

1. Consider the following statements regarding the **Greater One-Horned Rhinoceros**:

1. The deep, heavy skin folds of the Greater One-Horned Rhinoceros function as natural thermal regulators.
2. These skin folds contain highly vascularized thin skin with numerous blood vessels that act as heat exchangers.

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**

**(a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I.**

**Explanation**

The Greater One-Horned Rhinoceros (*Rhinoceros unicornis*) possesses thick grey-brown skin with deep folds around the neck, shoulders, and flanks, giving it an armor-like appearance. These folds are not merely protective structures but also aid in regulating body temperature.

The thin skin beneath the folds contains an extensive network of blood vessels. These blood vessels function as heat exchangers by dissipating excess body heat, enabling the animal to cope with the hot and humid conditions of the Indo-Gangetic floodplains.

Hence, both statements are correct, and Statement-II correctly explains Statement-I.

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2. Consider the following statements regarding the **Partnership on Cyber, Critical Technologies and Supply Chains (PACTS)**:

1. PACTS is a trilateral defence agreement involving India, Australia, and the United States.
2. One of its primary objectives is to strengthen and diversify critical technology supply chains.
3. The partnership promotes collaboration in emerging technologies such as Artificial Intelligence and space technologies.

Which one of the following is correct?

- (a) All three statements are correct.
- (b) There is no correct statement.
- (c) There are two correct statements, including Statement 3.
- (d) There is only one correct statement.

**Answer**

**(c) There are two correct statements, including Statement 3.**

**Explanation**

Statement 1 is incorrect because PACTS is a **bilateral partnership between India and Australia**, not a trilateral agreement involving the United States.

Statement 2 is correct as supply chain resilience and diversification constitute one of the major pillars of the partnership.

Statement 3 is also correct because the framework facilitates cooperation in emerging technologies, including Artificial Intelligence, critical technologies, and space collaboration.

Therefore, Statements 2 and 3 are correct.

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**3.** Consider the following statements regarding tropical cyclones:

1. Very high vertical wind shear favours the development and stability of tropical cyclones.
2. Tropical cyclones generally intensify when sea surface temperatures fall below **24°C**.

Which of the above statements is/are correct?

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

**Answer**

**(d) Neither 1 nor 2**

**Explanation**

Statement 1 is incorrect because tropical cyclones develop under conditions of **low vertical wind shear**. High wind shear disrupts the cyclone's structure by tilting the vortex and displacing convection.

Statement 2 is also incorrect. Tropical cyclones require sea surface temperatures of approximately **26.5°C or higher** to provide sufficient heat and moisture for their formation and intensification. Cooler waters weaken the system.

Hence, neither statement is correct.

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**4.** The strategic importance of the **Khawthlangtuipui (Karnaphuli) River** for Northeast India primarily lies in its ability to:

- (a) Provide Mizoram with a shorter transport route to Bangladesh's Chattogram Port.  
(b) Supply the only run-of-the-river hydropower to Assam.  
(c) Connect the Brahmaputra Valley directly with Myanmar.  
(d) Form the boundary between the Lushai Hills and the Patkai Hills.

**Answer**

**(a) Provide Mizoram with a shorter transport route to Bangladesh's Chattogram Port.**

### Explanation

The Khawthlangtuipui River originates in the Lushai Hills of Mizoram and flows into Bangladesh as the Karnaphuli River before entering the Bay of Bengal.

Its strategic significance lies in providing landlocked Mizoram with a shorter route to the Port of Chattogram under India's Act East Policy, thereby improving regional connectivity and trade.

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5. New Zealand experiences frequent earthquakes and active volcanism because it lies along the convergent boundary between which of the following tectonic plates?

- (a) Eurasian Plate and Pacific Plate
- (b) Australian Plate and Pacific Plate
- (c) Indo-Australian Plate and Antarctic Plate
- (d) Nazca Plate and Australian Plate

### Answer

**(b) Australian Plate and Pacific Plate**

### Explanation

New Zealand lies at the boundary between the **Australian Plate** and the **Pacific Plate**.

The interaction between these plates involves subduction in some regions and transform faulting in others, resulting in frequent earthquakes, active volcanism, and mountain building.

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6. Consider the following statements regarding the **Khawthlangtuipui River**:

**Statement-I:** The river serves as the principal drainage and hydrological support system for southwestern Mizoram.

**Statement-II:** The river forms the Kaptai Lake reservoir entirely within Indian territory.

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

**(c) Statement-I is correct but Statement-II is incorrect.**

### Explanation

Statement-I is correct because the Khawthlangtuipui River is the principal drainage system supporting ecosystems and settlements in southwestern Mizoram.

Statement-II is incorrect because the Kaptai Dam and Kaptai Lake are located in the Chittagong Hill Tracts of Bangladesh, not in India.

Therefore, only Statement-I is correct.

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7. Proventricular Dilatation Disease (PDD), recently reported in the news, is best described as:

- (a) A metabolic bone disease affecting migratory water birds due to heavy metal toxicity.
- (b) A progressive neurological and digestive disease affecting parrots caused by an RNA virus.
- (c) A respiratory disease in poultry caused by highly pathogenic avian influenza.
- (d) A parasitic disease of the digestive tract affecting birds of prey.

**Answer**

**(b) A progressive neurological and digestive disease affecting parrots caused by an RNA virus.**

**Explanation**

Proventricular Dilatation Disease is a fatal disease affecting members of the parrot family.

It is caused by **Parrot Bornavirus (PaBV-4)**, a single-stranded RNA virus that damages the nerves supplying the digestive tract, resulting in poor digestion, weight loss, enlargement of the proventriculus, and eventual death.

The disease was recently confirmed in captive birds in India, highlighting concerns for avian conservation and breeding programmes.

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8. With reference to the contributions of **Raja Rammohan Roy**, consider the following statements:

1. He opposed the introduction of Western scientific education and supported only traditional Sanskrit learning.
2. He advocated the separation of the executive from the judiciary.
3. He demanded the fixation of minimum land rents to protect cultivators from arbitrary exploitation by Zamindars.

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**

(b) 2 and 3 only

**Explanation**

Statement 1 is incorrect because Raja Rammohan Roy strongly supported the introduction of Western education, modern science, and English-language instruction. He believed these were essential for India's intellectual and social progress.

Statement 2 is correct. He advocated important administrative reforms, including the separation of the executive and the judiciary to ensure impartial governance.

Statement 3 is also correct. He argued for protecting peasants from exploitation by seeking the fixation of fair land rents under the Zamindari system.

Therefore, Statements 2 and 3 are correct.

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9. Consider the following statements regarding **Kashmir Saffron**:

1. Kashmir saffron contains higher concentrations of bioactive compounds such as crocin and safranal than saffron produced outside India.
2. The crop is cultivated at an altitude of about **1,600–1,800 metres above mean sea level**, where unique microclimatic conditions prevail.
3. It is grown on ancient Karewa deposits consisting of mineral-rich, well-drained loamy soils.

Which of the following relationships among the above statements is/are correct?

1. Statement I is supported by Statement II.
2. Statement III contradicts Statement I.
3. Statements I and III together explain the unique geographical identity of Kashmir saffron.

Select the correct answer using the code given below.

(a) 1 only

(b) 2 and 3 only

(c) 1 and 3 only

(d) 1, 2 and 3

**Answer**

(c) 1 and 3 only

**Explanation**

Statement I is supported by Statement II because the high-altitude cultivation zone provides a distinct microclimate that enhances the accumulation of crocin and safranal, the compounds responsible for saffron's colour, aroma, and quality.

Statement III does not contradict Statement I. Rather, the well-drained, mineral-rich Karewa soils complement the favourable climatic conditions and contribute to the superior quality of Kashmir saffron.

Together, the climatic and soil characteristics establish the unique geographical identity of Kashmir saffron, which received the Geographical Indication (GI) tag in 2020.

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**10. Under Section 69A of the Information Technology Act, 2000, which authority is empowered to direct the blocking of public access to online information on grounds such as national security, sovereignty, or public order?**

- (a) State Governments independently
- (b) Central Government
- (c) Municipal Corporations
- (d) Supreme Court Bar Association

**Answer**

**(b) Central Government**

**Explanation**

Section 69A of the Information Technology Act, 2000 empowers the **Central Government**, or officers specifically authorised by it, to issue directions for blocking public access to online information.

Such directions may be issued only on specified grounds, including protection of the sovereignty and integrity of India, defence and security of the State, friendly relations with foreign countries, and maintenance of public order.

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**11. Consider the following statements regarding Schedule K of the Drugs Rules, 1945:**

1. It specifies certain categories of drugs that are exempt from selected provisions of the Drugs and Cosmetics Act, 1940.
2. It aims to improve access to essential medicines through regulatory exemptions where appropriate.
3. The Government may modify or withdraw these exemptions if public health concerns arise.

Which of the following inferences can be drawn from the above statements?

1. Schedule K is an independent legislation separate from the Drugs and Cosmetics Act, 1940.
2. The objective of Schedule K is to promote commercial profitability rather than public health.
3. The legal framework provides administrative flexibility to respond to changing public health risks.

Select the correct answer using the code given below.

**(a) 1 and 2 only**

(b) 2 and 3 only

(c) 1 and 3 only

(d) 3 only

**Answer**

**(d) 3 only**

**Explanation**

Statement 1 correctly describes the purpose of Schedule K. However, it does not imply that Schedule K is an independent law. It is subordinate legislation framed under the Drugs and Cosmetics Act, 1940. Hence, Inference 1 is incorrect.

Statement 2 reflects a public health objective by facilitating access to medicines where strict licensing may not be practical. It does not prioritise commercial gains. Therefore, Inference 2 is incorrect.

Statement 3 correctly indicates that exemptions can be modified or withdrawn in response to emerging health concerns, demonstrating regulatory flexibility.

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**12.** The recently approved **High-Energy Medical Cyclotron Project (HEMCP)** at Nagpur is primarily intended for:

(a) Commercial nuclear power generation

(b) Production of short-lived medical radioisotopes for cancer diagnosis and treatment

(c) Desalination of seawater

(d) Processing heavy metals for deep-sea mining

**Answer**

**(b) Production of short-lived medical radioisotopes for cancer diagnosis and treatment**

**Explanation**

The High-Energy Medical Cyclotron Project is a specialised nuclear medicine facility designed to produce short-lived radioisotopes such as Fluorine-18.

These isotopes are widely used in PET-CT imaging and targeted nuclear medicine for cancer diagnosis and treatment. Local production ensures timely availability because these radioisotopes decay rapidly.

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**13.** The **Joint Crediting Mechanism (JCM)** between India and Japan derives its international legal basis from which provision of the Paris Agreement?

(a) Article 4.4

(b) Article 6.2

(c) Article 11

(d) Article 8

**Answer**

**(b) Article 6.2**

**Explanation**

The Joint Crediting Mechanism is a bilateral carbon credit framework governed by **Article 6.2 of the Paris Agreement**.

Article 6.2 establishes rules for cooperative approaches through the transfer of **Internationally Transferred Mitigation Outcomes (ITMOs)**, enabling participating countries to cooperate in achieving their Nationally Determined Contributions (NDCs).

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**14. The Kishau Multi-Purpose Dam Project**, recently in the news, is being constructed across which river?

(a) Tons River

(b) Teesta River

(c) Periyar River

(d) Mahanadi River

**Answer**

**(a) Tons River**

**Explanation**

The Kishau Multi-Purpose Dam Project is being constructed on the **Tons River**, the largest tributary of the Yamuna.

Located on the border of Himachal Pradesh and Uttarakhand, the project aims to enhance water storage, hydroelectric generation, irrigation, and ecological flows. It has been designated a project of national importance.

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**15. Consider the following statements regarding the famous 'Dancing Girl' bronze figurine of Mohenjo-daro:**

1. The figurine depicts a distinctive pose with one hand resting on the hip, conveying confidence and movement.
2. The bronze composition reflects advanced knowledge of metallurgy and casting techniques.
3. The sculpture exhibits expressive artistic features rather than strict anatomical realism.

Which of the following inferences can be drawn?

1. The posture represents a deliberate artistic stance.

2. The Indus Valley Civilization possessed advanced bronze-working skills.
3. The figurine reflects an artistic preference for expressive representation over pure realism.

Select the correct answer using the code given below.

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

**Answer**

**(d) 1, 2 and 3**

**Explanation**

The Dancing Girl is among the finest examples of Harappan bronze sculpture.

Its posture conveys movement and confidence, suggesting a deliberate artistic composition rather than a casual pose.

Its bronze composition, produced through the lost-wax casting technique, demonstrates sophisticated metallurgical knowledge.

The stylised features and expressive body language indicate an artistic emphasis extending beyond literal realism.

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**16. Consider the following statements:**

**Statement-I:** A proclamation of President's Rule under Article 356 is immune from judicial review immediately after its issuance.

**Statement-II:** The Supreme Court, in the **S.R. Bommai** judgment, held that the majority of a State Government should ordinarily be tested on the floor of the Legislative Assembly.

Which one of the following is correct?

- (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 is not the correct explanation.
- (c) Statement-I is correct but Statement-II is incorrect.
- (d) Statement-I is incorrect but Statement-II is correct.

**Answer**

**(d) Statement-I is incorrect but Statement-II is correct.**

**Explanation**

Statement-I is incorrect because proclamations under Article 356 are subject to judicial review. The courts may examine whether the proclamation is based on relevant material and may strike it down if it is found to be arbitrary or mala fide.

Statement-II is correct. In the landmark **S.R. Bommai v. Union of India (1994)** case, the Supreme Court ruled that a government's majority must ordinarily be determined through a floor test in the Legislative Assembly rather than by the Governor's subjective assessment.

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**17.** Consider the following statements regarding a **Privilege Notice** in the Indian Parliamentary system:

1. Any Member of Parliament may move a privilege notice against a minister, another member, or an outsider for breach of parliamentary privilege.
2. The Committee on Privileges has the final authority to impose punishment without approval of the House.
3. Members of Parliament enjoy complete immunity from civil arrest throughout the entire year.

Which of the statements given above is/are correct?

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

**Answer**

**(c) 1 only**

**Explanation**

Statement 1 is correct. A privilege notice may be initiated by any Member of Parliament against a minister, another member, or an outsider for breach of privilege or contempt of the House.

Statement 2 is incorrect because the Committee on Privileges only investigates and submits recommendations. The final decision regarding punishment rests with the House itself.

Statement 3 is incorrect because immunity from civil arrest is limited to the period during the session and a specified period before and after it. It does not extend throughout the year and does not apply to criminal cases.