

Solutions

DATE : 12th May – 18th May

1) Correct Answer: A

☐ Explanation:

- **Mount Kailash** is a **sacred peak** located in the **Tibet Autonomous Region (TAR)** of China.
- It is **revered in four religions**:
 - ☑ **Hinduism** – as the abode of Lord Shiva.
 - ☑ **Buddhism** – associated with Demchok (Chakrasamvara).
 - ☑ **Jainism** – believed to be the site of **Rishabhadeva's liberation**.
 - ☑ **Bon religion** – regarded as the seat of spiritual power.
- It is the **source of four major rivers** of Asia:
 - ☑ **Brahmaputra, Sutlej, Indus, and Karnali**.
- The **Kailash Mansarovar Yatra (KMY)** is conducted by **India's Ministry of External Affairs**.
 - ☑ It was halted in 2020 due to **COVID-19** and **LAC tensions**.
 - ☑ Resumed in **2024–25**, after a **5-year pause**.
- Mount Kailash remains **unclimbed** due to **spiritual restrictions**.

☐ Hence, Option A is correct.

2) Correct Answer: C

☐ Explanation:

- **Bhimgad Wildlife Sanctuary (BWS)** is located in the **Belgaum district of Karnataka, close to Goa**.
- It was notified in **December 2011** and forms part of the **Western Ghats, a UNESCO World Heritage site**.
- It derives its name from **Bhimgad Fort**, built by **Chhatrapati Shivaji** in the 17th century.
- Notable for:
 - ☑ **Rare avifauna** like **Malabar Grey Hornbill, Imperial Pigeon, and Velvet-fronted Nuthatch**.
 - ☑ **Malabar Trogon** – an endemic species.
 - ☑ **Wroughton's Free-tailed Bat** – **only breeding site** in **Barapede Caves**.
- Encompasses **Vajrapoha Waterfalls** and supports the **Mahadayi River catchment**.

☐ Hence, Option C is correct.

3) Correct Answer: B

☐ Explanation:

- The **Saola**, also called the "**Asian Unicorn**", is one of the **rarest large mammals** in the world.
- Belongs to the **Bovid family**, discovered in **1992** in **Vietnam**.
- **Genome mapping** revealed two population splits **5,000–20,000 years ago**, due to:
 - ☑ **Last Glacial Maximum**
 - ☑ **Agricultural expansion in Vietnam**
- Key Characteristics:
 - ☑ **Dark body, white facial markings, and long parallel horns in both sexes**.
 - ☑ "**Saola**" means **spinning wheel post** in Lao – referring to **horn shape**.
- **Habitat: Annamite mountain range**, but **not found in highland forests** (Statement 2 is incorrect).

- **IUCN Status: Critically Endangered**
 - ☑ Main threats: **Habitat loss, indiscriminate snaring, poaching**.

☐ Statement 2 is incorrect, Statements 1 & 3 are correct.

☐ Hence, Option B is correct.

4) Correct Answer: B

☐ Explanation:

- **Semaglutide** is a **GLP-1 receptor agonist**, used in **Type 2 diabetes** and **obesity** treatment.
- **Does not replace insulin**, but:
 - ☑ **Stimulates insulin release**
 - ☑ **Suppresses glucagon secretion**
 - ☑ **Delays gastric emptying**
 - ☑ **Reduces appetite**
- **Not used for Type 1 diabetes**; it is **not a synthetic insulin analog** → **Statement 1 is incorrect**.
- Recent trials show benefits in **Metabolic Dysfunction-Associated Steatohepatitis (MASH)**:
 - ☑ A progressive form of **non-alcoholic fatty liver disease (NAFLD)**.
 - ☑ Semaglutide **reduces liver inflammation** and **fat accumulation** → **Statement 2 is correct**.
- Available under brand names:
 - ☑ **Ozempic** and **Rybelsus** (diabetes)
 - ☑ **Wegovy** (obesity management) → **Statement 3 is correct**

☐ Hence, Option B is correct.

5) Correct Answer: C

☐ Explanation:

- **Microfinance Institutions (MFIs)** cater to the **unbanked population**, particularly in **rural and semi-urban areas**.
 - ☑ Provide **microloans** to those without access to **formal banking**.
 - ☑ Usually **collateral-free loans**.
- **Statement 1 is correct** – They empower financially excluded populations.
- **Statement 2 is incorrect**:
 - ☑ NBFC-MFIs are **regulated by the Reserve Bank of India (RBI)**
 - ☑ Under **RBI Master Directions** (earlier 2011, revised in 2022), not just under **NBFC-MFI Framework of 2014**.
- **Statement 3 is correct**:
 - ☑ MFIs also offer **micro-savings, micro-insurance, remittances, and financial literacy** programs.

☐ Hence, Option C is correct.

6) Correct Answer: D

☐ Explanation:

- **Maharana Pratap** was born on **9th May 1540** in **Kumbhalgarh, Rajasthan**.
- He was the **13th ruler of Mewar** and the **eldest son of Udai Singh II**.

- **Statement 1 is correct:**
☐ Maharana Udai Singh II was ruler of Mewar and the founder of Udaipur.
- **Statement 2 is correct:**
☐ The **Battle of Haldighati (1576)** was fought between **Maharana Pratap** and **Raja Man Singh of Amber**, a general of **Mughal emperor Akbar**.
☐ Though brave, Maharana Pratap **lost the battle**.
- **Statement 3 is correct:**
☐ After 1579, he **recaptured Western Mewar** and made **Chavand near Dungarpur** his new capital.
☐ He died in **1597**, succeeded by **Amar Singh**, who later **submitted to Jahangir in 1614**.

☐ All statements are correct
☐ Hence, Option D is correct.

7) Correct Answer: A

☐ Explanation:

- **Tapti (Tapi) River** is the **second-largest west-flowing river in India**, after the **Narmada**.
- **Statement 1 is correct:**
☐ It flows through **Madhya Pradesh, Maharashtra, and Gujarat** and **drains into the Arabian Sea** at the **Gulf of Khambhat**.
- **Geographical Significance:**
☐ Originates in **Multai (Betul district, MP)**.
☐ Flows between **Satpura Range (north)** and **Mahadeo Hills (east)**.
☐ Runs **parallel to Narmada** (to its north).
- **Tributaries:**
☐ **Main left-bank: Purna River** (perennial).
☐ Others include **Buray, Girna, Panjarha**, etc.

☐ Hence, Option A is correct.

8) Correct Answer: B

☐ Explanation:

- **SVAMITVA (Survey of Villages and Mapping with Improvised Technology in Village Areas)** is a **Central Sector Scheme**.
- **Statement 1 is correct:**
☐ Uses **drones and GIS technology** to map **residential lands in rural areas** and grant **legal ownership**.
- **Statement 2 is correct:**
☐ Focuses on **"abadi areas"** to create **Record of Rights (RoR)** for property owners.
- **Statement 3 is not correct:**
☐ Launched in **April 2020** by the **Ministry of Panchayati Raj**, not the **Ministry of Rural Development**.
- **Gram Manchitra:**
☐ A **GIS-based platform** that integrates village-level development data for **spatial planning and governance**.

☐ Statement 3 is incorrect
☐ Hence, Option B is correct.

9) Correct Answer: D

☐ Explanation:

- **Statement 1 is not correct:**
☐ **First sermon** by Gautam Buddha was delivered at **Sarnath**, known as **Dharmachakra Pravartana**.
☐ But this statement wrongly equates it with **Mahaparinirvana**, which actually means **Buddha's death at Kushinagar**.
- **Statement 2 is not correct:**
☐ The **Tripitaka** (Vinaya, Sutta, Abhidhamma Pitakas) was **first**

written during the **4th Buddhist Council**, held in **Sri Lanka**, not during the 3rd.

- **Statement 3 is correct:**
☐ **Mahayana Buddhism** introduced:
 - **Bodhisattva ideal**
 - **Image worship of Buddha**
 - Emphasis on **universal salvation** over individual nirvana

☐ Only Statement 3 is correct
☐ Hence, Option D is correct.

10) Correct Answer: C

☐ Explanation:

- **Statement 1 is correct:**
☐ As per **Article 112**, the **Annual Financial Statement (Union Budget)** must distinguish between **Revenue** and **Capital** expenditure.
- **Statement 2 is not correct:**
☐ **Salaries and pensions** are **Revenue Expenditure**, not capital.
☐ Capital expenditure leads to **asset creation**, e.g., infrastructure.
- **Statement 3 is correct:**
☐ **Grants-in-aid** to states, even if used for creating assets, are **still categorized under Revenue Expenditure**.

☐ Statement 2 is incorrect
☐ Hence, Option C is correct.

11) Correct Answer: B

☐ Explanation:

- **Statement 1 is correct:**
☐ **Kendu (Tendu) leaf** is a **nationalised product**, just like **bamboo** and **sal seed**.
☐ This means the **government controls its collection, processing, and trade** to protect tribal rights and prevent exploitation.
- **Statement 2 is correct:**
☐ As per the **Forest Rights Act (FRA), 2006**, **Kendu leaves** are **classified under Minor Forest Produce (MFP)**.
☐ MFP includes **non-timber products** critical for tribal livelihoods.
- **Statement 3 is not correct:**
☐ While **Odisha** is a **major producer**, it ranks **third**, after **Madhya Pradesh and Chhattisgarh**.
☐ Odisha contributes **~20% of national output**, about **4.5–5 lakh quintals annually**.

☐ Hence, Option B is correct.

12) Correct Answer: A

☐ Explanation:

- **Statement 1 is correct:**
☐ **Wadge Bank** is a **submarine plateau** located about **80 km off Kanyakumari**, within **India's Exclusive Economic Zone (EEZ)**.
- **Statement 2 is correct:**
☐ It is **one of the richest fishing grounds globally**, due to **high biological productivity**.
☐ Functions as a **breeding and feeding ground** for various fish species.
- **Statement 3 is not correct:**
☐ As per the **1976 India-Sri Lanka Maritime Boundary Agreement**, India holds **sovereign rights** over Wadge Bank.
☐ **Sri Lankan fishermen** are **restricted** from fishing in this area, but the agreement does **not include exploration rights over petroleum/minerals**.

☐ Hence, Option A is correct.

13) Correct Answer: B

☐ Explanation:

- **Statement 1 is not correct:**
☐ Germanium is not a rare earth element; it is a **metalloid** or **semi-metal**.
☐ It is classified as a **critical mineral** due to strategic industrial use, but it is **not found abundantly in India**, including the **Northeast**.
- **Statement 2 is correct:**
☐ Used in **fiber optics**, **infrared devices**, and **solar cells** due to its **optical clarity**, **heat resistance**, and **efficiency**.
☐ Essential for **digital infrastructure**, especially **internet and telecom systems**.
- **Additional Context:**
☐ **China** dominates the global production of Germanium, contributing over **60%** of the supply.

☐ Hence, Option B is correct.

14) Correct Answer: A

☐ Explanation:

- **Statement 1 is correct:**
☐ **Semi-cryogenic engines** use **Liquid Oxygen (LOX)** as oxidizer and **refined kerosene (RP-1)** as fuel.
☐ These engines are employed in **modern launch vehicles** for **heavy-lift capability**.
- **Statement 2 is correct:**
☐ Compared to cryogenic (LOX + liquid hydrogen) engines, **semi-cryogenic engines** provide:
 - **Higher density impulse**
 - **Simpler handling**
 - **Lower cost** due to **kerosene's stability and affordability**
- **Statement 3 is not correct:**
☐ Only **oxidizer (LOX)** is stored at **cryogenic temperatures**.
☐ The **fuel (kerosene)** is stored at **ambient temperatures**, simplifying operations.
☐ If both were cryogenic, it would be a **fully cryogenic engine**.

☐ Hence, Option A is correct.

15) Correct Answer: C

☐ Explanation:

- **Statement 1 is correct:**
☐ **Asteroids** are remnants from the early solar system (~4.6 billion years ago).
☐ Mostly found in the **Asteroid Belt** between **Mars and Jupiter**.
- **Statement 2 is not correct:**
☐ **Trojan asteroids** share planetary orbits at **Lagrangian points (L4 and L5)**.
☐ While many Trojans are linked to **Jupiter**, others exist with **Mars, Neptune, and even Earth**.
- **Statement 3 is correct:**
☐ The **Hera Mission** (ESA) and **NETRA** (ISRO) are designed for:
 - Monitoring **Near-Earth Objects (NEOs)**
 - Enhancing **planetary defense**
 - Tracking **space debris** and potential impact threats.

☐ Hence, Option C is correct.

16) Correct Answer: C

☐ Explanation:

- **Pair 1: NASA – NISAR**
☐ **NISAR (NASA-ISRO Synthetic Aperture Radar)** is a **joint project between NASA and ISRO**.
☐ It will provide **global mapping every 12 days** to track:
 - **Ecosystems**
 - **Vegetation changes**
 - **Ice mass loss**
 - **Sea-level rise**
 - **Groundwater changes**
 - **Natural hazards** like **earthquakes, tsunamis, and landslides**
- **Pair 2: JAXA – LUPEX**
☐ **LUPEX** is a **collaborative mission between ISRO and JAXA** to **explore the Moon's polar regions**, particularly:
 - **Permanently shadowed craters**
 - **Water ice detection**
 - **Feasibility for long-term lunar habitation**
- **Pair 3: CNES – Megha-Tropiques**
☐ **Megha-Tropiques** is an **Indo-French satellite**, launched in **2011**.
☐ It studies the **tropical atmosphere**, especially:
 - **Monsoons, humidity, and cyclonic systems**

☐ All three pairs are correctly matched

☐ Hence, Option C is correct.

17) Correct Answer: A

☐ Explanation:

- **Statement 1 is correct:**
☐ **SIDBI** is a **statutory body** established under the **SIDBI Act, 1989**.
☐ It aims at promoting and financing **Micro, Small and Medium Enterprises (MSMEs)**.
- **Statement 2 is not correct:**
☐ **SIDBI** is **not the principal financial institution** for MSMEs; it acts as a **refinancing and promotional body**, not as the **sole or primary financing institution**.
- **Statement 3 is not correct:**
☐ **SIDBI** is **not a wholly-owned government body**.
☐ Its **ownership** is held by **public sector banks, financial institutions, insurance companies, and the Government of India** jointly.

☐ Only Statement 1 is correct

☐ Hence, Option A is correct.

18) Correct Answer: A

☐ Explanation:

- **Statement 1 is correct:**
☐ **Bond forwards** are **customized forward contracts** for buying/selling **government securities** at a **future date and pre-agreed price**.
☐ RBI introduced norms to ensure **transparency and hedging instruments** for institutional investors.
- **Statement 2 is correct:**
☐ These help **hedge interest rate risks**, especially for **long-term investors** like **insurance companies**.
☐ Unlike **Forward Rate Agreements (FRAs)** which are **cash-settled**, **bond forwards** involve **physical delivery** of securities.
- **Statement 3 is not correct:**
☐ **SFBs, payment banks, LABs, and RRBs** are **not permitted** to participate.
☐ **Eligible participants** include:
 - **Scheduled Commercial Banks (SCBs)**
 - **Primary Dealers**
 - **Institutional investors** such as **insurance firms**
 - **Non-retail investors** and **foreign investors** under **FEMA 2019**

- ☐ Only Statements 1 and 2 are correct
- ☐ Hence, Option A is correct.

19) Correct Answer: C

☐ Explanation:

- **Background:**
 - ☐ The **Injeti Srinivas Committee (2018)** was constituted by the **Ministry of Corporate Affairs** to strengthen the **Corporate Social Responsibility (CSR)** ecosystem.
- **Key Recommendations:**
 - ☐ Make **CSR expenditure tax-deductible**
 - ☐ Allow **carry-forward of unspent CSR funds for 3 to 5 years**
 - ☐ Align **Schedule VII** of the Companies Act with **Sustainable Development Goals (SDGs)**
 - ☐ Develop a **CSR Exchange Portal** to link **companies, implementing agencies, and beneficiaries**
 - ☐ Allow **CSR funds for social impact bonds and social impact companies**

☐ These reforms aim to **promote transparency, accountability, and strategic CSR investments**.

☐ Hence, Option C is correct.

20) Correct Answer: B

☐ Explanation:

- **Dongria Kondh** is a **Particularly Vulnerable Tribal Group (PVTG)** residing in the **Niyamgiri Hills**, Odisha.
- **Key Features:**
 - ☐ Known for **strong spiritual connection with nature**
 - ☐ Worship **Niyam Raja**, the deity of the hills
 - ☐ Follow **Podu (shifting) cultivation**
 - ☐ Speak **Kui** (an unwritten Dravidian language)
- **Sub-tribes** include:
 - ☐ **Kovi, Kuttia, Languli, Penga, and Jharnia** (stream protectors)
- **Legal Significance:**
 - ☐ Played a **key role in environmental justice** by resisting **Vedanta's mining project**
 - ☐ In **2013**, **Supreme Court upheld Gram Sabha's constitutional right** to decide on mining → a **historic precedent** for tribal rights under the **Forest Rights Act, 2006**

☐ Hence, Option B is correct.

21) Correct Answer: C

☐ Explanation:

- **Statement 1 is correct:**
 - ☐ The **CMS Rome Strategic Plan** focuses on curbing **Illegal Killing, Trapping, and Trade of Birds (IKB)** in **Europe and the Mediterranean**.
 - ☐ It aims to reduce such activities by **50% by 2030** compared to 2020 levels.
- **Statement 2 is correct:**
 - ☐ India has implemented the **National Action Plan for the Conservation of Migratory Birds (2018–2023)**.
 - ☐ It aims to protect birds along the **Central Asian Flyway (CAF)** — a major migratory corridor extending from the **Arctic to the Indian Ocean**, passing through **30 countries**.

- ☐ Both statements are correct
- ☐ Hence, Option C is correct.

22) Correct Answer: D

☐ Explanation:

- **Statement 1 is correct:**
 - ☐ **Anamalai Tiger Reserve** is located in the **Anamalai Hills**, part of the **Western Ghats** in **Tamil Nadu**.
 - ☐ It was **declared a Tiger Reserve in 2007**.
- **Statement 2 is correct:**
 - ☐ Specific zones like **Kariyan Shola, Grass Hills, and Manjampatti** within ATR have been recognized as part of **UNESCO's tentative list for World Heritage Sites** due to their **ecological significance**.
- **Statement 3 is correct:**
 - ☐ ATR is home to many **indigenous tribal groups**, including the **Kadars, Muduvars, Malasars, Malai Malasars, Eravalars, and Pulayars**.
- **Location:**
 - ☐ Bordered by **Parambikulam TR** (east), **Chinnar Wildlife Sanctuary**, and **Eravikulam National Park** (southwest).

- ☐ All statements are correct
- ☐ Hence, Option D is correct.

23) Correct Answer: B

☐ Explanation:

- **Statement 1 is not correct:**
 - ☐ **Jute**, known as the "**golden fibre**", is **not** the **second most important cash crop after cotton**.
 - ☐ Other crops like **sugarcane** and **oilseeds** are more significant in terms of **cultivation and contribution to economy**.
- **Statement 2 is correct:**
 - ☐ **India is the largest producer of jute globally**, with **West Bengal** leading, followed by **Assam and Bihar**.
- **Statement 3 is correct:**
 - ☐ The **Jute Corporation of India (JCI)** is a **price support agency** under the **Ministry of Textiles**.
 - ☐ It **procures raw jute at Minimum Support Price (MSP)** without any **quantity restriction**, safeguarding farmer interests.

- ☐ Only Statements 2 and 3 are correct
- ☐ Hence, Option B is correct.

24) Correct Answer: C

☐ Explanation:

- **Statement 1 is correct:**
 - ☐ **LUPEX (Lunar Polar Exploration Mission)** is a joint venture between **ISRO** and **JAXA**.
 - ☐ In India, LUPEX is informally referred to as **Chandrayaan-5**.
- **Statement 2 is correct:**
 - ☐ The mission will be launched using **JAXA's H3-24L rocket**, carrying:
 - A **lander from ISRO**
 - A **rover developed by MHI (Japan)**
 - ☐ Its goal is to **explore the lunar South Pole**, particularly **Permanently Shadowed Regions (PSRs)**, to **search for water ice and volatiles**.

- ☐ Both statements are correct
- ☐ Hence, Option C is correct.

25) Correct Answer: A

Explanation:

- **Statement 1 is not correct:**
 - ☐ TB is caused by a bacterium – *Mycobacterium tuberculosis*, not a virus.
 - ☐ It spreads through air, not via contaminated water.
- **Statement 2 is correct:**
 - ☐ The BCG (Bacillus Calmette–Guérin) vaccine is a live attenuated vaccine.
 - ☐ It is most effective in children, especially against TB meningitis and miliary TB.
- **Statement 3 is not correct:**
 - ☐ People with HIV are at higher risk of TB due to weakened immunity, not lower.
 - ☐ TB is a leading cause of death among people living with HIV/AIDS.

☐ Only Statement 2 is correct
☐ Hence, Option A is correct.

26) Correct Answer: D

Explanation:

- **Quantum Dots** are semiconducting nanoparticles measuring only a few nanometres in size.
- They exhibit **quantum confinement**, a phenomenon where:
 - ☐ Electron motion is restricted in all three spatial dimensions,
 - ☐ Leading to discrete energy levels and size-dependent optical and electronic properties.
- Their **unique characteristics** make them highly useful in:
 - Light Emitting Diodes (LEDs)
 - Medical diagnostics (bio-imaging and detection)
 - Solar panels (improving energy efficiency)
 - Quantum computing and semiconductor manufacturing
- The **2023 Nobel Prize in Chemistry** was awarded for advances in quantum dot technology.

☐ Hence, Option D is correct.

27) Correct Answer: A

Explanation:

- **Statement 1 is not correct:**
 - ☐ PLFS was launched in 2017 and is conducted by the National Statistical Office (NSO).
 - ☐ NSO is under the Ministry of Statistics and Programme Implementation (MoSPI), not MOSPI itself (a minor conceptual slip in the statement structure).
- **Statement 2 is not correct:**
 - ☐ Labour Force Participation Rate (LFPR) includes those who are either working or actively seeking work, not just those working.
 - ☐ The explanation misattributes definitions slightly.
- **Statement 3 is correct:**
 - ☐ In urban areas, PLFS gives quarterly estimates using Current Weekly Status (CWS) – i.e., activity status during the last 7 days.
 - ☐ In rural and urban areas, it also gives annual data based on Usual Status (principal + subsidiary activities in the past 365 days).

☐ Only Statement 3 is correct
☐ Hence, Option A is correct.

28) Correct Answer: B

Explanation:

- **Statement 1 is not correct:**
 - ☐ Traditional passports remain valid, and conversion to e-passports is optional.
 - ☐ However, PSP 2.0 refers to the broader Passport Seva Programme, not specifically about the e-passport conversion process.
- **Statement 2 is correct:**
 - ☐ An ePassport contains a Radio Frequency Identification (RFID) chip and antenna, which store:
 - Personal details
 - Biometric information of the passport holder
- **Statement 3 is correct:**
 - ☐ Public Key Infrastructure (PKI) provides the security foundation for e-passports by ensuring:
 - Authentication of data
 - Prevention of tampering or duplication

☐ Statements 2 and 3 are correct
☐ Hence, Option B is correct.

29) Correct Answer: B

Explanation:

- **Statement 1 is not correct:**
 - ☐ While Jet Streams operate in the upper troposphere (20,000–50,000 ft),
 - ☐ Their influence on Noctilucent clouds is not established or significant.
 - ☐ Noctilucent clouds form in the mesosphere, not troposphere/stratosphere.
- **Statement 2 is correct:**
 - ☐ Jet streams influence the Indian Monsoon by affecting the onset and withdrawal of winds.
 - ☐ Their shift is crucial for monsoon dynamics.
- **Statement 3 is correct:**
 - ☐ Jet streams cause alternate high- and low-pressure zones through crest (ridge) and trough (valley) patterns, impacting cyclones and anticyclones.

☐ Statements 2 and 3 are correct
☐ Hence, Option B is correct.

30) Correct Answer: D

Explanation:

- **Statement 1 is not correct:**
 - ☐ The scheme is implemented by the Ministry of Labour and Employment,
 - ☐ With execution via LIC (Pension Fund Manager) and Common Service Centres (CSCs).
- **Statement 2 is not correct:**
 - ☐ It is targeted at unorganised workers with monthly income below ₹15,000,
 - ☐ Not meant for organised sector employees.
- **Statement 3 is not correct:**
 - ☐ Although applicants must be 18–40 years old and have Aadhaar, bank account, and mobile,
 - ☐ They should not be income tax payers, or covered under NPS, EPFO, ESIC.
- **Key Feature:**
 - ☐ Upon turning 60, subscribers receive a minimum pension of ₹3,000/month.

☐ All three statements are incorrect
☐ Hence, Option D is correct.

31) Correct Answer: (b) Only two

☐ Explanation:

- **Statement 1 is correct:**
☐ The GEF funds projects on **biodiversity, climate change, land degradation**, etc.
☐ Major funds include **GEF Trust Fund, Least Developed Countries Fund (LDCF), and Special Climate Change Fund (SCCF)**.
- **Statement 2 is correct:**
☐ The **CoHABITAT Project**, supported by GEF and **implemented by UNDP and MoEFCC**, works on conserving **wetlands, forests, and grasslands** in the **Central Asian Flyway (CAF)**.
- **Statement 3 is incorrect:**
☐ The **Sustainable Cities Integrated Program (SCIP)** covers **20 countries, not just Africa**. It promotes **urban transformation globally**.

☐ Hence, Option (b) is correct.

32) Correct Answer: (d) Nitrogen

☐ Explanation:

- **Nitrogen** is the **most deficient** nutrient in Indian soils:
☐ <5% of soils have sufficient nitrogen.
☐ Compared to **phosphate (40%), potash (32%), and organic carbon (20%)**.
- **Reason:**
☐ Excessive urea use and lack of crop rotation reduce nitrogen levels.

☐ Hence, Option (d) is correct.

33) Correct Answer: (d) None

☐ Explanation:

- **All 3 statements are correct:**
 - **Statement 1:** Requires **2/3rd of members present and voting**.
 - **Statement 2:** Also needs a **majority of the total membership**.
 - **Statement 3:** **Both Houses must pass independently** before the **President acts**.
- Governed under the **Judges Inquiry Act, 1968**.

☐ No statement is incorrect. Hence, Option (d) is correct.

34) Correct Answer: (b) They form reflective surfaces that act as natural mirrors

☐ Explanation:

- After rain, **thin water layers** form over the **flat salt crust**, creating a **mirror effect**.
- Seen at **Salar de Uyuni (Bolivia)**.
- **Not fertile**, do not form **domes**, and don't **expand** significantly.

☐ Hence, Option (b) is correct.

35) Correct Answer: (a) 1 only

☐ Explanation:

- **Statement 1 is correct:**
☐ **Landslides and deforestation** are major contributors to **soil erosion** in hilly areas.
- **Statement 2 is incorrect:**
☐ **Salinity ingress** is a **coastal issue, not relevant** to hilly areas like Uttarakhand.
- **Statement 3 is incorrect:**
☐ **Overgrazing** is more common in **semi-arid** areas, not a major cause in Uttarakhand.

☐ Hence, only Statement 1 is correct → Option (a).

36) Correct Answer: (d) None

☐ Explanation:

- **Statement 1 is correct:**
☐ No **formal WTO procedure** to revoke **MFN status**, but nations can **unilaterally withdraw** it.
- **Statement 2 is correct:**
☐ Revocation allows **discriminatory tariffs**, breaching **non-discrimination** under WTO.
- **Statement 3 is correct:**
☐ **Exceptions allowed** for developing countries (e.g., **GSP scheme**).

☐ All statements are correct → Option (d).

37) Correct Answer: (b) A therapy that replaces deficient clotting factors via injections into veins

☐ Explanation:

- Used in **hemophilia** treatment.
- Involves **injection of clotting factors (e.g., Factor VIII)** into the bloodstream.
- Helps in controlling **bleeding episodes**.
- New tech: **Roctavian gene therapy**, uses **AAV vector** for **Factor VIII gene** delivery.

☐ Hence, Option (b) is correct.

38) Correct Answer: (c) 1, 2 and 4 only

☐ Explanation:

- **Statement 1: Correct** – Warmer seas cause **coral bleaching**.
- **Statement 2: Correct** – **Disrupted upwelling** → **less nutrients**, affecting **marine food chains**.
- **Statement 3: Incorrect** – El Niño **weakens cold currents**.
- **Statement 4: Correct** – **Fish stocks drop** due to **warmer waters and nutrient decline**.

☐ Option (c) is correct.

39) Correct Answer: (b) Koldihwa

☐ Explanation:

- **Koldihwa (U.P.):**
☐ Evidence of **early rice cultivation**
☐ **Polished stone tools** found
☐ Key Neolithic site in **Ganga Valley**
- Others:
 - **Bhimbetka** – Paleolithic cave art
 - **Hunsgi** – Early stone tools, no major agri
 - **Brahmagiri** – Megalithic site

☐ Hence, Option (b) is correct.

40) Correct Answer: (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I

Explanation:

- **Statement-I:** Arctic warming increases **global greenhouse effect**.
- **Statement-II:** Permafrost thawing releases **CO₂ and CH₄**, which are **GHGs**, worsening warming.
- The **feedback loop** explains how Arctic warming **accelerates global climate change**.

Hence, Option (a) is correct.

41) Correct Answer: (b) To create a shared framework for civilian-led disaster response coordination and efficient humanitarian aid deployment

Explanation:

- IPLN is a **Quad-led initiative** involving **India, USA, Japan, and Australia**.
- **Primary Objective:**
 - ☐ Develop **shared logistics infrastructure**
 - ☐ Facilitate **interoperability** for **disaster relief and humanitarian assistance**
- Focus is **civilian**, not military.
- NOT about:
 - ☐ Military alliance (**Option a**)
 - ☐ Free trade (**Option c**)
 - ☐ Surveillance against illegal fishing (**Option d**)

Hence, Option (b) is correct.

42) Correct Answer: (d) 1 only

Explanation:

- **Statement 1 is correct:**
 - ☐ Policy **simplifies coal linkage** to **two windows**:
 - **Window-I:** Coal at **notified price**
 - **Window-II:** Coal at **premium basis**
 - ☐ Replaces earlier **8 categories** to improve **transparency**.
- **Statement 2 is incorrect:**
 - ☐ The policy **encourages import substitution**, allowing **ICB plants** to access domestic coal.
- **Statement 3 is incorrect:**
 - ☐ **Empowered Committee** is headed by **Secretaries**, not **Union Ministers**.

Hence, Only Statement 1 is correct → Option (d).

43) Correct Answer: (b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I

Explanation:

- **Statement I is correct:**
 - ☐ CBI derives powers from the **Delhi Special Police Establishment (DSPE) Act, 1946**.
- **Statement II is correct:**
 - ☐ **Santhanam Committee (1962-64)** recommended setting up a **central agency** to curb corruption → led to creation of **CBI in 1963**.
- **However**, Statement II does **not explain** Statement I.
 - ☐ DSPE Act **predates** the Committee.

Hence, Option (b) is correct.

44) Correct Answer: (c) All three

Explanation:

| National Waterway | River System | State | Match Correct? |
|-------------------|------------------------------|-------------------|----------------|
| NW-1 | Ganga-Bhagirathi-Hooghly (B) | Uttar Pradesh (Y) | ✓Yes |
| NW-2 | Brahmaputra River (A) | Assam (X) | ✓Yes |
| NW-3 | West Coast Canal (C) | Kerala (Z) | ✓Yes |

All matches correct → Option (c).

45) Correct Answer: (b) Only two

Explanation:

- **Statement 1 is correct:**
 - ☐ **HDI range:** 0 to 1 → **Higher = Better development**
- **Statement 2 is incorrect:**
 - ☐ Education is measured by:
 - **Mean Years of Schooling**
 - **Expected Years of Schooling**
 - ☐ **Adult Literacy & Gross Enrolment** are no longer used.
- **Statement 3 is correct:**
 - ☐ **IHDI ≤ HDI** → Represents **loss due to inequality**

Hence, Only Statements 1 and 3 are correct → Option (b).

46) Correct Answer: (a) A-2, B-1, C-4, D-5

Explanation:

| Civil Defence Activity | Function |
|-------------------------|---|
| Warden Service | Disseminate warnings & local coordination (2) |
| Casualty Service | Provide first aid & medical evacuation (1) |
| Rescue Service | Extricate trapped persons from debris (4) |
| Depot/Transport | Manage resources & logistics during emergencies (5) |

Hence, Option (a) is correct.

47) Correct Answer: (d) The Sunda Strait, between the islands of Java and Sumatra in Indonesia

Explanation:

- **Anak Krakatau:** Volcanic island formed after **1883 Krakatoa eruption**
- Located in **Sunda Strait, Indonesia**
- Part of **Pacific Ring of Fire** – tectonically active zone.

Hence, Option (d) is correct.

48) Correct Answer: (c) Karregutta hills on the Chhattisgarh-Telangana border

Explanation:

- **Mission Sankalp** targets:
 - ☐ **Karregutta hills**, spanning **Bijapur (Chhattisgarh)** and **Mulugu/Kothagudem (Telangana)**
 - ☐ Region is stronghold of **PLGA, DKSZC, and Telangana Maoists**
- Others like **Abujhmad, Saranda, Malkangiri** are **Naxal-affected**, but **not core** to this mission.

Hence, Option (c) is correct.

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49) Correct Answer: (c) Revealed complementary genetic diversity between its historically split populations

🔍 Explanation:

- Saola, also called **Asian Unicorn**, is **Critically Endangered**.
- Genome analysis revealed:
 - 🔍 Two distinct **genetic populations**
 - 🔍 Each lost different **genetic traits** → together they can offer a "**genetic rescue**" through **captive breeding**
- **Cloning/immunity/location tracking** not related to this sequencing study.

🔍 Hence, Option (c) is correct.

50) Correct Answer: (a) A-2, B-3, C-4, D-1

🔍 Explanation:

| System | Origin & Range |
|----------------------|---|
| S-400 Triumf | Russian, Long-Range (400 km) → (2) |
| Barak-8 MRSAM | India-Israel, Medium-Range (70-100 km) → (3) |
| Akash SAM | Indigenous , Medium-Range (25-70 km) → (4) |
| S-125 Pechora | Russian, Legacy Short-Range (~35 km) → (1) |

🔍 Hence, Option (a) is correct.

