



# Current Affairs Reverse Engineering (CARE)

## APRIL - 2026

### UPSC & APPSC PRELIMS (EM)

#### MCQs with Explanations

### CARE MCQs

1) Consider the following statements regarding Lok Sabha expansion:

1. It requires amendment to Article 81 of the Constitution.
2. It automatically triggers delimitation based on the latest Census.
3. It can facilitate implementation of women's reservation.

Which of the statements given above is/are correct?

- A. 1 and 3 only
- B. 2 and 3 only
- C. 1 only
- D. 1, 2 and 3

Answer: A

2) Consider the following statements regarding ethanol blending:

1. Ethanol is a renewable fuel produced primarily through fermentation of agricultural crops.

2. Higher ethanol blending always improves vehicle efficiency in all types of vehicles.
3. Second-generation ethanol is produced from agricultural residues.

Which of the statements given above is/are correct?

- A. 1 and 3 only
- B. 2 and 3 only
- C. 1 only
- D. 1, 2 and 3

Answer: A

3) With reference to stampedes in India, consider the following statements:

1. Compressive asphyxia is a major cause of death in stampede incidents.
2. NDMA recommends limiting crowd size based on capacity mapping.
3. Stampedes occur only due to rumours and misinformation.

Which of the above statements are correct?

- A. 1 and 2 only
- B. 2 and 3 only

- C. 1 and 3 only  
D. 1, 2 and 3

**Answer: A**

**Explanation:**

- Statement 1 - Correct :compressive asphyxia is the primary cause of death.
- Statement 2 – Correct: NDMA recommends capacity mapping.
- Statement 3 – Incorrect: since stampedes occur due to multiple factors, not only rumours.

**4) With reference to data on stampede incidents in India, consider the following statements:**

1. NCRB has been collecting stampede-related data since the 1990s.
2. India has recorded more than 3,000 deaths due to stampedes in the last two decades.
3. Stampedes are rare and declining incidents in India.

**Which of the above statements are correct?**

- A. 1 and 2 only  
B. 2 and 3 only  
C. 1 and 3 only  
D. 1, 2 and 3

**Answer: A**

**Explanation:**

- Statement 1 → Correct: NCRB data collection started in the **1990s**.
- Statement 2 → Correct: Around **3,000+ deaths recorded (2000–2022)**.
- Statement 3 → Incorrect: These incidents are **recurring**, not rare.

**5) With reference to challenges in space governance, consider the following statements:**

1. There is no reliable global mechanism to verify whether satellites are de-orbited after mission completion.
2. All space debris capable of causing damage can be accurately tracked.
3. Countries often restrict sharing of space object data due to commercial and

security concerns.

Which of the above statements are correct?

- A. 1 and 3 only  
B. 2 and 3 only  
C. 1 and 2 only  
D. 1, 2 and 3

**Answer: A**

**Explanation:**

- **Statement 1 – Correct:** One of the major gaps in space governance is the **absence of a reliable global verification mechanism** to ensure that satellites are properly **de-orbited after the end of their mission life**.
- Existing guidelines recommend de-orbiting (e.g., 25-year rule), but **compliance monitoring is weak**.
- → Hence, there is a clear **verification and enforcement gap**.
- **Statement 2 – Incorrect:** It is not possible to accurately track **all space debris**.
- Only larger objects (generally >10 cm in low Earth orbit) are consistently tracked.
- **Millions of smaller debris fragments** remain untracked but are still capable of causing significant damage due to high velocities.
- → Therefore, the statement is incorrect.
- **Statement 3 – Correct:** Countries often **restrict sharing of space situational data** due to:
  - **National security concerns** (military satellites, surveillance systems)
  - **Commercial interests** (private satellite operators, proprietary data)
- This leads to **limited transparency and coordination**, complicating global space governance.

**6) With reference to space sustainability, consider the following statements:**

1. Orbital debris can cause cascading collisions in space.
2. Space governance frameworks currently enforce mandatory global standards for debris mitigation.
3. Space is considered a global commons

requiring international cooperation.

Which of the above statements are correct?

- A. 1 and 2 only
- B. 1 and 3 only
- C. 2 and 3 only
- D. 1, 2 and 3

**Answer: B**

**Explanation:**

- **Statement 1 - Correct:** Orbital debris poses a serious threat to space sustainability. Even small fragments can travel at extremely high speeds and collide with satellites, generating more debris.

→ This can trigger a **chain reaction of collisions**, known as the **Kessler Syndrome**, potentially making certain orbits unusable.

- **Statement 2 – Incorrect:** At present, space governance frameworks **do not enforce mandatory global standards** for debris mitigation.

- Most guidelines (such as those by the **Inter-Agency Space Debris Coordination Committee (IADC)** and the **UN Committee on the Peaceful Uses of Outer Space (COPUOS)**) are **non-binding and voluntary**.

- → Hence, there is **no strict global enforcement mechanism**, making this statement incorrect.

- **Statement 3 – Correct:** Outer space is widely regarded as a **global commons**, meaning it is beyond national jurisdiction and must be used for the **benefit of all humankind**.

→ This principle is reflected in the **Outer Space Treaty, 1967**, which emphasizes **international cooperation and peaceful use**.

**7) With reference to space governance, consider the following statements:**

1. The Outer Space Treaty makes states responsible for both governmental and private space activities.
2. The Liability Convention provides mechanisms for compensation for damage caused by space objects.
3. Existing space governance frameworks fully address challenges posed by

private satellite constellations.

Which of the above statements are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- **Statement 1 is correct:**The **Outer Space Treaty, 1967** establishes that states bear **international responsibility for all national space activities**, whether conducted by governmental agencies or private entities. This means private companies (like satellite operators) function under the authorization and supervision of their respective states.

- **Statement 2 is correct:** The **Liability Convention, 1972** provides a **legal framework for compensation** in case damage is caused by space objects.

- Absolute liability applies for damage on Earth or to aircraft.

- Fault-based liability applies for damage occurring in outer space.

- **Statement 3 is incorrect:** Existing space governance frameworks are **inadequate and outdated** in addressing modern challenges such as:

- Mega satellite constellations (e.g., Starlink-type systems)

- Space debris accumulation

- Commercialization and privatization of space

- Lack of effective enforcement mechanisms

- Thus, current frameworks **do not fully address emerging issues**, making this statement incorrect.

**8) With reference to the 1973 Oil Crisis, consider the following statements:**

1. It was triggered by an oil embargo imposed by Arab members of OPEC against countries supporting Israel.

2. It contributed to the strengthening of the petrodollar system in global trade.

3. It led to a complete and immediate shift

of major economies away from fossil fuels towards renewable energy.

Which of the above statements are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

**Statement 1 – Correct:**

- The 1973 Oil Crisis began when Arab members of OPEC imposed an oil embargo on countries such as the United States that supported Israel during the Yom Kippur War. This led to a sharp reduction in oil supply and a surge in global oil prices.

**Statement 2 – Correct:**

- The crisis resulted in massive revenue accumulation by oil-exporting countries, which was largely recycled through Western financial systems in US dollars. This strengthened the **petrodollar system**, where global oil trade became increasingly denominated in US dollars.

**Statement 3 – Incorrect:**

- Although the crisis encouraged efforts toward energy diversification and efficiency, it did not lead to an immediate or complete shift away from fossil fuels. Oil continued to remain a dominant energy source globally, and renewable energy transitions occurred gradually over decades.

**9) Consider the following statements regarding the Oil Crises of the 1970s:**

1. The 1973 Oil Crisis was primarily triggered by an embargo imposed by Arab members of OPEC against countries perceived as supporting Israel during the Yom Kippur War.
2. Both the 1973 and 1979 oil crises resulted in stagflation in several developed economies.
3. The 1979 Oil Crisis was mainly caused by coordinated production cuts by OPEC to stabilise falling oil prices.

4. The oil crises directly contributed to the creation of strategic petroleum reserves and institutions like the International Energy Agency (IEA).

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 1, 2 and 4 only
- C. 2 and 3 only
- D. 1, 3 and 4 only

**Answer: B**

**Explanation:**

**Statement 1 – Correct:**

- The 1973 Oil Crisis was triggered during the **Yom Kippur War**, when Arab oil-producing nations imposed an oil embargo against countries like the United States and its allies for supporting Israel. This led to a sudden reduction in oil supply and a sharp increase in prices.

**Statement 2 – Correct:**

- Both crises led to **stagflation**, a rare economic condition characterised by **high inflation and stagnant economic growth**. Rising oil prices increased production costs globally, leading to inflation, while economic activity slowed down.

**Statement 3 – Incorrect:**

- The 1979 Oil Crisis was not due to coordinated OPEC production cuts to stabilise prices. Instead, it was primarily caused by the **Iranian Revolution**, which disrupted oil production and exports, leading to supply shocks and panic buying in global markets.

**Statement 4 – Correct:**

- The oil crises exposed the vulnerability of oil-importing nations, leading to the establishment of the **International Energy Agency (IEA)** in 1974 and the development of **Strategic Petroleum Reserves (SPR)** by many countries to ensure energy security during future disruptions.

**10) With reference to the FCRA Amendment Bill, 2026, consider the following statements:**

1. It proposes the creation of a Designated Authority to manage assets of organisations whose registration ceases.
2. It allows permanently vested assets to be transferred to the Consolidated Fund of India.
3. It completely removes restrictions on individuals involved in news broadcasting from receiving foreign funds.

**Which of the above statements are correct?**

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- Statement 1 is correct because the Bill introduces a Designated Authority for asset management. Statement 2 is correct as proceeds from asset disposal are credited to the Consolidated Fund of India. Statement 3 is incorrect because the Bill expands, rather than removes, restrictions on such individuals.

**11) With reference to the Jan Vishwas (Amendment of Provisions) Bill, 2026, consider the following statements:**

1. It replaces imprisonment for several minor offences with civil penalties.
2. It shifts enforcement from criminal courts to administrative adjudication.
3. It removes all forms of penalties for regulatory violations.

**Which of the above statements are correct?**

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** The Bill decriminalises several minor and technical offences by replacing imprisonment with civil penalties

such as **monetary fines**, thereby reducing the criminal burden on businesses and individuals.

- **Statement 2 is correct:** The Bill provides for **administrative adjudication through designated authorities**, shifting enforcement from criminal courts to a faster and more efficient mechanism.

**Statement 3 is incorrect:** The Bill does **not eliminate penalties**; it only **converts criminal penalties into civil/monetary penalties**, ensuring that violations continue to attract consequences.

**Therefore, only statements 1 and 2 are correct.**

**12) With reference to the Jan Vishwas (Amendment of Provisions) Bill, 2026, consider the following statements:**

1. The Bill expands its scope significantly compared to the 2025 version by amending around 80 central laws.
2. It introduces a mechanism of periodic increase in fines by 10% every three years.
3. It completely abolishes criminal liability for all regulatory offences covered under the amended laws.
4. It provides for warnings and advisories for initial contraventions in certain cases before imposing penalties.

**Which of the statements given above are correct?**

- A. 1, 2 and 4 only
- B. 2 and 3 only
- C. 1, 3 and 4 only
- D. 1, 2, 3 and 4

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** The 2026 Bill significantly broadens its scope by **amending around 80 central laws**, unlike the 2025 version which covered only 17 Acts.
- **Statement 2 is correct:** The Bill introduces a provision for **automatic revision of fines**, increasing them by **10% every three years**, ensuring penalties remain relevant over time.
- **Statement 3 is incorrect:** The Bill does **not completely abolish criminal liability**. While it

decriminalises many minor offences, **some violations may still attract criminal fines or consequences**, especially in repeated or serious cases.

- **Statement 4 is correct:** The Bill adopts a **graded compliance approach**, providing for **advisories and warnings for first and second contraventions**, before imposing civil penalties for subsequent violations.

**Thus, the correct answer is A.**

**13) With reference to LPG, LNG, CNG, and PNG, consider the following statements:**

1. LNG is produced by cooling natural gas to cryogenic temperatures, enabling its transport independent of pipeline infrastructure.
2. PNG supply ensures lower transmission losses compared to LPG due to its direct pipeline delivery system.
3. CNG and LNG differ primarily in their storage conditions, with CNG being compressed at high pressure while LNG is stored at very low temperatures.
4. LPG is primarily composed of methane and is lighter than air, making it safer in case of leakage.

**Which of the statements given above are correct?**

- A. 1, 2 and 3 only
- B. 1 and 4 only
- C. 2, 3 and 4 only
- D. 1, 2, 3 and 4

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** LNG is formed by **cooling natural gas to about -162°C**, reducing its volume drastically, which enables **long-distance transport via ships without pipelines**.
- **Statement 2 is correct:** PNG is supplied through pipelines directly to consumers, resulting in **minimal handling and lower transmission losses** compared to LPG, which requires cylinder-based distribution.

- **Statement 3 is correct:** The key difference lies in storage—**CNG is compressed gas stored at high pressure**, whereas **LNG is stored as a liquid at cryogenic temperatures**, reflecting two distinct technological approaches.

- **Statement 4 is incorrect:** LPG mainly consists of **propane and butane**, not methane. It is **heavier than air**, which makes leakage potentially more dangerous as it can accumulate near the ground.

**Thus, statements 1, 2, and 3 are correct.**

**14) With reference to Piped Natural Gas (PNG), consider the following statements:**

1. PNG is supplied through a city gas distribution network directly to households, industries, and commercial establishments.
2. PNG eliminates the need for storage infrastructure at the consumer level, unlike LPG.
3. PNG is stored and transported in liquid form within pipelines to reduce volume.
4. PNG is considered safer than LPG because it is lighter than air and disperses quickly in case of leakage.

**Which of the statements given above are correct?**

- A. 1, 2 and 4 only
- B. 1 and 3 only
- C. 2, 3 and 4 only
- D. 1, 2, 3 and 4

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** PNG is delivered through a **City Gas Distribution (CGD) network**, supplying natural gas directly to homes, industries, and commercial users via pipelines.
- **Statement 2 is correct:** Since PNG is supplied continuously through pipelines, it **removes the need for cylinder storage**, unlike LPG, making it more convenient and space-efficient.
- **Statement 3 is incorrect:** PNG is **not transported in liquid form**; it remains in

**gaseous state under pressure** within pipelines. Liquid form (LNG) is used only for bulk transport over long distances.

- **Statement 4 is correct:** PNG (natural gas, mainly methane) is **lighter than air**, so in case of leakage, it disperses quickly, reducing the risk of accumulation and explosions compared to LPG.

Thus, statements 1, 2, and 4 are correct.

**15) Regarding the constitutional provisions for reservation in India, consider the following factual aspects:**

- The 103rd Constitutional Amendment provides 10% reservation for EWS in all educational institutions, including minority institutions
- The Supreme Court in *Indira Sawhney (1992)* allowed reservation in promotion under Article 16(4) without restrictions
- Articles 15(4) and 16(4) enable special provisions for backward classes but do not govern reservation in legislatures
- The 77th Constitutional Amendment was enacted to nullify the creamy layer principle for SCs/STs

**Answer: C**

**Explanation:**

- Articles 15(4) and 16(4) empower the State to provide reservation in education and public employment for socially and educationally backward classes. However, legislative reservations (Lok Sabha and State Assemblies) are governed separately under Articles 330 and 332, making option (c) correct.

**16) Regarding the 73rd Constitutional Amendment Act and its impact on Panchayati Raj Institutions (PRIs), which of the following statements is correct?**

- It mandates direct election of the Chairperson of Zila Parishad
- It provides mandatory one-third reservation for women in both members and chairpersons

- It requires constitution of a State Finance Commission every five years
- It grants Panchayats independent taxation powers without State control

**Answer: C**

**Explanation:**

- The 73rd Constitutional Amendment Act mandates the constitution of a **State Finance Commission every five years** to review the financial position of Panchayats and recommend measures for resource distribution. Other provisions are left to State discretion, including election methods and taxation powers, making option (c) the most accurate constitutional requirement.

**17) Consider the following statements regarding the 106th Constitutional Amendment Act, 2023:**

Statement 1: The implementation of women's reservation is linked to delimitation after the next Census.

Statement 2: The reservation for women under the Act does not have any time limitation.

Which one of the following is correct?

- Both Statement 1 and Statement 2 are correct and Statement 2 explains Statement 1
- Both Statement 1 and Statement 2 are correct but Statement 2 does not explain
- Statement 1 is correct but Statement 2 is incorrect
- Statement 1 is incorrect but Statement 2 is correct

**Answer: C**

**Explanation:**

- **Statement 1 is correct:** The Act clearly links implementation of women's reservation to **delimitation based on the first Census conducted after its commencement**, making it conditional and delayed.
- **Statement 2 is incorrect:** The Act includes a **15-year sunset clause**, meaning the reservation is not permanent and will cease

unless extended by Parliament.

**18) Consider the following statements regarding women's representation in Panchayati Raj Institutions:**

**Statement 1:** Bihar was among the first states to provide 50% reservation for women in PRIs through state legislation.

**Statement 2:** Article 243-D mandates not less than one-third reservation for women in Panchayats, including chairperson positions.

Which one of the following is correct?

- A. Both Statement 1 and Statement 2 are correct and Statement 2 explains Statement 1
- B. Both Statement 1 and Statement 2 are correct but Statement 2 does not explain Statement 1
- C. Statement 1 is correct but Statement 2 is incorrect
- D. Statement 1 is incorrect but Statement 2 is correct

**Answer: B**

**Explanation:**

- **Statement 1 is correct:** Bihar took an early initiative by providing **50% reservation for women** in PRIs, going beyond the constitutional minimum.
- **Statement 2 is correct:** Article 243-D mandates **at least one-third reservation** for women in seats and chairperson positions, forming the constitutional baseline.
- However, Statement 2 does not explain Statement 1, as Bihar's decision reflects **state-level policy innovation beyond constitutional requirements**.

**19) Which of the following orders related to elections in India is NOT correctly matched with its description?**

- A. Section 144 CrPC — Prohibits assembly and ensures law and order during elections
- B. Model Code of Conduct — Guidelines issued by the Election Commission for political parties and candidates
- C. Representation of the People Act, 1951

— Provides for disqualification on conviction for electoral offenses

- D. Delimitation Order — Issued by the Delimitation Commission under the Ministry of Home Affairs

**Answer: D**

**Explanation:**

- Option (a) is correct as Section 144 CrPC is widely used during elections to maintain **public order and prevent disturbances**.
- Option (b) is correct since the Model Code of Conduct regulates **ethical conduct of political parties and candidates** during elections.
- Option (c) is correct because the RPA, 1951 lays down provisions for **disqualification due to electoral malpractices and criminal convictions**.
- Option (d) is incorrect because the **Delimitation Commission functions under the Ministry of Law and Justice**, not the Ministry of Home Affairs. It is responsible for **determining constituency boundaries and seat allocation** for Lok Sabha and State Assemblies.

**20) Regarding the legislative framework and legal history of India, which of the following best characterizes the 'Shanti Act'?**

- A. A constitutional amendment establishing special courts for communal violence
- B. An informal reference to the Preventive Detention Act, 1950
- C. A law providing compulsory arbitration of industrial disputes
- D. A social reform law abolishing untouchability

**Answer: B**

**Explanation:**

- The term **'Shanti Act'** is not an official legal title, but is sometimes used informally in academic discourse to refer to the **Preventive Detention Act, 1950**, enacted to maintain public order and security. The Act allowed detention without trial and was tested in cases

like *A.K. Gopalan v. State of Madras*, raising key issues related to **Article 21 and personal liberty**.

**21) Regarding the provisions of the 'Shanti Act', consider the following statements:**

1. It provides a statutory framework for regulation of private military corporations.
2. It mandates licensing of private security agencies by the Ministry of External Affairs.
3. It empowers the District Magistrate to suspend operations of such agencies.
4. It excludes CISF personnel from its definition of private security guards.

How many of the above statements are correct?

- A. Only one
- B. Only three
- C. All four
- D. None

**Answer: D**

**Explanation:**

- There is **no formal legislation called the 'Shanti Act'** in Indian law. The regulation of private security agencies is governed by the **Private Security Agencies (Regulation) Act, 2005 (PSARA)**.
- **Statement 1 is incorrect:** No such law exists for private military corporations in India.
- **Statement 2 is incorrect:** Licensing authority lies with **State Governments**, not the Ministry of External Affairs.
- **Statement 3 is incorrect:** Regulatory powers under PSARA rest with the **Controlling Authority**, not specifically the District Magistrate in this context.
- **Statement 4 is incorrect:** CISF is a **statutory armed force**, unrelated to definitions under any so-called "Shanti Act."

**22) Consider the following statements regarding internal security laws and the term 'Shanti Act':**

**Statement 1:** The term 'Shanti Act' is sometimes used to refer to the Police

(Incitement to Disaffection) Act, 1922.

**Statement 2:** States can declare 'disturbed areas' independently overriding central laws like AFSPA under this Act.

**Which one of the following is correct?**

- A. Both Statement 1 and Statement 2 are correct and Statement 2 explains Statement 1
- B. Both Statement 1 and Statement 2 are correct but Statement 2 does not explain Statement 1
- C. Statement 1 is correct but Statement 2 is incorrect
- D. Statement 1 is incorrect but Statement 2 is correct

**Answer: C**

**Explanation:**

- **Statement 1 is correct:** In some legislative and academic contexts, the term 'Shanti Act' is loosely associated with laws aimed at maintaining order, including the **Police (Incitement to Disaffection) Act, 1922**.
- **Statement 2 is incorrect:** The power to declare a 'disturbed area' under AFSPA lies with the **Governor/Administrator or the Central Government**, and states cannot override central legislation. This reflects the **federal structure and supremacy of parliamentary law**.

**23) Consider the following statements regarding India's nuclear power programme:**

1. It follows a three-stage strategy beginning with Pressurised Heavy Water Reactors (PHWRs) using natural uranium.
2. The second stage involves Fast Breeder Reactors (FBRs) using plutonium derived from reprocessed spent fuel.
3. The third stage envisages the use of thorium-232 to produce uranium-233 as a fissile fuel.

Which of the statements given above is/are correct?

- A. 1, 2 and 3
- B. 1 and 2 only

- C. 2 and 3 only
- D. 1 only

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** India's nuclear programme begins with **PHWRs using natural uranium**, leveraging indigenous uranium resources and heavy water moderation.
- **Statement 2 is correct:** The second stage uses **Fast Breeder Reactors (FBRs)**, where plutonium obtained from reprocessed spent fuel is utilized to generate more fissile material, enhancing fuel efficiency.
- **Statement 3 is correct:** The final stage focuses on **thorium-based** reactors, where thorium-232 is converted into **uranium-233**, a fissile material, exploiting India's vast thorium reserves for long-term energy security.

**24) Consider the following statements regarding India's three-stage nuclear power programme:**

**Statement 1:** The first stage using Pressurised Heavy Water Reactors (PHWRs) utilizes natural uranium and does not require enrichment.

**Statement 2:** The second stage using Fast Breeder Reactors (FBRs) breeds thorium-232 into uranium-233 for use in the third stage.

**Which one of the following is correct?**

- A. Both Statement 1 and Statement 2 are correct and Statement 2 explains Statement 1
- B. Both Statement 1 and Statement 2 are correct but Statement 2 does not explain Statement 1
- C. Statement 1 is correct but Statement 2 is incorrect
- D. Statement 1 is incorrect but Statement 2 is correct

**Answer: C**

**Explanation:**

- **Statement 1 is correct:** The first stage of India's nuclear programme is based on **PHWRs using natural uranium**, which does not require enrichment due to the use of heavy

water as a moderator.

- **Statement 2 is incorrect:** While the second stage uses **Fast Breeder Reactors (FBRs) with plutonium-239**, its primary objective is to **generate more plutonium and initiate thorium utilisation**. The large-scale breeding of thorium into uranium-233 is mainly associated with the **third stage**, not the core function of the second stage.

**25) The concept of Blue Economy primarily refers to:**

- A. Expansion of maritime trade routes
- B. Sustainable use of ocean resources for economic growth
- C. Exclusive exploitation of deep-sea minerals
- D. Development of naval defense capabilities

**Answer: B**

**Explanation:**

- The Blue Economy refers to the sustainable use of ocean and aquatic resources for economic growth, improved livelihoods, and ecosystem health, integrating environmental conservation with economic development.

**26) With reference to PM Matsya Sampada Yojana (PMMSY) and Kisan Credit Card (KCC) for fishers, consider the following statements:**

1. Both PMMSY and KCC aim to provide working capital support to fishers and fish farmers.
2. PMMSY focuses on long-term infrastructure development, whereas KCC addresses short-term credit needs.

Which of the statements given above are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Answer: B**

**Explanation:**

- **Statement 1 is incorrect:** PMMSY primarily

supports infrastructure, capacity building, and value chain development, while working capital support is specifically addressed under schemes like KCC.

- **Statement 2 is correct:** PMMSY targets long-term sectoral development, whereas KCC provides short-term credit and liquidity support, making them complementary but distinct interventions.

**27) With reference to PM Matsya Sampada Yojana (PMMSY), consider the following statements:**

1. The scheme aims at enhancing productivity primarily through expansion of fishing area and fleet size.
2. The scheme promotes efficiency in production through technological and infrastructure interventions.

Which of the statements given above are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Answer: B**

**Explanation:**

- **Statement 1 is incorrect:** PMMSY does not primarily rely on expansion of fishing area or fleet size, as that may lead to overexploitation of resources; instead, it emphasizes sustainability.
- **Statement 2 is correct:** The scheme focuses on technology-driven productivity, including aquaculture intensification, cold chain development, and value chain efficiency, ensuring sustainable growth rather than mere expansion.

**28) Which of the following statements best reflects the role of informal sources of agricultural credit in India?**

- A. Informal sources, like moneylenders and relatives, are insignificant compared to formal institutions like banks and cooperatives.
- B. Informal sources primarily cater to long-

term credit needs for agricultural investments like land purchase and irrigation projects.

- C. Despite regulatory efforts to promote formal finance, informal sources continue to play a substantial role due to factors like accessibility and timely availability.
- D. The interest rates charged by informal sources are always lower than those of formal institutions.

**Answer: C**

**Explanation:**

- Informal credit sources such as moneylenders, traders, and relatives continue to play a significant role in rural credit markets due to their ease of access, minimal documentation, and quick disbursement. Despite expansion of institutional credit, issues like collateral requirements, delays, and procedural complexities keep farmers dependent on informal sources for short-term and emergency needs.

**29) Regarding the constitutional provisions of India, which of the following best describes the scope of Article 26 concerning the management of religious affairs in temples?**

- A. It grants the State the power to regulate all activities of religious denominations without limitation
- B. It allows every religious denomination to establish and maintain institutions for religious and charitable purposes, subject to public order, morality, and health
- C. It mandates that temples must be managed only by State-appointed committees
- D. It restricts property ownership of religious denominations to State-granted assets

**Answer: B**

**Explanation:**

- Article 26 guarantees collective religious

freedom to denominations, including the right to establish institutions, manage religious affairs, and own property, subject to public order, morality, and health. While the State can regulate secular aspects like administration and finances to prevent misuse, it cannot interfere in essential religious practices, preserving autonomy within a secular constitutional framework.

**30) Consider the following statements regarding the Right to Freedom of Religion under the Indian Constitution:**

1. Article 25 guarantees freedom of conscience and free profession, practice, and propagation of religion to all persons.
2. The right to manage religious affairs under Article 26 is absolute.
3. No person can be compelled to pay taxes for promotion of any particular religion.
4. Religious instruction is prohibited in institutions wholly funded by the State.

How many of the above statements are correct?

- A. Only one
- B. Only three
- C. All four
- D. None

**Answer: B**

**Explanation:**

- **Statement 1 is correct:** Article 25 grants freedom of conscience and the right to profess, practice, and propagate religion to **all persons**, including non-citizens, subject to public order, morality, health, and other Fundamental Rights.
- **Statement 2 is incorrect:** Article 26 rights are **not absolute**; they are subject to public order, morality, and health, allowing limited state intervention.
- **Statement 3 is correct:** Article 27 ensures that **no person is compelled to pay taxes** for promotion or maintenance of any specific

religion, reinforcing secularism.

- **Statement 4 is correct:** Article 28(1) prohibits **religious instruction in institutions wholly funded by the State**, though exceptions exist for institutions established under endowments.

**31) Consider the following statements regarding the legal framework of public protests in India:**

**Statement 1:** The Supreme Court held that Section 144 CrPC cannot be used to suppress legitimate exercise of the right to protest.

**Statement 2:** The Court emphasized that restrictions must be based on material facts indicating an imminent threat, not mere apprehension.

**Which one of the following is correct?**

- A. Both Statement 1 and Statement 2 are correct and Statement 2 is the correct explanation for Statement 1
- B. Both Statement 1 and Statement 2 are correct but Statement 2 is not the correct explanation
- C. Statement 1 is correct but Statement 2 is incorrect
- D. Statement 1 is incorrect but Statement 2 is correct

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** The Supreme Court in *Mazdoor Kisan Shakti Sangathan v. Union of India (2018)* clarified that **Section 144 cannot be used arbitrarily** to curtail peaceful protests protected under Article 19(1)(b).
- **Statement 2 is correct:** The Court held that restrictions must be based on **objective material facts showing imminent danger**, ensuring compliance with the reasonableness test under Article 19(3).
- Statement 2 correctly explains Statement 1, as it provides the **constitutional basis limiting misuse of Section 144**, thereby safeguarding democratic dissent.

**32) Regarding the doctrine of 'Judicial Review' in**

**the context of the Indian Constitution, consider the following:**

- A. It is explicitly defined under Article 13 of the Constitution
- B. The scope of judicial review in India is identical to that of the United States due to the 'due process of law' principle
- C. Judicial review applies only to laws made by Parliament and not to State legislations
- D. It cannot be invoked in examining the constitutional validity of executive actions

**Answer: A**

**Explanation:**

- Article 13 provides the **constitutional basis of judicial review** by declaring that laws inconsistent with Fundamental Rights are void. Although not exhaustively defined in a single provision, judicial review is derived from Articles 13, 32, and 226. India follows **"procedure established by law"**, making its scope narrower than the U.S. "due process" doctrine. Judicial review applies to **both legislative and executive actions**.

**33) With reference to UGC (Promotion of Equity in Higher Education Institutions) Regulations, 2026, consider the following statements:**

1. They mandate the establishment of Equal Opportunity Centres in higher education institutions.
2. They define caste-based discrimination specifically in relation to SC, ST, and OBC communities.
3. They provide explicit penalties for false complaints.

**Which of the above statements are correct?**

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** The Regulations

mandate the creation of Equal Opportunity Centres (EOCs) in higher education institutions to ensure inclusivity, address grievances, and promote equity among students from marginalized and disadvantaged backgrounds.

- **Statement 2 is correct:** The Regulations explicitly recognize caste-based discrimination, particularly affecting SC, ST, and OBC communities, and aim to provide a structured institutional mechanism to prevent such discrimination and ensure accountability.
- **Statement 3 is incorrect:** The Regulations do not provide explicit penalties for false complaints, which has been highlighted as a limitation. Critics argue that the absence of such safeguards may raise concerns regarding misuse, although the primary focus remains on protecting vulnerable groups.

**34) Regarding the prohibition of discrimination under Article 15 of the Indian Constitution, consider the following:**

- A. It prohibits discrimination by the State only, not by private individuals
- B. It prohibits discrimination on grounds including descent
- C. The State cannot make special provisions for women and children
- D. It applies to both citizens and foreigners

**Answer: A**

**Explanation:**

- Article 15(1) prohibits discrimination **only by the State** against citizens on grounds of religion, race, caste, sex, or place of birth. Private discrimination is not directly covered under this clause. The term **'descent' is not included**, and Article 15(3) allows special provisions for women and children. The rights are available **only to citizens**, not foreigners.

**35) Regarding the scope and application of Article 15, consider the following statements:**

1. The prohibition under Article 15(1) applies to private individuals.
2. Article 15(3) allows special provisions for women and children.
3. 'Caste' is one of the prohibited grounds

of discrimination.

4. Article 15(2) applies only to State-funded institutions.

How many of the above statements are correct?

- A. Only one
- B. Only three
- C. Only two
- D. All Four

**Answer: C**

**Explanation:**

- **Statement 1 is incorrect:** Article 15(1) applies only to the **State**, not private individuals.
- **Statement 2 is correct:** Article 15(3) enables **affirmative action for women and children**, acting as an exception to non-discrimination.
- **Statement 3 is correct:** 'Caste' is explicitly mentioned as a **prohibited ground** under Article 15(1).
- **Statement 4 is incorrect:** Article 15(2) applies to **both State and private entities** providing public access (shops, hotels, etc.).

**36) Regarding the judicial interpretations and constitutional provisions concerning Article 15(3) of the Indian Constitution, consider the following statements:**

1. Article 15(3) empowers the State to make special provisions for women and children, but only through legislation.
2. Judicial interpretation has upheld reservation for women in local bodies under Article 15(3).
3. Article 15(3) operates as an exception to the general prohibition of discrimination under Article 15.
4. The doctrine under Article 15(3) is limited to formal equality and excludes substantive equality.

How many of the above statements are correct?

- A. Only one
- B. Only two
- C. Only three
- D. None

**Answer: B**

**Explanation:**

- **Statement 1 is incorrect:** Article 15(3) is **not limited to legislative action**; it also permits **executive and administrative measures** aimed at benefiting women and children.
- **Statement 2 is correct:** Courts have upheld that **reservation for women in local bodies** is a valid exercise of power under Article 15(3), reinforcing gender-based affirmative action.
- **Statement 3 is correct:** Article 15(3) acts as an **exception to the general rule of non-discrimination**, allowing the State to make special provisions despite Article 15(1) and (2).
- **Statement 4 is incorrect:** Article 15(3) is grounded in **substantive equality**, aiming to correct historical disadvantages rather than merely ensuring formal equality.

**37) Consider the following statements regarding the constitutional provisions and judicial interpretations concerning reservation in India:**

1. The 103rd Constitutional Amendment provides 10% reservation for Economically Weaker Sections (EWS), excluding those already covered under SC, ST, and OBC reservations.
2. The Supreme Court in *Indra Sawhney (1992)* applied the 'creamy layer' principle to SCs and STs in promotions.
3. Article 16(4A) enables reservation in promotion with consequential seniority for SCs and STs.
4. The Supreme Court in *M. Nagaraj* held that the 50% ceiling strictly applies to reservations in promotion.

How many of the above statements are correct?

- A. Only two
- B. Only three
- C. All of the above
- D. None

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** The **103rd**

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introduced Articles 15(6) and 16(6), providing **10% reservation for EWS** in education and public employment, specifically excluding SCs, STs, and OBCs who already benefit from existing reservation schemes.

- **Statement 2 is incorrect:** In *Indra Sawhney (1992)*, the Supreme Court held that the 'creamy layer' principle applies only to OBCs, not to SCs and STs. It also initially disallowed reservation in promotions.
- **Statement 3 is correct:** Article 16(4A), inserted by the **77th Constitutional Amendment Act, 1995**, empowers the State to provide **reservation in promotion with consequential seniority** for SCs and STs where they are inadequately represented.
- **Statement 4 is incorrect:** In *M. Nagaraj (2006)*, the Supreme Court did not strictly impose the **50% ceiling on promotions**; instead, it laid down conditions such as **quantifiable data on backwardness, inadequacy of representation, and administrative efficiency**. The application of the ceiling in promotions has been more nuanced.

### 38) Consider the following statements regarding the Election Commission of India (ECI):

1. The Election Commission of India is a constitutional body.
2. The Chief Election Commissioner is appointed by the President for a term of six years or until the age of 65 years, whichever is earlier.
3. The ECI conducts elections only to Parliament and the offices of the President and Vice President.

**How many of the above statements are correct?**

- A. Only one
- B. Only two
- C. All three
- D. None

**Answer: B**

### Explanation:

- **Statement 1 is correct:** The ECI is a constitutional body under Article 324, responsible for superintendence, direction, and control of elections.
- **Statement 2 is correct:** The Chief Election Commissioner is appointed by the President of India for a term of 6 years or up to 65 years of age, whichever is earlier, ensuring independence and continuity.
- **Statement 3 is incorrect:** The ECI conducts elections not only to Lok Sabha, Rajya Sabha, President, and Vice President, but also to State Legislative Assemblies and Legislative Councils, making its jurisdiction wider than stated.

### 39) Which of the following statements accurately describes the original constitutional provision regarding the composition of the Election Commission of India?

- A. It consisted of the CEC and two Election Commissioners
- B. It consisted only of the CEC with no provision for others
- C. It consisted of the CEC and such number of Election Commissioners as the President may determine
- D. It was to be determined entirely by Parliament

**Answer: C**

### Explanation:

- Article 324 originally provided for a Chief Election Commissioner and such number of other Election Commissioners, if any, as the President may fix. This gave flexibility in composition, allowing the Commission to evolve from a single-member to a multi-member body over time.

### 40) Consider the following statements regarding the Election Commission of India at the time of Independence:

1. The ECI was established in 1950 after the Constitution came into force.
2. Initially, it functioned as a single-member body with only the Chief

Election Commissioner.

3. It remained a single-member body until 1989.

Which of the statements given above are correct?

- A. 3 only
- B. 1, 2 and 3
- C. 2 and 3 only
- D. None

**Answer: B**

**Explanation:**

- **Statement 1 is correct:** The ECI was established on 25 January 1950, under Article 324 of the Constitution.
- **Statement 2 is correct:** Initially, the Commission functioned as a single-member body, consisting only of the Chief Election Commissioner.
- **Statement 3 is correct:** It continued as a single-member body until 1989, when two additional Election Commissioners were appointed, marking the transition to a multi-member body.

**41) Consider the following statements regarding custodial death in India:**

1. Custodial death refers to the death of a person while in the custody of police, judicial authorities, or other law enforcement agencies.
2. Custodial deaths are treated as violations of the right to life and personal liberty under the Constitution of India.

Select the correct answer using the code below:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Answer: C**

**Explanation:**

- **Statement 1 is correct:** Custodial death occurs when a person dies while under the custody or control of **police, jail authorities, or other law**

**enforcement agencies.**

- **Statement 2 is correct:** Such deaths are considered violations of **Article 21 (Right to Life and Personal Liberty)** unless proven to be natural and free from negligence or abuse.

**42) Consider the following statements regarding legal safeguards against custodial torture in India:**

1. Article 20(3) of the Constitution protects an accused person from being compelled to be a witness against himself.
2. Article 22 provides safeguards relating to arrest and detention.

Select the correct answer using the code below:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Answer: C**

**Explanation:**

- **Statement 1 is correct: Article 20(3)** protects individuals from **self-incrimination**, preventing forced confessions during interrogation.
- **Statement 2 is correct: Article 22** guarantees safeguards such as **being informed of grounds of arrest and the right to consult a lawyer**.
- These provisions collectively aim to prevent **custodial abuse and torture**.

**43) Consider the following statements regarding the role of the National Human Rights Commission (NHRC) in custodial deaths:**

1. All cases of custodial death must be reported to the NHRC by the concerned authorities.
2. The NHRC has the authority to award punishment directly to the police officials responsible for custodial deaths.

Select the correct answer using the code below:

- A. 1 only

- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** As per **NHRC guidelines**, every custodial death must be **reported within 24 hours** to ensure transparency and investigation.
- **Statement 2 is incorrect:** The NHRC can **recommend action or compensation**, but it **cannot directly punish officials**. Punishment is carried out through courts or disciplinary authorities.

**44) Consider the following statements regarding judicial safeguards in custodial cases:**

1. The Supreme Court has issued guidelines to prevent custodial violence in the case of *D.K. Basu vs State of West Bengal*.
2. The guidelines include the preparation of an arrest memo and the right of the arrested person to inform a relative or friend.

Select the correct answer using the code below:

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Answer: C**

**Explanation:**

- **Statement 1 is correct:** In the landmark case **D.K. Basu vs State of West Bengal (1997)**, the Supreme Court laid down guidelines to prevent custodial abuse.
- **Statement 2 is correct:** The guidelines include:
  - **Arrest memo**
  - **Right to inform relatives**
  - **Medical examination**
  - **Proper identification of police officers**

These safeguards aim to ensure **accountability in police custody**.

**45) Consider the following statements regarding safeguards against custodial abuse under the**

**Code of Criminal Procedure, 1973:**

1. Section 41A mandates that in cases where arrest is not required under Section 41(1), the police officer may issue a notice of appearance to the person instead of arresting him.
2. Section 41 requires the police to record reasons for arrest as well as for not making an arrest in certain categories of offences punishable with imprisonment up to seven years.
3. Section 176 provides that in every case of death in custody, the investigation shall be conducted only by a police officer not below the rank of Deputy Superintendent of Police.

Select the correct answer using the code below:

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** **Section 41A CrPC** was introduced to reduce unnecessary arrests. It allows police to **issue a notice of appearance** instead of arresting the accused if arrest is not required under Section 41.
- **Statement 2 is correct:** After amendments and judicial interpretation, **Section 41 requires police to record reasons for arrest as well as reasons for not arresting** in offences punishable with imprisonment up to **seven years**, ensuring accountability and preventing arbitrary arrest.
- **Statement 3 is incorrect:** **Section 176 CrPC** provides for a **Magisterial inquiry** in cases of custodial death, disappearance, or rape in custody. The inquiry is conducted by a **Judicial or Executive Magistrate**, not by a police officer. This ensures **independent investigation in custodial cases**.

**46) With reference to Jan Vishwas 2.0, consider**

**the following statements:**

1. It replaces imprisonment for minor offences with civil penalties.
2. It shifts enforcement from courts to administrative authorities.
3. It removes penalties for serious offences affecting public safety.

Which of the above statements are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Statement 1 - Correct**

- Jan Vishwas 2.0 continues the reform initiated in 2023 by decriminalising minor and procedural offences across multiple Central Acts.
- Instead of imprisonment, such violations now attract civil penalties such as fines, warnings, or administrative sanctions.
- This reflects the principle of proportionality, ensuring that minor technical lapses are not treated as criminal acts.
- The objective is to reduce the fear of prosecution, especially for businesses and MSMEs, and promote voluntary compliance.

**Statement 2 - Correct**

- A key structural change under Jan Vishwas 2.0 is the shift from judicial enforcement to administrative adjudication.
- Earlier, even minor violations were tried in criminal courts, contributing to case backlog.
- Now, such cases are handled by adjudicating officers (executive authorities), who can impose penalties.

**This leads to:**

- **Faster resolution of cases**
- **Reduced burden on judiciary**
- **Improved efficiency in regulatory enforcement**
- **Thus, the reform supports both ease of doing business and judicial efficiency.**

**Statement 3 - Incorrect**

- The reform does not remove penalties for serious offences.

- Offences involving public safety, environmental protection, financial fraud, or national interest continue to attract strict penalties, including imprisonment.
- Jan Vishwas 2.0 is based on selective decriminalisation, not blanket removal of penalties.

Its aim is to differentiate between:

- Minor procedural violations → civil penalties
- Serious offences → criminal liability retained

**47) Consider the following statements regarding Jan Vishwas reforms:**

1. The reforms aim to reduce compliance burden on businesses.
2. They contribute to reducing judicial backlog.
3. They completely eliminate criminal liability in economic laws.

Select the correct answer using the code below:

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation**

**Statement 1 -Correct**

- Jan Vishwas 2.0 is specifically designed to **reduce compliance burden**, especially for MSMEs and startups, by removing imprisonment for minor procedural violations.
- Earlier, even technical lapses (like filing delays or minor documentation errors) attracted criminal provisions, creating a **“fear of jail” environment**.
- By replacing such provisions with **monetary penalties and warnings**, the reform promotes **ease of doing business, voluntary compliance, and formalisation of the economy**.

**Statement 2 - Correct**

- The reform significantly contributes to **reducing judicial backlog**, which is a major governance concern in India.
- A large number of minor regulatory offences

were earlier routed through **criminal courts**, leading to unnecessary case accumulation.

- Jan Vishwas 2.0 introduces an **administrative adjudication mechanism**, where adjudicating officers handle such cases.
- This ensures **faster dispute resolution, reduces pendency, and allows courts to focus on serious criminal and constitutional matters.**

#### Statement 3 - Incorrect

- The reform **does not completely eliminate criminal liability** in economic or regulatory laws.
- Serious offences involving **public safety, environmental damage, fraud, national security, or financial misconduct** continue to attract strict criminal penalties, including imprisonment.
- Thus, the reform is based on the principle of **proportionality**, not blanket decriminalisation.

**48) In the context of regulatory reforms, what is the primary role of “Adjudicating Officers”?**

**Answer: B**

#### Explanation

Adjudicating officers are a key institutional feature introduced under Jan Vishwas reforms to enable **administrative enforcement of minor violations.**

Their primary role is to:

- Examine cases of non-compliance under various laws
- Impose **monetary penalties, warnings, or corrective directions**
- Ensure **time-bound resolution without approaching criminal courts**

This reflects a shift from **judicial enforcement** → **executive/administrative enforcement.**

From a governance perspective, this:

- Reduces pressure on courts
- Improves **efficiency and speed of compliance resolution**
- Promotes **specialised decision-making** in regulatory domains
- However, their effectiveness depends on

**transparency, independence, and institutional capacity**, which remains a key concern.

**49) Which of the following is/are potential concerns associated with Jan Vishwas 2.0?**

1. Regulatory capture
2. Reduced deterrence due to monetary penalties
3. Increased criminalisation of minor offences

Select the correct answer using the code below:

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

#### Explanation

##### Statement 1 -Correct

- Regulatory capture refers to a situation where regulators act in favour of the industries they regulate.
- Since Jan Vishwas shifts enforcement to **executive authorities**, there is a risk that close interaction between regulators and businesses may weaken enforcement standards.
- This is particularly relevant in sectors with high economic stakes.

##### Statement 2 - Correct

- Replacing imprisonment with monetary penalties may reduce deterrence in some cases.
- Large firms may treat fines as a **routine cost of doing business**, rather than a punishment.
- Thus, effectiveness depends on **proper calibration of penalties and strict enforcement for repeated violations.**

##### Statement 3 -Incorrect

- Jan Vishwas reforms aim at **decriminalisation**, not increased criminalisation.
- In fact, they remove imprisonment provisions for minor offences and reduce regulatory overreach.

50) With reference to the Gaganyaan Mission, consider the following statements:

1. The Crew Module is responsible for re-entry and safe landing.
2. Aerobraking reduces spacecraft velocity using atmospheric drag.
3. The Crew Escape System operates only during the re-entry phase.

Which of the above statements are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- Statement 1 is correct: The Crew Module is the habitable part of the spacecraft that carries astronauts and is designed for re-entry, descent, and safe landing, including heat shielding and parachute systems.
- Statement 2 is correct: Aerobraking is a technique used to slow down spacecraft by utilizing atmospheric drag, thereby reducing velocity without consuming additional fuel during re-entry or orbital adjustments.
- Statement 3 is incorrect: The Crew Escape System (CES) is designed for emergency situations during launch or ascent, enabling rapid separation of the crew module from the launch vehicle. It does not operate during the re-entry phase.

51) Consider the following statements regarding Crew Escape System (CES) technologies in human spaceflight missions:

Statement 1: The Crew Escape System in Gaganyaan uses liquid-propellant hypergolic thrusters for controlled thrust during escape.

Statement 2: Pyrotechnic bolts and explosive devices are used for rapid separation of the crew module in emergencies.

Which one of the following is correct?

- A. Both Statement 1 and Statement 2 are correct and Statement 2 explains Statement 1
- B. Both Statement 1 and Statement 2 are

correct but Statement 2 does not explain Statement 1

- C. Statement 1 is correct but Statement 2 is incorrect
- D. Statement 1 is incorrect but Statement 2 is correct

**Answer: D**

**Explanation:**

- Statement 1 is incorrect: The Gaganyaan Crew Escape System uses solid rocket motors, not liquid-propellant thrusters. Solid motors provide very high thrust instantly, which is critical for quick escape during launch emergencies.
- Statement 2 is correct: Pyrotechnic bolts and explosive nuts are standard aerospace mechanisms used for instantaneous separation of spacecraft components, ensuring rapid detachment of the crew module from the launch vehicle in case of failure.

52) Consider the following statements regarding the Gaganyaan Mission:

1. It aims to orbit at an altitude of around 400 km in Low Earth Orbit.
2. The mission will use the PSLV launch vehicle.
3. A humanoid robot named 'Vyommitra' is part of the mission.
4. Its objective is to land astronauts on the Moon.

How many of the above statements are correct?

- A. Only one
- B. Only two
- C. Only three
- D. All four

**Answer: B**

**Explanation:**

- Statement 1 is correct: The Gaganyaan Mission aims to send Indian astronauts to Low Earth Orbit (~400 km altitude) and bring them back safely, marking India's first human spaceflight mission.
- Statement 2 is incorrect: The mission will use

the LVM3 (GSLV Mk III), which has been human-rated for crew safety. PSLV is primarily used for satellite launches and is not designed for human missions.

- Statement 3 is correct: Vyommitra, a female humanoid robot developed by ISRO, will be sent on uncrewed missions to test life-support systems and crew module performance before human flight.
- Statement 4 is incorrect: The mission is limited to Low Earth Orbit and does not involve a lunar landing, which is a separate domain of space exploration (e.g., Chandrayaan missions).

**53) Consider the following statements regarding Aditya-L1 Mission:**

1. It is India's first space-based observatory mission dedicated to studying the Sun.
2. It is ISRO's second astronomy observatory-class mission after AstroSat.
3. Its journey duration is shorter compared to the Mars Orbiter Mission.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: D**

**Explanation:**

- Statement 1 is correct: Aditya-L1 is India's first dedicated solar mission, positioned at the L1 Lagrange point (~1.5 million km) to continuously observe the Sun.
- Statement 2 is correct: It is ISRO's second observatory-class mission after AstroSat (2015), which studied celestial objects across multiple wavelengths.
- Statement 3 is correct: The mission takes about 125 days to reach L1, which is significantly shorter compared to the Mars Orbiter Mission (Mangalyaan) that took around 300 days, due to different orbital

trajectories and distances.

**54) Which of the following best describes a Union Territory in India?**

- A. A federal unit with complete legislative autonomy
- B. A territory administered directly by the Central Government
- C. A state with special constitutional status under Article 370
- D. A region governed by an elected Governor

**Answer: B**

**Explanation:**

A Union Territory is administered directly by the Central Government through an Administrator or Lieutenant Governor, though some UTs have legislatures with limited powers.

**55) With reference to Puducherry, consider the following statements:**

1. Its Legislative Assembly is directly created by the Constitution.
2. Its governance structure is based on the Government of Union Territories Act, 1963.
3. The Lieutenant Governor is bound by the aid and advice of the Council of Ministers in all matters.

Which of the statements given above are correct?

- A. 2 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- Statement 1 is incorrect: Article 239A only empowers Parliament to create a legislature for UTs like Puducherry. The Assembly itself is not directly created by the Constitution.
- Statement 2 is correct: The Government of Union Territories Act, 1963 provides the actual legal and institutional framework for

Puducherry's governance.

- Statement 3 is incorrect: The Lieutenant Governor is not bound in all matters; he/she has discretionary powers and can refer issues to the President in case of disagreement.

**56) With reference to Delhi, consider the following statements:**

1. Its Legislative Assembly can legislate on public order.
2. Article 239AA provides special constitutional status to Delhi.
3. The Lieutenant Governor has no discretionary powers.

Which of the statements given above are correct?

- A. 2 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- Statement 1 is incorrect: The Delhi Assembly cannot legislate on public order, police, and land, as these are reserved for the Union.
- Statement 2 is correct: Article 239AA (69th Constitutional Amendment, 1991) grants special constitutional status to Delhi as the National Capital Territory.
- Statement 3 is incorrect: The Lieutenant Governor has discretionary powers, especially in matters of conflict with the elected government.

**57) With reference to Jammu & Kashmir (UT), consider the following statements:**

1. Its Legislative Assembly has powers similar to that of a full-fledged State.
2. Public order and police are under the control of the Lieutenant Governor.
3. Its governance is based on the Jammu and Kashmir Reorganisation Act, 2019.

Which of the statements given above are correct?

- A. 2 and 3 only
- B. 1 and 2 only
- C. 1 and 3 only

- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- Statement 1 is incorrect: The J&K Assembly does not have full State-like powers, as key subjects are reserved for the Union.
- Statement 2 is correct: Public order and police are under the Union, exercised through the Lieutenant Governor.
- Statement 3 is correct: The governance framework is defined by the Jammu and Kashmir Reorganisation Act, 2019.

**58) Which of the following correctly explains Article 246(4) of the Constitution?**

- A. It restricts Parliament from legislating on State subjects for UTs
- B. Parliament can legislate on any subject for Union Territories
- C. UT legislatures have overriding powers over Parliament
- D. It applies only to Delhi

**Answer: B**

**Explanation:**

- Article 246(4) empowers Parliament to legislate on any subject (including State List) for Union Territories. This reflects the unitary tilt of the Constitution in the administration of UTs.

**59) With reference to climate change and public health in India, consider the following statements:**

1. Climate change has contributed to the spread of vector-borne diseases into new geographical regions.
2. Heat Action Plans in India are primarily focused only on urban areas.
3. Air pollution is linked with adverse maternal health outcomes.

Which of the statements given above are correct?

- A. 1 and 3 only
- B. 2 and 3 only
- C. 1 and 2 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- Statement 1 is correct because climate change expands the habitat of disease vectors such as mosquitoes.
- Statement 2 is incorrect because Heat Action Plans increasingly include rural and informal worker populations, not just urban areas.
- Statement 3 is correct as PM2.5 exposure is linked to pre-eclampsia and gestational hypertension.

**60) The Global Stocktake mechanism under the Paris Agreement is intended to:**

- A. Fix legally binding emission targets for countries
- B. Review collective global progress toward climate goals
- C. Allocate carbon credits among developing countries
- D. Establish a global carbon trading market

**Answer: B**

**Explanation:**

- The **Global Stocktake** is conducted every **five years** under the Paris Agreement to **assess the collective progress of countries in achieving climate goals**, particularly limiting global warming to **1.5°C or well below 2°C** above pre-industrial levels. It does **not impose penalties or set targets**, but helps guide countries in strengthening their climate actions (NDCs).

**61) The term “Blue Carbon” refers to carbon stored in:**

- A. Deep ocean mineral deposits
- B. Marine and coastal ecosystems
- C. Glacial ice sheets
- D. Freshwater lakes and rivers

**Answer: B**

**Explanation:**

**Blue carbon** refers to carbon captured and stored by **coastal and marine ecosystems**, especially:

- Mangroves
- Seagrass meadows
- Salt marshes
- These ecosystems can store **more carbon per**

**unit area than many terrestrial forests**, making them highly important in **climate change mitigation**.

**62) Which one of the following ecosystems is considered among the most efficient natural carbon sinks per unit area?**

- A. Temperate grasslands
- B. Tropical rainforests
- C. Mangrove forests
- D. Alpine tundra

**Answer: C**

**Explanation:**

**Mangrove forests** store very high amounts of carbon in:

- **biomass (trees)**
- **deep water-logged soils**
- They can store **3–5 times more carbon per hectare than tropical forests**, which is why mangroves are important in **blue carbon ecosystems and climate mitigation strategies**.

**63) The warming limit of 1.5°C mentioned in the Paris Agreement is measured relative to:**

- A. Average global temperature of 1990
- B. Average temperature of 1950–1970
- C. Pre-industrial levels (1850–1900)
- D. Temperature at the beginning of the 21st century

**Answer: C**

**Explanation:**

- The **1.5°C target** refers to the rise in global average temperature **above pre-industrial levels (1850–1900)**.

Limiting warming to **1.5°C instead of 2°C** significantly reduces risks such as:

- extreme heat waves
- sea-level rise
- coral reef loss
- biodiversity decline.

**64) With reference to Union Territories with legislatures, consider the following statements:**

1. Puducherry’s legislature is created directly by the Constitution.

2. Delhi's Legislative Assembly cannot legislate on public order.
3. Parliament can legislate on State List subjects for Union Territories.

Which of the statements given above are correct?

- A. 2 and 3 only
- B. 1 and 2 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- Statement 1 is incorrect because Article 239A only empowers Parliament; the legislature is created through the 1963 Act.
- Statement 2 is correct as public order is excluded from Delhi's legislative domain.
- Statement 3 is correct due to Article 246(4), which gives Parliament overriding power.

**65) Consider the following statements regarding Union Territories in India:**

1. The administration of Union Territories is directly carried out by the President through an Administrator.
2. Parliament has the power to legislate on any subject in the State List for Union Territories.

Which of the statements given above is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Answer: C**

**Explanation:**

- **Statement 1 is correct:** Under Article 239, Union Territories are administered by the **President through an Administrator or Lieutenant Governor**, who acts as the President's representative.
- **Statement 2 is correct:** As per Article 246(4), **Parliament has the power to legislate on any subject, including those in the State List, for Union Territories**, reflecting a strong unitary feature.

**66) Consider the following statements regarding legislative powers in Union Territories:**

1. All Union Territories have elected legislatures similar to States.
2. Parliament may create a legislature for a Union Territory through law.

Which of the statements given above is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Answer: B**

**Explanation:**

- **Statement 1 is incorrect:** Only certain Union Territories such as **Delhi, Puducherry, and Jammu & Kashmir** have legislatures. Others are **directly administered by the Union Government** without elected assemblies.
- **Statement 2 is correct:** Article 239A empowers Parliament to **create a legislature and Council of Ministers for Union Territories** by law, as seen in Puducherry.

**67) Consider the following statements regarding the governance of Delhi:**

1. Delhi enjoys the same legislative powers as a full-fledged State.
2. Public order, police, and land fall under the control of the Union Government.

Which of the statements given above is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Answer: B**

**Explanation:**

- **Statement 1 is incorrect:** Delhi does **not enjoy full statehood powers**; its legislative competence is limited under Article 239AA.
- **Statement 2 is correct:** Subjects such as **public order, police, and land are reserved for the Union Government**, and are administered through the Lieutenant Governor.

68) With reference to Keytruda, consider the following statements:

1. It is a monoclonal antibody used in immunotherapy.
2. It enhances immune response by blocking PD-1 receptors.
3. It directly kills cancer cells like chemotherapy.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

Answer: A

Explanation:

- Statement 1 is correct because Keytruda is a monoclonal antibody-based immunotherapy drug.
- Statement 2 is correct as it blocks PD-1 receptors, reactivating T-cells.
- Statement 3 is incorrect because it does not directly kill cancer cells; instead, it activates the immune system.

69) The primary target of Keytruda in the human body is:

- A. PD-L1 on tumor cells
- B. PD-1 receptor on T-cells
- C. CTLA-4 receptor
- D. HER2 protein

Answer: B

Explanation:

- Keytruda binds to **PD-1 receptors on T-cells**, preventing immune suppression by tumor cells.

70) The interaction between PD-1 and PD-L1 in cancer biology leads to:

- A. Activation of immune response
- B. Suppression of T-cell activity
- C. Increased antibody production
- D. Enhanced cell division

Answer: B

Explanation:

- PD-1–PD-L1 binding **switches off T-cells**, allowing cancer cells to evade immunity.

71) Which of the following cancers is/are treated using Keytruda?

1. Lung cancer
2. Cervical cancer
3. Renal cell carcinoma

Select the correct answer:

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

Answer: D

Explanation:

- Keytruda (pembrolizumab) is a **broad-spectrum immunotherapy drug** belonging to the class of **immune checkpoint inhibitors**, specifically targeting the **PD-1 receptor on T-cells**. By blocking the PD-1 pathway, it prevents cancer cells from evading immune detection and allows the immune system to attack tumor cells effectively.
- Its approval across multiple cancer types is based on **tumor immunogenicity (ability to trigger immune response)** rather than only tissue of origin, which marks a shift from traditional cancer treatment approaches.

72) With reference to Improved Cookstoves (ICS), consider the following statements-

1. They significantly improve thermal efficiency compared to traditional chulhas
2. They completely eliminate indoor air pollution
3. They can be linked with carbon credit mechanisms

Which of the statements given above are correct

- A. 1 and 3 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

Answer : (a)

Explanation:

- Statement 1 is correct because ICS increase thermal efficiency from about 10 percent to

nearly 40 percent or more

- Statement 2 is incorrect because ICS reduce but do not completely eliminate indoor air pollution
- Statement 3 is correct because emission reductions from ICS can be monetised through carbon credit markets.

**73) Which of the following pollutants is primarily responsible for the formation of photochemical smog?**

- A. Sulphur dioxide
- B. Nitrogen oxides and volatile organic compounds
- C. Carbon monoxide
- D. Particulate matter

**Answer: B**

**Explanation:**

- Photochemical smog forms when **nitrogen oxides (NO<sub>x</sub>)** react with **volatile organic compounds (VOCs)** in the presence of sunlight, producing secondary pollutants like ozone and PAN. It is typical of urban areas with heavy vehicular emissions.

**74) The major source of sulphur dioxide (SO<sub>2</sub>) in urban air pollution is:**

- A. Vehicular emissions
- B. Coal-based thermal power plants
- C. Agricultural activities
- D. Construction dust

**Answer: B**

**Explanation:**

- SO<sub>2</sub> is mainly emitted from **burning of sulphur-containing fossil fuels**, especially coal in thermal power plants.

**75) Which of the following is/are secondary air pollutants?**

- 1. Ozone
- 2. Peroxyacetyl nitrate (PAN)
- 3. Carbon monoxide

Select the correct answer:

- A. 1 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

**Answer: B**

**Explanation:**

- Ozone and PAN are **secondary pollutants** formed through atmospheric reactions. Carbon monoxide is a **primary pollutant** directly emitted from incomplete combustion.

**76) With reference to exchange rate dynamics, consider the following statements**

- 1. Currency depreciation always leads to higher economic growth
- 2. Depreciation increases the burden of foreign currency-denominated debt
- 3. A country can simultaneously maintain fixed exchange rate, free capital mobility, and independent monetary policy

Which of the statements given above are correct

- A. 2 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

**Answer A**

**Explanation:**

- Statement 1 is incorrect because depreciation can lead to inflation and financial instability, offsetting export gains
- Statement 2 is correct because depreciation increases the domestic cost of servicing foreign debt
- Statement 3 is incorrect because the Impossible Trinity states that all three objectives cannot be achieved simultaneously.

**77) With reference to exchange rate management in India, consider the impact of RBI's intervention in the foreign exchange market:**

When the Reserve Bank of India (RBI) purchases foreign currency to stabilize the value of the Rupee, what is its primary effect on domestic liquidity?

- A. It leads to a contraction in domestic money supply
- B. It leads to an expansion in domestic money supply

- C. It remains neutral due to simultaneous Open Market Operations
- D. It automatically increases the Repo rate

**Answer: B**

**Explanation:**

- When the RBI **purchases foreign currency (e.g., dollars)** from the market, it pays for these assets by **injecting equivalent rupees into the banking system**. This increases the reserves of commercial banks and enhances **overall liquidity in the economy**, making the impact expansionary.
- This is a key mechanism of **exchange rate management**, especially when the RBI aims to prevent excessive appreciation of the Rupee due to large capital inflows.
- Although the RBI may later conduct **sterilization operations (such as selling government securities)** to absorb excess liquidity, the **immediate and primary effect of forex purchase is an increase in money supply**.

**78) Consider the following statements regarding the dynamics of the Indian Rupee in the foreign exchange market:**

Statement I: An increase in Net Foreign Direct Investment (FDI) inflows exerts downward pressure on the value of the Indian Rupee.

Statement II: The 'Impossible Trinity' (Mundell-Fleming Trilemma) states that a country cannot simultaneously maintain a fixed exchange rate, free capital movement, and independent monetary policy.

Which one of the following is correct?

- A. Both Statement I and II are correct and II explains I
- B. Both Statement I and II are correct but II does not explain I
- C. Statement I is correct but II is incorrect
- D. Statement I is incorrect but II is correct

**Answer: D**

**Explanation:**

- **Statement I is incorrect:** An increase in FDI inflows leads to a higher supply of **foreign currency (like dollars)** in the domestic market.

This increases demand for the Rupee, thereby causing **appreciation (upward pressure)**, not depreciation. The confusion often arises due to misunderstanding between **nominal exchange rate and REER**, making this a classic conceptual trap.

- **Statement II is correct:** The **Impossible Trinity (Mundell-Fleming Trilemma)** is a foundational concept in international economics. It states that a country cannot simultaneously achieve:
  - Fixed exchange rate
  - Free capital mobility
  - Independent monetary policy
- A country must sacrifice one of these three objectives. India, for example, follows a **managed float exchange rate**, allowing some degree of monetary independence while partially managing capital flows.

**79) Consider the following statements regarding the monetary reforms and evolution of the Indian Rupee during the colonial period:**

Statement 1: The 'Gold Exchange Standard' adopted in 1898 pegged the Indian Rupee to the British Pound Sterling at approximately 15 rupees to one pound.

Statement 2: This exchange rate arrangement was aimed at facilitating the payment of 'Home Charges' by ensuring stability of the rupee against sterling.

Which one of the following is correct?

- A. Both Statement 1 and Statement 2 are correct and Statement 2 is the correct explanation for Statement 1
- B. Both Statement 1 and Statement 2 are correct but Statement 2 is not the correct explanation for Statement 1
- C. Statement 1 is correct but Statement 2 is incorrect
- D. Statement 1 is incorrect but Statement 2 is correct

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** Following the recommendations of the **Fowler Committee (1898)**, India adopted the **Gold Exchange**

**Standard**, under which the rupee—though not directly convertible into gold domestically—was **pegged to gold via the British Pound Sterling**. The fixed rate of **1 shilling 4 pence per rupee (i.e., 15 rupees per pound)** provided exchange rate stability and marked a shift from the earlier **silver-based currency system**, which had become volatile due to falling silver prices.

- **Statement 2 is correct:** The primary motivation behind this monetary arrangement was to facilitate the smooth payment of **'Home Charges'**—a substantial financial burden on colonial India. These included payments such as:
  - Salaries and pensions of British officials
  - Interest on public debt held in Britain
  - Administrative and military expenses incurred in London
  - Since these obligations had to be paid in **Pound Sterling**, exchange rate stability became essential. A volatile rupee (under the silver standard) would have made these payments unpredictable and costly.

**Link between Statement 1 and Statement 2:**

- Statement 2 correctly explains Statement 1. The **pegging of the rupee to sterling under the Gold Exchange Standard was fundamentally driven by imperial financial interests**, particularly the need to ensure **predictable and stable remittances to Britain**.

**80) With reference to Scheduled Castes in India, consider the following statements**

1. The President can modify the list of Scheduled Castes at any time by notification
2. Scheduled Caste status is currently restricted to Hindus, Sikhs, and Buddhists
3. Parliament has the power to include or exclude communities from the SC list

Which of the statements given above are correct

- A. 2 and 3 only

- B. 1 and 2 only  
C. 1 and 3 only  
D. 1, 2 and 3

**Answer: A**

**Explanation:**

- Statement 1 is incorrect because once notified, the SC list can only be modified by Parliament and not by the President alone
- Statement 2 is correct because the 1950 Order restricts SC status to Hindus, Sikhs, and Buddhists
- Statement 3 is correct because Parliament has exclusive authority to amend the list.

**81) With reference to the constitutional status of Scheduled Castes (Dalits) in India, which of the following statements is correct?**

- A. The Constitution provides reservation for Scheduled Castes in both public employment and private sector employment.
- B. The President can notify Scheduled Castes for a State, subject to modification only by Parliament.
- C. The status of Scheduled Castes is determined solely by the State Governments.
- D. Scheduled Castes are entitled to reservation only in educational institutions and not in legislatures.

**Answer: B**

**Explanation:**

- Article 341 of the Constitution empowers the **President to specify the list of Scheduled Castes for each State or Union Territory**, in consultation with the Governor. Once notified, this list **can only be modified by Parliament through law**, not by executive action.
- The other options are incorrect because reservation does not extend to the private sector, the State Governments do not have final authority in determining SC status, and Scheduled Castes are also provided **political reservation in legislatures under Articles 330 and 332**.

**82) With reference to political representation of Scheduled Castes, consider the following:**

- A. Reservation of seats for Scheduled Castes in Lok Sabha is based on their proportion in total population of India.
- B. Reservation for Scheduled Castes in State Assemblies is fixed permanently by the Constitution.
- C. The reservation of seats for Scheduled Castes in legislatures is subject to periodic extension by constitutional amendments.
- D. Scheduled Castes have reservation only in local bodies, not in Parliament.

**Answer: C**

**Explanation:**

- Reservation of seats for Scheduled Castes in legislatures was initially for 10 years but has been **extended periodically through constitutional amendments** (latest extension up to 2030). It is **not permanent**, making this a key conceptual point.

**83) With reference to Subhas Chandra Bose, consider the following statements:**

1. He attempted to operationalise social equality within the Indian National Army by removing caste and religious distinctions.
2. His economic ideas were strictly aligned with orthodox communist ideology.
3. His alliances during World War II were guided by strategic considerations rather than ideological agreement.

Which of the statements given above are correct?

- A. 1 and 3 only
- B. 2 and 3 only
- C. 1 and 2 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- The first statement is correct because Bose ensured an integrated and non-discriminatory structure within the INA. The second

statement is incorrect because his economic thought represented a balanced planning approach rather than strict communism. The third statement is correct as his alliances were strategic and aimed at weakening British rule.

**84) With reference to the role of women in the Indian national movement, consider the following pairs:**

Leader	Associated Characteristic
1. Rani Lakshmbai	Symbol of regional armed resistance
2. Kasturba Gandhi	Participation in nationwide Gandhian movements
3. Begum Hazrat Mahal	Advocacy of women's suffrage in legislative reforms

Which of the pairs given above is/are correctly matched?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- Pair 1 is correct as Rani Lakshmbai led armed resistance in 1857. Pair 2 is correct as Kasturba Gandhi actively participated in Gandhian movements. Pair 3 is incorrect because Begum Hazrat Mahal was associated with the Revolt of 1857, not with suffrage or legislative reforms.

**85) Consider the following statements regarding Subhas Chandra Bose:**

1. He was elected President of the Indian National Congress twice and later resigned due to ideological differences with Gandhian leadership.
2. He advocated complete independence (Purna Swaraj) much before it became the official Congress goal in 1929.
3. He formed the Forward Bloc to consolidate left-wing elements within the Congress.

Which of the statements given above is/are correct?

- A. 1 and 3 only
- B. 2 and 3 only
- C. 1 only
- D. 1, 2 and 3

**Answer: D**

**Explanation:**

- **Statement 1 is Correct:** Subhas Chandra Bose was elected Congress President in 1938 (Haripura Session) and 1939 (Tripuri Session). However, due to serious ideological differences with Gandhian leaders over methods and pace of struggle, he resigned from the post.
- **Statement 2 is Correct:** Bose was among the early leaders who strongly demanded complete independence, even before the Congress officially adopted Purna Swaraj as its goal in 1929 (Lahore Session).
- **Statement 3 is Correct:** After resigning, he founded the Forward Bloc in 1939 to bring together left-wing and radical elements within the Congress to pursue a more aggressive anti-colonial strategy.

**86) With reference to Subhas Chandra Bose and the Indian National Army (INA), consider the following statements:**

1. The INA was first formed under his leadership in Southeast Asia during World War II.
2. Bose established the Provisional Government of Azad Hind, which was recognized by some Axis powers.
3. The INA's campaigns were primarily concentrated in the eastern frontiers of India, including Imphal and Kohima.

Which of the statements given above is/are correct?

- A. 2 and 3 only
- B. 1 and 2 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- **Statement 1 is incorrect:** The INA was initially formed in 1942 by Captain Mohan Singh with Japanese support. Subhas Chandra Bose took over its leadership later in 1943 and reorganized it.
- **Statement 2 is correct:** Bose established the Provisional Government of Azad Hind in 1943, which received recognition from Axis powers such as Japan and Germany.
- **Statement 3 is correct:** The INA, in collaboration with Japanese forces, launched military campaigns in India's northeastern region, particularly in the battles of Imphal and Kohima.

**87) With reference to delimitation in India, consider the following statements:**

1. The allocation of Lok Sabha seats among States is currently based on the 1971 Census.
2. The Delimitation Commission's orders can be challenged in the Supreme Court.
3. The freeze on seat allocation was introduced to encourage population control measures.

Which of the statements given above are correct?

- A. 1 and 3 only
- B. 2 and 3 only
- C. 1 and 2 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- Statement 1 is correct: The current allocation is based on the 1971 Census.
- Statement 2 is incorrect: because the Delimitation Commission's orders are final and cannot be challenged in court.
- Statement 3 is correct as the freeze was intended to incentivise population control.

**88) Consider the following statements regarding the Union Legislature of India:**

1. The President of India is not a part of the Union Legislature.

2. The Rajya Sabha has a fixed tenure of six years.
3. The Lok Sabha is dissolved by the President upon the advice of the Council of Ministers.
4. The maximum strength of the Rajya Sabha is capped at 250 members.

How many of the statements given above are correct?

- A. Only one
- B. Only two
- C. Only three
- D. Only four

**Answer: B**

**Explanation:**

- **Statement 1 is incorrect:** Under Article 79 of the Constitution, the Union Legislature consists of **the President, the Lok Sabha, and the Rajya Sabha**. Hence, the President is an integral part of Parliament, even though not a member of either House.
- **Statement 2 is incorrect:** The Rajya Sabha is a **permanent body** and is not subject to dissolution. While individual members serve a term of six years, **one-third retire every two years**, so the House itself has no fixed tenure.
- **Statement 3 is correct:** The Lok Sabha can be **dissolved by the President**, but this is done **on the advice of the Council of Ministers** headed by the Prime Minister, reflecting the parliamentary system of governance.
- **Statement 4 is correct:** As per Article 80, the **maximum strength of the Rajya Sabha is 250 members**, including 238 representatives of States and Union Territories and 12 nominated members by the President.

**89) Regarding the composition of the State Legislative Assemblies in India, which of the following statements is NOT correct?**

- A. The maximum strength of a State Legislative Assembly is fixed at 500 members, except for smaller states.
- B. The members of the State Legislative Assembly are chosen by direct election from territorial constituencies.

- C. Seats are reserved for Scheduled Castes and Scheduled Tribes in the State Legislative Assemblies in proportion to their population in the state.
- D. The Governor of a state can nominate a maximum of two members from the Anglo-Indian community if they are not adequately represented in the Assembly.

**Answer: D**

**Explanation:**

- **Option (a) is correct:** Under Article 170, the **maximum strength of a State Legislative Assembly is 500 and minimum is 60**, though Parliament may allow exceptions for smaller states like Goa, Sikkim, and Mizoram.
- **Option (b) is correct:** Members of the Legislative Assembly are **directly elected by the people from territorial constituencies** on the basis of universal adult suffrage, ensuring representative democracy at the state level.
- **Option (c) is correct:** Article 332 provides for **reservation of seats for Scheduled Castes and Scheduled Tribes in proportion to their population** in the state, ensuring adequate political representation of these communities.
- **Option (d) is incorrect:** The provision for nomination of **Anglo-Indian members by the Governor (Article 333)** was **abolished by the 104th Constitutional Amendment Act, 2019**, and therefore no such nomination is currently permitted.

**90) With reference to the composition of the Rajya Sabha, which of the following statements is/are correct?**

1. The President nominates 12 members from amongst persons having special knowledge in fields like art, literature, science, and social service.
2. The representatives of the states are elected by the members of both the legislative assembly and the legislative council of the state.
3. The allocation of seats to the states is based on the principle of equal

representation for every state.

Which of the statements given above is/are correct?

- A. 1 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** Under Article 80 of the Constitution, the President nominates **12 members to the Rajya Sabha** from among persons having special knowledge or practical experience in fields such as **art, literature, science, and social service**, ensuring representation of eminent individuals.
- **Statement 2 is incorrect:** Representatives of states in the Rajya Sabha are elected **only by the elected members of the State Legislative Assembly**, through the system of proportional representation by means of a single transferable vote. Members of Legislative Councils do not participate.
- **Statement 3 is incorrect:** Seats in the Rajya Sabha are allocated **on the basis of population of states**, not on equal representation. Hence, larger states have more members than smaller ones, unlike the equal representation model seen in some federal systems like the USA.

**91) With reference to delimitation in India, consider the following statements:**

1. The Delimitation Commission is constituted under a law passed by Parliament.
2. Its orders require approval of Parliament before coming into force.
3. It determines reservation of constituencies for Scheduled Castes and Scheduled Tribes.

Which of the statements given above are correct?

- A. 1 and 3 only
- B. 2 and 3 only
- C. 1 and 2 only

- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** The Delimitation Commission is constituted under a Delimitation Act passed by Parliament (e.g., Delimitation Act, 2002). Article 82 empowers Parliament to enact such a law after every Census.
- **Statement 2 is incorrect:** The orders of the Delimitation Commission do not require approval of Parliament. Once finalized, they have the force of law and come into effect as notified, and cannot be modified by Parliament or challenged in courts (Article 329).
- **Statement 3 is correct:** The Commission is responsible for identifying and allocating constituencies reserved for Scheduled Castes and Scheduled Tribes, based on their population in different regions, ensuring fair political representation.

**92) Consider the following statements regarding Territorial Constituencies for Lok Sabha elections in India:**

1. The Delimitation Commission, appointed by the President of India, is responsible for readjusting the boundaries of Lok Sabha constituencies.
2. The allocation of Lok Sabha seats for each state is strictly proportional to its population relative to the total population of India.
3. The formation of constituencies aims to ensure that each elected member of the Lok Sabha represents a roughly equal population.
4. The President of India can nominate two members of the Anglo-Indian community to the Lok Sabha if they are deemed inadequately represented.

Which of the statements given above are correct?

- A. 1 and 4 only
- B. 2 and 4 only

- C. 3 and 4 only
- D. 1, 3 and 4 only

**Answer: D**

**Explanation:**

- **Statement 1 is correct:** The **Delimitation Commission**, set up by the President under a Parliamentary law, is responsible for **redrawing the boundaries of Lok Sabha and Assembly constituencies**. Its orders have the force of law and cannot be challenged in courts.
- **Statement 2 is incorrect:** Although seat allocation is broadly based on population, it is **not strictly proportional in practice**. Constitutional provisions and amendments (like the freeze based on the 1971 Census until 2026) mean that exact proportionality is not followed across states.
- **Statement 3 is correct:** One of the core principles of delimitation is **equal representation**, meaning each constituency should have, as far as practicable, a **similar population size**, ensuring fairness in democratic representation.
- **Statement 4 is correct:** Article 331 originally empowered the President to **nominate up to two Anglo-Indian members to the Lok Sabha** if the community was not adequately represented. (*Note: This provision has been discontinued by the 104th Constitutional Amendment Act, 2019, but the statement reflects the original constitutional provision.*)

**93) Which Article bars courts from questioning delimitation laws?**

- A. Article 226
- B. Article 329
- C. Article 246
- D. Article 324

**Answer: B**

**Explanation:** **Article 329** bars courts from interfering in matters related to **delimitation of constituencies and allotment of seats**, ensuring that the electoral process is not delayed by judicial intervention.

**94) With reference to constitutional provisions**

**relating to delimitation and elections, consider the following statements:**

1. Article 82 provides for readjustment of seats in the Lok Sabha after each Census.
2. Article 170 deals with delimitation of State Legislative Assembly constituencies.
3. Judicial review is permitted against delimitation orders once elections are notified.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** Article 82 empowers Parliament to enact a **Delimitation Act after every Census** for readjustment of Lok Sabha seats.
- **Statement 2 is correct:** Article 170 deals with **composition and readjustment of State Assembly constituencies** based on population.
- **Statement 3 is incorrect:** Under Article 329, **delimitation orders cannot be challenged in courts**, ensuring the electoral process is not disrupted.

**95) With reference to the proposed increase in Lok Sabha seats, consider the following statements:**

1. Increasing the strength of the Lok Sabha automatically increases the strength of the Rajya Sabha.
2. The size of the Council of Ministers depends on the strength of the Lok Sabha.
3. Delimitation of constituencies is carried out by an independent commission whose decisions have the force of law.

Which of the statements given above are

correct?

- A. 2 and 3 only
- B. 1 and 2 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- Statement 1 is incorrect: The strength of the Rajya Sabha is not automatically linked to the Lok Sabha. It is governed separately under Article 80, and any change in its composition requires specific constitutional or legislative action, not a mere increase in Lok Sabha seats.
- Statement 2 is correct: Under Article 75(1A), the size of the Council of Ministers is capped at **15% of the total strength of the Lok Sabha**. Therefore, any increase in Lok Sabha membership can potentially increase the upper limit of the Council of Ministers.
- Statement 3 is correct: Delimitation is carried out by an **independent Delimitation Commission** constituted under a Parliamentary law. Its orders have the **force of law** and are not subject to modification by Parliament or judicial review (as per Article 329).

**96) Consider the following statements regarding the constitutional provisions related to the Lok Sabha:**

1. **Article 81 of the Constitution of India** deals with the allocation of seats in the Lok Sabha among States.
2. The readjustment of seats and territorial constituencies after each Census is provided under **Article 82 of the Constitution of India**.
3. The allocation of seats to States in the Lok Sabha is independent of population considerations.

Which of the statements given above is/are correct?

- A. 1 and 2 only
- B. 2 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation**

- **Statement 1 is correct: Article 81 of the Constitution of India** deals with the **composition of the Lok Sabha and the allocation of seats among States**.

Important provisions of Article 81:

- Lok Sabha members are **directly elected from territorial constituencies in the States**.
- The **number of seats allotted to each State is determined broadly in proportion to its population**.
- The Constitution states that the **ratio between population and number of seats should, as far as practicable, be the same for all States**.
- **Statement 2 is correct: Article 82 of the Constitution of India** provides for **readjustment of Lok Sabha seats and delimitation of constituencies after every Census**.

Key aspects:

- After every Census, Parliament enacts a **Delimitation Act**.
- A **Delimitation Commission** is then constituted.
- The Commission performs two tasks:
  - **Readjustment of the number of seats allotted to States**
  - **Redrawing boundaries of parliamentary constituencies**
- **Statement 3 is incorrect:** This statement contradicts the **basic principle of representation in the Lok Sabha**.
- Seat allocation is **not independent of population**. In fact:
  - **Population is the primary basis for allocating seats to States**.
- Article 81 specifically requires **population-based proportional representation**.

**97) Consider the following statements regarding delimitation and representation in the Lok Sabha:**

1. The Constitution mandates that the allocation of seats in the Lok Sabha among States should be based on

population so that the ratio between population and seats is, as far as practicable, the same for all States.

2. The freeze on the readjustment of Lok Sabha seats among States was introduced by the 42nd Constitutional Amendment Act and later extended by the 84th Constitutional Amendment Act until the first Census after 2026.
3. The Article 82 of the Constitution of India provides for the readjustment of parliamentary constituencies after every Census through a Delimitation Commission.

Which of the statements given above is/are correct?

- A. 1 and 2 only
- B. 1 and 3 only
- C. 2 and 3 only
- D. 1, 2 and 3

**Answer: D**

**Explanation:**

- **Statement 1 is correct:** Under Article 81 of the Constitution of India, the allocation of Lok Sabha seats aims to maintain **population–seat parity across States** as far as practicable.
- **Statement 2 is correct:** The **freeze on seat redistribution** was introduced by the **42nd Amendment (1976)** and extended by the **84th Amendment (2001)** until the **first Census after 2026**.
- **Statement 3 is correct:** Article 82 of the Constitution of India requires **readjustment of seats and constituency boundaries after each Census** through a **Delimitation Commission**.

**98) Consider the following statements regarding the constitutional and institutional implications of increasing the strength of the Lok Sabha:**

1. Increasing the size of the Lok Sabha would automatically increase the maximum permissible strength of the Union Council of Ministers.
2. In the event of a joint sitting of Parliament, the expanded strength of

the Lok Sabha would further increase its numerical advantage over the Rajya Sabha.

3. The total strength of the Rajya Sabha must also increase proportionately if the strength of the Lok Sabha is expanded.

Which of the statements given above is/are correct?

- A. 1 and 2 only
- B. 2 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** Under Article 75 of the Constitution of India, the **Council of Ministers cannot exceed 15% of the total strength of the Lok Sabha**. Hence, increasing Lok Sabha seats increases the **maximum possible size of the executive**.
- **Statement 2 is correct:** Joint sittings are provided under Article 108 of the Constitution of India, where voting is based on **numerical strength**, giving the Lok Sabha dominance that would grow further if its size increases.
- **Statement 3 is incorrect:** The strength of the Rajya Sabha is governed separately under Article 80 of the Constitution of India and **does not automatically change** with Lok Sabha expansion.

**99) With reference to Artificial Intelligence in cybersecurity, consider the following statements:**

1. Zero-day vulnerabilities are software flaws that have already been patched by developers.
2. AI models can automate the identification and exploitation of software vulnerabilities.
3. Bug bounty programmes aim to encourage ethical disclosure of vulnerabilities.

**Which of the statements given above are**

correct?

- A. 2 and 3 only
- B. 1 and 2 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- **Statement 1 is incorrect:** Zero-day vulnerabilities refer to previously unknown software flaws for which no patch exists at the time of discovery. The term “zero-day” indicates that developers have had zero days to fix the issue, making such vulnerabilities highly dangerous and actively exploitable.
- **Statement 2 is correct:** Advanced AI models are increasingly capable of automating the detection of vulnerabilities in code and, in some cases, even simulating or generating exploits. This raises both opportunities (defensive security testing) and risks (AI-assisted cyberattacks), especially with highly capable models.
- **Statement 3 is correct:** Bug bounty programmes are structured initiatives by organizations to incentivize ethical hackers to responsibly disclose vulnerabilities. By rewarding discovery and reporting, these programmes help improve system security while reducing the risk of malicious exploitation.

**100) In LLM sampling, what does temperature control?**

- A. The GPU cooling during training
- B. The randomness/flatness of the probability distribution
- C. The learning rate
- D. The tokenization granularity

**Answer: B**

**Explanation:**

- Temperature controls the **degree of randomness in output generation**. A higher temperature makes the probability distribution flatter (more diverse outputs), while a lower temperature makes it sharper (more deterministic outputs).

**101) What is the role of a loss function in AI?**

- A. To measure prediction errors
- B. To store training data
- C. To visualize model outputs
- D. To encrypt data

**Answer: A**

**Explanation:**

- A loss function quantifies the **difference between predicted output and actual output**, guiding the model during training to minimize errors and improve accuracy.

**102) Which model is an example of a large language model?**

- A. MySQL
- B. GPT-4
- C. CSS3
- D. Apache Spark

**Answer: B**

**Explanation:**

- GPT-4 is a **large language model (LLM)** trained on vast text data to generate human-like responses. The other options are database, styling language, and data processing framework respectively.

**103) Consider the following statements regarding tokenization in Large Language Models (LLMs):**

1. Tokenization converts raw text into units that may represent whole words, subwords, or characters.
2. Different tokenization schemes can influence the model's efficiency and representation of language.
3. Tokenization determines the architecture of the neural network used in LLMs.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** Tokenization converts

text into **tokens**, which may be **whole words, subwords (like Byte Pair Encoding), or even characters**, depending on the tokenizer design. This flexibility is central to modern LLMs.

- **Statement 2 is correct:** Different tokenization schemes affect **sequence length, memory usage, and how meaning is captured**. For example, subword tokenization balances vocabulary size and generalization, directly influencing model efficiency and output quality.
- **Statement 3 is incorrect :** Tokenization affects **input representation**, not the **core neural architecture (e.g., Transformer)**. The architecture is defined independently of how text is tokenized, although tokenization interacts with model performance.

**104) Regarding Article 345 of the Indian Constitution, which statement is correct?**

- A. It allows the state legislature to adopt any one language used in the state as the official language of that state.
- B. It mandates Hindi as the official language for all states.
- C. It provides for the adoption of English as the sole official language of India.
- D. It prohibits states from declaring more than one official language.

**Answer: A**

**Explanation:**

- Option (a) is correct: Article 345 empowers the State Legislature to adopt any one or more languages in use in the state or Hindi as the official language(s) for that state. This provision reflects the federal flexibility of the Constitution, allowing linguistic diversity at the state level.

**105) Consider the following statements regarding the use of languages in the Indian Parliament:**

1. The presiding officer of each House has the discretion to allow a member to address the House in a language not listed in the Eighth Schedule if deemed

necessary.

2. While simultaneous interpretation is available for many scheduled languages, its provision for all 22 languages in both Houses during all sessions is not guaranteed.
3. If a member submits a written question in a scheduled language other than Hindi or English, the reply provided must also be in that same language.
4. The official records and authoritative texts of parliamentary proceedings are maintained and published exclusively in Hindi and English.

Which of the above statements are correct?

- A. 2 only
- B. 1 and 2 only
- C. 1, 2 and 4 only
- D. All of the above

**Answer: C**

**Explanation:**

- **Statement 1 is correct:** Under **Article 120(1)** of the Constitution, business in Parliament is conducted in Hindi or English. However, the **presiding officer (Speaker/Chairman)** has the discretion to allow a member to speak in their **mother tongue**, even if it is not included in the Eighth Schedule. This ensures inclusivity in parliamentary participation.
- **Statement 2 is correct:** Although Parliament has developed systems for **simultaneous interpretation in multiple scheduled languages**, its availability depends on **logistical and technical constraints**, such as interpreter availability. Therefore, interpretation in all 22 languages is not guaranteed in every sitting.
- **Statement 3 is incorrect:** As per parliamentary rules, **answers to questions are provided only in Hindi or English**, irrespective of the language in which the question is asked. There is no requirement to respond in the same regional language used by the member.
- **Statement 4 is correct:** The **authoritative records and official publications of**

Parliament are maintained in **Hindi and English only**, as per constitutional provisions and the Official Languages Act, ensuring uniformity and legal clarity.

**106) Which of the following statements about the recognition of classical languages in India is incorrect?**

- A. The Government of India is responsible for conferring classical language status based on specific criteria.
- B. Once declared a classical language, it receives UGC support for establishing academic chairs in central universities.
- C. Classical language status also elevates the language to the rank of an official language under the Eighth Schedule of the Constitution.
- D. Recorded history and independent literary tradition are key criteria for granting classical status.

**Answer: C**

**Explanation:**

- **Option (c) is incorrect:** Classical language status is **independent of the Eighth Schedule**. A language can be classical without being listed in the Eighth Schedule and vice versa.

**107) Consider the following constitutional amendments:**

1. 21st
2. 71st
3. 92nd
4. 102nd

**How many of the above are related to the official languages under the Eighth Schedule?**

- A. Only one
- B. Only two
- C. Only three
- D. All four

**Answer: C**

**Explanation:**

**21st Amendment (1967) – Correct:**

- Added **Sindhi** to the Eighth Schedule, expanding the list of recognized languages.

**71st Amendment (1992) – Correct:**

- Added **Konkani, Manipuri, and Nepali**,

increasing linguistic representation.

**92nd Amendment (2003) – Correct:**

- Added **Bodo, Santhali, Maithili, and Dogri**, further expanding the Schedule.

**102nd Amendment (2018) – Incorrect:**

- This amendment dealt with granting **constitutional status to the National Commission for Backward Classes (NCBC)** and did not relate to languages or the Eighth Schedule.

**108) With reference to semiconductor manufacturing, consider the following statements:**

1. Silicon is preferred over germanium in semiconductor manufacturing because of better thermal stability.
2. Doping is the process of removing impurities from semiconductor material.
3. Semiconductor fabrication plants require highly controlled clean-room environments.

Which of the statements given above are correct?

- A. 1 and 3 only
- B. 2 and 3 only
- C. 1 and 2 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- **Statement 1 is correct :** Silicon is more stable at higher temperatures and is more suitable for large-scale manufacturing than germanium.
- **Statement 2 is incorrect :** Doping means adding controlled impurities to pure semiconductor material to alter conductivity, not removing impurities.
- **Statement 3 is correct :** Semiconductor fabrication requires dust-free clean rooms due to the microscopic scale of chip components.

**109) Which of the following properties makes Fluorescent Nanodiamonds (FNDs) uniquely suitable for long-term bio-imaging**

### applications?

- A. Presence of nitrogen-vacancy defects enabling stable fluorescence without photobleaching
- B. High electrical conductivity similar to metals
- C. Ability to emit light only under high temperature conditions
- D. Dependence on external dyes for fluorescence

**Answer: A**

**Explanation:**

- Fluorescent Nanodiamonds (FNDs) contain **nitrogen-vacancy (NV) centers**, which are defects in the diamond lattice where a nitrogen atom replaces a carbon atom adjacent to a vacancy. These NV centers act as **stable quantum light emitters**. Unlike conventional fluorescent materials, they exhibit **no photobleaching (loss of fluorescence over time)** and **no photoblinking (intermittent light emission)**. This ensures **continuous, reliable fluorescence**, making them highly suitable for long-term bio-imaging and tracking of cellular processes.

**110) With reference to semiconductors, consider the following statements:**

1. The electrical conductivity of semiconductors lies between that of conductors and insulators.
2. Silicon and germanium are commonly used elemental semiconductors.
3. The conductivity of semiconductors decreases with increase in temperature.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- **Statement 1 is correct** : semiconductors have conductivity greater than insulators but lower

than conductors, which makes them useful in electronic devices.

- **Statement 2 is correct** : silicon and germanium are the most widely used elemental semiconductors due to their stable properties and suitability for chip manufacturing.
- **Statement 3 is incorrect** : semiconductor conductivity increases with rise in temperature as more charge carriers become available, unlike metals where conductivity decreases.

**111) Consider the following statements about Silicon:**

1. Silicon is the second most abundant element in the Earth's crust after oxygen.
2. Silicon is a metal.
3. Silicon is used as a semiconductor in electronics.

**How many of the above statements are correct?**

- A. Only one
- B. Only two
- C. All three
- D. None

**Answer: B**

**Explanation:**

- **Statement 1 is correct:** Silicon is the **second most abundant element in the Earth's crust after oxygen**, constituting nearly 27–28% of the crust by mass. It is commonly found in the form of **silica (SiO<sub>2</sub>)** and silicate minerals rather than in pure elemental form. This abundance makes it economically viable for large-scale industrial and technological use.
- **Statement 2 is incorrect:** This is a common conceptual trap. Silicon is **not a metal**; it is classified as a **metalloid (semi-metal)**. Metalloids possess properties intermediate between metals and non-metals. Silicon has some metallic characteristics like luster, but it does not conduct electricity like true metals and behaves differently chemically. This unique nature makes it especially useful in electronics.

- **Statement 3 is correct:** Silicon is widely used as a **semiconductor** because its electrical conductivity lies between that of conductors and insulators. Its conductivity can be precisely controlled through **doping**, which makes it ideal for manufacturing transistors, diodes, integrated circuits, solar cells, and computer chips. It forms the foundation of modern electronics and the global semiconductor industry.

**112) Consider the following statements about Germanium:**

1. Germanium is a metalloid.
2. It is primarily used in the production of semiconductors.
3. Germanium was discovered by Clemens Winkler in 1886.

How many of the above statements are correct?

- A. Only one
- B. Only two
- C. All three
- D. None

**Answer: C**

**Explanation:**

- **Statement 1 is correct:** Germanium is classified as a **metalloid**, similar to silicon. It has characteristics of both metals and non-metals and is placed in Group 14 of the periodic table. Its intermediate electrical properties make it highly valuable in electronics and optical technologies.
- **Statement 2 is correct:** Germanium is used in the **semiconductor industry**, especially in high-speed electronics, fiber optics, infrared optics, and solar cells. Although silicon dominates most commercial semiconductor applications, germanium remains important where superior electron mobility and specialized performance are required.
- **Statement 3 is correct:** Germanium was discovered by the German chemist **Clemens Winkler in 1886**. Its discovery was historically significant because it confirmed Dmitri Mendeleev's earlier prediction of an unknown

element called "eka-silicon" in the periodic table, thereby strengthening confidence in the periodic law.

**113) With reference to the oil crises of 1973 and 1979, consider the following statements:**

1. The 1973 oil crisis was triggered by the Arab oil embargo during the Arab-Israeli War.
2. The 1979 oil shock was primarily caused by the Iranian Revolution.
3. India approached the IMF after the 1973 oil crisis to resolve its Balance of Payments crisis.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation**

- **Statement 1 is correct:** The 1973 oil crisis began after Arab oil producers imposed an embargo during the Arab-Israeli War.
- **Statement 2 is correct:** The 1979 oil shock followed the Iranian Revolution and the resulting disruption in oil production.
- **Statement 3 is incorrect :** India approached the IMF mainly after the 1979 oil shock due to the Balance of Payments crisis.

**114) Consider the following statements regarding the Strait of Hormuz:**

1. It connects the Persian Gulf with the Gulf of Oman.
2. It lies between Iran and Oman.
3. It provides a direct maritime outlet to the Red Sea.

Which of the statements given above is/are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** The strait serves as the only sea passage linking the Persian Gulf with the Gulf of Oman, and further to the Arabian Sea.
- **Statement 2 is correct:** Geographically, Iran borders the northern coast, while Oman (Musandam Peninsula) lies to the south.
- **Statement 3 is incorrect:** The Strait of Hormuz does not directly connect to the Red Sea; access to the Red Sea is through the Arabian Sea and then via the Suez Canal.

**115) Consider the following pairs:**

Name of Strait	Between countries
1. Magellan	Bolivia and Argentina
2. Bosphorus	Syria and Turkey
3. Bab-el-Mandeb	Saudi Arabia and Egypt

**How many of the pairs given above are correctly matched?**

- A. Only one
- B. Only two
- C. All three
- D. None

**Answer: D**

**Explanation:**

**Pair 1: Magellan – Bolivia and Argentina → Incorrect**

- The **Strait of Magellan** is located in the southern part of **Chile**, separating mainland South America from the Tierra del Fuego archipelago. It does not lie between Bolivia and Argentina. Bolivia is a landlocked country and has no connection with this strait. This makes the pair incorrect.

**Pair 2: Bosphorus – Syria and Turkey → Incorrect**

- The **Bosphorus Strait** lies entirely within **Turkey** and separates **European Turkey from Asian Turkey**. It connects the Black Sea with the Sea of Marmara. Syria is not related to the Bosphorus. Hence, this pair is also incorrect.

**Pair 3: Bab-el-Mandeb – Saudi Arabia and Egypt → Incorrect**

- The **Bab-el-Mandeb Strait** connects the **Red Sea with the Gulf of Aden** and lies between **Yemen (Arabian Peninsula) and Djibouti and Eritrea (Africa)**. It does not separate Saudi

Arabia and Egypt. Therefore, this pair is incorrect.

**116) How many of the following water bodies are connected to the Red Sea?**

1. Gulf of Aden
2. Strait of Hormuz
3. Suez Canal
4. Bab-el-Mandeb Strait

Options:

- A. One only
- B. Two only
- C. Three only
- D. All four

**Answer: C**

**Explanation:**

**1. Gulf of Aden → Connected**

- The **Gulf of Aden** is directly connected to the Red Sea through the **Bab-el-Mandeb Strait**. It serves as the southern outlet of the Red Sea into the Arabian Sea. Hence, it is connected.

**2. Strait of Hormuz → Not Connected**

- The **Strait of Hormuz** connects the **Persian Gulf with the Gulf of Oman and the Arabian Sea**. It has no direct connection with the Red Sea. This is a common UPSC trap because both are strategically important maritime chokepoints in West Asia.

**3. Suez Canal → Connected**

- The **Suez Canal** connects the **Red Sea with the Mediterranean Sea** through Egypt. It is one of the most important artificial waterways in global trade. Therefore, it is directly connected to the Red Sea

**4. Bab-el-Mandeb Strait → Connected**

- The **Bab-el-Mandeb Strait** forms the southern entrance of the Red Sea and connects it to the Gulf of Aden. It is a critical international shipping route. Hence, it is connected.

**117) With reference to the Nari Shakti Vandan Adhiniyam, consider the following statements:**

1. It provides one-third reservation for women in the Lok Sabha and State Legislative Assemblies.

2. It includes a separate reservation for women belonging to Other Backward Classes (OBCs).
3. Its implementation is linked with delimitation after the next Census.

Which of the statements given above are correct?

- A. 1 and 3 only
- B. 2 and 3 only
- C. 1 and 2 only
- D. 1, 2 and 3

**Answer: A**

**Explanation**

- Statement 1 is correct: The 106th Constitutional Amendment provides 33% reservation for women in the Lok Sabha and State Assemblies.
- Statement 2 is incorrect : No separate OBC reservation for women is provided in the Act. Only SC and ST women receive sub-quotas within reserved seats.
- Statement 3 is correct : Implementation is linked with delimitation after the next Census.

**118) Regarding the reservation of seats in Municipalities, which of the following statements is accurate?**

- A. One-third of the total number of seats are reserved for women in all municipalities.
- B. Reservation for Scheduled Castes and Scheduled Tribes is provided in every municipality in proportion to their population in the municipal area.
- C. The offices of Chairpersons in the municipalities are reserved for Scheduled Castes, Scheduled Tribes, and women in every municipality.
- D. The State Legislature has the sole discretion to decide whether to reserve seats for Scheduled Castes, Scheduled Tribes, and women in municipalities.

**Answer: B**

**Explanation:**

- Article 243T mandates that reservation of seats for Scheduled Castes and Scheduled

Tribes must be provided in every municipality in proportion to their population in that municipal area. This is a direct constitutional requirement under the 74th Constitutional Amendment Act, ensuring representation of historically disadvantaged communities in urban local governance.

**119) Consider the following statements regarding the implementation of recommendations made by the Delimitation Commission of India:**

1. The orders of the Delimitation Commission have the force of law and cannot be challenged in any court.
2. While Parliament cannot alter the Commission's delimitation orders, a parliamentary committee reviews the orders before they are laid before the House of the People.
3. A Delimitation Commission continues to exist until a new Commission is appointed, allowing it to address unforeseen issues arising from its delimitation exercise.

Which of the above statements are correct?

- A. 1 only
- B. 3 only
- C. 1 and 3 only
- D. 2 and 3 only

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** The orders of the Delimitation Commission have the full force of law and cannot be challenged in any court. This finality is protected under Article 329(a) of the Constitution, which prevents judicial interference in delimitation matters so that elections are not delayed by litigation.
- **Statement 2 is incorrect:** There is no parliamentary committee empowered to review or modify the delimitation orders. Once the Delimitation Commission finalizes its report, it is submitted to the President and published in the Gazette of India. The orders

are laid before Parliament and State Legislatures only for information, not for approval or modification. Parliament cannot alter them.

- **Statement 3 is incorrect:** The Delimitation Commission is not a permanent body. It is a temporary statutory body constituted for a specific delimitation exercise. Once it completes its work and submits its report, it stands dissolved. A fresh Commission is constituted separately for the next delimitation exercise.

**120) Under Article 169, the abolition of a State Legislative Council requires Parliament to pass**

- A. a Constitutional Amendment Bill
- B. an Ordinary Law after a special majority resolution by the State Assembly
- C. a Money Bill with President's recommendation
- D. a Resolution passed by half of the States

**Answer: B**

**Explanation:**

- Article 169 of the Constitution deals with the creation or abolition of a State Legislative Council. A Legislative Council is the Upper House in states having a bicameral legislature. Parliament cannot abolish or create it on its own initiative. The process begins only when the concerned State Legislative Assembly passes a resolution requesting such creation or abolition.
- This resolution must be passed by a **special majority**, which means a majority of the total membership of the Assembly and a majority of not less than two-thirds of the members present and voting. After such a resolution is passed, Parliament may enact an **ordinary law** to create or abolish the Council. It is not treated as a Constitutional Amendment under Article 368, even though it changes the legislative structure of the State.

**121) With reference to the River Basin Management (RBM) Scheme, consider the**

**following statements:**

1. It treats an entire river system including tributaries and groundwater as a single hydrological unit.
2. The National Water Development Agency is responsible for Interlinking of Rivers projects.
3. The Brahmaputra Board primarily deals with coastal erosion management in peninsular India.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation**

- Statement 1 is correct: RBM follows an integrated basin approach where the full river system is treated as one hydrological unit.
- Statement 2 is correct : The NWDA is the main agency for planning river interlinking projects.
- Statement 3 is incorrect : The Brahmaputra Board deals mainly with flood control and erosion management in the Brahmaputra and Barak valleys of North East India.

**122) Consider the following statements regarding the Interlinking of Rivers Programme:**

1. It is based on the idea of transferring water from river basins with relatively higher availability to those facing water stress.
2. The National Water Development Agency plays an important role in planning and feasibility studies for river linking projects.
3. The Ken-Betwa Link Project represents an important project under this programme.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only

D. 1, 2 and 3

**Answer: D**

**Explanation:**

- Statement 1 is correct: the interlinking programme is based on the principle of balancing regional water availability by transferring water from relatively surplus basins to water-deficit areas to support irrigation, drinking water, and drought mitigation.
- Statement 2 is correct : the National Water Development Agency (NWDA) is the central technical body responsible for preparing feasibility reports, conducting studies, and coordinating implementation of river linking proposals.
- Statement 3 is correct : the Ken-Betwa Link Project is one of the most significant and advanced projects under the river interlinking programme and is often regarded as a model for future implementation.

**123) With reference to the Brahmaputra River system, consider the following statements:**

1. The Brahmaputra enters India through a gorge formed near Namcha Barwa after traversing the Tibetan Plateau.
2. Unlike the Indus, the Brahmaputra carries a larger volume of water and sediment due to its humid catchment in the eastern Himalayas.

Which of the statements given above is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Answer: C**

**Explanation:**

- **Statement 1 is correct:** The Brahmaputra originates in southwestern Tibet and flows eastward as the Yarlung Tsangpo across the Tibetan Plateau. Near **Namcha Barwa peak**, it takes a dramatic U-turn called the “Great Bend” and passes through one of the deepest gorges in the world before entering India

through Arunachal Pradesh as the Siang (or Dihang). This gorge is an important geomorphological feature and distinguishes the Brahmaputra from many other Himalayan rivers.

- **Statement 2 is correct:** The Brahmaputra carries one of the highest sediment loads and water discharges among Indian rivers. Unlike the Indus, whose basin lies largely in arid and semi-arid regions, the Brahmaputra drains the **high-rainfall eastern Himalayas and Assam valley**, where intense monsoonal rainfall and active erosion contribute to very high sediment transport. This is why the river is highly braided, flood-prone, and responsible for large-scale deposition in Assam and Bangladesh.

**124) With reference to High-Value Crop Diversification in India, consider the following statements:**

1. High-value crops generate higher net returns per unit of land compared to cereals.
2. Cocoa is promoted as an intercrop in coconut plantations due to suitable shade conditions.
3. Agarwood cultivation in India is mainly concentrated in the Himalayan region.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation**

- Statement 1 is correct : high-value crops such as fruits, nuts, spices, and plantation crops provide significantly higher returns than staple cereals.
- Statement 2 is correct: cocoa grows well under partial shade and is widely promoted as an intercrop in coconut and arecanut plantations.
- Statement 3 is incorrect : agarwood

cultivation is mainly concentrated in the North Eastern States, especially Tripura and Assam, not in the Himalayan region.

**125) Consider the following statements:**

**Statement-I:** Kharif crops are sown in the months of March to April.

**Statement-II:** Kharif crops require abundant rainfall and are harvested after the monsoon. Which one of the following is correct in respect of the above statements?

- A. Both Statement-I and Statement-II are correct and Statement-II explains Statement-I
- B. Both Statement-I and Statement-II are correct, but Statement-II does not explain Statement-I
- C. Statement-I is correct, but Statement-II is incorrect
- D. Statement-I is incorrect, but Statement-II is correct

**Answer: D**

**Explanation:**

- **Statement-I is incorrect:** Kharif crops are generally sown with the onset of the **Southwest Monsoon**, usually during the months of **June to July**, and not in March–April. These crops depend heavily on monsoon rainfall for their growth and are therefore closely linked with the rainy season. Crops such as rice, maize, cotton, soybean, groundnut, and millets are major Kharif crops.
- March–April is typically associated with the harvesting period of many **Rabi crops** or the sowing of short-duration **Zaid crops**, not Kharif crops. Hence, the statement is factually incorrect.
- **Statement-II is correct:** Kharif crops require **high temperature, humidity, and abundant rainfall** during their growing season. Since they are sown at the beginning of the monsoon, they grow during the rainy months and are generally harvested after the monsoon ends, usually between **September and October**. Their dependence on rainfall makes monsoon performance extremely

important for agricultural output and food security in India.

- Thus, this statement correctly describes both the climatic requirement and harvesting pattern.

**126) Consider the following crops and their primary growing seasons in India:**

1. Wheat is primarily grown in the Rabi season.
2. Rice is primarily grown in the Kharif season.
3. Mustard is primarily grown in the Zaid season.
4. Cotton is primarily grown in the Kharif season.

How many of the above statements are correct?

- A. Only one
- B. Only two
- C. Only three
- D. All four

**Answer: C**

**Explanation:**

**Statement 1 is correct:** Wheat is one of the most important **Rabi crops** in India. It is sown during the winter months, usually from October to December, and harvested in spring, generally between March and April. It requires cool weather during growth and bright sunshine during ripening.

- **Statement 2 is correct:** Rice is primarily a **Kharif crop** in India. It is sown during the monsoon season and harvested after the rains. It requires high temperature, high humidity, and abundant water supply, making it ideal for cultivation during the rainy season. Though rice is also grown as a Rabi crop in some southern states, its primary season remains Kharif.
- **Statement 3 is incorrect:** Mustard is mainly a **Rabi crop**, not a Zaid crop. It is sown in winter after the monsoon and harvested before summer. Zaid crops are short-duration summer crops grown between Rabi and Kharif seasons, such as watermelon, cucumber, and

some vegetables. Therefore, associating mustard with the Zaid season is incorrect.

- **Statement 4 is correct:** Cotton is primarily a **Kharif crop**. It requires high temperature, light rainfall, and a long frost-free period. It is sown with the onset of the monsoon and harvested later in the year. Black soil regions of Maharashtra, Gujarat, and Telangana are major cotton-growing areas.

**127) With reference to pulse cultivation in India, consider the following statements:**

1. Pulses improve soil fertility by fixing atmospheric nitrogen through symbiotic bacteria in their root nodules.
2. Gram is predominantly cultivated during the kharif season under high rainfall conditions.

Which of the statements given above is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** Pulses belong to the leguminous family and have the special ability to fix atmospheric nitrogen with the help of *Rhizobium* bacteria present in their root nodules. This improves soil fertility and reduces dependence on chemical fertilizers, making pulses important in sustainable agriculture and crop rotation systems.
- **Statement 2 is incorrect:** Gram (chickpea) is primarily a **rabi crop**, not a kharif crop. It is generally sown after the monsoon and requires relatively low rainfall and cool climatic conditions for growth. It thrives best in areas with moderate temperature and well-drained loamy soils. Therefore, linking gram mainly with the kharif season is incorrect.

**128) With reference to India's fertilizer security, consider the following statements:**

1. Domestic urea production in India depends significantly on LNG as feedstock.
2. The Strait of Hormuz is a critical route for fertilizer imports from Gulf countries.
3. Single Super Phosphate is a substitute for potash fertilizers.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation**

- Statement 1 is correct : domestic urea production depends heavily on natural gas and LNG as feedstock.
- Statement 2 is correct : a major share of fertilizer and LNG imports from Gulf countries passes through the Strait of Hormuz.
- Statement 3 is incorrect : Single Super Phosphate is a phosphatic fertilizer, not a potash fertilizer.

**129) Consider the following statements regarding the geopolitical significance of West Asia:**

1. West Asia holds more than 60% of the world's proven oil reserves, making it the primary global source for hydrocarbon fuels.
2. The Suez Canal, a critical maritime trade route, is located entirely within Egypt and serves as a major chokepoint for trade between Asia and Europe.
3. The ongoing conflicts and geopolitical rivalries in West Asia are primarily driven by the region's abundant freshwater resources and disputes over water sharing.
4. The region's strategic location at the crossroads of Asia, Africa, and Europe facilitates major air and sea trade routes, influencing global commerce.

How many of the statements given above are

correct?

- A. Only one
- B. Only two
- C. Only three
- D. None

**Answer: B**

**Explanation:**

- **Statement 1 is incorrect:** West Asia is one of the most important hydrocarbon-rich regions in the world and plays a central role in global energy security. However, the claim that it holds **more than 60% of the world's proven oil reserves** is not accurate. The region accounts for roughly **48–50% of global proven oil reserves**, although exact figures may vary with estimates. Countries such as Saudi Arabia, Iraq, Iran, Kuwait, and the UAE dominate global petroleum reserves, but the figure does not exceed 60 percent. Therefore, the statement is factually incorrect due to exaggeration.
- **Statement 2 is correct:** The **Suez Canal** is an artificial sea-level waterway located entirely within the sovereign territory of **Egypt**. It connects the **Mediterranean Sea with the Red Sea**, providing the shortest maritime route between Europe and Asia without requiring ships to travel around the Cape of Good Hope. It is one of the world's most important maritime chokepoints and handles a significant portion of global trade, particularly oil, LNG, and container shipping. Its strategic significance makes it central to global trade and geopolitics.
- **Statement 3 is incorrect:** West Asia is actually a region of **water scarcity**, not abundant freshwater resources. While disputes over rivers such as the Tigris, Euphrates, and Jordan do exist, the primary drivers of geopolitical rivalry in the region are factors such as **oil and gas resources, sectarian tensions (especially Sunni–Shia rivalry), strategic location, historical conflicts, external intervention, and regional power competition**. Freshwater issues are important but are not the principal

cause of most major conflicts across West Asia. Hence, the statement is incorrect both in describing the region as water-abundant and in identifying water as the primary driver of conflict.

- **Statement 4 is correct:** West Asia occupies a highly strategic position at the junction of **Asia, Africa, and Europe**, making it a geopolitical crossroads. This location controls major trade routes, including the **Suez Canal, Strait of Hormuz, and Bab-el-Mandeb Strait**, all of which are crucial for the movement of goods and energy supplies. It also serves as an important aviation and logistics hub linking Europe with Asia and Africa. Because of this central location, developments in West Asia have a direct impact on global trade, shipping costs, and international commerce.

**130) With reference to Nano Urea, consider the following statements:**

1. Nano Urea is a liquid fertilizer developed to improve nitrogen use efficiency in crops.
2. It helps reduce the dependence on conventional urea by improving nutrient absorption.
3. Nano Urea provides nitrogen to crops in the same quantity and manner as conventional granular urea.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** Nano Urea is a liquid fertilizer developed using nanotechnology to improve nitrogen delivery to plants. Its nano-sized particles enhance absorption efficiency and reduce nutrient losses, making fertilizer application more precise and effective compared to conventional methods.
- **Statement 2 is correct:** Nano Urea improves

nitrogen use efficiency and helps reduce excessive dependence on conventional urea. Since traditional urea often leads to nitrogen loss through volatilization, runoff, and leaching, Nano Urea supports better nutrient uptake and contributes to lower fertilizer consumption and environmental stress.

- **Statement 3 is incorrect:** Nano Urea does not provide nitrogen in the same quantity and through the same mechanism as conventional granular urea. It works through targeted absorption and higher efficiency rather than bulk nutrient application. It is designed to supplement fertilizer use through improved efficiency, not by matching conventional urea in identical form and quantity.

**131) With reference to CAATSA and India's strategic interests, consider the following statements:**

1. CAATSA authorizes U.S. sanctions on countries engaging in significant defense transactions with Russia.
2. Chabahar Port helps India access Afghanistan and Central Asia without passing through Pakistan.
3. INSTC primarily connects India to Southeast Asia through maritime routes.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation**

- Statement 1 is correct because CAATSA targets major transactions involving Russia, Iran, and North Korea.
- Statement 2 is correct because Chabahar provides India an alternative route bypassing Pakistan for access to Afghanistan and Central Asia.
- Statement 3 is incorrect because INSTC

connects India mainly to Iran, Russia, Central Asia, and Europe—not Southeast Asia.

**132) Consider the following statements:**

**Statement-I:** A major challenge in India–Central Asia trade is the absence of direct land connectivity, as the most convenient overland route passes through Pakistan.

**Statement-II:** India is attempting to overcome this challenge by promoting alternatives such as Chabahar Port in Iran and the International North-South Transport Corridor (INSTC).

**Which one of the following is correct?**

- A. Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- B. Both Statement-I and Statement-II are correct but Statement-II is not the correct explanation for Statement-I
- C. Statement-I is correct but Statement-II is incorrect
- D. Statement-I is incorrect but Statement-II is correct

**Answer: A**

**Explanation:**

- **Statement-I is correct:** One of the biggest constraints in India's trade and strategic engagement with **Central Asia** is the lack of direct land access. Geographically, the shortest and most practical overland route would pass through **Pakistan and Afghanistan**. However, due to political and strategic constraints, Pakistan does not provide India with direct transit access for trade with Central Asia. This creates a major obstacle in expanding India's economic presence in the region.
- **Statement-II is correct:** To address this problem, India has invested in **Chabahar Port in Iran** and promoted the **International North-South Transport Corridor (INSTC)**. Chabahar allows India to access Afghanistan and further connect with Central Asia without depending on Pakistan. Similarly, the INSTC links India with Iran, the Caspian region, Russia, and Eurasia through a multi-modal transport

network involving sea, rail, and road routes. These projects are designed specifically to improve strategic and commercial connectivity.

**Statement-II correctly explains Statement-I:**

- Statement-II directly provides the solution to the problem identified in Statement-I. Since Pakistan blocks the most direct land route, India requires alternative connectivity mechanisms. Chabahar Port and INSTC are strategic responses created precisely to bypass this constraint and ensure access to Central Asia. Therefore, Statement-II is the correct explanation of Statement-I.

**133) Consider the following statements regarding the India–Iran relationship:**

1. Chabahar Port is located outside the Persian Gulf and provides direct access to the Gulf of Oman.
2. The 2024 agreement allows India to operate a terminal at Chabahar Port for a period of 10 years.
3. US sanctions on Iran have affected formal banking and payment channels between India and Iran.

Which of the statements given above are correct?

- A. 1 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: D**

**Explanation:**

- **Statement 1 is correct:** A major strategic advantage of **Chabahar Port** is that it is located **outside the Persian Gulf**, on the Gulf of Oman. This makes it different from ports like Bandar Abbas, which lie inside the Strait of Hormuz region. Because of this location, Chabahar offers India direct maritime access without dependence on routes vulnerable to chokepoint pressures inside the Persian Gulf.
- **Statement 2 is correct:** In **May 2024**, India and Iran signed a significant long-term agreement under which **India Ports Global Limited (IPGL)**

will operate the Shahid Beheshti terminal at Chabahar Port for **10 years**. This marked a major step in strengthening India’s long-term connectivity strategy with Afghanistan, Central Asia, and Eurasia.

**Statement 3 is correct:** US sanctions on Iran have created serious challenges for India–Iran trade, especially in relation to **formal banking channels and payment mechanisms**. These restrictions have made oil payments, trade settlements, and financial transfers difficult, forcing both countries to depend on alternative arrangements and limiting the overall scale of bilateral trade.

**134) Which of the following are significant economic implications for a transit country participating in a transit agreement?**

- A. Enhanced revenue generation through transit fees, tolls, and related logistics services, along with incentives for infrastructure development
- B. Guaranteed tariff-free access for its domestic products to the markets of all participating landlocked countries
- C. An obligation to maintain strategic reserves of essential commodities for all partner countries at its own expense
- D. A mandatory reduction in its own import duties to lower domestic consumer prices

**Answer: A**

**Explanation:**

- A **transit agreement** allows goods and services to pass through the territory of one country (the transit country) so that another country—often a landlocked country—can access international trade routes and seaports. Such agreements are important for regional connectivity, trade facilitation, and economic cooperation.

The most significant economic benefit for the **transit country** is the opportunity for **revenue generation**.

It can earn income through:

- **Transit fees and tolls** charged for the use of roads, railways, ports, and inland waterways

- Charges for **warehousing, customs handling, port services, and logistics operations**
- Increased employment and economic activity in transport and service sectors
- Transit arrangements also encourage governments to improve **infrastructure development**, such as highways, rail links, dry ports, and communication networks. This strengthens long-term trade capacity and regional integration.

**135) With reference to inflation targeting in India, consider the following statements:**

1. The Monetary Policy Committee consists of six members.
2. The RBI aims to maintain inflation at exactly 2% under the current framework.
3. The RBI Governor has a casting vote in case of a tie in MPC decisions.

Which of the statements given above are correct?

- A. 1 and 3 only
- B. 2 and 3 only
- C. 1 and 2 only
- D. 1, 2 and 3

**Answer: A**

**Explanation**

- **Statement 1 is correct:** The **Monetary Policy Committee (MPC)** was established under the **Reserve Bank of India Act, 1934**, as amended in 2016, to institutionalize inflation targeting in India. The MPC consists of **six members**:
- Three members from the RBI, including the **RBI Governor (Chairperson)**, the Deputy Governor in charge of monetary policy, and one RBI official nominated by the Central Board.
- Three external members appointed by the Central Government.
- Thus, the total strength of the MPC is six members, making Statement 1 correct.
- **Statement 2 is incorrect:** India follows a **flexible inflation targeting framework**, under which the RBI aims to maintain **Consumer**

**Price Index (CPI) inflation at 4 percent**, with a **tolerance band of  $\pm 2$  percent**. This means inflation should remain within the range of **2 percent to 6 percent**, but the central target is **4 percent**, not exactly 2 percent.

- The value of 2 percent represents only the lower limit of the permitted range, not the target itself. Therefore, Statement 2 is incorrect.
- **Statement 3 is correct:** Each member of the MPC has one vote while deciding the policy repo rate and other monetary policy measures. In case of an equal division of votes, the **RBI Governor**, who serves as the Chairperson of the MPC, exercises a **casting vote** to break the tie.
- This provision ensures that decisions can be finalized even when there is no majority consensus. Therefore, Statement 3 is correct.

**136) Consider the following statements regarding the factors influencing decisions on the Repo Rate by the Reserve Bank of India:**

**Statement-I:** Inflation trends play a crucial role in determining the Repo Rate.

**Statement-II:** The Repo Rate is determined solely by the Government of India without consultation with the Reserve Bank of India.

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

- A. Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- B. Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- C. Statement-I is correct but Statement-II is incorrect
- D. Statement-I is incorrect but Statement-II is correct

**Answer: C**

**Explanation:**

- **Statement-I is correct:** Inflation is one of the most important factors considered while deciding the **Repo Rate**, which is the rate at

which the Reserve Bank of India (RBI) lends short-term funds to commercial banks. Under India's inflation-targeting framework, the RBI uses repo rate changes as a major monetary policy tool to control inflation and maintain price stability.

- When inflation rises above the desired level, the RBI may increase the repo rate to make borrowing costlier, thereby reducing money supply and demand in the economy. When inflation is low and economic growth needs support, the repo rate may be reduced to encourage borrowing and investment. Thus, inflation trends directly influence repo rate decisions.
- **Statement-II is incorrect:** The Repo Rate is **not determined solely by the Government of India**. It is decided by the **Monetary Policy Committee (MPC)** of the RBI, which was established under the RBI Act in 2016. The MPC consists of six members—three from the RBI and three appointed by the Central Government.
- While the Government sets the inflation target in consultation with the RBI, the actual decision regarding the repo rate is taken independently by the MPC through voting. Therefore, the Government does not unilaterally decide the repo rate, making this statement incorrect.

**137) Consider the following statements regarding the Monetary Policy Committee (MPC) in India:**

**Statement-I:** The Monetary Policy Committee was constituted in India in February 2015 along with the new Monetary Policy Framework Agreement.

**Statement-II:** The MPC is responsible for determining the policy repo rate required to achieve the inflation target set by the Government of India.

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

- A. Both Statement-I and Statement-II are correct and Statement-II is the correct

explanation for Statement-I

- B. Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- C. Statement-I is correct but Statement-II is incorrect
- D. Statement-I is incorrect but Statement-II is correct

**Answer: D**

**Explanation:**

- **Statement-I is incorrect:** The **Monetary Policy Framework Agreement** between the Government of India and the RBI was signed in **February 2015**, but the **Monetary Policy Committee itself was formally constituted in September 2016**, after the RBI Act was amended through the Finance Act, 2016.
- Thus, the statement wrongly equates the 2015 framework agreement with the formation of the MPC. The agreement laid the foundation, but the MPC came into existence later. Therefore, Statement-I is incorrect.
- **Statement-II is correct:** The MPC is responsible for deciding the **policy repo rate**, which is the main instrument for implementing monetary policy in India. Its objective is to maintain the inflation target set by the Government of India under the flexible inflation targeting framework.
- At present, the inflation target is **4 percent CPI inflation with a tolerance band of  $\pm 2$  percent**. The MPC meets periodically and decides the repo rate required to keep inflation within this range while also considering growth and financial stability. Hence, Statement-II is correct.

**138) With reference to reservation for women in Panchayati Raj Institutions, consider the following statements:**

1. Article 243D provides reservation for women in Panchayats.
2. The Constitution mandates 50% reservation for women in Panchayats.
3. Reservation for women applies to both

seats and offices of Chairpersons.

Which of the statements given above are correct?

- A. 1 and 3 only
- B. 2 and 3 only
- C. 1 and 2 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

**Statement 1 is correct:**

- Article 243D of the Constitution deals with reservation in Panchayats. It provides for reservation of seats for Scheduled Castes, Scheduled Tribes, and women in Panchayati Raj Institutions.

**Statement 2 is incorrect:**

- The Constitution provides for not less than one-third (33%) reservation for women in Panchayats, including the number of seats reserved for women belonging to SCs and STs. It does not mandate 50% reservation. However, many states have increased this limit to 50% through their State laws.

**Statement 3 is correct:**

- Reservation for women applies not only to seats in Panchayats but also to the offices of Chairpersons at different levels. At least one-third of the total number of Chairperson offices must be reserved for women.

**139) Consider the following statements regarding the duration of Panchayats in India:**

1. Every Panchayat, unless sooner dissolved under any law for the time being in force, shall continue for five years from the date appointed for its first meeting.
2. A Panchayat constituted upon the dissolution of a Panchayat before the expiration of its duration shall continue only for the remainder of the period for which the dissolved Panchayat would have continued had it not been so dissolved.
3. Where the remainder of the period for which the dissolved Panchayat would

have continued is less than six months, it shall not be necessary to hold any election for constituting the new Panchayat for such period.

4. If a Panchayat is dissolved, fresh elections must be completed before the expiry of six months from the date of its dissolution.

Which of the statements given above is/are correct?

- A. 1 and 2 only
- B. 1 and 3 only
- C. 2 and 4 only
- D. All of the above

**Answer: D**

**Explanation:**

**Statement 1 is correct:**

- As per Article 243E(1) of the Constitution, every Panchayat shall continue for a period of five years from the date appointed for its first meeting unless it is dissolved earlier under any law in force. The normal tenure is thus fixed at five years.

**Statement 2 is correct:**

- Under Article 243E(4), when a Panchayat is constituted after the premature dissolution of an existing Panchayat, the new Panchayat does not get a fresh five-year term. It continues only for the remaining period of the dissolved Panchayat's original tenure.

**Statement 3 is correct:**

- The proviso to Article 243E(3) states that if the remaining period of the dissolved Panchayat is less than six months, it is not compulsory to conduct elections for constituting a new Panchayat for such a short duration.

**Statement 4 is correct:**

- Article 243E(3) mandates that in case of dissolution of a Panchayat, elections to reconstitute it must be completed before the expiry of six months from the date of dissolution, ensuring continuity in local self-government.

**140) The Constitution (Seventy-Third Amendment) Act, 1992, which aims at**

**promoting the Panchayati Raj Institutions in the country, provides for which of the following?**

1. Constitution of District Planning Committees
2. State Election Commission to conduct all Panchayat elections
3. Establishment of State Finance Commissions

Select the correct answer using the code given below:

- A. 1 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

**Answer: C**

**Explanation:**

**Statement 1 is incorrect:**

- The Constitution of District Planning Committees (DPCs) is provided under **Article 243ZD**, which was introduced by the **74th Constitutional Amendment Act, 1992** related to Urban Local Bodies. The 73rd Constitutional Amendment deals specifically with Panchayati Raj Institutions in rural areas and does not provide for DPCs. Therefore, this statement is incorrect.

**Statement 2 is correct:**

- The 73rd Constitutional Amendment provides for the establishment of a **State Election Commission (SEC)** under **Article 243K**. It is responsible for the superintendence, direction, and control of the preparation of electoral rolls and the conduct of all elections to Panchayats, ensuring free and fair local body elections.

**Statement 3 is correct:**

- The amendment also provides for the constitution of a **State Finance Commission (SFC)** under **Article 243I**. The Governor of a State is required to constitute the Finance Commission every five years to review the financial position of Panchayats and recommend the distribution of financial resources between the State government and

local bodies.

**141) With reference to 'Ethanol Blending', consider the following statements:**

1. India has only achieved a 20% blend under its Ethanol Blended Petrol (EBP) Programme.
2. India does not have enough fermentation capacity required to produce ethanol.
3. Ethanol has less energy content than petrol.

Which of the statements given above is/are correct?

- A. 1 and 2 only
- B. 3 only
- C. 2 and 3 only
- D. 1 only

**Answer: C**

**Explanation:**

**Statement 1 is incorrect:**

- India has not yet fully achieved a 20% ethanol blend under the Ethanol Blended Petrol (EBP) Programme. For a long period, the country had achieved around 10% blending, while the target of 20% blending (E20) has been advanced for the coming years. Therefore, saying that India has only achieved a 20% blend is incorrect.

**Statement 2 is correct:**

- India faces limitations in fermentation and distillation capacity required for large-scale ethanol production. To meet higher blending targets like E20, significant expansion of ethanol production infrastructure is necessary, including increased feedstock availability and industrial capacity.

**Statement 3 is correct:**

- Ethanol contains lower energy compared to petrol. It has nearly 27% less energy per litre than petrol, which means vehicles may deliver slightly lower mileage when using higher ethanol blends.

**142) With reference to ethanol blending in aviation fuel in India, consider the following**

**statements:**

1. India has permitted ethanol blending in Aviation Turbine Fuel (ATF) under the Essential Commodities Act, 1955.
2. The amendment was made through changes in the Aviation Turbine Fuel (Regulation of Marketing) Order, 2001.
3. The government has prescribed a mandatory target of 20% ethanol blending in ATF by 2026.

Which of the statements given above is/are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

**Statement 1 is correct:**

- India has allowed ethanol blending in Aviation Turbine Fuel (ATF) to support cleaner energy use in the aviation sector and reduce carbon emissions. This step has been taken under the provisions of the Essential Commodities Act, 1955.

**Statement 2 is correct:**

- The provision was enabled through an amendment to the Aviation Turbine Fuel (Regulation of Marketing) Order, 2001. This provides the regulatory basis for blending ethanol with aviation fuel.

**Statement 3 is incorrect:**

- No mandatory target of 20% ethanol blending in ATF by 2026 has been prescribed by the government. The policy currently allows blending, but specific targets may be decided later depending on feasibility and safety requirements.

**143) Consider the following statements regarding India's Ethanol Blending Programme and energy security:**

**Statement 1:** India's Ethanol Blended Petrol (EBP) Programme, particularly its E20 target, helps strengthen energy security by reducing dependence on imported crude oil and

limiting the impact of imported inflation caused by volatile global crude prices and rupee-dollar exchange rate fluctuations.

**Statement 2:** By replacing a part of imported crude oil with domestically produced ethanol, which is purchased in Indian currency, the programme reduces foreign exchange outflow on petroleum imports and protects the domestic economy from external price shocks and currency depreciation effects on fuel prices.

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

- A. Both Statement 1 and Statement 2 are correct and Statement 2 is the correct explanation for Statement 1
- B. Both Statement 1 and Statement 2 are correct and Statement 2 is not the correct explanation for Statement 1
- C. Statement 1 is correct but Statement 2 is incorrect
- D. Statement 1 is incorrect but Statement 2 is correct

**Answer: A**

**Explanation:**

**Statement 1 is correct:**

- India's Ethanol Blended Petrol (EBP) Programme is not only aimed at reducing the crude oil import bill but also at improving energy security. Since India depends heavily on imported crude oil, fluctuations in international oil prices and depreciation of the rupee increase fuel costs and create imported inflation. Ethanol blending helps reduce this vulnerability.

**Statement 2 is correct:**

- Ethanol is produced domestically from feedstocks such as sugarcane, maize, and other agricultural sources, and it is procured in Indian rupees. By substituting a portion of imported petroleum with ethanol, India reduces its demand for dollar-denominated crude imports, lowering foreign exchange outflow and exposure to exchange rate volatility.

**Statement 2 is the correct explanation for Statement 1:**

- The direct reduction in imported crude oil dependence and foreign exchange demand explains how ethanol blending strengthens energy security and protects the economy from imported inflation.

**144) Consider the following statements regarding the environmental benefits of ethanol blending in fuel:**

- Ethanol blending leads to a reduction in the emission of carbon monoxide (CO) and unburnt hydrocarbons from vehicles.
- The use of ethanol-blended fuel significantly decreases the emission of particulate matter (PM).
- Ethanol is considered a carbon-neutral fuel source because the carbon dioxide (CO<sub>2</sub>) released during combustion is completely reabsorbed by crops during their growth cycle.
- Blending ethanol with gasoline typically results in a substantial increase in nitrogen oxide (NO<sub>x</sub>) emissions, thereby worsening smog formation.

Which of the statements given above are correct?

- 4 only
- 1 and 2 only
- 2 and 3 only
- All of the above

**Answer: B**

**Explanation:**

**Statement 1 is correct:**

- Ethanol contains oxygen, which improves fuel combustion efficiency. Better combustion reduces the release of carbon monoxide (CO) and unburnt hydrocarbons, especially in conventional petrol engines, thereby improving air quality.

**Statement 2 is correct:**

- Ethanol blending helps in lowering particulate matter (PM) emissions, particularly fine particles that are harmful to human health.

This makes ethanol-blended fuel environmentally beneficial compared to pure fossil fuels.

**Statement 3 is incorrect:**

- Although ethanol is produced from biomass such as sugarcane and maize, it cannot be considered completely carbon-neutral. The cultivation of crops, fertilizer use, transportation, fermentation, and distillation processes also generate greenhouse gas emissions. Therefore, ethanol has a lower carbon footprint than petrol, but it is not entirely carbon-neutral.

**Statement 4 is incorrect:**

- The effect of ethanol blending on nitrogen oxide (NO<sub>x</sub>) emissions is not uniform and depends on engine design, blend ratio, and operating conditions. A substantial increase in NO<sub>x</sub> emissions is not a standard or universally accepted outcome, so this statement is incorrect.

**145) With reference to the Adaptation Gap Report, consider the following statements:**

- It is released annually by the United Nations Environment Programme.
- It assesses the gap between adaptation needs and the actual efforts taken to address climate change impacts.
- It deals with mitigation finance and carbon market mechanisms under Article 6 of the Paris Agreement.

Which of the statements given above are correct?

- 1 and 2 only
- 2 and 3 only
- 1 and 3 only
- 1, 2 and 3

**Answer: A**

**Explanation:**

- Statement 1 is correct: The Adaptation Gap Report is published annually by the United Nations Environment Programme.
- Statement 2 is correct: It examines the difference between adaptation requirements

and the actual adaptation actions taken worldwide.

- Statement 3 is incorrect: Mitigation finance and carbon market mechanisms relate to emission reduction efforts, not to the Adaptation Gap Report.

**146) With reference to the Paris Agreement, consider the following statements:**

1. It was adopted during COP21 in 2015 under the United Nations Framework Convention on Climate Change.
2. It aims to limit the global temperature increase to well below 2°C above pre-industrial levels while pursuing efforts to limit it to 1.5°C.
3. It makes legally binding emission reduction targets mandatory for all developing countries.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- Statement 1 is correct: The Paris Agreement was adopted in 2015 during COP21 held in Paris under the United Nations Framework Convention on Climate Change.
- Statement 2 is correct: Its goal is to keep global temperature rise well below 2°C and preferably limit it to 1.5°C above pre-industrial levels.
- Statement 3 is incorrect: The Agreement does not impose legally binding emission reduction targets on all developing countries; countries submit voluntary Nationally Determined Contributions (NDCs).

**147) With reference to climate adaptation in India, consider the following statements:**

1. Nationally Determined Contributions (NDCs) include both mitigation and adaptation commitments.
2. NICRA is implemented by the Ministry

of Environment, Forest and Climate Change.

3. Tamil Nadu's Climate Resilient Villages Programme was highlighted in the Economic Survey 2025–26.

Which of the statements given above are correct?

- A. 1 and 3 only
- B. 2 and 3 only
- C. 1 and 2 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- Statement 1 is correct: Nationally Determined Contributions (NDCs) under the Paris Agreement include both mitigation and adaptation measures to address climate change.
- Statement 2 is incorrect: NICRA (National Innovations in Climate Resilient Agriculture) is implemented by the Indian Council of Agricultural Research, not by the Ministry of Environment, Forest and Climate Change.
- Statement 3 is correct: Tamil Nadu's Climate Resilient Villages Programme was specifically highlighted in the Economic Survey 2025–26 as a model for climate adaptation at the grassroots level.

**148) With reference to India–Africa relations, consider the following statements:**

1. The India–Africa Forum Summit is the official platform for cooperation between India and African countries.
2. India is a member of the African Union.
3. India provides Lines of Credit and capacity-building support to African nations under its development partnership programme.

Which of the statements given above are correct?

- A. 1 and 3 only
- B. 2 and 3 only
- C. 1 and 2 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- Statement 1 is correct: The India–Africa Forum Summit serves as the formal platform for political, economic, and strategic cooperation between India and African countries.
- Statement 2 is incorrect: India is not a member of the African Union; it is a continental organization of African states.
- Statement 3 is correct: India extends Lines of Credit, grants, and capacity-building support to African countries as part of its development partnership and South-South cooperation policy.

**149) With reference to India–Africa trade relations, consider the following statements:**

1. Africa is one of India’s major partners for crude oil and natural gas imports.
2. India has signed a continent-wide Free Trade Agreement with the African Union.
3. India is among the top five trading partners of Africa.

Which of the statements given above are correct?

- A. 1 and 3 only
- B. 2 and 3 only
- C. 1 and 2 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** Africa plays an important role in India’s energy security. Countries such as Nigeria, Angola, Algeria, and Libya have been major suppliers of crude oil and natural gas to India. India imports a significant share of its petroleum requirements from African nations, making the continent an important trade and strategic partner in the energy sector.
- **Statement 2 is incorrect:** India has not entered into a continent-wide Free Trade Agreement with the African Union. Trade relations are mainly conducted through bilateral agreements with individual African

countries and through broader cooperation platforms like the India–Africa Forum Summit. The African Continental Free Trade Area (AfCFTA) is an African initiative and India is not a part of it.

- **Statement 3 is correct:** India is among the leading trading partners of Africa, along with countries such as China, the United States, and the European Union. India exports pharmaceuticals, machinery, automobiles, textiles, and manufactured goods to Africa, while importing crude oil, gold, phosphates, and other raw materials. This makes India one of Africa’s top five trade partners.

**150) With reference to India’s development cooperation with Africa, consider the following statements:**

1. The Pan-African e-Network Project was launched to provide tele-education and telemedicine services.
2. The project was implemented by the Indian Space Research Organisation alone without involvement of any other institution.
3. India offers scholarships and training programmes for African students and professionals under ITEC.

Which of the statements given above are correct?

- A. 1 and 3 only
- B. 2 and 3 only
- C. 1 and 2 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** The Pan-African e-Network Project was launched by India in 2009 to connect African countries with Indian universities and hospitals through satellite and fibre-optic technology. Its purpose was to provide tele-education, telemedicine, e-governance, and capacity-building support, strengthening India’s development partnership with Africa.
- **Statement 2 is incorrect:** The project was not

implemented by Indian Space Research Organisation alone. It involved multiple institutions, including TCIL (Telecommunications Consultants India Limited), Indian universities, and super-specialty hospitals. ISRO provided satellite support, but the project was a collaborative initiative involving several agencies.

- **Statement 3 is correct:** Under the Indian Technical and Economic Cooperation (ITEC) programme, India provides scholarships, training courses, skill development, and professional capacity-building programmes for students, civil servants, defence personnel, and professionals from African countries. This reflects India's emphasis on human resource development and South-South cooperation.

**151) Consider the following statements regarding disqualification of a Member of Parliament on grounds of defection:**

1. A member can be disqualified if he or she votes against the party whip in the House without prior permission, even when the party is part of a ruling coalition.
2. The Speaker of the House decides questions of disqualification under the Anti-Defection Law, and such decisions are completely immune from judicial review.
3. The Anti-Defection Law applies to both elected and nominated members of Parliament.

Which of the statements given above is/are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: C**

**Explanation:**

- **Statement 1 is correct:** Under the Tenth Schedule of the Constitution, a member may be disqualified if he votes or abstains from

voting contrary to the direction issued by his political party, commonly known as the **party whip**, without obtaining prior permission. This rule applies irrespective of whether the party is in government, opposition, or part of a coalition. Therefore, even in a coalition government, defying the party whip can lead to disqualification.

- **Statement 2 is incorrect:** The **Speaker of the Lok Sabha** or the **Chairman of the Rajya Sabha** has the authority to decide questions of disqualification under the Anti-Defection Law. However, their decision is not beyond challenge. In **Kihoto Hollohan v. Zachillhu (1992)**, the Supreme Court held that the Speaker's decision is subject to **judicial review**, especially on grounds of mala fide action, violation of constitutional provisions, or procedural irregularity. Therefore, the statement is incorrect.
- **Statement 3 is correct:** The Anti-Defection Law applies to both **elected and nominated members** of Parliament. A nominated member can also be disqualified if he joins a political party after six months from the date of taking his seat in the House. Thus, the law covers both categories of members. Hence, this statement is correct.

**152) Consider the following statements regarding the Anti-Defection Law in India:**

1. A member of a political party is disqualified from being a member of the House if he voluntarily gives up the membership of his political party.
2. A political party may merge with another party without attracting disqualification if not less than two-thirds of its legislators agree to the merger.
3. The decision on disqualification under the Anti-Defection Law is taken by the President of India on the advice of the Election Commission.
4. A legislator is not disqualified if his original political party merges with

another party but he and some other members choose not to join the merged party and function as a separate group.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 4 only
- C. 1, 2 and 3 only
- D. 1, 2 and 4 only

**Answer: D**

**Explanation:**

- **Statement 1 is correct:** One of the main grounds of disqualification under the **Tenth Schedule** is when a member **voluntarily gives up the membership of his political party**. This does not require a formal resignation; even conduct indicating abandonment of party loyalty may be treated as voluntarily giving up membership. Therefore, this statement is correct.
- **Statement 2 is correct:** The law provides an exception in case of a **merger of political parties**. If at least **two-thirds of the legislators** of a legislative party agree to merge with another party, such members are protected from disqualification. This provision replaced the earlier split exception, which was removed by the 91st Constitutional Amendment. Hence, this statement is correct.
- **Statement 3 is incorrect:** The decision on disqualification is **not taken by the President**. It is decided by the **Speaker of the Lok Sabha** or the **Chairman of the Rajya Sabha** in the case of Parliament, and by the Speaker/Chairman in State Legislatures. The President and Election Commission are involved in disqualification under other provisions like office of profit, but not under the Anti-Defection Law. Therefore, this statement is incorrect.
- **Statement 4 is correct:** When a merger takes place, legislators who choose **not to join the merged party** and prefer to continue as a separate group are also protected from disqualification. The law recognizes both

those who accept the merger and those who refuse it, provided the merger satisfies the two-thirds requirement. Hence, this statement is correct.

**153) Which of the following Supreme Court cases is related to the judicial review of the Speaker's decision on disqualification under the Tenth Schedule?**

- A. Kihoto Hollohan vs Zachillhu And Others
- B. Golaknath vs State of Punjab
- C. Kesavananda Bharati vs State of Kerala
- D. Indira Nehru Gandhi vs Raj Narain

**Answer: A**

**Explanation:**

- The Supreme Court in **Kihoto Hollohan vs Zachillhu And Others** upheld the constitutional validity of the Tenth Schedule (Anti-Defection Law) while ruling that the **Speaker's decision is subject to judicial review**. This ensured that the Speaker's powers are not absolute and can be challenged in courts on grounds such as mala fides or violation of constitutional mandates.

**154) Regarding the Anti-Defection Law in India, which of the following statements is correct?**

- A. It applies only to the members of the Lok Sabha.
- B. It is mentioned under Article 102 of the Constitution.
- C. It was introduced by the 52nd Amendment Act, 1985.
- D. It allows a member to change parties if there's a merger of two-thirds of the members.

**Answer: C**

**Explanation:**

The Anti-Defection Law was introduced through the **52nd Constitutional Amendment Act**, which added the **Tenth Schedule** to the Constitution.

**155) With reference to Protection of Regulatory Data (PRD), consider the following statements:**

- 1. PRD protects the proprietary safety and efficacy data submitted for regulatory

approval.

2. PRD and patents are exactly the same forms of intellectual property protection.
3. PRD is often demanded in sectors such as pharmaceuticals and agrochemicals.

Which of the statements given above are correct?

- A. 1 and 3 only
- B. 2 and 3 only
- C. 1 and 2 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- Statement 1 is correct : PRD protects the regulatory data generated by innovators for product approval.
- Statement 2 is incorrect : PRD protects regulatory data, while patents protect the invention itself. They are different legal mechanisms.
- Statement 3 is correct : PRD is commonly debated in pharmaceuticals and agrochemicals where R&D costs are very high.

**156) With reference to the Pesticides Management Bill, 2025, consider the following statements:**

1. It seeks to replace the Insecticides Act, 1968.
2. It establishes a Central Pesticides Board as the apex advisory body.
3. It is administered by the Ministry of Chemicals and Fertilizers.
4. It includes regulation of bio-pesticides.

Which of the statements given above are correct?

- A. 1, 2 and 4 only
- B. 1 and 3 only
- C. 2, 3 and 4 only
- D. 1, 2, 3 and 4

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** The Pesticides Management Bill, 2025 seeks to replace the old Insecticides Act, 1968 and the Insecticides

Rules, 1971.

- **Statement 2 is correct:** The Bill provides for the establishment of the Central Pesticides Board as the apex scientific and advisory body for pesticide regulation.
- **Statement 3 is incorrect:** The Bill comes under the **Ministry of Agriculture and Farmers Welfare**, not the Ministry of Chemicals and Fertilizers.
- **Statement 4 is correct:** The Bill also includes provisions for regulating bio-pesticides and newer crop protection technologies.

**157) Consider the following statements regarding Pesticide Residue Monitoring:**

1. It primarily aims to ensure food safety by verifying compliance with Maximum Residue Limits (MRLs).
2. Advanced analytical techniques such as Gas Chromatography–Mass Spectrometry (GC-MS) are commonly used for detection and quantification of pesticide residues.
3. The scope of monitoring is generally restricted only to fresh fruits and vegetables and does not include processed food products.
4. Maximum Residue Limits (MRLs) are fixed only on the basis of acute toxicity of pesticides without considering long-term exposure risks.

Which of the statements given above is/are correct?

- A. 1 and 2 only
- B. 1, 3 and 4 only
- C. 2, 3 and 4 only
- D. 1, 2, 3 and 4

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** Pesticide residue monitoring is mainly aimed at ensuring **food safety** by checking whether pesticide residues in food remain within the prescribed **Maximum Residue Limits (MRLs)**. These limits are fixed to protect consumers from harmful exposure and to ensure that agricultural

produce remains safe for domestic use as well as exports.

- **Statement 2 is correct:** Advanced techniques such as **Gas Chromatography–Mass Spectrometry (GC-MS)** and **Liquid Chromatography–Mass Spectrometry (LC-MS/MS)** are commonly used for accurate detection and measurement of pesticide residues. These methods are highly sensitive and can detect even trace amounts of chemicals in food samples.
- **Statement 3 is incorrect:** Pesticide residue monitoring is not limited only to fresh produce like fruits and vegetables. It also extends to **processed foods, cereals, pulses, beverages, milk, meat products**, and even environmental samples like soil and water. This broader scope helps in understanding total exposure and contamination risks.
- **Statement 4 is incorrect:** MRLs are not fixed only on the basis of acute toxicity. They are determined after considering both **acute and chronic toxicity**, Acceptable Daily Intake (ADI), long-term health risks, dietary exposure, and Good Agricultural Practices (GAP). Therefore, long-term safety is an important factor in setting MRLs.

**158) Consider the following statements regarding pesticide regulation in India:**

1. The Central Insecticides Board and Registration Committee (CIBRC) functions under the Ministry of Agriculture and Farmers Welfare to regulate the manufacture, import, sale, and use of pesticides in India.
2. The Insecticides Act, 1968 classifies pesticides into four toxicity categories based on their acute oral and dermal LD50 values.
3. The Pesticide Management Bill, 2020 introduces provisions for mandatory compensation to farmers for losses caused by poor quality or misleading claims of pesticides.
4. Maximum Residue Limits (MRLs) for

pesticides in food products are determined and enforced by the Central Insecticides Board and Registration Committee (CIBRC).

How many of the statements given above are correct?

- A. Only one
- B. Only two
- C. Only three
- D. All four

**Answer: C**

**Explanation:**

- **Statement 1 is correct:** The **Central Insecticides Board and Registration Committee (CIBRC)** functions under the **Ministry of Agriculture and Farmers Welfare**. It is responsible for advising the government on technical matters related to pesticides and for registering insecticides after evaluating their safety, efficacy, and suitability for use in India.
- **Statement 2 is correct:** Under the **Insecticides Act, 1968**, pesticides are classified into **four toxicity categories (Class I to Class IV)** based on their acute oral and dermal **LD50 values**. This helps determine safety precautions, warning labels, and restrictions for handling and use.
- **Statement 3 is correct:** The **Pesticide Management Bill, 2020**, proposed to replace the Insecticides Act, includes provisions for **mandatory compensation to farmers** if pesticides are found to be sub-standard, adulterated, or if misleading claims lead to crop losses. This strengthens farmer protection and accountability of manufacturers.
- **Statement 4 is incorrect:** Maximum Residue Limits (MRLs) for pesticides in food are not fixed by CIBRC. They are determined and enforced by the **Food Safety and Standards Authority of India (FSSAI)** under the Ministry of Health and Family Welfare. CIBRC deals with pesticide registration, while FSSAI regulates food safety standards.

**159) Consider the following statements about Critical Mass in the context of nuclear physics:**

1. Critical mass is the minimum amount of fissile material required to sustain a nuclear chain reaction.
2. Critical mass is independent of the shape, size, and density of the fissile material.
3. The concept of critical mass applies only to nuclear weapons and not to nuclear reactors.
4. Uranium-235 and Plutonium-239 are examples of materials capable of achieving critical mass.

Which of the statements given above are correct?

- A. 1 and 4 only
- B. 2 and 3 only
- C. 1, 2 and 4 only
- D. All of the above

**Answer: A**

**Explanation:**

- **Statement 1 is correct: Critical mass** refers to the minimum quantity of a **fissile material** needed to maintain a **self-sustaining nuclear chain reaction**. If the amount of fissile material is below this level, too many neutrons escape and the chain reaction stops. Once critical mass is reached, enough neutrons remain available to continue fission reactions continuously.
- **Statement 2 is incorrect:** Critical mass is not fixed only by quantity; it also depends on the **shape, size, density, purity, and presence of neutron reflectors** around the material. For example, a spherical shape requires less critical mass because it minimizes neutron leakage compared to irregular shapes. Therefore, this statement is incorrect.
- **Statement 3 is incorrect:** The concept of critical mass applies to both **nuclear weapons and nuclear reactors**. In nuclear weapons, an uncontrolled chain reaction is produced

rapidly after achieving supercritical mass. In nuclear reactors, the system is carefully maintained at criticality so that energy is released in a controlled manner for electricity generation. Hence, this statement is incorrect.

- **Statement 4 is correct: Uranium-235 (U-235) and Plutonium-239 (Pu-239) are important fissile isotopes** capable of achieving critical mass. They are widely used in nuclear reactors and nuclear weapons because they can sustain chain reactions through neutron-induced fission. Therefore, this statement is correct.

**160) Which of the following statements accurately describes the corrosion resistance of liquid sodium when used as a coolant in Fast Breeder Reactors (FBRs)?**

- A. Liquid sodium, due to its inherent inertness, does not react with reactor materials irrespective of its purity.
- B. The excellent corrosion resistance of liquid sodium towards stainless steel is maintained by ensuring extremely low levels of dissolved oxygen.
- C. Liquid sodium forms a stable, self-healing oxide layer on reactor components which protects them from further corrosion at high temperatures.
- D. High operating temperatures in FBRs significantly reduce the corrosive nature of liquid sodium, making it compatible with most metals.

**Answer: B**

**Explanation:**

**Option (b) is correct:**

- In **Fast Breeder Reactors (FBRs)**, **liquid sodium** is widely used as a coolant because of its excellent heat transfer properties, high boiling point, and ability to operate at low pressure. Although sodium is highly reactive with **air and water**, it shows good compatibility with structural materials such as **stainless steel** when its purity is carefully maintained.
- The key factor for corrosion resistance is

keeping the level of **dissolved oxygen extremely low**. If oxygen is present in higher amounts, sodium reacts with metals and forms sodium-metal oxides, which increase corrosion and damage reactor components. Therefore, strict control of oxygen impurities is essential for maintaining the integrity and long life of the reactor system

**161) Consider the following statements about a nuclear chain reaction:**

1. A nuclear chain reaction occurs when one nuclear reaction causes one or more subsequent nuclear reactions.
2. A chain reaction becomes self-sustaining only when the average number of neutrons causing further fission is less than one.
3. Nuclear chain reactions are the fundamental principle behind the working of nuclear reactors.
4. The concept of a nuclear chain reaction was first theorized by Hungarian physicist **Leo Szilard** in 1933.

Which of the statements given above are correct?

- A. 1 and 3 only
- B. 2 and 4 only
- C. 1, 3 and 4 only
- D. All of the above

**Answer: C**

**Explanation:**

- **Statement 1 is correct:** A **nuclear chain reaction** happens when neutrons released from one fission event trigger additional fission events in nearby fissile atoms. This creates a sequence where one reaction leads to one or more further reactions, making the process continuous. This is the basic principle behind nuclear energy production.
- **Statement 2 is incorrect:** For a chain reaction to be **self-sustaining**, the **multiplication factor (k)** must be equal to or greater than 1. This means that on average, at least one neutron from each fission must cause another fission. If the number is less than one, the reaction

becomes **subcritical** and gradually stops. Therefore, the statement is incorrect.

- **Statement 3 is correct:** Nuclear reactors operate on the principle of a **controlled nuclear chain reaction**. The heat released during continuous fission is used to produce steam, which drives turbines and generates electricity. Without chain reactions, nuclear power generation would not be possible. Hence, this statement is correct.
- **Statement 4 is correct:** The idea of a nuclear chain reaction was first proposed by **Leo Szilard**, a Hungarian physicist, in **1933**. He realized that if neutrons released from one reaction could trigger further reactions, enormous energy could be produced. This idea later became the foundation for both nuclear reactors and atomic bombs. Therefore, this statement is correct.

**162) With reference to Article 21 of the Constitution of India, consider the following statements:**

1. It is available only to citizens of India.
2. The Supreme Court has interpreted it to include the Right to Privacy and Right to Safe Travel.
3. Article 21 can be suspended during a National Emergency.

**Which of the statements given above is/are correct?**

- A. 2 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation**

- Statement 1 is incorrect : Article 21 is available to both citizens and non-citizens.
- Statement 2 is correct : the Supreme Court has recognized both the Right to Privacy and the Right to Safe Travel under Article 21.
- Statement 3 is incorrect : After the 44th Constitutional Amendment, Articles 20 and 21 cannot be suspended even during a National

Emergency.

**163) Consider the following statements with reference to the Maneka Gandhi case (1978):**

**Statement-I:** The Passport Act, 1967 could be subjected to judicial review on the ground that it affected fundamental rights.

**Statement-II:** The Supreme Court held that the expression “procedure established by law” under Article 21 must be just, fair, and reasonable, and not arbitrary, fanciful, or oppressive.

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

- A. Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- B. Both Statement-I and Statement-II are correct but Statement-II is not the correct explanation for Statement-I
- C. Statement-I is correct but Statement-II is incorrect
- D. Statement-I is incorrect but Statement-II is correct

**Answer: A**

**Explanation:**

**Statement-I is correct:**

- In the **Maneka Gandhi v. Union of India (1978)** case, the petitioner challenged the impounding of her passport under the **Passport Act, 1967** without being given proper reasons or an opportunity to be heard. The Supreme Court examined whether such a law and executive action could violate **fundamental rights**, especially under Articles 14, 19, and 21.
- The Court held that even a law passed by Parliament could be subjected to judicial review if it violated fundamental rights. Thus, the Passport Act was open to constitutional scrutiny. Therefore, Statement-I is correct.

**Statement-II is correct:**

- Before this judgment, Article 21 was interpreted narrowly after the **A.K. Gopalan case**, where “procedure established by law” meant any procedure enacted by law,

regardless of fairness.

- In the **Maneka Gandhi case**, the Supreme Court expanded this interpretation and held that such procedure must be **just, fair, and reasonable**, and should not be arbitrary, oppressive, or unreasonable. This introduced the concept of **substantive due process** into Indian constitutional law and linked Article 21 with Articles 14 and 19. Hence, Statement-II is correct.

**Why Statement-II explains Statement-I:**

- Because the Court interpreted Article 21 to require fairness and reasonableness, any law affecting personal liberty—including the Passport Act—could be tested on these grounds. This is exactly why the Passport Act became subject to judicial review. Therefore, Statement-II directly explains Statement-I.

**164) With reference to landmark Supreme Court judgments, consider the following statements:**

1. In the **Maneka Gandhi case**, the Court expanded the scope of Article 21 by ruling that the “procedure established by law” must be fair, just, and reasonable.
2. In the **Indra Sawhney case**, the Court upheld 27% reservation for OBCs and stated that the total reservation should generally not exceed 50%.
3. In the **S.R. Bommai case**, the Court made the imposition of President’s Rule under Article 356 subject to judicial review and laid down safeguards against its misuse.

Which of the statements given above is/are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: D**

**Explanation:**

- **Statement 1 is correct:** The **Maneka Gandhi judgment (1978)** transformed the

interpretation of Article 21 by declaring that any law affecting life and personal liberty must follow a procedure that is fair, just, and reasonable. It rejected the narrow interpretation of Article 21 and established a broader protection of civil liberties.

- **Statement 2 is correct:** In **Indra Sawhney v. Union of India (1992)**, also known as the Mandal case, the Supreme Court upheld the **27% reservation for Other Backward Classes (OBCs)** in central services. It also laid down the important principle that total reservations should generally not exceed **50%**, except in extraordinary circumstances, and introduced the concept of the **creamy layer**.
- **Statement 3 is correct:** In **S.R. Bommai v. Union of India (1994)**, the Supreme Court held that the use of **Article 356 (President's Rule)** is subject to judicial review. It ruled that the majority of a government should be tested on the floor of the House and not decided arbitrarily by the Governor or the Centre. This judgment became a major safeguard for Indian federalism.

**165) Consider the following pairs of Supreme Court cases and their primary subject matter:**

1. **Vishaka v. State of Rajasthan** — Legal recognition of the third gender
2. **K.S. Puttaswamy v. Union of India** — Declaration of Right to Privacy as a fundamental right
3. **Navtej Singh Johar v. Union of India** — Decriminalization of consensual homosexual acts

Which of the pairs given above is/are correctly matched?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: B**

**Explanation:**

- **Pair 1 is incorrectly matched:** The **Vishaka case (1997)** dealt with **sexual harassment of women at the workplace** and led to the

famous **Vishaka Guidelines**, which served as the basis for later workplace harassment laws. It was not related to third gender recognition.

- The legal recognition of the **third gender** was given in **NALSA v. Union of India (2014)**. Therefore, Pair 1 is incorrect.
- **Pair 2 is correctly matched:** In **K.S. Puttaswamy v. Union of India (2017)**, the Supreme Court unanimously declared that the **Right to Privacy** is a fundamental right protected under Article 21 and linked with dignity, liberty, and personal autonomy. Therefore, Pair 2 is correct.
- **Pair 3 is correctly matched:** In **Navtej Singh Johar v. Union of India (2018)**, the Supreme Court struck down the part of **Section 377 of the IPC** that criminalized consensual homosexual relations between adults. This was a major judgment for LGBTQ+ rights in India. Therefore, Pair 3 is correct.

**166) With reference to the International Big Cat Alliance (IBCA), consider the following statements:**

1. It was launched during the 50th anniversary of Project Tiger.
2. It covers tiger, lion, leopard, snow leopard, cheetah, jaguar, and rhinoceros.
3. It is an India-led intergovernmental organization for global big cat conservation.

Which of the statements given above are correct?

- A. 1 and 3 only
- B. 2 and 3 only
- C. 1 and 2 only
- D. 1, 2 and 3

**Answer: A**

**Explanation**

- Statement 1 is correct : IBCA was launched in 2023 during the 50th anniversary of Project Tiger.
- Statement 2 is incorrect : rhinoceros is not included; puma is included instead.

- Statement 3 is correct : IBCA is an India-led intergovernmental conservation alliance.

**167) With reference to the International Big Cat Alliance (IBCA) and the conservation status of big cats, consider the following statements:**

1. The International Big Cat Alliance was launched to protect all seven major big cats, including species that are not naturally found in India.
2. The Snow Leopard is classified as **Critically Endangered** under the IUCN Red List of Threatened Species.
3. The Alliance promotes knowledge sharing and capacity building among range countries to address issues such as human-wildlife conflict.

How many of the above statements are correct?

- A. Only one
- B. Only two
- C. All three
- D. None

**Answer: B**

**Explanation:**

- **Statement 1 is correct:** The **International Big Cat Alliance (IBCA)** is an India-led global conservation initiative aimed at protecting **seven major big cats**—Tiger, Lion, Leopard, Snow Leopard, Cheetah, Jaguar, and Puma. It includes species such as **Jaguar and Puma**, which are not found in the wild in India. This reflects India's effort to promote global rather than only national big cat conservation. Therefore, this statement is correct.
- **Statement 2 is incorrect:** The **Snow Leopard** is currently listed as **Vulnerable** under the **IUCN Red List**, not Critically Endangered. It was earlier classified as Endangered but was later downlisted in 2017 after reassessment of its global population. Therefore, this statement is incorrect.
- **Statement 3 is correct:** One of the major objectives of the IBCA is to strengthen cooperation among big cat range countries through **knowledge sharing, technical**

**support, training, and capacity building.** It also focuses on common challenges such as habitat loss, poaching, climate change, and **human-wildlife conflict mitigation.** Hence, this statement is correct.

**168) Consider the following statements regarding the World Wide Fund for Nature (WWF):**

1. WWF focuses only on protecting endangered species such as the giant panda and tiger.
2. It collaborates with IUCN in areas such as species monitoring and protected area management.
3. WWF works only in developing countries with high biodiversity and has no significant role in developed countries.
4. WWF played an important role in establishing the **TRAFFIC** network for monitoring wildlife trade.

**How many of the above statements are incorrect?**

- A. Only one
- B. Only two
- C. Only three
- D. All four

**Answer: B**

**Explanation:**

- **Statement 1 is incorrect:** Although WWF is well known for protecting flagship species like the **giant panda, tiger, rhino, and elephant**, its work is much broader. It also focuses on habitat conservation, climate change, freshwater systems, forests, oceans, and sustainable development. Therefore, saying it focuses only on endangered animals is incorrect.
- **Statement 2 is correct:** WWF works closely with organizations such as the **IUCN** in areas like biodiversity assessment, species conservation, habitat protection, and management of protected areas. Their collaboration helps improve scientific conservation planning and implementation. Hence, this statement is correct.

- **Statement 3 is incorrect:** WWF operates globally and is active in both **developing and developed countries**. Environmental issues such as climate change, wildlife trade, and habitat degradation are global concerns, so WWF's work is not limited only to biodiversity-rich developing nations. Therefore, this statement is incorrect.
- **Statement 4 is correct:** WWF, in partnership with IUCN, played a major role in establishing **TRAFFIC**, the international wildlife trade monitoring network. TRAFFIC works to ensure that trade in wild plants and animals does not threaten biodiversity. Hence, this statement is correct.

**169) With reference to the International Union for Conservation of Nature (IUCN), consider the following statements:**

1. The IUCN is a specialized agency of the United Nations responsible for setting global environmental policy.
2. The IUCN Red List categories help inform the appendices of the Convention on International Trade in Endangered Species (CITES).
3. The IUCN works with governments and NGOs in implementing conservation projects on the ground.

How many of the statements given above are correct?

- A. Only one
- B. Only two
- C. All three
- D. None

**Ans: (b)**

**Explanation:**

- **Statement 1 is incorrect:** The **IUCN** is not a specialized agency of the United Nations. It is an independent international organization that includes governments, government agencies, NGOs, scientists, and civil society groups as members. Although it works closely with the UN and supports global environmental policy, it is not formally a UN body. Therefore, this statement is incorrect.

- **Statement 2 is correct:** The **IUCN Red List** provides scientific assessment of species' conservation status such as Vulnerable, Endangered, and Critically Endangered. These assessments are often used to guide decisions under **CITES**, especially for determining which species should be placed under different appendices for trade regulation. Hence, this statement is correct.
- **Statement 3 is correct:** The IUCN actively collaborates with **governments, NGOs, local communities, and international agencies** to implement practical conservation measures. Its role is not limited to assessment; it also supports field-level conservation projects, protected area management, and biodiversity restoration efforts. Therefore, this statement is correct.

**170) With reference to Free Trade Agreements (FTAs), consider the following statements:**

1. In a Free Trade Agreement, member countries remove tariffs among themselves but retain independent trade policies with non-member countries.
2. A Customs Union is less integrated than a Free Trade Agreement because it only removes tariffs.
3. Rules of Origin are used to prevent third-country goods from unfairly enjoying tariff concessions.

Which of the statements given above are correct?

- A. 1 and 3 only
- B. 2 and 3 only
- C. 1 and 2 only
- D. 1, 2 and 3

**Answer: A**

**Explanation**

- Statement 1 is correct : FTA members remove tariffs among themselves while maintaining separate external trade policies.
- Statement 2 is incorrect : a Customs Union is more integrated than an FTA as it includes a

Common External Tariff.

- Statement 3 is correct : Rules of Origin prevent misuse of tariff benefits by third countries.

**171) With reference to the International Big Cat Alliance (IBCA) and the conservation status of big cats, consider the following statements:**

1. The International Big Cat Alliance was launched to protect all seven major big cats, including species that are not naturally found in India.
2. The Snow Leopard is classified as Critically Endangered under the IUCN Red List of Threatened Species.
3. The Alliance promotes knowledge sharing and capacity building among range countries to address issues such as human-wildlife conflict.
4. The headquarters of the International Big Cat Alliance is located in Geneva, Switzerland.

How many of the above statements are correct?

- A. Only one
- B. Only two
- C. Only three
- D. All four

**Answer: B**

**Explanation:**

**Statement 1 is correct:**

- The **International Big Cat Alliance (IBCA)** is an India-led global initiative for the conservation of seven major big cats—Tiger, Lion, Leopard, Snow Leopard, Cheetah, Jaguar, and Puma. It includes species like Jaguar and Puma, which are not found in India, showing its global conservation approach. Therefore, this statement is correct.
- **Statement 2 is incorrect:** The **Snow Leopard** is classified as **Vulnerable** under the IUCN Red List, not Critically Endangered. It was earlier listed as Endangered and was downlisted in 2017 after reassessment. Hence, this statement is incorrect
- **Statement 3 is correct:** A major objective of

the IBCA is to encourage **knowledge sharing, training, and capacity building** among big cat range countries. It also focuses on habitat conservation, anti-poaching measures, and reducing human-wildlife conflict. Therefore, this statement is correct.

- **Statement 4 is incorrect:** The headquarters of the **International Big Cat Alliance** is located in **India**, not in Geneva, Switzerland. It is an India-led initiative announced under India's conservation diplomacy efforts. Hence, this statement is incorrect.

**172) Consider the following statements regarding the World Wide Fund for Nature (WWF):**

1. WWF focuses only on the protection of endangered animal species such as the giant panda and tiger.
2. WWF collaborates with IUCN in areas such as species monitoring and protected area management.
3. WWF works only in developing countries with rich biodiversity.
4. WWF played an important role in establishing the TRAFFIC network for monitoring wildlife trade.

How many of the above statements are incorrect?

- A. Only one
- B. Only two
- C. Only three
- D. All four

**Answer: B**

**Explanation:**

- **Statement 1 is incorrect:** Although WWF is known for protecting iconic species like the giant panda and tiger, its work is much broader. It also focuses on forests, freshwater systems, oceans, climate change, and sustainable development. Therefore, saying it works only for endangered animals is incorrect.
- **Statement 2 is correct:** WWF collaborates with the **IUCN** on several conservation initiatives such as biodiversity monitoring, species conservation, and protected area

management. This helps strengthen scientific conservation efforts globally. Hence, this statement is correct.

- **Statement 3 is incorrect:** WWF is a global organization and works in both **developing and developed countries**. Environmental issues such as biodiversity loss and climate change are global concerns and require worldwide action. Therefore, this statement is incorrect.
- **Statement 4 is correct:** WWF played a major role, along with IUCN, in establishing **TRAFFIC**, the international wildlife trade monitoring network. TRAFFIC helps ensure that trade in wild animals and plants does not threaten species survival. Hence, this statement is correct.

**173) With reference to the International Union for Conservation of Nature (IUCN), consider the following statements:**

1. The IUCN is a specialized agency of the United Nations responsible for setting global environmental policy.
2. The IUCN Red List categories help in determining species listed under the appendices of CITES.
3. The IUCN works with governments and NGOs in implementing conservation projects on the ground.
4. The IUCN was established in 1948 and is headquartered in Gland, Switzerland.

How many of the statements given above are correct?

- A. Only one
- B. Only two
- C. Only three
- D. All four

**Answer: C**

**Explanation:**

- **Statement 1 is incorrect:** The **IUCN** is not a specialized agency of the United Nations. It is an independent international organization consisting of governments, NGOs, scientists, and civil society organizations. Although it works closely with the UN, it is not formally a

UN agency. Therefore, this statement is incorrect.

- **Statement 2 is correct:** The **IUCN Red List** provides scientific assessment of species' conservation status such as Vulnerable, Endangered, and Critically Endangered. These assessments are widely used in decisions under **CITES** for regulating international wildlife trade. Hence, this statement is correct.
- **Statement 3 is correct:** The IUCN actively works with governments, NGOs, and local communities to implement practical conservation measures such as habitat restoration, species protection, and biodiversity management. Therefore, this statement is correct.
- **Statement 4 is correct:** The **IUCN was established in 1948** and its headquarters is located in **Gland, Switzerland**. It is one of the world's oldest and most important environmental organizations. Hence, this statement is correct.

**174) With reference to the Great Indian Bustard, consider the following statements:**

1. It is listed as Critically Endangered under the IUCN Red List.
2. Collision with overhead power lines is one of its major threats.
3. It is naturally found in dense tropical rainforests of North-East India.

Which of the statements given above is/are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation**

- Statement 1 is correct : the Great Indian Bustard is classified as Critically Endangered by IUCN.
- Statement 2 is correct : power line collision is the leading cause of mortality.

- Statement 3 is incorrect : GIB is mainly found in arid and semi-arid grasslands, not tropical rainforests.

**175) Which of the following birds found in India is NOT listed as Critically Endangered under the IUCN Red List?**

- A. Great Indian Bustard
- B. White-bellied Heron
- C. Indian Vulture
- D. Himalayan Quail

**Answer: C**

**Explanation:**

- The **Indian Vulture** is classified as **Endangered**, not Critically Endangered, though it has suffered a drastic population decline mainly due to diclofenac poisoning. Therefore, option (c) is correct.
- The **Great Indian Bustard** is listed as **Critically Endangered** due to habitat loss, hunting, and collision with power lines.
- The **White-bellied Heron** is also classified as **Critically Endangered**, with a very small global population and severe habitat threats.
- The **Himalayan Quail** is considered **Critically Endangered** and is possibly extinct, as it has not been reliably sighted for many decades.

**176) Consider the following statements:**

**Statement-I:** Jerdon's Courser, a bird endemic to the Eastern Ghats of India, was rediscovered in 1986 after being considered extinct for several decades.

**Statement-II:** The Great Indian Bustard, once widespread across the Indian subcontinent, is now classified as Vulnerable on the IUCN Red List.

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

- A. Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- B. Both Statement-I and Statement-II are correct but Statement-II is not the correct explanation for Statement-I
- C. Statement-I is correct but Statement-II is incorrect

- D. Statement-I is incorrect but Statement-II is correct

**Answer: C**

**Explanation:**

- **Statement-I is correct:** Jerdon's Courser is a rare nocturnal bird endemic to the **Eastern Ghats of Andhra Pradesh**. It was believed to be extinct for many decades before being rediscovered in **1986**, making it one of the most remarkable rediscoveries in Indian wildlife conservation. Therefore, this statement is correct.
- **Statement-II is incorrect:** The **Great Indian Bustard** is not classified as Vulnerable. It is listed as **Critically Endangered** under the IUCN Red List due to severe habitat destruction, hunting, and threats from overhead power lines. Its population has declined sharply, making it one of India's most threatened bird species. Hence, this statement is incorrect.

**177) Consider the following species:**

1. Asiatic Lion
2. Great Indian Bustard
3. Snow Leopard
4. Olive Ridley Turtle

**How many of the above-mentioned species are listed as Endangered under the IUCN Red List?**

- A. Only one
- B. Only two
- C. Only three
- D. All four

**Answer: A**

**Explanation:**

**1. Asiatic Lion — Endangered**

- The Asiatic Lion is found mainly in Gir National Park, Gujarat, and is listed as Endangered due to restricted habitat and vulnerability to disease outbreaks.

**2. Great Indian Bustard — Critically Endangered**

- It is not Endangered but placed in a higher threat category due to extremely low population levels.

**3. Snow Leopard — Vulnerable**

- The Snow Leopard is listed as Vulnerable, not

Endangered, after reassessment by IUCN.

#### 4. Olive Ridley Turtle — Vulnerable

- It is classified as Vulnerable because of threats like fishing nets, habitat destruction, and coastal development.
- Thus, only **one species (Asiatic Lion)** is listed specifically as Endangered.

**178) With reference to the Rooppur Nuclear Power Plant, consider the following statements:**

1. It is Bangladesh's first nuclear power plant.
2. It uses VVER-1200 Generation III+ reactors.
3. The project is being developed with technical and financial support from France.

Which of the statements given above is/are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation**

- Statement 1 is correct : Rooppur is Bangladesh's first nuclear power project.
- Statement 2 is correct : it uses Russian-designed VVER-1200 Generation III+ reactors.
- Statement 3 is incorrect: the project is supported by Russia, not France.

**179) Which of the following best describes the principle behind fusion energy production?**

- A. Splitting heavy nuclei into lighter fragments through a neutron-induced chain reaction
- B. Combining light nuclei to form a heavier nucleus, with energy released due to mass defect
- C. Sustaining energy release by successive neutron captures in light nuclei at relatively low temperatures
- D. Maintaining the process with slow neutrons in a moderated, subcritical

assembly heated to plasma conditions

**Answer: B**

**Explanation:**

- **Nuclear fusion** is the process in which **two light atomic nuclei combine to form a heavier nucleus**, releasing a very large amount of energy. This energy comes from the **mass defect**, where a small amount of mass is converted into energy according to Einstein's equation  $E = mc^2$ .
- A common example is the fusion of **Deuterium (D)** and **Tritium (T)** to form Helium and a neutron. Fusion powers the **Sun and other stars** and is considered a future clean energy source because it produces enormous energy with less long-term radioactive waste compared to fission.

**180) Consider the following statements regarding India's three-stage nuclear power programme:**

**Statement-I:** The first stage of India's nuclear power programme, involving Pressurised Heavy Water Reactors (PHWRs), uses natural uranium as fuel and does not require enrichment.

**Statement-II:** The second stage, focused on Fast Breeder Reactors (FBRs), uses plutonium-239 produced from the first stage and breeds thorium-232 into uranium-235 for use in the third stage.

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

- A. Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- B. Both Statement-I and Statement-II are correct but Statement-II is not the correct explanation for Statement-I
- C. Statement-I is correct but Statement-II is incorrect
- D. Statement-I is incorrect but Statement-II is correct

**Answer: C**

**Explanation:**

- In the **first stage** of India's nuclear

programme, **Pressurised Heavy Water Reactors (PHWRs)** are used. These reactors use **natural uranium** as fuel and **heavy water (D<sub>2</sub>O)** as moderator and coolant. Since PHWRs can efficiently use natural uranium, **uranium enrichment is not required**, which makes them suitable for India's limited uranium resources. Therefore, this statement is correct.

**181) Consider the following statements about the applications of nuclear fission:**

1. Nuclear fission is used in the production of electricity in nuclear power plants.
2. It is utilized in the medical field for the treatment of certain types of cancer.
3. Nuclear fission is a primary method for the propulsion of deep-space exploration spacecraft.
4. The process of nuclear fission is applied in agricultural industries for food irradiation to eliminate pests and extend shelf life.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 1, 2, and 4 only
- C. 2, 3, and 4 only
- D. All of the above

**Answer: B**

**Explanation:**

- Statement 1 is correct: Nuclear fission is used in nuclear power plants to produce heat, which is then converted into electricity through steam turbines.
- Statement 2 is correct: In the medical field, radioisotopes produced in nuclear reactors (an outcome of nuclear fission processes) are used in radiation therapy for treating certain cancers.
- Statement 3 is incorrect: Deep-space spacecraft generally use solar power or radioisotope thermoelectric generators (RTGs) that rely on natural radioactive decay, not controlled nuclear fission reactors for propulsion.

- Statement 4 is correct: Food irradiation to eliminate pests and extend shelf life uses gamma radiation from radioisotopes (like Cobalt-60) that are commonly produced in nuclear reactors, linking it to nuclear fission applications.

**182) With reference to the Panchayat Advancement Index (PAI) 2.0, consider the following statements:**

1. It is prepared by the Ministry of Panchayati Raj.
2. It evaluates Gram Panchayats based on Sustainable Development Goals.
3. All Panchayats in India have been ranked as 'Front Runner' or above.

Which of the statements given above is/are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation**

- Statement 1 is correct : PAI is prepared by the Ministry of Panchayati Raj.
- Statement 2 is correct : it uses SDG-based indicators.
- Statement 3 is incorrect : No Panchayat reached even the "Achiever" category.

**183) Consider the following statements about the role of Panchayati Raj Institutions (PRIs) in rural development:**

1. Panchayati Raj Institutions are constitutionally empowered to prepare plans for economic development and social justice.
2. The 73rd Constitutional Amendment Act, 1992 does not provide for the direct election of all members of Panchayati Raj Institutions.
3. PRIs play an important role in the implementation of centrally sponsored schemes such as MGNREGA.
4. The financial powers of PRIs are limited

only to local taxation and do not include grants from the Union or State governments.

Which of the statements given above are correct?

- A. 1 and 3 only
- B. 2 and 4 only
- C. 1, 2 and 4 only
- D. All of the above

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** The **73rd Constitutional Amendment Act, 1992** inserted **Part IX (Articles 243–243O)** into the Constitution, which mandates Panchayats to **prepare plans for economic development and social justice**. This is further supported by the **Eleventh Schedule**, which lists 29 subjects that may be devolved to Panchayats.
- **Statement 2 is incorrect:** The 73rd Amendment provides for the **direct election of all members of Panchayats** at the village, intermediate, and district levels. Only the **Chairpersons** at higher levels may be elected indirectly. Therefore, this statement is incorrect.
- **Statement 3 is correct:** PRIs play a crucial role in implementing various **centrally sponsored schemes**, including the **Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)**. They are involved in planning, execution, and monitoring at the grassroots level.
- **Statement 4 is incorrect:** PRIs are not limited to collecting local taxes. They also receive **grants-in-aid from the Union and State governments**, including funds recommended by the **Finance Commission**. Thus, their financial powers extend beyond traditional local taxation.

**184) Consider the following statements regarding the powers and functions of Panchayats in India:**

1. Panchayats have the authority to levy, collect, and appropriate taxes, duties,

tolls, and fees.

2. The preparation of plans for economic development and social justice is the responsibility of the State Government, not the Panchayats.
3. Panchayats play a role in implementing schemes for economic development and social justice as entrusted by the State Legislature.
4. Panchayats function independently of State legislation in matters of local governance.

How many of the statements given above are correct?

- A. Only one
- B. Only two
- C. Only three
- D. All four

**Answer: B**

**Explanation:**

- **Statement 1 is correct:** Under **Article 243H**, Panchayats are empowered to **levy, collect, and appropriate taxes, duties, tolls, and fees**, subject to State legislation. This provides them with a source of local revenue.
- **Statement 2 is incorrect:** The **73rd Amendment** explicitly assigns Panchayats the responsibility of preparing plans for **economic development and social justice**. Hence, this function is not exclusively with the State Government.
- **Statement 3 is correct:** Panchayats are entrusted with the **implementation of development schemes** as determined by the State Legislature. They act as grassroots institutions for executing welfare and development programmes.
- **Statement 4 is incorrect:** Panchayats do not function independently of State legislation. Their powers, authority, and functions are largely **defined and regulated by State laws** under the constitutional framework.

**185) Consider the following statements about the 73rd and 74th Constitutional Amendments:**

1. The 73rd Amendment deals with the

- constitutional status and organization of Panchayats.
2. The 74th Amendment provides for the constitution of Municipalities only at the district level.
  3. The 74th Amendment provides for the establishment of a District Planning Committee for district-level planning.
  4. The 74th Amendment provides for reservation of seats in Municipalities for Scheduled Castes and Scheduled Tribes.
- How many of the statements given above are correct?
- A. Only one
  - B. Only two
  - C. Only three
  - D. All four

**Answer: C**

**Explanation:**

- **Statement 1 is correct:** The **73rd Amendment (1992)** gave constitutional status to **Panchayati Raj Institutions** and established a three-tier system of rural local governance.
- **Statement 2 is incorrect:** The **74th Amendment** provides for Municipalities at **three levels—Nagar Panchayat, Municipal Council, and Municipal Corporation—** depending on the size and nature of the urban area. It is not limited to the district level.
- **Statement 3 is correct:** The 74th Amendment provides for the creation of a **District Planning Committee (Article 243ZD)** to consolidate plans prepared by Panchayats and Municipalities into a district development plan.
- **Statement 4 is correct:** The 74th Amendment mandates **reservation of seats for Scheduled Castes and Scheduled Tribes** in Municipalities, ensuring inclusive representation in urban local governance.

**186) With reference to rare earth mining and the Mekong River, consider the following statements:**

1. Rare earth mining can lead to heavy

- metal contamination in river systems.
2. All countries through which the Mekong River flows are members of the Mekong River Commission.
3. Rare earth minerals are essential for renewable energy technologies.

Which of the statements given above is/are correct?

- A. 1 and 3 only
- B. 2 and 3 only
- C. 1 and 2 only
- D. 1, 2 and 3

**Answer: A**

**Explanation**

- Statement 1 is correct: Rare earth mining releases heavy metals into water systems.
- Statement 2 is incorrect: Myanmar and China are not full members of the Mekong River Commission.
- Statement 3 is correct: Rare earth minerals are critical for renewable energy technologies.

**187) Consider the following statements regarding the applications of rare earth minerals in technology:**

**Statement-I:** Lanthanum, a light rare earth element, is widely used in high-performance optical glass such as apochromatic lenses and night vision devices due to its high refractive index and low dispersion properties.

**Statement-II:** Dysprosium, a heavy rare earth element, is used as an alloying agent in Neodymium-Iron-Boron (NdFeB) magnets to enhance coercivity and thermal stability, especially in high-temperature applications like electric vehicle motors.

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

- A. Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- B. Both Statement-I and Statement-II are correct but Statement-II is not the correct explanation for Statement-I
- C. Statement-I is correct but Statement-II

is incorrect

- D. Statement-I is incorrect but Statement-II is correct

**Answer: B**

**Explanation:**

- **Statement-I is correct: Lanthanum (La)** is an important light rare earth element used in the production of **high-quality optical glass**. Its addition increases the **refractive index** while reducing **chromatic aberration**, making it suitable for **apochromatic lenses, camera optics, and night vision systems**. Hence, this statement is correct.
- **Statement-II is correct: Dysprosium (Dy)** is a heavy rare earth element used in **NdFeB (Neodymium-Iron-Boron) magnets**. It enhances **coercivity (resistance to demagnetization)** and improves **thermal stability**, which is critical for applications like **electric vehicle motors, wind turbines, and high-performance electronics**. Therefore, this statement is correct

**Why Statement-II does NOT explain Statement-I:**

- The two statements describe **different applications of different rare earth elements**. Lanthanum's role is based on **optical properties**, whereas Dysprosium's role is based on **magnetic properties**. There is no causal relationship between them.

**188) Consider the following statements regarding the environmental impact of rare earth element (REE) mining and processing:**

**Statement-I:** The extraction and processing of rare earth elements are often associated with the release of naturally occurring radioactive materials such as thorium and uranium.

**Statement-II:** The major environmental challenge in rare earth processing arises mainly from atmospheric emissions, while liquid waste streams are generally treated effectively and do not pose significant risks.

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

- A. Both Statement-I and Statement-II are correct and Statement-II is the correct

explanation for Statement-I

- B. Both Statement-I and Statement-II are correct but Statement-II is not the correct explanation for Statement-I
- C. Statement-I is correct but Statement-II is incorrect
- D. Statement-I is incorrect but Statement-II is correct

**Answer: C**

**Explanation:**

- **Statement-I is correct:** Rare earth ores, particularly **monazite**, often contain **thorium and uranium**, which are naturally occurring radioactive materials (NORM). During mining and processing, these materials can be released into the environment through **tailings, wastewater, and dust**, posing radiological and environmental hazards. Hence, this statement is correct.
- **Statement-II is incorrect:** While atmospheric emissions such as sulfur dioxide are a concern, the **major environmental challenge** lies in the generation of **toxic liquid waste streams** containing acids, heavy metals, and radioactive residues. These wastes can lead to severe **soil and water contamination** if not properly managed. Therefore, the statement understates the severity of liquid waste pollution and is incorrect.

**189) Consider the following statements regarding the extraction methods of Rare Earth Elements (REEs):**

**Statement-I:** Rare earth elements from ionic adsorption clay deposits are often extracted using in-situ leaching, where a solution is passed directly through the ore body.

**Statement-II:** Froth flotation can directly separate individual light rare earth elements from heavy rare earth elements based on their surface properties.

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

- A. Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I

- B. Both Statement-I and Statement-II are correct but Statement-II is not the correct explanation for Statement-I
- C. Statement-I is correct but Statement-II is incorrect
- D. Statement-I is incorrect but Statement-II is correct

**Answer: C**

**Explanation:**

- **Statement-I is correct:** In **ionic adsorption clay deposits**, especially in southern China, REEs are loosely bound to clay particles. These are extracted using **in-situ leaching**, where a chemical solution (like ammonium sulfate) is circulated through the deposit to dissolve and recover the rare earth elements. This method avoids large-scale excavation.
- **Statement-II is incorrect:** **Froth flotation** is used to separate **REE-bearing minerals from gangue**, not to separate individual rare earth elements. Due to the **chemical similarity among rare earth elements**, their separation requires advanced processes such as **solvent extraction or ion exchange**, not flotation.

**190) Consider the following countries:**

1. Cambodia
2. China
3. Laos
4. Myanmar
5. Thailand
6. Vietnam

**How many of the above are full member countries of the Mekong River Commission (MRC)?**

- A. Two
- B. Three
- C. Four
- D. Five

**Answer: C**

**Explanation:**

- The Mekong River Commission (MRC) is an inter-governmental organization that works directly with the governments of Cambodia, Lao PDR, Thailand, and Viet Nam to jointly

manage the shared water resources and the sustainable development of the Mekong River. China and Myanmar are upstream countries in the Mekong basin but are designated as 'dialogue partners', not full members, of the MRC. Therefore, there are four full member countries.

# APPSC MCQs

**Q.1) With reference to the phenomenon of “Quantum Entanglement”, consider the following statements:**

1. It is a shared quantum state where the momentum of one particle can be used to instantly determine the momentum of its entangled partner, regardless of distance.
2. Historically, this phenomenon was observed mainly in lighter particles, but recent experiments have demonstrated it in heavier atoms like Helium.
3. “Nonlocality” in this context refers to the classical physics principle that an object can only be influenced by its immediate surroundings.

**How many of the above statements are correct?**

- A. Only one
- B. Only two
- C. All three
- D. None

**Answer: B**

**Explanation**

- **Statement 1 is correct:** Quantum entanglement is a phenomenon in which two or more particles become linked such that the measurement of one particle’s property (such as momentum, spin, or position) instantaneously determines the corresponding property of the other, irrespective of the distance between them.
- **Statement 2 is correct:** Earlier, entanglement experiments were largely limited to lighter particles like photons and electrons. However, recent scientific advancements have successfully demonstrated entanglement in heavier atoms such as helium, marking a significant breakthrough in quantum physics.
- **Statement 3 is incorrect:** Nonlocality is a key

feature of quantum mechanics, not classical physics. It implies that particles can influence each other instantaneously over large distances. Classical physics, in contrast, is based on locality, where objects are influenced only by their immediate surroundings.

**Q.2) With reference to digitisation in the handloom sector, consider the following statements:**

1. APCO received the SKOCH Award–2025 for its digitisation initiatives.
2. Computerised billing systems reduce transparency in transactions.
3. E-commerce platforms help expand market access for handloom products.

Which of the above statements are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: C**

**Explanation:**

- Statement 1 is correct: APCO (Andhra Pradesh State Handloom Weavers Cooperative Society) has undertaken several **digitisation initiatives** to modernise the traditional handloom sector. These initiatives include **digital inventory management, computerised billing systems, and online sales platforms** to improve efficiency and transparency.
- In recognition of such efforts to integrate technology into the handloom ecosystem, APCO received the **SKOCH Award – 2025**. The award honours institutions that implement **innovative governance and digital transformation practices**.
- **Statement 2 is incorrect:** Computerised billing systems **increase transparency rather than reduce it**. Digitisation ensures:
  - **Accurate recording of transactions**
  - **Reduced scope for manual manipulation and errors**
  - **Better audit trails and financial**

### accountability

- Thus, digital billing strengthens **financial transparency and operational efficiency** in cooperative societies and retail outlets.
- **Statement 3 is correct** : e-commerce platforms expand market reach and improve sales opportunities for handloom products.

**Q.3) With reference to the Andhra Pradesh Reorganisation (Amendment) Bill, 2026, consider the following statements:**

1. The original 2014 Act explicitly named Amaravati as the capital of Andhra Pradesh.
2. Hyderabad was designated as a joint capital for a maximum period of ten years.
3. The Amendment gives retrospective effect to the declaration of Amaravati as capital.

**Which of the above statements are correct?**

- A. 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: B**

**Explanation:**

- **Statement 1 is incorrect:** The Andhra Pradesh Reorganisation Act, 2014 did not specify Amaravati or any other city as the capital; it only mentioned that a new capital would be established.
- **Statement 2 is correct:** Hyderabad was designated as a common capital for Andhra Pradesh and Telangana for a period not exceeding 10 years (2014–2024).
- **Statement 3 is correct:** The 2026 Amendment provides retrospective effect from 2 June 2024, ensuring continuity in governance and legal validity.

**Q.4) With reference to the Andhra Pradesh Reorganisation (Amendment) Bill, 2026, consider the following statements:**

1. The Amendment gives retrospective effect from the date of enactment of

the Andhra Pradesh Reorganisation Act, 2014.

2. The term “Amaravati” refers to the capital region notified under the Andhra Pradesh Capital Region Development Authority Act, 2014.
3. The Amendment was brought after a formal resolution by the Andhra Pradesh Legislative Assembly seeking statutory recognition of the capital.

**Which of the statements given above are correct?**

- A. 2 and 3 only
- B. 1 and 2 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- **Statement 1 is incorrect:** The trap is the phrase “*date of enactment (2014)*”.
- The Amendment actually gives retrospective effect from **2 June 2024**, not 2014.
- **Statement 2 is correct:** Amaravati is not just a city; it includes the **notified capital region under the APCRDA Act, 2014**.
- **Statement 3 is correct:** The Amendment was introduced following a **formal resolution passed by the Andhra Pradesh Legislative Assembly (March 2026)**, reflecting cooperative federalism.

**Q.5) With reference to heat stress in livestock, consider the following statements:**

1. Heat stress can reduce milk production and growth rates in cattle.
2. Crossbred cattle are generally more vulnerable to heat stress than indigenous breeds.
3. Heat stress occurs only due to lack of drinking water.

How many of the statements given above are correct?

- A. Only one
- B. Only two
- C. All three

D. None

**Answer: B**

**Explanation**

- Statement 1 is correct: Heat stress negatively affects livestock productivity, including milk yield and growth.
- Statement 2 is correct: Crossbred cattle are generally less adapted to tropical climates and are therefore more vulnerable to heat stress.
- Statement 3 is incorrect: Heat stress is caused by **multiple factors**, including high temperatures, humidity, and lack of shade, not just water shortage.

**Q.6) Consider the following statements about cattle in India:**

1. India has the largest cattle population in the world.
2. Indigenous cattle breeds are generally more resistant to tropical diseases.
3. Crossbreeding is mainly done to improve milk productivity.

Select the correct answer using the code below:

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: D**

**Explanation:**

- **Statement 1:** Correct. India possesses the largest cattle population globally according to the **Livestock Census of India**.
- **Statement 2:** Correct. Indigenous cattle are well adapted to tropical climate and have higher resistance to diseases and heat stress.
- **Statement 3:** Correct. Crossbreeding indigenous cattle with exotic breeds improves milk yield and dairy productivity.

**Q.7) With reference to cropping seasons in India, consider the following statements:**

1. Rabi crops are generally sown during winter and harvested in spring.
2. Kharif crops mainly depend on monsoon rainfall.

3. Paddy is grown only as a Kharif crop in India.

How many of the statements given above are correct?

- A. Only one
- B. Only two
- C. All three
- D. None

**Answer: B**

**Explanation**

- Statement 1 is correct: Rabi crops are sown during winter and harvested in spring.
- Statement 2 is correct: Kharif crops depend primarily on monsoon rainfall.
- Statement 3 is incorrect: Paddy is mainly a Kharif crop but can also be grown in the Rabi season in irrigated regions.

**Q.8) Consider the following statements regarding foodgrain procurement in India:**

1. The government procures foodgrains mainly at Minimum Support Price (MSP).
2. Procured grains are distributed through the Public Distribution System.
3. Gunnysacks are widely used for storing and transporting foodgrains.

Select the correct answer using the code below:

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: D**

**Explanation**

- Statement 1: Correct. Foodgrains are procured at MSP through government agencies.
- Statement 2: Correct. Procured grains are distributed through welfare schemes and the Public Distribution System.
- Statement 3: Correct. Gunnysacks made from jute are commonly used for storage and transportation of foodgrains.

**Q.9) With reference to the Andhra Pradesh**

**Reorganisation (Amendment) Bill, 2026, consider the following statements:**

1. It amends the Andhra Pradesh Reorganisation Act, 2014 to designate Amaravati as the sole capital of the State.
2. Hyderabad continues to function as the joint capital of Andhra Pradesh and Telangana beyond June 2024.
3. The amendment seeks to provide statutory backing to Amaravati as the capital of Andhra Pradesh.

Which of the above statements are correct?

- A. 1 and 3 only
- B. 2 and 3 only
- C. 1 and 2 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- **Statement 1 – Correct:** The Amendment Bill modifies the Andhra Pradesh Reorganisation Act, 2014 to formally designate **Amaravati as the sole capital**, thereby resolving earlier ambiguities regarding multiple capitals.
- **Statement 2 – Incorrect:** Hyderabad was designated as a **temporary joint capital** for both Andhra Pradesh and Telangana for a period of **10 years (till June 2024)**. This arrangement has now ended, and Hyderabad is exclusively the capital of Telangana.
- **Statement 3 – Correct:** The amendment provides **statutory (legal) backing** to Amaravati as the capital, ensuring clarity and legal certainty in administrative and governance matters.

**Q.10) With reference to Earthquake Lights (EQL), consider the following statements:**

1. They are luminous atmospheric phenomena associated with seismic activity and may occur before or during earthquakes.
2. They are caused by the ionization of air due to electrical charges generated under tectonic stress in rocks.

Which of the statements given above is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Answer: C**

**Explanation:**

- **Statement 1 – Correct:** Earthquake Lights are rare luminous phenomena observed in association with earthquakes, often appearing before or during seismic events.
- **Statement 2 – Correct:** They are generated due to **tectonic stress activating charge carriers (p-holes)** in rocks, which move to the surface and ionize the air, producing visible light.

**Q.11) Regarding the constitutional provisions of India, which of the following best describes the scope of Article 26 concerning the management of religious affairs in temples?**

- A. It grants the State the power to regulate the financial and political activities of all religious denominations without exception.
- B. It allows every religious denomination to establish and maintain institutions for religious and charitable purposes, subject to public order, morality, and health.
- C. It mandates that all temples must be managed exclusively by committees appointed by the State government to ensure secular administration.
- D. It restricts the right of a religious denomination to own and acquire movable and immovable property to only those properties donated by State grants.

**Answer: B**

**Explanation:**

- Article 26 of the Indian Constitution guarantees to every religious denomination or any section thereof the right to establish and

maintain institutions for religious and charitable purposes, manage its own affairs in matters of religion, and own and acquire movable and immovable property. These rights are subject to the limitations of public order, morality, and health.

- The provision embodies the principle of religious autonomy within a secular framework. The judiciary, particularly the Supreme Court, has clarified that while the State may regulate the secular aspects of religious institutions—such as financial administration, property management, and prevention of maladministration—it cannot interfere in essential religious practices, which remain protected under Articles 25 and 26.

**Q.12) Consider the following statements regarding the Right to Freedom of Religion under the Indian Constitution:**

1. Article 25 guarantees the freedom of conscience and free profession, practice, and propagation of religion to all persons, including non-citizens.
2. The right to manage religious affairs under Article 26 is absolute and is not subject to public order, morality, or health.
3. No person can be compelled to pay any taxes, the proceeds of which are specifically appropriated for the promotion or maintenance of any particular religion or religious denomination.
4. Article 28 prohibits religious instruction in any educational institution that is wholly maintained out of State funds.

**How many of the above statements are correct?**

- A. Only one
- B. Only three
- C. All four
- D. None of the above

**Answer: B**

**Explanation:**

- The Right to Freedom of Religion (Articles 25–

28) ensures both individual and group religious freedoms within a secular constitutional framework.

- **Statement 1 – Correct:** Article 25 guarantees freedom of conscience and the right to freely profess, practice, and propagate religion to **all persons**, including non-citizens. However, this right is subject to public order, morality, health, and other Fundamental Rights.
- **Statement 2 – Incorrect:** Article 26 provides religious denominations the right to manage their own affairs in matters of religion, but this right is **not absolute**. It is explicitly subject to **public order, morality, and health**.
- **Statement 3 – Correct:** Article 27 ensures that no person shall be compelled to pay taxes for the promotion or maintenance of any particular religion. This reinforces the principle of **state neutrality in religious matters**.
- **Statement 4 – Correct:** Article 28(1) prohibits religious instruction in institutions that are **wholly funded by the State**. However, religious instruction may be allowed in institutions administered by the State but established under endowments or trusts requiring such instruction.

**Q.13) Consider the following statements regarding the legal framework of public protests in India:**

**Statement 1:** The Supreme Court in *Mazdoor Kisan Shakti Sangathan v. Union of India (2018)* ruled that prohibitory orders under Section 144 of the CrPC cannot be used as a tool to prevent the exercise of the fundamental right to protest.

**Statement 2:** The Court reasoned that the right to peaceful assembly is a facet of Article 19(1)(b), and the state must demonstrate that the exercise of power under Section 144 is based on ‘material facts’ showing an imminent threat of violence or obstruction, rather than a mere apprehension of public inconvenience.

**Which one of the following is correct?**

- A. Both Statement 1 and Statement 2 are correct and Statement 2 is the correct explanation for Statement 1
- B. Both Statement 1 and Statement 2 are correct and Statement 2 is not the correct explanation for Statement 1
- C. Statement 1 is correct but Statement 2 is incorrect
- D. Statement 1 is incorrect but Statement 2 is correct

**Answer: A**

**Explanation:**

- The judgment in *Mazdoor Kisan Shakti Sangathan v. Union of India (2018)* is a significant ruling on the balance between **fundamental rights and administrative powers**.
- **Statement 1 – Correct:** The Supreme Court held that Section 144 of the CrPC cannot be used arbitrarily to **suppress legitimate dissent and peaceful protests**, which are protected under Article 19(1)(b).
- **Statement 2 – Correct:** The Court clarified that the right to peaceful assembly is a **fundamental right**, and any restriction must satisfy the test of **reasonableness under Article 19(3)**. It emphasized that authorities must rely on **objective material facts indicating an imminent threat**, not vague or speculative concerns.
- **Link between Statement 1 and 2:** Statement 2 provides the **constitutional reasoning** behind Statement 1. The requirement of “material facts” ensures that Section 144 is used only in genuine emergencies, thereby preventing its misuse as a blanket restriction on protests.

**Q.14) Regarding the doctrine of ‘Judicial Review’ in the context of the Indian Constitution, consider the following:**

- A. It is explicitly defined and detailed under Article 13 of the Indian Constitution.
- B. The scope of judicial review in India is as wide as that of the United States

Supreme Court due to the ‘due process of law’ clause.

- C. Judicial review can be exercised only in respect of laws passed by the Parliament and not on the laws passed by State Legislatures.
- D. It serves as a tool to examine the constitutional validity of legislative enactments and executive orders, but cannot be invoked in matters relating to the President's discretion in appointing the Prime Minister.

**Answer: A**

**Explanation:**

- Article 13 of the Indian Constitution explicitly provides for the power of judicial review, declaring that any law inconsistent with or in derogation of the fundamental rights shall be void. While the US Constitution uses the phrase 'due process of law', the Indian Constitution employs the expression 'procedure established by law', which makes the scope of judicial review in India narrower than that of the US. Judicial review applies to both Central and State legislation, as well as executive orders. Furthermore, judicial review covers a wide array of administrative and legislative actions, provided they violate the Constitution or fundamental rights

**Q.15) With reference to Andhra University and its centenary celebrations, consider the following statements:**

1. Andhra University is located in Visakhapatnam.
2. The centenary celebrations include both academic and cultural programmes.
3. KOHA software mentioned in the news is used for agricultural data management.

Which of the above statements are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only

D. 1, 2 and 3

**Answer: A**

**Explanation**

- Statement 1 is correct: Andhra University is situated in Visakhapatnam.
- Statement 2 is correct: The celebrations include a mix of academic, cultural, and outreach programmes.
- Statement 3 is incorrect: KOHA is an open-source Integrated Library System used for library management, not agriculture.

**Q.16) Which of the following river systems in Andhra Pradesh is characterized by the 'Papi Kondalu' gorge formation before the river enters the plains towards the Bay of Bengal?**

- A. Vamsadhara River
- B. Godavari River
- C. Krishna River
- D. Pennar River

**Answer: B**

**Explanation:**

- The Godavari River, as it flows through the Eastern Ghats in Andhra Pradesh, cuts through a deep and scenic gorge known as the Papi Kondalu (Papi Hills) range. This stretch is geographically significant as the river narrows significantly before broadening out into its deltaic region. The other rivers mentioned, while major, do not exhibit this specific geological feature in their course through Andhra Pradesh.

**Q.17) Which of the following mineral deposits is the 'Kondapalli' industrial region of Andhra Pradesh primarily known for, besides its major thermal power station?**

- A. High-grade Bauxite reserves
- B. Large-scale Limestone and Dolomite extraction
- C. Chromite ore deposits
- D. Rich Monazite sand deposits

**Answer: C**

**Explanation:**

- Kondapalli, located in the Krishna district of Andhra Pradesh, is historically and geologically significant for being the only

region in India with notable Chromite ore deposits. While the region is famously associated with the Kondapalli Thermal Power Station and the toy-making industry (Kondapalli Bommalu), it stands out in the mineral geography of Andhra Pradesh due to its rare Chromite reserves, unlike limestone or bauxite which are found extensively in the Eastern Ghats belt (like Visakhapatnam or Guntur-Kurnool regions).

**Q.18) Consider the following statements regarding the climate and rainfall patterns in Andhra Pradesh:**

1. The state of Andhra Pradesh primarily receives its annual rainfall from the South-West Monsoon, which contributes to more than 85% of its total annual precipitation.
2. The Rayalaseema region, located in the rain shadow area of the Western Ghats, experiences high aridity and receives significantly lower rainfall compared to the coastal districts.
3. The retreating monsoon, or North-East Monsoon, is the secondary source of rainfall for the state, which is particularly vital for the southern coastal districts like Nellore and Prakasam.
4. Andhra Pradesh is classified entirely under the Tropical Wet and Dry (Aw) climate category as per the Koppen climate classification system.

**Which of the statements given above are incorrect?**

- A. A.1 only
- B. B.1 and 4 only
- C. C.3 and 4 only
- D. All of the above

**Answer: B**

**Explanation:**

- Statement 1 is incorrect because while the South-West Monsoon is important, it contributes approximately 60-65% of the total annual rainfall in Andhra Pradesh, not 85%.

- Statement 2 is correct; the Rayalaseema region falls in the rain shadow zone, making it semi-arid.
- Statement 3 is correct; the North-East monsoon provides crucial rainfall to the southern coastal regions during October and November.
- Statement 4 is incorrect because, while much of the state is 'Aw' (Tropical Savanna), certain parts, especially along the northern coast and hilly regions, exhibit variations, and the classification is not uniform across the entire state.

**Q.19) Watershed Mahotsav' launched in Guntur, Andhra Pradesh, primarily aims to promote:**

- Industrial development in rural areas
- Community-led water conservation and sustainable rural transformation
- Expansion of urban infrastructure
- Digital education in villages

**Answer: B**

**Explanation:**

- The 'Watershed Mahotsav' was launched to highlight and strengthen **community participation in water conservation, soil health improvement, and ecological restoration**. It promotes sustainable rural development through initiatives like watershed projects, rejuvenation of degraded land, and participatory planning. Options A, C, and D are unrelated to the core objective of the programme.

**Q.20) With reference to the proposed Storytelling Corridor in Andhra Pradesh, consider the following statements:**

1. It connects Amaravati, Visakhapatnam, and Tirupati.
2. It focuses on integrating cultural and spiritual tourism using digital technologies.
3. It excludes participation of private companies.

Which of the above statements are correct?

- 1 and 2 only

- 2 and 3 only
- 1 and 3 only
- 1, 2 and 3

**Answer: A**

**Explanation**

- Statement 1 is correct: The corridor links Amaravati, Visakhapatnam, and Tirupati.
- Statement 2 is correct: It includes immersive and technology-based tourism.
- Statement 3 is incorrect: Private players like Eros International and Red Bull are involved.

**Q.21) With reference to Amaravati, consider the following statements:**

1. It was an important centre of Buddhism during the Satavahana period.
2. It is located on the banks of the Godavari River.
3. It is associated with the Amaravati School of Art.

**Which of the statements given above are correct?**

- 1 and 3 only
- 2 and 3 only
- 1 and 2 only
- 1, 2 and 3

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** Amaravati flourished as a major Buddhist centre during the Satavahana dynasty. The Satavahanas supported Buddhist institutions and construction of stupas.
- **Statement 2 is incorrect:** Amaravati is situated on the **Krishna River**, not the Godavari River.
- **Statement 3 is correct:** Amaravati is the origin of the **Amaravati School of Art**, known for Buddhist narrative sculptures.

**Q.22) With reference to the Amaravati School of Art, consider the following statements:**

1. It primarily used white limestone as a medium.
2. It shows strong Greco-Roman influence similar to Gandhara art.
3. It depicts narrative panels from Jataka stories.

Which of the statements given above are correct?

- A. 1 and 3 only
- B. 2 and 3 only
- C. 1 and 2 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** Amaravati art is characterised by the use of **white limestone**, a key identifying feature.
- **Statement 2 is incorrect:** Greco-Roman influence is associated with the **Gandhara School**, not Amaravati, which is indigenous.
- **Statement 3 is correct:** Amaravati sculptures depict **Jataka tales and events from Buddha's life** using narrative panels.

**Q.23) Consider the following pairs:**

Buddhist Site	Associated Feature
1. Amaravati	Mahayana influence
2. Nagarjunakonda	Ikshvaku patronage
3. Salihundam	Located on Krishna River

Which of the pairs given above are correctly matched?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- **Pair 1 is correct:** Amaravati shows **Mahayana Buddhist influence**, especially in later artistic representations.
- **Pair 2 is correct:** Nagarjunakonda flourished under the **Ikshvaku dynasty**, which patronised Buddhism.
- **Pair 3 is incorrect:** Salihundam is located near the **Vamsadhara River**, not the Krishna River.

**Q.24) With reference to Nagarjunakonda, consider the following statements:**

1. It was an important Buddhist centre during the Ikshvaku period.
2. It is associated with the philosopher Nagarjuna.
3. It is located in the Godavari River valley.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** Nagarjunakonda was an important Buddhist centre under the **Ikshvaku rulers**.
- **Statement 2 is correct:** It is associated with Nagarjuna, a key figure in Mahayana Buddhism.
- **Statement 3 is incorrect:** Nagarjunakonda is located in the **Krishna River valley**, not the Godavari basin.

**Q.25) Which one of the following correctly distinguishes the Amaravati School of Art from the Gandhara School?**

- A. Amaravati used grey schist, while Gandhara used white limestone
- B. Amaravati shows Greco-Roman influence, while Gandhara is purely indigenous
- C. Amaravati used white limestone, while Gandhara used grey schist
- D. Both used identical materials and styles

**Answer: C**

**Explanation:**

- **Option A is incorrect:** Materials are reversed. Amaravati used **white limestone**, Gandhara used **grey schist**.
- **Option B is incorrect:** Greco-Roman influence is seen in **Gandhara**, not Amaravati.
- **Option C is correct:** Amaravati → **white limestone**, Gandhara → **grey schist**.
- **Option D is incorrect:** Both schools differ in material, style, and influence.

**Q.26) With reference to disability welfare in India, consider the following statements:**

1. The Rights of Persons with Disabilities (RPWD) Act, 2016 promotes equality and non-discrimination.

2. Article 41 of the Constitution directs the State to provide assistance in cases of disability.
3. The UN Convention on the Rights of Persons with Disabilities (UNCRPD) promotes a rights-based approach to disability.

Which of the statements given above are correct?

- A. 1, 2 and 3
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1 and 3 only

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** The RPwD Act, 2016 marks a shift from a welfare approach to a **rights-based framework**, ensuring **equality, dignity, and non-discrimination** for persons with disabilities, in line with international commitments.
- **Statement 2 is correct:** Article 41, part of the Directive Principles of State Policy, directs the State to make **effective provisions for securing public assistance** in cases of disability, within its economic capacity.
- **Statement 3 is correct:** The UNCRPD emphasizes a **rights-based approach**, recognizing persons with disabilities as **rights-holders**, focusing on inclusion, accessibility, and full participation in society.

**Q.27) Consider the following statements regarding the evolution of Article 21 and socio-economic rights:**

Statement 1: In *Olga Tellis v. Bombay Municipal Corporation (1985)*, the Supreme Court held that the 'right to life' under Article 21 includes the right to livelihood.

Statement 2: In *Mohini Jain v. State of Karnataka (1992)*, the Supreme Court declared the 'right to work' as a fundamental right enforceable under Article 21.

Which one of the following is correct?

- A. Both Statement 1 and Statement 2 are correct and Statement 2 is the correct

explanation for Statement 1

- B. Both Statement 1 and Statement 2 are correct and Statement 2 is not the correct explanation for Statement 1
- C. Statement 1 is correct but Statement 2 is incorrect
- D. Statement 1 is incorrect but Statement 2 is correct

**Answer: C**

**Explanation:**

- **Statement 1 is correct:** In *Olga Tellis (1985)*, the Supreme Court held that the **right to livelihood is an integral part of the right to life under Article 21**, since life cannot be sustained without means of living. This marked a major step in expanding Article 21 to include **socio-economic dimensions**.
- **Statement 2 is incorrect:** In *Mohini Jain (1992)*, the Court recognized the **right to education** as a part of Article 21, not the right to work. The **right to work is not a fundamental right**; it remains a **Directive Principle under Article 41**, subject to the State's economic capacity.

**Q.28) Consider the following statements regarding the judicial interpretation of Article 21:**

Statement 1: In *A.K. Gopalan v. State of Madras (1950)*, the Supreme Court held that 'procedure established by law' need not satisfy tests of fairness or reasonableness.

Statement 2: In *Maneka Gandhi v. Union of India (1978)*, the Supreme Court held that such procedure must be just, fair, and reasonable, thereby expanding the scope of Article 21.

Which one of the following is correct?

- A. Both Statement 1 and Statement 2 are correct and Statement 2 is the correct explanation for Statement 1
- B. Both Statement 1 and Statement 2 are correct and Statement 2 is not the correct explanation for Statement 1
- C. Statement 1 is correct but Statement 2 is incorrect
- D. Statement 1 is incorrect but Statement

2 is correct

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** In *A.K. Gopalan (1950)*, the Court adopted a **narrow and literal interpretation**, holding that any law enacted by the legislature would suffice, irrespective of its fairness.
- **Statement 2 is correct:** In *Maneka Gandhi (1978)*, the Court **overruled this restrictive view** and held that the 'procedure' must be **just, fair, and reasonable**, thereby introducing elements of **due process** into Article 21.
- **Link between Statement 1 and 2:** Statement 2 explains the **transformative shift** from the restrictive interpretation in *Gopalan* to the expansive and rights-oriented interpretation in *Maneka Gandhi*, making it the correct explanation.

**Q.29) With reference to land governance in India, consider the following statements:**

1. Section 22A of the Registration Act allows the State to prohibit registration of certain categories of land.
2. Inam lands were introduced after Independence as part of land reforms.
3. Stamp duty is levied by State Governments on property transactions.

Which of the statements given above are correct?

- A. 1 and 3 only
- B. 2 and 3 only
- C. 1 and 2 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- Statement 1 is correct as Section 22A restricts registration of certain lands.
- Statement 2 is incorrect because Inam lands existed before Independence.
- Statement 3 is correct since stamp duty is a State subject.

**Q.30) With reference to land governance in India, consider the following statements:**

1. Land is a subject in the State List under the Constitution.
2. Parliament cannot legislate on land matters under any circumstances.
3. Stamp duty on land transactions is collected by State Governments.

Which of the statements given above are correct?

- A. 1 and 3 only
- B. 2 and 3 only
- C. 1 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- Statement 1 is correct because land falls under Entry 18 of the State List in the Seventh Schedule, giving primary legislative authority to State Governments.
- Statement 2 is incorrect because Parliament can legislate on State List subjects under special circumstances such as national interest (Article 249), consent of states (Article 252), or during emergency (Article 250), showing flexibility of Indian federalism.
- Statement 3 is correct because stamp duty and registration charges are important sources of State revenue and are collected by State Governments under fiscal federalism.

**Q.31) Consider the following statements regarding land records in India:**

1. Digitisation of land records aims to reduce disputes and improve transparency.
2. Record of Rights (RoR) reflects ownership and tenancy details.
3. Mutation automatically confers ownership title over land.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- Statement 1 is correct because digitisation initiatives like Digital India Land Records Modernization Programme (DILRMP) aim to create accurate, tamper-proof records and reduce litigation.
- Statement 2 is correct as Record of Rights (RoR) is a key land document containing details of ownership, tenancy, cultivation, and rights over land.
- Statement 3 is incorrect because mutation only updates land records for revenue purposes; it does not confer legal ownership, which depends on valid title documents.

**Q.32) With reference to Section 22A of the Registration Act, 1908, consider the following statements:**

1. It empowers State Governments to prohibit registration of certain categories of land.
2. It applies only to agricultural land.
3. It aims to prevent illegal or fraudulent land transactions.

Which of the statements given above are correct?

- A. 1 and 3 only
- B. 2 and 3 only
- C. 1 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- Statement 1 is correct because Section 22A allows States to notify prohibited properties (e.g., government land, disputed land, assigned land) where registration is restricted.
- Statement 2 is incorrect because the provision is not limited to agricultural land; it applies broadly to multiple categories of land where legal disputes or restrictions exist.
- Statement 3 is correct as the purpose is to prevent fraudulent transactions, encroachment on public land, and illegal property transfers.

**Q.33) With reference to natural rubber cultivation, consider the following statements:**

1. Natural rubber is obtained from *Hevea brasiliensis*.
2. Rubber cultivation requires low rainfall and dry climate.
3. Vulcanisation improves the strength and elasticity of rubber.

Which of the statements given above are correct?

- A. 1 and 3 only
- B. 2 and 3 only
- C. 1 and 2 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- Statement 1 is correct because *Hevea brasiliensis* is the primary source of natural rubber.
- Statement 2 is incorrect because rubber requires high rainfall and humid conditions.
- Statement 3 is correct as vulcanisation improves strength and elasticity.

**Q.34) With reference to rubber cultivation in India, consider the following statements:**

1. Rubber grows well in regions where the temperature does not fall below 21°C.
2. The minimum annual rainfall required for rubber cultivation is about 150 cm.

Which of the statements given above is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Answer: C**

**Explanation:**

**Statement 1 is correct.**

- Rubber is a tropical crop that requires consistently warm and humid conditions. It grows best in areas where temperatures remain high throughout the year, typically between 25°C and 35°C. A temperature falling below 21°C is not suitable for its optimal growth, as low temperatures adversely affect latex production and plant health.

**Statement 2 is correct.**

- Rubber cultivation requires high and well-distributed rainfall. The ideal annual rainfall ranges between 200 cm and 400 cm. However, the minimum threshold is around 150–152 cm, below which the growth of rubber becomes unsuitable. Additionally, rainfall should be evenly distributed throughout the year, as prolonged dry spells negatively impact the crop.

**Q.35) With reference to rubber cultivation in India, consider the following statements:**

1. Rubber requires uniformly high temperature and humidity throughout the year.
2. Prolonged dry spells are favourable for rubber production.
3. Rubber can be grown successfully in regions with well-distributed rainfall.

Which of the statements given above is/are correct?

- A. 1 and 3 only
- B. 2 and 3 only
- C. 1 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- Statement 1 is correct because rubber is a tropical crop that thrives under conditions of high temperature and humidity throughout the year.
- Statement 2 is incorrect as prolonged dry spells are harmful; rubber requires continuous moisture for latex production.
- Statement 3 is correct since evenly distributed rainfall is essential for sustainable growth and yield.

**Q.36) With reference to the geographical distribution of rubber cultivation in India, consider the following statements:**

1. Kerala accounts for the largest share of rubber production in India.
2. The Northeastern region contributes significantly to rubber production.
3. Rubber cultivation is confined only to traditional regions of South India.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- Statement 1 is correct as Kerala remains the dominant producer of rubber in India.
- Statement 2 is correct since states like Tripura and Assam have emerged as significant contributors.
- Statement 3 is incorrect because rubber cultivation has expanded to non-traditional regions such as Karnataka, Goa, Maharashtra, and Andhra Pradesh.

**Q.37) Consider the following statements:**

1. Rubber cultivation has expanded into non-traditional regions due to policy support.
2. Kerala's share in rubber production has increased over time due to expansion.

Which of the statements given above is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Answer: A**

**Explanation:**

- Statement 1 is correct as government policies have promoted rubber cultivation in new regions beyond Kerala.
- Statement 2 is incorrect because Kerala's share has declined (from around 90% to about 78%) due to diversification into other regions.

**Q.38) With reference to the evolution of political parties in India, consider the following statements:**

1. The Bharatiya Jana Sangh was founded in 1951.
2. The BJP was formed after the Emergency period in 1980.

3. Integral Humanism was propounded by Syama Prasad Mookerjee.

Which of the above statements are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation**

- Statement 1 is correct: Bharatiya Jana Sangh was founded in 1951.
- Statement 2 is correct: BJP was formed in 1980 after the Janata Party phase.
- Statement 3 is incorrect: Integral Humanism was propounded by Deendayal Upadhyaya, not Syama Prasad Mookerjee.

**Q.39) With reference to political parties in India, consider the following statements:**

1. The Constitution of India explicitly provides for the recognition of political parties.
2. The Election Commission of India grants recognition to political parties as National or State parties.
3. A registered political party must contest elections to retain its registration.

Which of the statements given above are correct?

- A. 2 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- **Statement 1 is incorrect:** The Constitution does not explicitly mention political parties; they are governed by laws like the Representation of the People Act, 1951.
- **Statement 2 is correct:** The Election Commission of India (ECI) recognizes parties as National or State parties based on electoral performance.
- **Statement 3 is incorrect:** Registration of a political party does not automatically lapse if it does not contest elections, though

recognition may be affected.

**Q.40) Which of the following best describes the criteria for recognition of a National Party in India?**

- A. Winning at least one seat in the Lok Sabha from any State
- B. Securing at least 6% of valid votes in four or more States or winning a minimum number of Lok Sabha seats
- C. Being registered with the Election Commission for at least 10 years
- D. Having representation in both Houses of Parliament

**Answer: B**

**Explanation:**

A party is recognized as a **National Party** if it fulfills conditions such as:

- Securing **at least 6% of valid votes in four or more States** and winning Lok Sabha seats, or
- Winning **at least 2% of Lok Sabha seats from at least three States.**
- This reflects both **vote share and geographical spread.**

**Q.41) With reference to the anti-defection law, consider the following statements:**

1. It applies to both elected and nominated members of legislatures.
2. A member is disqualified if they voluntarily give up membership of their political party.
3. The decision on disqualification is taken by the Election Commission.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** The anti-defection law (10th Schedule) applies to **both elected and nominated members** (after 6 months in case of nominated members).
- **Statement 2 is correct:** Disqualification occurs

if a member **voluntarily gives up party membership**, even without formal resignation.

- **Statement 3 is incorrect:** The decision is taken by the **Speaker/Chairman**, not the Election Commission.

**Q.42) With reference to deregulation reforms in Andhra Pradesh, consider the following statements:**

1. The reforms aim to reduce the number of regulations from more than 800 to fewer than 100.
2. The system shifts from permission-based approvals to self-declaration mechanisms.
3. The reforms eliminate all regulatory checks including environmental safeguards.

Which of the above statements are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- Statement 1 is correct: The number of regulations is proposed to be reduced significantly.
- Statement 2 is correct: The system shifts towards self-declaration.
- Statement 3 is incorrect: Environmental and safety safeguards will continue.

**Q.43) Andhra Pradesh ranks among the leading states in India in which of the following sectors?**

- A. Inland aquaculture production
- B. Petroleum refining capacity
- C. Tea plantation output
- D. Wool production

**Answer: A**

**Explanation:**

- Andhra Pradesh is the leading state in **inland aquaculture**, especially shrimp and fish farming, supported by extensive canal

irrigation and coastal conditions, making fisheries a major contributor to the state economy.

**Q.44) Which port is the largest in Andhra Pradesh in terms of cargo handling?**

- A. Kakinada Port
- B. Krishnapatnam Port
- C. Visakhapatnam Port
- D. Gangavaram Port

**Answer: C**

**Explanation:**

- **Visakhapatnam Port** is one of the major ports of India and the largest in Andhra Pradesh, handling diverse cargo including coal, iron ore, and petroleum products, making it a key trade gateway.

**Q.45) The Polavaram Project is primarily associated with which objective?**

- A. Thermal power generation
- B. Irrigation and inter-basin water transfer
- C. Coastal erosion control
- D. Urban drinking water supply only

**Answer: B**

**Explanation:**

- The Polavaram Project is a multi-purpose irrigation project aimed at irrigation, inter-basin water transfer, flood control, and hydroelectric generation, significantly contributing to agricultural and regional development.

**Q.46) With reference to women's political representation in India, consider the following statements:**

1. Article 243D provides for reservation of women in Panchayats.
2. Article 325 prohibits discrimination in electoral rolls on the basis of sex.
3. The Women's Reservation Act (106th Constitutional Amendment) has already been implemented.
4. Articles 84 and 173 relate to qualifications for contesting elections.

Which of the above statements are correct?

- A. 1, 2 and 4 only

- B. 1 and 3 only
- C. 2, 3 and 4 only
- D. 1, 2, 3 and 4

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** Article 243D of the Constitution provides for **reservation of not less than one-third of seats for women in Panchayats**, including reservation for women belonging to Scheduled Castes and Scheduled Tribes. This provision was introduced through the **73rd Constitutional Amendment Act, 1992** to promote grassroots political participation of women.
- **Statement 2 is correct:** Article 325 ensures that **no person shall be excluded from electoral rolls on grounds of religion, race, caste, or sex**. This guarantees **universal and non-discriminatory electoral inclusion**, forming the foundation of equal political rights in India.
- **Statement 3 is incorrect:** The **Women's Reservation Act (106th Constitutional Amendment Act, 2023)** has been passed, but it has **not yet been implemented**. Its enforcement is contingent upon the completion of the **next Census and subsequent delimitation exercise**, making it operationally deferred.
- **Statement 4 is correct:** Articles 84 and 173 deal with the **qualifications for membership of Parliament and State Legislatures respectively**. They lay down conditions such as citizenship, minimum age, and other eligibility requirements necessary to contest elections.

**Q.47) Consider the following statements regarding the Women's Reservation Act:**

1. It also provides reservation for women in the Rajya Sabha.
2. Within the reserved seats, provision is made for SC/ST women.
3. The reservation is intended to be permanent in nature.

Which of the statements given above are

correct?

- A. 2 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- Statement 1 is incorrect: The Act does **not provide reservation in the Rajya Sabha or State Legislative Councils**; it is limited to Lok Sabha and State Assemblies.
- Statement 2 is correct: The Act ensures **sub-reservation for SC/ST women** within the overall 33% quota, maintaining existing reservation principles.
- Statement 3 is incorrect: The reservation is **not permanent**; it is proposed for a **limited duration (15 years)**, subject to extension by Parliament

**Q.48) Which one of the following provisions in the Constitution of India directly ensures that women cannot be excluded from electoral rolls on the basis of sex?**

- A. Article 14
- B. Article 15
- C. Article 325
- D. Article 326

**Answer: C**

**Explanation:**

- Article 325 specifically provides that **no person shall be ineligible for inclusion in electoral rolls on grounds of religion, race, caste, or sex**, thereby ensuring equal political participation.

**Q.49) The reservation of seats for women in the Lok Sabha, as provided by the 106th Constitutional Amendment Act, will come into effect after:**

- A. Passage of a Parliamentary resolution
- B. Notification by the Election Commission
- C. Completion of Census followed by delimitation
- D. Ratification by at least half of the State Legislatures

**Answer: C**

**Explanation:**

- The Act clearly states that **reservation will be implemented only after the next Census and subsequent delimitation exercise**, making it conditional and not immediate.

**Q.50) With reference to photochemical smog, consider the following statements:**

1. It is formed by the reaction of nitrogen oxides and volatile organic compounds in the presence of sunlight.
2. It is more common in urban areas with high vehicular emissions.
3. It contains pollutants such as ozone and peroxyacetyl nitrate (PAN).

Which of the statements given above is/are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: D**

**Explanation:**

- **Statement 1 is correct:** Photochemical smog is a **secondary type of air pollution**, meaning it is not directly emitted into the atmosphere. It forms when **nitrogen oxides (NOx)** and **volatile organic compounds (VOCs)** react in the presence of **sunlight**, particularly ultraviolet radiation. These reactions produce a series of oxidizing pollutants, making sunlight a necessary condition for its formation.
- **Statement 2 is correct:** This type of smog is typically observed in **urban areas with dense vehicular traffic**, as automobiles are major sources of NOx and VOCs. Cities with high emissions combined with **warm, sunny climatic conditions** experience higher levels of photochemical smog. Therefore, its occurrence is strongly linked with urbanization and transport-related pollution.
- **Statement 3 is correct:** Photochemical smog contains harmful **secondary pollutants**, mainly:

- **Ground-level ozone (O<sub>3</sub>)**, which causes respiratory problems and damages crops
- **Peroxyacetyl nitrate (PAN)**, which irritates eyes and affects plant tissues
- These substances are formed during atmospheric chemical reactions and are key indicators of photochemical smog.

**Q.51) Consider the following points of criticism against the Fundamental Duties:**

1. They are non-justiciable and lack legal enforcement.
2. Some duties, like promoting harmony, are considered too idealistic.
3. They were added as an “afterthought” to the Constitution.
4. They do not include the duty to cast a vote.

**How many of the above are valid criticisms of the Fundamental Duties?**

- A. Only one
- B. Only two
- C. Only three
- D. All four

**Answer: D**

**Explanation:**

- **Statement 1 is correct:** Fundamental Duties are non-justiciable, meaning they are not enforceable by courts. This weakens their practical impact and is a commonly cited limitation.
- **Statement 2 is correct:** Certain duties, such as promoting harmony or developing scientific temper, are considered vague and idealistic. Their abstract nature makes them difficult to implement or measure.
- **Statement 3 is correct:** Fundamental Duties were not part of the original Constitution. They were added later by the 42nd Constitutional Amendment Act, 1976, which leads to the criticism that they were an “afterthought” rather than a foundational element.
- **Statement 4 is correct:** The list of duties is often seen as incomplete. Important civic responsibilities like voting, paying taxes, or

participating in democratic processes are not explicitly included.

**Q.52) With reference to biomagnification, consider the following statements:**

1. It refers to the increase in concentration of toxic substances at successive trophic levels in a food chain.
2. It is commonly associated with substances that are non-biodegradable and fat-soluble.
3. It occurs due to the dilution of pollutants as they move up the food chain.

Which of the statements given above is/are correct?

- A. 1 and 2 only
- B. 2 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** Biomagnification is the process by which the **concentration of toxic substances increases at each higher trophic level** in a food chain. When lower organisms (like plankton) absorb pollutants from water, and these are then consumed by higher organisms (fish, birds, humans), the concentration of toxins becomes progressively higher at each step.
- **Statement 2 is correct:** Biomagnification is typically associated with **non-biodegradable and fat-soluble substances** such as DDT, mercury, and PCBs. These substances:
  - Are not easily broken down in the environment
  - Accumulate in fatty tissues of organisms
  - Remain in the body for long periods, leading to higher concentrations over time
- **Statement 3 is incorrect:** Biomagnification involves **increase (magnification)** of pollutants, not dilution. As organisms at higher trophic levels consume multiple contaminated organisms, the total

concentration of toxins in their bodies becomes significantly higher rather than getting diluted.

**Q.53) The principle of “polluter pays” in sustainable development implies which of the following?**

- A. Equal environmental responsibility for all countries
- B. Cost internalization of environmental externalities by the polluter
- C. State-funded compensation for environmental damage
- D. Voluntary compliance by industries

**Answer: B**

**Explanation:**

- The polluter pays principle requires that the **polluting entity bears the cost of environmental damage**, ensuring internalization of externalities rather than shifting the burden to society or the state.

**Q.54) With reference to sand mining in India, consider the following statements:**

1. Sand is classified as a minor mineral under the MMDR Act, 1957.
2. Coastal Regulation Zone (CRZ) rules permit unrestricted mechanised beach sand mining.
3. Sustainable Sand Mining Management Guidelines, 2016 aim to regulate scientific extraction of sand.

Which of the statements given above are correct?

- A. 1 and 3 only
- B. 2 and 3 only
- C. 1 and 2 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- Statement 1 is correct : sand is treated as a minor mineral under the MMDR Act.
- Statement 2 is incorrect : CRZ rules restrict large-scale and mechanised beach sand mining.
- Statement 3 is correct : SSMMG 2016 promotes scientific and sustainable mining

practices.

**Q.55) With reference to sand mining in India, consider the following statements:**

1. Sand is classified as a minor mineral under the Mines and Minerals (Development and Regulation) Act, 1957.
2. Regulation of sand mining is primarily the responsibility of the Central Government.
3. District Survey Report (DSR) is required before granting sand mining leases.

**Which of the statements given above is/are correct?**

- A. 1 and 3 only
- B. 2 and 3 only
- C. 1 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** Sand is notified as a **minor mineral** under the MMDR Act, and hence its regulation falls under a specific category distinct from major minerals like coal or iron ore.
- **Statement 2 is incorrect (trap):** Regulation of minor minerals, including sand, is primarily the responsibility of **State Governments**, not the Centre.
- **Statement 3 is correct:** As per the **Sustainable Sand Mining Management Guidelines, 2016**, preparation of a **District Survey Report (DSR)** is mandatory before granting mining leases to ensure scientific and sustainable extraction.

**Q.56) Consider the following statements regarding the Bahuda River:**

1. It originates in the Eastern Ghats.
2. It flows through both Odisha and Andhra Pradesh.
3. It is a tributary of the Godavari River.

**Which of the statements given above is/are correct?**

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only

- D. 1, 2 and 3

**Answer: A**

- **Statement 1 is correct:** The Bahuda River originates in the **Eastern Ghats**, which is a discontinuous mountain range along the eastern coast of India. Many short, seasonal rivers of Odisha and Andhra Pradesh, including Bahuda, take origin from these hills and flow eastward.
- **Statement 2 is correct:** The river flows from **Odisha into Andhra Pradesh**, making it an inter-state river. This is an important mapping fact, as many east-flowing rivers of this region cross state boundaries before draining into the Bay of Bengal.
- **Statement 3 is incorrect :** The Bahuda River is **not a tributary of the Godavari River**. Instead, it is an **independent east-flowing river** that drains directly into the Bay of Bengal.

**Q.57) With reference to the Sustainable Sand Mining Management Guidelines, 2016, consider the following statements:**

1. Preparation of a District Survey Report (DSR) is a prerequisite for granting sand mining leases.
2. The Guidelines mandate replenishment studies to determine sustainable extraction levels.
3. The Guidelines allow unrestricted sand mining in non-perennial rivers due to seasonal flow.

**Which of the statements given above is/are correct?**

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** The Guidelines require a **District Survey Report (DSR)** to identify viable and environmentally safe mining zones.
- **Statement 2 is correct:** **Replenishment studies** are essential to ensure that extraction does not exceed natural regeneration of sand.

- **Statement 3 is incorrect (very close trap):** Even in non-perennial rivers, mining is **regulated and restricted**, not unrestricted.

**Q.58) With reference to the PM Surya Ghar Muft Bijli Yojana, consider the following statements:**

1. It promotes installation of rooftop solar systems for households.
2. It allows beneficiaries to sell surplus electricity back to the grid through net metering.
3. It is implemented by the Ministry of Agriculture and Farmers Welfare.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation**

- Statement 1 is correct: The scheme promotes rooftop solar panel installation for domestic electricity generation.
- Statement 2 is correct : Net metering allows households to export surplus electricity to the grid and receive financial benefits.
- Statement 3 is incorrect : The scheme is implemented by the Ministry of New and Renewable Energy, not the Ministry of Agriculture.

Therefore, the correct answer is A.

**Q.59) Consider the following statements regarding energy-related schemes:**

1. The PM-KUSUM Scheme enables farmers to sell surplus solar power to the grid.
2. The Rooftop Solar Programme Phase II is restricted to off-grid solar systems.
3. The National Bioenergy Programme supports energy generation from waste and biomass.

Which of the statements given above is/are correct?

- A. 1 and 3 only
- B. 1 only
- C. 2 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- Statement 1 is correct: The PM-KUSUM Scheme promotes decentralized solar energy in agriculture and allows farmers to feed surplus electricity into the grid, generating additional income.
- Statement 2 is incorrect: The Rooftop Solar Programme Phase II focuses on **grid-connected rooftop systems** supported by net metering, not off-grid installations alone.
- Statement 3 is correct: The National Bioenergy Programme promotes energy generation from biomass, biogas, and waste materials as part of renewable energy expansion.

**Q.60) The core difference between Saubhagya Scheme and PM Surya Ghar Scheme lies in:**

- A. Type of energy source used
- B. Focus on connection versus generation at household level
- C. Rural versus urban implementation
- D. Central versus state funding

**Answer: B**

**Explanation:**

- Option B is correct: The Saubhagya Scheme aims at providing **electricity connections** to un-electrified households, ensuring last-mile access. In contrast, the PM Surya Ghar Scheme focuses on **household-level electricity generation** through rooftop solar systems, enabling self-production of power.

**Q.61) With reference to fertilizer use in India, consider the following statements:**

1. Urea is the most widely used nitrogenous fertilizer because of high subsidy support.
2. The ideal N:P:K ratio for balanced fertilization is 4:2:1.
3. Excessive use of urea improves long-term soil fertility and reduces

groundwater pollution.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation**

- Statement 1 is correct : urea receives heavy subsidy support and is the most widely used nitrogen fertilizer in India.
- Statement 2 is correct : the ideal nutrient balance for sustainable agriculture is generally considered to be 4:2:1 for nitrogen, phosphorus, and potassium.
- Statement 3 is incorrect : excessive urea causes soil degradation, groundwater pollution, and long-term fertility decline.

Therefore, the correct answer is A.

**Q.62) With reference to fertilizers used in Indian agriculture, consider the following statements:**

1. Urea is the most widely used nitrogenous fertilizer in India.
2. Di-Ammonium Phosphate (DAP) is a major source of both nitrogen and phosphorus.
3. Muriate of Potash is commonly used as a phosphatic fertilizer.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** Urea is the most widely used **nitrogenous fertilizer** in India because of its high nitrogen content (46%) and relatively lower cost. It plays a major role in improving crop productivity, especially for cereals such as rice and wheat.
- **Statement 2 is correct:** Di-Ammonium

Phosphate (DAP) is one of the most important **complex fertilizers** used in Indian agriculture. It provides both **nitrogen (N)** and **phosphorus (P)**, making it highly useful during the initial growth stages of crops when root development and early plant growth are critical.

- **Statement 3 is incorrect:** Muriate of Potash (MOP) is a **potassic fertilizer**, not a phosphatic fertilizer. It mainly supplies potassium (K), which is essential for disease resistance, water regulation, and overall plant strength. Phosphatic fertilizers include DAP and Single Super Phosphate (SSP), not MOP.

**Q.63) Consider the following statements regarding balanced fertilizer use:**

1. Excessive use of nitrogenous fertilizers can lead to soil degradation and groundwater pollution.
2. Potassic fertilizers help improve crop resistance to diseases and moisture stress.
3. Phosphatic fertilizers primarily increase chlorophyll formation in leaves.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** Overuse of nitrogenous fertilizers such as urea can cause nutrient imbalance, soil health decline, nitrate leaching into groundwater, and environmental pollution. This is one of the major concerns in Indian agriculture due to subsidy-driven overconsumption.
- **Statement 2 is correct:** Potassium plays an important role in strengthening plant tissues, improving resistance against pests and diseases, and helping crops tolerate drought and moisture stress. Hence, potassic fertilizers are crucial for plant resilience and quality.

- **Statement 3 is incorrect:** Chlorophyll formation is mainly associated with **nitrogen and magnesium**, not phosphorus. Phosphorus is primarily responsible for root development, flowering, seed formation, and energy transfer within the plant. Therefore, linking phosphorus mainly with chlorophyll formation is incorrect

**Q.64) With reference to biofertilizers and chemical fertilizers, consider the following statements:**

1. Biofertilizers help in increasing nutrient availability by using living microorganisms.
2. Rhizobium is commonly used in leguminous crops for biological nitrogen fixation.
3. Zinc sulphate is classified as a biofertilizer because it improves micronutrient availability in soil.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** Biofertilizers are substances containing living microorganisms that enhance nutrient availability to plants. They improve soil fertility by fixing atmospheric nitrogen, solubilizing phosphorus, or stimulating plant growth through biological processes rather than direct chemical nutrient supply.
- **Statement 2 is correct:** Rhizobium is a well-known nitrogen-fixing bacterium associated with the root nodules of leguminous crops such as pulses. It converts atmospheric nitrogen into forms usable by plants, reducing the need for synthetic nitrogen fertilizers and improving soil health.
- **Statement 3 is incorrect:** Zinc sulphate is not a biofertilizer; it is a **micronutrient chemical fertilizer** used to correct zinc deficiency in

soils. Biofertilizers must contain living organisms, whereas zinc sulphate is an inorganic chemical input. Therefore, the classification is incorrect.

**Q.65) With reference to electric buses in public transport, consider the following statements:**

1. Electric buses generally have higher energy efficiency than diesel buses.
2. Under the Gross Cost Contract model, the State Transport Corporation owns and maintains the buses directly.
3. FAME India Scheme supports electrification of public transport systems.

Which of the statements given above are correct?

- A. 1 and 3 only
- B. 2 and 3 only
- C. 1 and 2 only
- D. 1, 2 and 3

**Answer: A**

**Explanation**

- Statement 1 is correct because electric motors convert nearly 85–90% of input energy into motion, making them far more efficient than diesel engines.
- Statement 2 is incorrect because under the Gross Cost Contract model, private operators own and maintain the buses while the government pays per kilometre of service.
- Statement 3 is correct because FAME India Scheme Phase II specifically supports electric public transport including electric buses.
- Therefore, the correct answer is A.

**Q.66) Consider the following statements regarding urban air pollution in India:**

1. Vehicular emissions are among the major contributors to particulate pollution in large metropolitan cities.
2. Secondary pollutants such as ground-level ozone can form due to chemical reactions involving nitrogen oxides and volatile organic compounds in the presence of sunlight.

3. PM2.5 particles are larger and less harmful than PM10 particles because they settle faster in the atmosphere.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** In major Indian cities, **vehicular emissions** are one of the leading contributors to urban air pollution, especially PM2.5, nitrogen oxides (NOx), carbon monoxide, and hydrocarbons. Rapid urbanization, traffic congestion, and the growing number of private vehicles significantly worsen air quality. Diesel vehicles are particularly important sources of fine particulate matter.
- **Statement 2 is correct: Ground-level ozone** is a **secondary pollutant**, meaning it is not emitted directly but forms in the atmosphere through chemical reactions. When **nitrogen oxides (NOx)** and **volatile organic compounds (VOCs)** react in the presence of sunlight, ozone is produced near the surface. This is harmful to human health and crops, unlike stratospheric ozone which is beneficial.
- **Statement 3 is incorrect:** This statement is incorrect because **PM2.5 particles are smaller and more dangerous than PM10**, not larger. Their very small size allows them to penetrate deep into the lungs and even enter the bloodstream, causing serious cardiovascular and respiratory diseases. PM10 is comparatively larger and less penetrating. Therefore, PM2.5 is more harmful, not less.

**Q.67) Consider the following statements regarding Electric Vehicle (EV) policy in India:**

1. The FAME scheme was launched to promote faster adoption and manufacturing of electric and hybrid vehicles in India.

2. Lithium-ion batteries used in EVs depend significantly on critical minerals such as lithium, cobalt, and nickel.

3. Under India's EV policy, registration tax and GST on all EVs are completely removed by constitutional mandate.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** The **FAME Scheme (Faster Adoption and Manufacturing of Electric Vehicles)** was launched by the Government of India to encourage the use of electric and hybrid vehicles. It provides demand incentives, supports charging infrastructure, and promotes domestic manufacturing as part of India's clean mobility transition. FAME-II further expanded this support, especially for public and shared transport.
- **Statement 2 is correct:** Most EV batteries are based on **lithium-ion technology**, which depends heavily on critical minerals such as **lithium, cobalt, nickel, and graphite**. These minerals are strategically important because supply concentration in a few countries creates economic and geopolitical risks for energy transition goals.
- **Statement 3 is incorrect:** There is no constitutional provision mandating complete removal of registration tax or GST on all EVs. While the government has reduced **GST on EVs to 5%** and some states provide registration tax exemptions or subsidies, these are policy measures, not constitutional obligations. Therefore, the statement is incorrect.

**Q.68) With reference to the Blue City Project of Amaravati, consider the following**

**statements:**

1. Kondaveeti Vagu is a seasonal drainage stream that ultimately joins the Krishna River.
2. Tungabhadra is a left-bank tributary of the Krishna River.
3. Gravity Canal discharges floodwater directly into the Krishna River through natural gravitational flow.

Which of the statements given above are correct?

- A. 1 and 3 only
- B. 2 and 3 only
- C. 1 and 2 only
- D. 1, 2 and 3

**Answer: A****Explanation**

- Statement 1 is correct : Kondaveeti Vagu is the main natural flood carrier stream of Amaravati and drains into the Krishna River.
- Statement 2 is incorrect : Tungabhadra is a right-bank tributary of the Krishna River, not a left-bank tributary.
- Statement 3 is correct : the Gravity Canal releases floodwater directly into the Krishna River using natural gravitational flow.

Hence, the correct answer is A.

**Q.69) Consider the following statements regarding the Krishna River system:**

1. The Krishna River rises near Mahabaleshwar and flows eastward into the Bay of Bengal.
2. The Bhima and Tungabhadra are major right-bank tributaries of the Krishna River.
3. The Nagarjuna Sagar Project is built across the Krishna River.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 1 and 3 only
- C. 2 and 3 only
- D. 1, 2 and 3

**Answer: D****Explanation:****Statement 1 is correct:**

- The **Krishna River** originates near **Mahabaleshwar** in Maharashtra in the Western Ghats. From there, it flows eastward across the Deccan Plateau and finally drains into the **Bay of Bengal**. It is one of the major peninsular rivers of India and the second-largest east-flowing river of the peninsula after the Godavari.

**Statement 2 is correct:**

- The **Bhima** and **Tungabhadra** are important **right-bank tributaries** of the Krishna River. Since the river flows generally eastward, tributaries joining from the south are treated as right-bank tributaries. Tungabhadra itself is formed by the confluence of the Tunga and Bhadra rivers in Karnataka and is one of the most significant tributaries of Krishna

**Statement 3 is correct:**

- The **Nagarjuna Sagar Project**, one of the largest masonry dams in India, is constructed across the **Krishna River** on the border of Telangana and Andhra Pradesh. It is a major multipurpose river valley project providing irrigation, hydroelectric power, and drinking water. It is an important project for southern India.

**Q.70) Consider the following statements regarding the Godavari River in Andhra Pradesh:**

1. Before entering the Bay of Bengal, the Godavari divides into distributaries forming an extensive delta in coastal Andhra Pradesh.
2. The Dowleswaram Barrage is constructed across the Godavari River and is associated with Sir Arthur Cotton.
3. The Polavaram Project is a major multipurpose project built on the Pennar River.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

**Statement 1 is correct:**

- The **Godavari River**, after flowing through Maharashtra, Telangana, and Andhra Pradesh, enters the coastal plains and divides into several distributaries before meeting the **Bay of Bengal**. This forms the fertile **Godavari Delta**, which is one of the most agriculturally productive regions of Andhra Pradesh and supports intensive paddy cultivation.

**Statement 2 is correct:**

- The **Dowleswaram Barrage** is built across the **Godavari River** near Rajamahendravaram (Rajahmundry). It was originally constructed under the supervision of **Sir Arthur Cotton**, who played a major role in irrigation development in the Madras Presidency. The barrage transformed agriculture in coastal Andhra by improving irrigation and flood control.

**Statement 3 is incorrect:**

- The **Polavaram Project** is not built on the Pennar River. It is a major **multipurpose irrigation project on the Godavari River** in Andhra Pradesh. It is designed for irrigation, hydropower generation, drinking water supply, and inter-basin water transfer. Therefore, the statement is incorrect.

**Q.71) Consider the following statements regarding canals in Andhra Pradesh:**

1. The Buckingham Canal runs parallel to the Coromandel Coast and passes through parts of Andhra Pradesh.
2. It was historically important for inland water transport and irrigation support in the coastal region.
3. The canal directly connects the Krishna River basin with the Narmada River basin.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only

C. 1 and 3 only

D. 1, 2 and 3

**Answer: A**

**Explanation:**

**Statement 1 is correct:**

- The **Buckingham Canal** is an important historic canal running parallel to the **Coromandel Coast** along the eastern coast of India. It passes through parts of Andhra Pradesh and Tamil Nadu and forms part of the inland water transport system along the Bay of Bengal coast

**Statement 2 is correct:**

- The canal was historically significant for **navigation, inland water transport, irrigation support, and movement of goods** such as rice, salt, and textiles. Before the expansion of railway and road transport, it served as an important economic lifeline for coastal settlements

**Statement 3 is incorrect:**

- The Buckingham Canal does not connect the **Krishna basin with the Narmada basin**. The Narmada is a west-flowing river in central India with no such canal linkage. Buckingham Canal mainly serves the eastern coastal belt and is associated with coastal navigation rather than inter-basin river transfer of that kind. Therefore, this statement is incorrect.

**Q.72) With reference to the appointment of the Chief Justice of a High Court, consider the following statements:**

1. The appointment is made by the President of India under Article 217 of the Constitution.
2. A High Court judge can be transferred to another High Court under Article 222.
3. A puisne judge refers to the senior-most judge of the Supreme Court after the Chief Justice of India.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only

D. 1, 2 and 3

**Answer: A**

**Explanation**

- Statement 1 is correct : Article 217 governs the appointment of High Court judges including the Chief Justice by the President of India.
- Statement 2 is correct : Article 222 provides for transfer of judges from one High Court to another.
- Statement 3 is incorrect : a puisne judge means any regular High Court judge other than the Chief Justice and is not related to the Supreme Court.

Hence, the correct answer is A.

**Q.73) Consider the following statements regarding the removal of a High Court judge in India:**

1. The removal of a High Court judge is governed by Article 217 read with Article 124(4) of the Constitution of India.
2. A motion for removal can be passed by a simple majority in both Houses of Parliament.

Which of the statements given above is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Answer: A**

**Explanation:**

- Statement 1 is correct: Removal provisions for High Court judges are derived from Article 217 along with Article 124(4).
- Statement 2 is incorrect: The Constitution requires a special majority, not a simple majority, in both Houses of Parliament for removal.

**Q.74) Consider the following statements regarding the removal of a High Court judge in India:**

1. The removal motion must be supported by at least 100 members in the Lok Sabha or 50 members in the Rajya Sabha.
2. The order for removal is issued by the

President of India after the motion is passed by Parliament.

Which of the statements given above is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Answer: C**

**Explanation:**

- Statement 1 is correct : the Constitution requires a minimum level of parliamentary support before initiating the removal process. A motion for removal of a judge cannot be introduced casually; it must be signed by at least 100 members in the Lok Sabha or 50 members in the Rajya Sabha. This requirement ensures that only serious and well-founded allegations are taken up for consideration.
- Statement 2 is correct: After the motion is passed in both Houses of Parliament by the required special majority, it is presented to the President. The President of India then formally issues the order for removal. The President's role here is formal, as the decision is effectively taken by Parliament through the prescribed constitutional procedure under the Constitution of India.

**Q.75) Consider the following statements:**

1. Papikonda is a Tiger Reserve in Andhra Pradesh.
2. Tiger is listed under Schedule I of the Wildlife Protection Act, 1972.
3. Godavari is the longest river of Peninsular India.

Which of the above are correct?

- A. 2 and 3 only
- B. 1 and 2 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- Statement 1 is incorrect because Papikonda is a National Park, not a Tiger Reserve.

Statements 2 and 3 are correct.

**Q.76) Consider the following statements:**

1. Pulicat Lake is a brackish water lagoon.
2. Nagarjunsagar-Srisaïlam Tiger Reserve is shared by Andhra Pradesh and Telangana.
3. Sri Venkateswara National Park is located in the Western Ghats.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- Statement 1 is correct : Pulicat Lake is a coastal lagoon with a mix of seawater and freshwater, hence classified as brackish. It is also an important habitat for migratory birds, especially flamingos. Statement 2 is correct: Nagarjunsagar-Srisaïlam Tiger Reserve extends across both Andhra Pradesh and Telangana and is one of the largest tiger reserves in India. Statement 3 is incorrect : Sri Venkateswara National Park is located in the Eastern Ghats (Tirumala hills), not in the Western Ghats.

**Q.77) Consider the following statements regarding the Godavari River:**

1. It flows through a gorge-like landscape in the Papikondalu hills of the Eastern Ghats.
2. Its lower course in Andhra Pradesh is associated with mangrove ecosystems.
3. It is the second longest river in India.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: D**

**Explanation:**

- Statement 1 is correct: the Godavari flows

through the Papikondalu hills forming a gorge-like landscape in the Eastern Ghats. Statement 2 is correct: its delta region in Andhra Pradesh supports mangrove ecosystems such as those in Coringa. Statement 3 is correct: the Godavari is the second longest river in India after the Ganga.

**Q.78) Consider the following statements regarding Godavari Pushkaram:**

1. It is celebrated when Jupiter enters the zodiac sign associated with the Godavari River.
2. The first twelve days of the festival are known as **Adi Pushkaram**.
3. Bridge Lanka is a Himalayan island used for pilgrimage accommodation during the festival.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

**Answer: A**

**Explanation:**

- **Statement 1 is correct: Godavari Pushkaram** is a major Hindu pilgrimage festival associated with the **Godavari River**. It is celebrated once every **12 years**, when the planet **Jupiter (Brihaspati)** enters the specific zodiac sign linked with the river. According to traditional belief, this period is considered highly auspicious for taking a holy dip in the river and performing religious rituals for spiritual purification. Therefore, this statement is correct
- **Statement 2 is correct:** The first **twelve days** of Pushkaram are known as **Adi Pushkaram** and are considered the most sacred phase of the festival. Devotees from different parts of the country visit the river ghats during this period for ritual bathing, ancestor worship, and religious ceremonies. Similarly, the last twelve days are called **Antya Pushkaram** and

are also regarded as highly auspicious. Hence, this statement is correct.

- **Statement 3 is incorrect: Bridge Lanka** is not a Himalayan island. It is a **riverine island located in the Godavari delta region of Andhra Pradesh**, formed within the river system. During Godavari Pushkaram, such islands and nearby areas are often used for pilgrimage arrangements and accommodation due to the large influx of devotees. Therefore, describing it as a Himalayan island is factually incorrect.

**Q.79) Godavari Pushkaralu, an important river-based festival in Andhra Pradesh, is celebrated when:**

- A. the southwest monsoon reaches the Godavari delta
- B. Jupiter enters the zodiac sign associated with the Godavari River
- C. the Godavari River reaches its highest flood level
- D. the Sun enters Makara Rashi during Makar Sankranti

**Answer: B**

**Explanation:**

- **Godavari Pushkaralu** is celebrated once in 12 years when **Jupiter (Brihaspati)** enters the zodiac sign associated with the Godavari River, making it an auspicious period for holy bathing and religious rituals.

**Q.80) Rajamahendravaram is historically significant in the Godavari basin because it is closely associated with which of the following?**

- A. The Dowleswaram Barrage designed by Sir Arthur Cotton for irrigation development
- B. The source of the Godavari River in the Western Ghats
- C. The confluence of the Krishna and Godavari rivers
- D. The location of Nagarjuna Sagar Dam on the Godavari River

**Answer: A**

**Explanation:**

- **Rajamahendravaram (Rajahmundry)** is closely associated with the **Dowleswaram**

**Barrage** built across the Godavari River under the supervision of **Sir Arthur Cotton**, which transformed irrigation and agriculture in coastal Andhra and made the Godavari delta highly fertile.

**Q.81) Consider the following statements regarding the Chief Justice of a High Court:**

1. The Chief Justice of a High Court is appointed by the President of India under Article 217.
2. The retirement age of a High Court judge is 65 years.
3. A High Court can issue writs for both Fundamental Rights and other legal rights.

Which of the statements given above are correct?

- A. 1 and 3 only
- B. 2 and 3 only
- C. 1 and 2 only
- D. 1, 2 and 3

**Answer: A**

**Explanation**

- Statement 1 is correct because Article 217 governs appointment of High Court judges including the Chief Justice.
- Statement 2 is incorrect because High Court judges retire at 62 years, while Supreme Court judges retire at 65 years.
- Statement 3 is correct because Article 226 allows writs for Fundamental Rights as well as other legal rights.
- Therefore, the correct answer is (a)

**Q.82) Consider the following statements regarding hyperscale data centres:**

1. They are designed for massive cloud computing and large-scale digital storage.
2. Coastal cities are often preferred for such centres due to submarine cable landing stations.
3. Energy supply is a major operational requirement for such centres.

Which of the statements given above are correct?

- A. 1 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

**Answer: D**

**Explanation**

- Statement 1 is correct : hyperscale data centres are built for very large cloud operations and digital infrastructure.
- Statement 2 is correct : submarine cable landing stations improve global digital connectivity and make coastal cities strategically important.
- Statement 3 is correct : electricity is the largest operational component of AI infrastructure and data centres.

Therefore, the correct answer is (d).

**Q.83) With reference to the Google AI Data Centre project in Andhra Pradesh, consider the following statements:**

1. The Google hyperscale AI data centre is being established at Tarluvada near Visakhapatnam with an investment of ₹1.35 lakh crore.
2. The project is located in Amaravati and is primarily meant for agricultural data storage.

Which of the statements given above is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** The Google hyperscale AI data centre is being established at Tarluvada near Visakhapatnam with an investment of ₹1.35 lakh crore and is one of the largest single FDI projects in India.
- **Statement 2 is incorrect:** The project is not located in Amaravati. It is being developed in Visakhapatnam and is meant for AI cloud

infrastructure, hyperscale storage, cybersecurity, and digital connectivity, not agricultural data storage.

Therefore, the correct answer is (a).

**Q.84) With reference to Andhra Pradesh's administrative and economic development, consider the following statements:**

1. Visakhapatnam is emerging as both the headquarters of the South Coast Railway Zone and a major AI-driven digital infrastructure hub.
2. Amaravati and Visakhapatnam are both being developed for different strategic purposes, with Amaravati as the administrative capital region and Visakhapatnam as a technology and industrial hub.

Which of the statements given above is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Answer: C**

**Explanation:**

- **Statement 1 is correct:** Visakhapatnam is important for Andhra Pradesh because it is associated with the South Coast Railway Zone and is also emerging as a major AI and data centre hub with projects like the Google hyperscale AI data centre.
- **Statement 2 is correct:** Amaravati is planned mainly as the administrative capital region of Andhra Pradesh, while Visakhapatnam is developing as a major industrial, port-based, and technology-driven economic centre.

Therefore, the correct answer is (c).

**Q.85) With reference to the rivers of Andhra Pradesh, consider the following statements:**

1. The Godavari River enters Andhra Pradesh after flowing through Telangana and finally drains into the Bay of Bengal near Antarvedi.
2. The Penna River originates in the Western Ghats and forms a major delta

similar to the Godavari in coastal Andhra Pradesh.

Which of the statements given above is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Answer: A**

**Explanation:**

- **Statement 1 is correct:** The Godavari River flows through Maharashtra and Telangana before entering Andhra Pradesh and finally drains into the Bay of Bengal near Antarvedi after forming a large delta.
- **Statement 2 is incorrect:** The Penna River does not originate in the Western Ghats; it originates in the Nandi Hills region of Karnataka. It also does not form a large fertile delta like the Godavari or Krishna.

Therefore, the correct answer is **(a)**.

**Q.86) Consider the following statements regarding mushroom cultivation:**

1. Mushrooms are autotrophic organisms.
2. Milky mushrooms are suitable for tropical climates.
3. Mushroom cultivation requires large land areas compared to traditional crops.

Which of the statements given above are correct?

- A. 1 only
- B. 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

**Answer: B**

**Explanation**

- Statement 1 is incorrect : mushrooms are heterotrophic fungi and do not perform photosynthesis.
- Statement 2 is correct :milky mushrooms are adapted to warm tropical climates.
- Statement 3 is incorrect : mushroom cultivation requires relatively small land area.

**Q.87) In mushroom cultivation, the term "spawn" refers to:**

- A. Sterilized organic substrate used as a growth medium
- B. Pure culture of fungal mycelium used for inoculation
- C. Fruiting body of the fungus harvested for consumption
- D. Chemical nutrient solution added to enhance growth

**Answer: B**

**Explanation:**

- **Spawn** is the **vegetative mycelium of fungi grown on a carrier (like grains)** used as inoculum to initiate mushroom cultivation; it is analogous to "seed" in plant cultivation.

**Q.88) In controlled mushroom cultivation, which of the following environmental changes most directly triggers the transition from vegetative mycelial growth to fruiting body formation?**

- A. Reduction in carbon dioxide concentration along with increased oxygen availability
- B. Increase in carbon dioxide concentration to enhance metabolic activity
- C. Complete exclusion of light to prevent photo-inhibition of mycelium
- D. Sudden increase in substrate nutrient concentration

**Answer: A**

**Explanation:**

- Fruiting (pinning) in mushrooms is triggered by a **shift in environmental conditions**, especially:
  - **Lower CO<sub>2</sub> levels** (fresh air exchange)
  - **Higher oxygen availability**
- Along with humidity and temperature adjustments