes
Agricultural Reforms	₹45,000 crore as performance incentive
Tax Effort Criterion	2.5% weight added in horizontal devolution
Vertical Devolution	Same as 14th FC (reduced from initial 42%)

SOURCES:

https://www.pib.gov.in/PressReleasePage.aspx?PRID=1693868

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QUESTION.77) – C

② Statement-wise Analysis:

Statement	Explanation	Correct / Incorrect
I. Loans to middle- income countries	✓ Yes, IBRD is the main lending arm of the World Bank Group and offers financial and technical assistance mainly to middle-income and creditworthy lowincome countries.	
II. Works single- handedly	★ Incorrect. IBRD is part of a broader World Bank Group (WBG), which	X Incorrect

Answer Key (Complete Explanation)

Statement	Explanation	Correct / Incorrect
	includes IDA, IFC, MIGA, ICSID. Poverty reduction is a collective effort, not IBRD's job alone.	
III. Post-WWII Europe	✓ The IBRD was founded in 1944 (Bretton Woods Conference) with the original mission of rebuilding Europe after WWII. Later, its mission evolved to focus on global development.	√ Correct

© Correct Answer: (c) I and III only

SOURCES: https://www.worldbank.org/en/who-we-are/ibrd

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QUESTION.78) – A

② Statement-wise Analysis:

Statement	Explanation	Correct / Incorrect
I. Instantaneous vs Delayed		√ Correct
II. Charges on Inward Transactions	X As per RBI guidelines, no charges are levied on inward transactions	X Incorrect

Statement	Explanation	Correct / Incorrect
	(i.e., when you receive money) in both RTGS and NEFT.	
III. Restricted Operating Hours	X Both RTGS and NEFT are now 24x7, 365 days a year (RTGS since Dec 2020, NEFT since Dec 2019).	X Incorrect

⊘ Correct Answer: (a) I only

Quick Revision Table:

■ RTGS vs NEFT — Key Differences

Feature	RTGS (Real-Time Gross Settlement) The way to suc	NEFT (National Electronic Funds Transfer) Tess
Purpose	High-value, urgent transfers	General retail payments
Settlement Type	Real-time & individual (gross)	Batch processing (deferred net settlement)
Speed	Near-instantaneous (real-time settlement)	Can take up to a few hours, depending on batch timing
Minimum Limit	₹2,00,000	No minimum
Charges (Inward)	Zero (as per RBI guidelines)	Zero (as per RBI guidelines)

Answer Key (Complete Explanation)

Feature	•	NEFT (National Electronic Funds Transfer)
Availability	24x7, 365 days (since Dec 2020)	24x7, 365 days (since Dec 2019)

SOURCES:

https://www.rbi.org.in/commonman/English/Scripts/Notification.aspx?Id=1667

https://www.pib.gov.in/PressReleasePage.aspx?PRID=1576777

https://indianexpress.com/article/business/round-the-clock-rtgs-facility-from-mid-night-tonight-7103390/

EXAMINAS

QUESTION.79) – B

Key Highlights

IN India = Global Leader in Digital Payments
 In 2023, 49% of the world's real-time payment transactions were made in India.

(Source: ACI Worldwide Report 2024)

- → UPI + RuPay = India's Fintech Diplomacy Tools
 Empowering Indians abroad with real-time, low-cost, crossborder payments.
- **©** Country-wise UPI Status (May 2025)
- TUPI Live in 7+ Countries (as of 2025)

Answer Key (Complete Explanation)

S Country	✓ UPI Statu	Is
AE UAE	⊘ Live	Via NeoPay, Mashreq Bank
sg Singapore	⊘ Live	Linked with PayNow, 30K+ merchants
вт Bhutan	∜ Live	First country to adopt UPI
NP Nepal	⊘ Live	Collaboration with NIPL
LK Sri Lanka	⊘ Live	Supports merchant payments
FR France	⊘ Live	UPI at Eiffel Tower since Feb 2024
ми Mauritius	∜ Live	Recent inclusion

UPSC Quick Facts

- UPI = Developed by NPCI (National Payments Corporation of India)

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- SOURCES: https://pib.gov.in/PressReleseDetailm.aspx?PRID=2057013

QUESTION.80) – D

W Key Statements Analysis

Statement	Q Content	* Assessment
	Targets 1 crore rooftop solar panels in residential sector	∜ Correct

Answer Key (Complete Explanation)

Statement	Q Content	* Assessment
II	MNRE to provide training (installation, operation, maintenance, repair)	⊘ Correct
III	Aims to create >3 lakh skilled manpower via capacity building	⊘ Correct

* PM Surya Ghar: Muft Bijli Yojana (PMSGMBY) – India's Rooftop Solar Revolution

Elaunched: February 13, 2024

Rey Highlights (as of Jan 27, 2025)

? Feature	Q Details The way to success
☆ Goal	Rooftop Solar for 1 crore households by March 2027
✓ Current Beneficiaries	8.46 lakh households installed rooftop solar
Monthly Installations	1 70,000/month (10x increase from pre-scheme levels)
Subsidy Support	Up to 40% of total cost
② Avg. Subsidy	₹77,800 per household
Total CFA Disbursed	₹4,308.66 crore to 5.54 lakh consumers
ኞ Zero Bills	~45% of users getting ₹0 electricity bill

Q Scheme Significance

- World's largest domestic rooftop solar initiative
- 2 Affordable Energy: Financial relief + Energy savings
- Sustainable Future: Boosts green energy & reduces carbon footprint

Mnemonic for Recall – "S.U.R.Y.A 2025"

S: Subsidy (40%)

U: Uplift 1 Cr homes

R: Rooftop Revolution

Y: Zero Bill homes (4<mark>5%)</mark>

A: Anniversary in 2025 The way to success

SOURCES:

https://static.pib.gov.in/WriteReadData/specificdocs/documents/2 025/feb/doc2025212499601.pdf

https://indianexpress.com/article/india/pm-modi-announcedsurya-ghar-muft-bijli-yojana-to-boost-solar-power-9159708/

QUESTION.81) - C

M Ordinance-Making Power in India

Articles:

ልቴ President: Article 123 (Union)

☆ Governor: Article 213 (State)

★ Statement Analysis

Statement	⊘ Validity	Q Reason
I: Ordinance can amend a Central Act	100	Has same force as a law made by Parliament
II: Ordinance can abridge a Fundamental Right	X Incorrect	Violates Article 13(2); subject to judicial review
III: Ordinance can have retrospective effect		Like laws, can apply from a back date unless violating constitutional limits

Remember: "O-R-D-I" Rule for Ordinance

O – Only when legislature not in session

R – Retrospective laws allowed (with limits)

D – Duration: Expires after 6 weeks of reassembly

I – Invalid if it violates Fundamental Rights

Quick Revision Table

€ Feature	☐ Description
Authority	President / Governor
When	Legislature not in session + immediate action needed
Force	Same as Parliamentary/State law
Duration	Max 6 weeks from reassembly unless passed/withdrawn earlier
Limits	Cannot override Fundamental Rights (Art. 13)
Judicial Review	Yes – SC can strike down unlawful ordinances
Retrospective?	✓ Yes, but subject to constitutional safeguards

Q Important SC Verdicts to Remember

• 2 to DC Wadhwa vs. State of Bihar (1987) – Re-promulgation of ordinances is unconstitutional.

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• 244 Krishna Kumar Singh vs. State of Bihar (2017) — Ordinance not laid before legislature = unconstitutional.

SOURCES:

https://ncert.nic.in/textbook/pdf/keps204.pdf

QUESTION.82) – B

♦ Statement I: "Itanagar is named after fort Ita and the State has two national park."

- Itanagar named after the Ita Fort ("Ita" means brick in Assamese), built in the 14th century A.D.
- Ita Fort is located in Papum Pare district. Associated with the Chutia dynasty of medieval Assam.

National Parks in Arunachal Pradesh:

- Namdapha National Park: Located in Changlang district.
- Mouling National Park: Located in Upper Siang district.

X Statement II: "Nagaland was formed by constitutional amendment under Article'2." Way to success

- Nagaland was created through the State of Nagaland Act,
 1962, a Parliamentary law under Article 3, not Article 2.
- Article 2: Deals with *admission* of new territory not part of India (e.g., Sikkim in 1975).
- Article 3: Covers formation of new States, alteration of areas, boundaries, names of existing States.

Nagaland was carved out of Assam, and thus Article 3 was applicable.

Statement III: "Tripura was first a Category C State, then a Union Territory, and then became a full-fledged State."

- Tripura's administrative evolution:
 - 1. Initially a Category 'C' State (post-Independence classification till 1956).
 - 2. Became a Union Territory after the States Reorganisation Act, 1956.
 - 3. Attained statehood in 1972 via the North-Eastern Areas (Reorganisation) Act, 1971.

Key Concepts

Article	Subject
Article 2	Admission or establishment of new States not part of India
Article 3	Formation/reorganisation of States within India
State of Nagaland Act, 1962	Law passed by Parliament to create Nagaland
North-Eastern Areas (Reorganisation) Act, 1971	Created Meghalaya, Manipur, Tripura as full States (effective 1972)

SOURCES:

• https://schooleducation.tripura.gov.in/index.php/state-profile#:~:text=Initially%2C%20a%20part%20%27C%27%20state%2C%20it%20became%20a,between%20the%20river%20valleys%20of%20Myanmar%20and%20Bangladesh

• https://www.india.gov.in/my-government/constitution-india-thirteenth-amendment-act-1962

QUESTION.83) – A

1. Inter-State Council – ✓ Constitutional Body

- Article 263 of the Constitution.
- President can establish it if deemed necessary.
- Established in 1990 by V.P. Singh government.

2. National Security Council (NSC) - X Not Constitutional

- Established in 1999 by executive order (Cabinet Secretariat).
- $_{\circ}\;$ Advises PM on national security and strategic matters.
- Executive body, not mentioned in the Constitution.

3. Zonal Councils – X Statutory Bodies

- Created by States Reorganisation Act, 1956.
- $_{\circ}$ $\,$ Not a part of the Constitution.
- Five zones originally; North-Eastern Council added later via NEC Act, 1971.

SOURCES: https://interstatecouncil.gov.in/

QUESTION.84) - A

Statement I: "The Constitution of India explicitly mentions that in certain spheres the Governor of a State acts in his/her own discretion."

- Article 163(1): Clearly states the Governor may act in his discretion if so required "by or under this Constitution."
- This is a direct constitutional acknowledgment of discretionary powers.
- Examples include:
 - Appointing CM when no clear majority.
 - Reserving bills for the President.
 - Sending a report recommending President's Rule (Art. 356).
 - Calling for floor tests, etc.

Statement II: "The President of India can, of his/her own, reserve a bill passed by a State Legislature for his/her consideration without it being forwarded by the Governor of the State concerned."

- Article 200: Only the Governor can reserve a bill for the President's consideration.
- Article 201: Comes into effect only after the Governor reserves the bill.
- There is no provision for the President to reserve a bill independently.
- Hence, President acts only after Governor forwards the bill.

Correct Answer: Only Statement I is correct.

Revision Table

Role	Article	Key Provision
Governor	Art. 163(1)	Acts in discretion where required by/under Constitution.
Governor	Art. 200	Can assent, withhold, return (non-money bill), or reserve a bill for the President.
President	Art. 201	Can assent, withhold assent, or return the reserved bill (non-money bill).
President	_	Cannot reserve a bill suo motu (on own); depends on Governor's action.

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SOURCES:

- https://www.constitutionofindia.net/articles/article-371a-special-provision-with-respect-to-the-state-of-nagaland/#:~:text=%28b%29%20where%20any%20money%20is%20provided%20by%20the,Tuensang%20district%20and%20the%20rest%20of%20the%20State%3B
- https://indiankanoon.org/doc/181196/

QUESTION.85) – C

? Key Articles & Provisions

Provision	Article	Part	Туре
Separation of Judiciary from Executive	Article 50	Part IV	DPSP
Valuing and preserving composite culture	Article 51A(f)	Part IVA	Fundamental Duty
Prohibition of child employment in hazardous settings	Article 24	Part III	Fundamental Right

© Comparison Table: Fundamental Rights vs DPSP vs Fundamental Duties ExamlAS

Feature	Rights	Principles)	Fundamental Duties
Location in Constitution	Part III (Articles 12–35)	Part IV (Articles 36–51)	Part IVA (Article 51A)
Source/Origin	Inspired by Bill of Rights (USA)	llrish	Inspired by Soviet Constitution
Nature	Justiciable (enforceable by courts)	(not enforceable by	Non-justiciable (but Parliament can make laws to enforce)

Feature	Fundamental Rights	DPSPs (Directive Principles)	Fundamental Duties
Beneficiaries	some for non-		Citizens are the duty- bearers

QUESTION.86) - B

• Statement I X Incorrect:

- The State Government retains executive power in Scheduled Areas.
- The local bodies (Gram Sabhas under PESA) get additional powers, but they do not replace the state government.
- The Governor may restrict or modify laws, but that doesn't eliminate the role of the state.

• Statement II *<</ </ Correct*:

- The Union Government has a limited but significant oversight role. Under Article 339(2), the Union can direct States on matters essential for ST welfare.
- The Governor's report to the President can influence such Union action.

 In extreme cases, constitutional remedies like Article 356 may be invoked if state governance fails, but this is not specific to Scheduled Areas.

Quick Revision Table: Fifth Schedule Provisions

Aspect	Details
Applies to	Scheduled Areas in states except NE states under Sixth Schedule
Declared by	President of India (in consultation with the Governor)
Governor's Special Powers	Modify/withhold any central or state law in Scheduled Areas
Regulations by Governor	For land transfer, money lending, etc., with President's assent
Tribes Advisory Council (TAC)	Mandatory in states with Scheduled Tribes; advises on ST welfare
Union Government Role	Can issue directions to states under Article 339(2)
Governor's Reporting Duty	Must report annually to the President on administration of SAs
PESA Act, 1996	Empowers Gram Sabhas, enhances self-rule, respects tribal customs

Q Fifth vs. Sixth Schedule Comparison

UPSC PRELIMS 2025 (GS Paper - I) Set-A

Answer Key (Complete Explanation)

Feature	Fifth Schedule	Sixth Schedule
Applicable States	states (excluding	NE states: Assam, Meghalaya, Tripura, Mizoram
Autonomy	Limited; state government retains control	High; Autonomous District Councils (ADCs) empowered
Type of Governance		Elected ADCs with legislative/executive/judicial powers
PESA Applicable	Yes	No

SOURCES: https://www.mea.gov.in/images/pdf1/s5.pdf

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QUESTION.87) – D

Pair I: National Automotive Board (NAB) – Ministry of Road Transport and Highways

- The National Automotive Board (NAB) was established in 2012–13 under the Ministry of Heavy Industries.
- It supports implementation of programs like FAME India Scheme, testing and certification infrastructure, EV mobility, etc.

Pair II: Coir Board – Ministry of Agriculture and Farmers' Welfare

- The Coir Board was set up under the Coir Industry Act, 1953.
- It functions under the Ministry of Micro, Small and Medium Enterprises (MSME), promoting the traditional coir industry and rural employment.

Pair III: National Centre for Trade Information (NCTI) – Ministry of Statistics and Programme Implementation

- The National Centre for Trade Information (NCTI) is a joint venture of the India Trade Promotion Organisation (ITPO) and the National Informatics Centre (NIC).
- It functions under the Ministry of Commerce and Industry.

Conclusion: None of the pairs are correctly matched.

SOURCES: https://www.india.gov.in/information-national-centre-trade-information

https://heavyindustries.gov.in/national-automotive-board

QUESTION.88) - A

♦ As per Article 368(2), when a constitutional amendment seeks to make changes to certain federal provisions, it must:

- Be passed by a special majority in both Houses of Parliament, and
- Be ratified by not less than one-half of the state legislatures,
 before it is presented to the President for assent.

Amendments that relate to the following provisions require state ratification:

- 1. Articles 54 and 55 Election of the President
- 2. Article 73 Extent of executive power of the Union
- 3. Article 162 Extent of executive power of the States
- 4. Article 241 High Courts for Union Territories
- 5. Chapter IV of Part V The Union Judiciary
- 6. Chapter V of Part VI The High Courts in the States
- 7. Chapter I of Part XI Distribution of Legislative Powers between Union and States
- 8. Any of the Lists in the Seventh Schedule Union List, State List, Concurrent List
- 9. Representation of States in Parliament
- 10. Article 368 itself The procedure for amendment of the Constitution

SOURCES: https://www.mea.gov.in/Images/pdf1/Part6.pdf

https://indiankanoon.org/doc/1389240/

QUESTION.89) – D

Statement	Description	Constitutional Backing	Verdict
I	The Governor is not answerable to any court for the exercise and performance of the powers and duties of his/her office.	Article 361(1)	⊘ Correct
II	No criminal proceedings shall be instituted or continued against the Governor during his/her term of office.	Article 361(2)	⊘ Correct
III	Members of a State Legislature are not liable to any proceedings in any court in respect of anything said within the House.	Article 194(2)	⊘ Correct

Important Related Concepts

Topic	Key Details
Civil Proceedings against Governor	Permitted with two months' prior notice for acts done in personal capacity (Article 361(4)).
Parliamentary Privileges at Union Level	Similar to Article 194 for states; Article 105(2) protects MPs for anything said or any vote given in Parliament.

Topic	Key Details
Purpose of Immunities	To ensure independent functioning of constitutional offices and the legislature without judicial interference in official acts or deliberations.

QUESTION.90) - B

Q PNGRB (Petroleum and Natural Gas Regulatory Board) – Scope of Regulation

Activity	Regulatory Body	Regulation by PNGRB?
Production of crude oil	Ministry of Petroleum & Natural Gas / DGH	X Not regulated by PNGRB
Refining, storage, and distribution	PNGRB	⊘ Regulated
Marketing and sale of petroleum products	PNGRB ne way to success	∜ Regulated
Production of natural gas	Ministry of Petroleum & Natural Gas / DGH	X Not regulated by PNGRB

UPSC Insight

- PNGRB Act, 2006 provides for the regulation of downstream petroleum and natural gas activities.
- Exploration and production (E&P) activities for crude oil and natural gas fall under upstream sector → not under PNGRB → handled by DGH.

SOURCES:

https://pngrb.gov.in/eng-web/regulation-pppl.html

QUESTION.91) - B

! Key Quote by Gandhi:

"Sedition has become my religion. Ours is a non-violent battle. We are not to kill anybody but it is our dharma to see that the curse of this Government is blotted out."

• This quote openly challenged the legitimacy of British rule, expressing moral resistance while reinforcing non-violence (Ahimsa).

Q Additional Pointers: ExamIAS

Aspect	Details Details
Dandi March Start Date	March 12, 1930 (from Sabarmati Ashram)
Reached Dandi	April 6, 1930
Total Distance	~375 km
Followers	78 volunteers initially, later joined by thousands
Impact	Sparked nationwide civil disobedience, boycotts, and arrests (including Gandhi himself)

SOURCES: https://www.mkgandhi.org/civil dis/speech14.php

QUESTION.92) – C

⚠ Dancing Girl – Key Features

Feature	Description
Civilization	Indus Valley Civilization
Site	Mohenjo-daro, now in Pakistan
Material	Bronze, made via lost-wax casting
Height	Approx. 10.8 cm
Date	~2500 BCE
Significance	Possibly the earliest bronze sculpture in Indian subcontinent
Pose	Right hand on hip, left hand in a dance gesture (suggests rhythmic movement)
Ornaments	Cowry shell necklace, 24+ bangles on left arm, amulet/bracelet on right arm
Hair	Long hair tied in a bun
Artistic Style	Tubular limbs, slender figure – reflects early human form stylization and dynamic posture

SOURCES:

https://ncert.nic.in/textbook/pdf/fees106.pdf%20%0d93

QUESTION.93) – B

☑ Chauri Chaura Incident (1922) – Key Points

Aspect	Description
Date	February 4, 1922
Location	Chauri Chaura, Gorakhpur district, United Provinces (now Uttar Pradesh)
Event	Violent mob clashed with police during a Non-Cooperation Movement protest. In retaliation, protesters set a police station on fire, killing 22 policemen.
Consequence	Mahatma Gandhi was deeply disturbed by the violence and immediately called off the Non-Cooperation Movement, reinforcing his commitment to non-violence (Ahimsa).
Impact	This incident temporarily paused mass civil disobedience, leading to debate within the Congress on the role of non-violence and mass mobilization.

Å Role of Madan Mohan Malaviya (1923) in Chauri Chaura Trials

 He stepped forward to defend 172 accused persons in court, many of whom had been sentenced to death.

Outcome:

- Helped reduce the number of death sentences from 172 to 19.
- Showed commitment to justice, due process, and civil liberties.

SOURCE:

https://upculture.up.nic.in/sites/default/files/documents/chauri-chaura%20gorakhpur.pdf

QUESTION.94) – A

Poona Pact (1932) and Gandhi's Harijan Upliftment Campaign – Key Highlights

Background to the Poona Pact

- Context: British PM Ramsay MacDonald's Communal Award (August 1932) granted separate electorates for Depressed Classes (Scheduled Castes), along with other minorities.
- Gandhi's Response: Opposed the division of Hindu society;
 began a fast unto death in Yerwada Jail.
- Poona Pact Date: September 24, 1932
- Signatories: Dr. B.R. Ambedkar and Madan Mohan Malaviya

Provisions of the Poona Pact

Clause	Description	
Separate Electorates Abandoned	Replaced by reservations within joint electorates	
Reserved Seats	148 seats in provincial legislatures reserved for Depressed Classes	
Educational & Social Support	Emphasis on education, political access, and public services for SCs	

Gandhi's Harijan Campaign (1932–1934)

Initiative	Details
All India Anti-Untouchability League	Founded in September 1932 (renamed Harijan Sevak Sangh)
Weekly Paper 'Harijan'	Launched in January 1933 to promote reform & awareness
All-India Harijan Tour	1933–34: Gandhi traveled 20,000+ km, addressing caste discrimination
Key Focus Areas	- Temple entry

SOURCES:

ExamIAS

https://ncert.nic.in/textbook/pdf/jess302.pdf

https://www.constitutionofindia.net/historicalconstitution/poona-pact-1932-b-r-ambedkar-and-m-k-gandhi/

QUESTION.95) – C

1 Introduction of American Crops in India by the Portuguese

Historical Context

- The Portuguese were the first Europeans to establish a colonial presence in India (Vasco da Gama, 1498).
- With their maritime trade routes linking the Americas, Africa, and Asia, they introduced several New World crops to India.
- Notable American Fruits Introduced by the Portuguese

Crop	Native to	Introduced by	Notes
Pineapple	Brazil / South America	Portuguese (16th c.)	Mentioned in Ain-i-Akbari (1590s); grown in Mughal gardens
Papaya	Mexico/Central America	Portuguese (via Philippines & Malacca)	Known as "Jesuit Melon"; cultivated in Daman, Goa, etc.
Guava	Mexico/Central America	Portuguese	First recorded by John Fryer (1673) near Madras

② Correct Option: (c) − Pineapple, Papaya, and Guava − *All were introduced by the Portuguese.*

SOURCES: https://www.downtoearth.org.in/food/why-guava-is-attractive-for-farmers-consumers-alike-88900

https://nhb.gov.in/report_files/pineapple/PINEAPPLE.htm

https://nios.ac.in/media/documents/SrSec315NEW/315_History_E ng/315_History_Eng_Lesson13.pdf

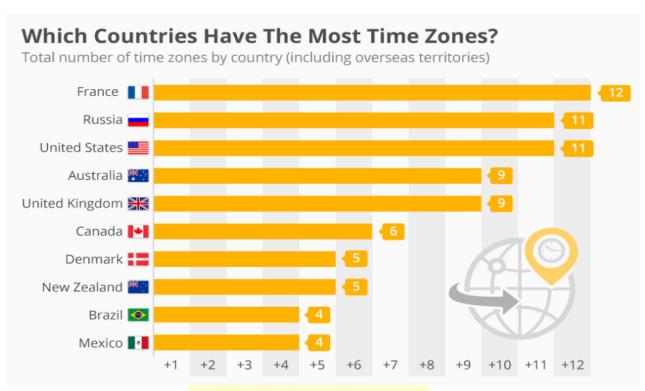
QUESTION.96) – C

Countries with more than 4 time zones:

Country	Time Zones (Approx.)	Reason	
United Kingdom	9	Due to numerous overseas territories (e.g. Pitcairn Islands, Bermuda, BIOT)	
Australia	9	Mainland states + external territories (e.g. Norfolk Island, Christmas Island) + DST variatio	
New Zealand	5	Includes Chatham Islands, Tokelau, Niue, Cook Islands	
Denmark	5	Due to Greenland (multiple zones) + Faroe	

X Country with only 4 time zones: success

Country	Time Zones	Details
Brazil	4	Ranges from UTC-2 to UTC-5, including mainland and nearby islands; some former zones like UTC-4.5 have been abolished



The way to success

SOURCES:

- https://www.worldatlas.com/time-zones/10-countries-with-the-most-time-zones.html
- https://timesofindia.indiatimes.com/travel/destinations/countries-with-highest-number-of-time-zones/photostory/109942778.cms?picid=109942907

QUESTION.97) – A

- **(7)** Understanding the International Date Line (IDL)
 - IDL Location: Roughly follows the 180° longitude, deviating around some territories for political and practical reasons.
 - Effect: Crossing the IDL from east to west, you gain a day (e.g., Sunday → Monday). Crossing west to east, you lose a day (e.g., Monday → Sunday).

Case Study: Anadyr (Russia) vs Nome (USA)

Location	Country		Time Offset	Calendar Day Difference
Anadyr	Russia (Siberia)	West of IDL	UTC +12	Ahead by ~20 hrs
Nome	USA (Alaska)	East of IDL	UTC -9	Behind by ~20 hrs

★ Statement Analysis

- 1. Statement: "Anadyr and Nome are placed on different calendar days despite being close."
 - ✓ Correct Due to the IDL crossing between them, they can be nearly 20 hours apart in time and on different calendar days.
- 2. Statement II: "When it is Monday in Anadyr, it is Tuesday in Nome."
 - ★ Incorrect The opposite is true. Anadyr is ahead, so when
 it is Monday in Anadyr, it is still Sunday in Nome, not Tuesday.

SOURCES:

https://aa.usno.navy.mil/faq/international_date

QUESTION.98) - A

Self-Respect Movement (Founded 1925)

- Founder: Periyar E.V. Ramaswamy Naicker (Periyar), a Balija Naidu by caste.
- · Location: Tamil Nadu.
- Objective: To challenge Brahminical dominance, caste hierarchy, religious orthodoxy, and social oppression of lower castes.
- Key Features:
 - Rejection of Brahminical religion and culture as tools of oppression.
 - Promotion of rationalism, self-respect, and gender equality.
 - Encouraged marriages without Brahmin priests to defy Brahmin supremacy.
- Impact:
 - Catalyst for social reform in South India.
 - Foundation for Dravidian political movements in Tamil
 Nadu.

SOURCES:

https://ncert.nic.in/textbook/pdf/hess207.pdf
 QUESTION.99) – C

⊘ Pair I: Botswana – Diamonds

- One of the world's top producers of gem-quality diamonds by value.
- Key Mines: Jwaneng (richest by value) and Orapa (one of the largest by area).
- Contribution to GDP: Diamonds account for over 70% of Botswana's export earnings and about 25–30% of its GDP.

⊘ Pair II: Chile – Lithium

- Among the top 3 producers globally, behind Australia and sometimes competing with Argentina.
- Resource Base: Located in Salar de Atacama, Chile's lithium is extracted from brine using evaporation methods.
- Global Significance:
 - Part of the "Lithium Triangle" with Bolivia and Argentina
 holds more than 50% of global lithium reserves.

⊘ Pair III: Indonesia – Nickel

- World's largest nickel producer, holding over 20% of global reserves.
- Industrial Strategy:
 - Implemented a ban on raw nickel exports (2020) to promote domestic smelting and processing.

Thus, all pairs I, II, and III are correctly matched.

SOURCES: https://www.bbc.com/news/world-africa-13040376

https://insg.org/wp-content/uploads/2024/09/publist_The-World-Nickel-Factbook-2024.pdf

https://www.naturaldiamonds.com/in/diamond-facts-info/diamond-facts-and-statistics-that-matter/

QUESTION.100) - D

X Pair I: Mallorca – Italy

- Mallorca is part of the Balearic Islands, which belong to Spain, not Italy.
- Located in the western Mediterranean Sea.
- Incorrect match.

X Pair II: Normandy - Spain

- Normandy is a region in northwestern France, historically significant for the D-Day landings in WWII.
- It is not part of Spain.
- Incorrect match.

X Pair III: Sardinia – France

- Sardinia is an autonomous region of Italy, and the secondlargest island in the Mediterranean after Sicily.
- It is not French territory.
- Incorrect match.

SOURCES:

https://indianexpress.com/article/world/club-deadly-mallorca-collapse-lacked-permit-rooftop-mayor-9357602/

https://www.thehindu.com/news/international/france-gets-ready-to-say-merci-to-world-war-ii-veterans-for-d-days-80th-anniversary-this-year/article67764709.ece

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