

Solutions

DATE : 19th May - 25th May

1) **Correct Answer:** (d) An area on the international borders of India with facilities for clearance and transport of passengers and goods

Explanation:

- A **Land Port** is a facility located at **international land borders** of India.
- It is designed to enable **regulated movement of goods and passengers** across borders.
- Facilities include:
 - ◆ **Customs clearance, immigration, cargo terminals, and warehousing**
 - ◆ It also has **quarantine, security, and inspection infrastructure**.
- **Regulatory Authority:** These are managed by the **Land Ports Authority of India (LPAI)** under the **Ministry of Home Affairs**.
- **Strategic Role:** Enhances **cross-border trade, bilateral relations, and national security**.

→ Hence, Option (d) is correct.

2) **Correct Answer:** (b) All four

Explanation:

All four listed are **traditional folk art forms of Andhra Pradesh**, representing the state's **cultural diversity and oral traditions**:

- **Tholu Bommalata** – Traditional **shadow puppetry** using leather puppets, accompanied by music and narration.
- **Jamukula Pata** – A form of **ballad singing**, especially during festivals or religious events.
- **Tappeta Gullu** – A **devotional dance** performed with drums in honor of deities like Gangamma.
- **Puli Veshalu** – A **theatrical folk performance** where performers dress as tigers, symbolizing **valor and festivity**.

✓ These art forms are often seen during **village festivals, temple fairs**, and are passed down generations.

→ Hence, Option (b) is correct.

3) **Correct Answer:** (b) 1, 2 and 3

Explanation:

The **Polar Satellite Launch Vehicle (PSLV)** is a landmark in India's space program:

- **Statement 1: Correct**
 - ◆ It was the **first Indian launch vehicle** to be equipped with **liquid stages**.
 - ◆ It uses a combination of **solid and liquid propulsion**, giving it enhanced payload flexibility.
- **Statement 2: Correct**
 - ◆ PSLV is **India's third-generation launch vehicle**, following SLV and ASLV.
 - ◆ Developed by **ISRO**, it has become the most reliable and versatile vehicle.
- **Statement 3: Correct**
 - ◆ It successfully launched missions like **Chandrayaan-1** (2008) and **Mars Orbiter Mission (Mangalyaan)** in 2013.
 - ◆ These missions established India's space capability on a **global scale**.

✓ PSLV is known as a "**workhorse of ISRO**" due to its consistent performance.

→ Hence, Option (b) is correct.

4) **Correct Answer:** (c) 1, 2 and 3

Explanation:

EOS-09 (Earth Observation Satellite-09) plays a critical role in **remote sensing and surveillance**:

- **Statement 1: Correct**
 - ◆ It is equipped with **C-band Synthetic Aperture Radar (SAR)**, enabling **penetrative, high-resolution imaging**.
- **Statement 2: Correct**
 - ◆ SAR allows data capture **irrespective of cloud cover or darkness**, vital for **disaster monitoring and border surveillance**.
- **Statement 3: Correct**
 - ◆ The satellite is placed in a **Sun-Synchronous Polar Orbit**, which enables **consistent lighting conditions** over imaging targets, enhancing **comparative analysis over time**.

✓ Such satellites are key for **climate change data, agriculture, and urban planning**.

→ Hence, Option (c) is correct.

5) **Correct Answer:** (a) 1 and 3 only

📌 **Explanation:**

Protein-based vaccines are a subset of **subunit vaccines**, designed for **safety and specificity**:

- **Statement 1: Correct**
 - ◆ These vaccines are often combined with **adjuvants** to **boost immune response**, especially when the antigen alone is not sufficiently immunogenic.
- **Statement 2: Incorrect**
 - ◆ They contain **non-pathogenic protein fragments**; they **cannot cause disease**.
 - ◆ The proteins are selected to **trigger immunity** without infection.
- **Statement 3: Correct**
 - ◆ Protein-based vaccines fall under **subunit vaccines**, which also include **polysaccharide** and **conjugate vaccines**.

✓ Example: **Hepatitis B vaccine** is a well-known protein subunit vaccine.

→ Hence, Option (a) is correct.

6) **Correct Answer:** (c) Both 1 and 2

📌 **Explanation:**

- **Statement 1: Correct**
 - ◆ **Adjuvants** are chemical agents (e.g., aluminum salts) that **enhance immune response** by promoting **stronger and longer-lasting immunity**.
- **Statement 2: Correct**
 - ◆ Protein-based vaccines use **purified fragments** of the pathogen's protein — these are **non-infectious** and **highly targeted**.

✓ Such vaccines are known for **low side effects** and **precise immune targeting**, especially effective in **immunocompromised individuals**.

→ Hence, Option (c) is correct.

7) **Correct Answer:** (c) Both 1 and 2

📌 **Explanation:**

- **Statement 1: Correct**
 - ◆ **Non-B DNA structures** such as **triplexes**, **G-quadruplexes**, and **cruciforms** can interfere with **replication** and **transcription**, contributing to **genetic instability**.
 - ◆ These structures have been linked to diseases like **cancer**, **Huntington's**, and **Fragile X Syndrome**.
- **Statement 2: Correct**
 - ◆ The types mentioned are all known **non-canonical DNA structures** with biological relevance in **mutation-prone regions** of the genome.

✓ Such studies are essential in **medical genetics** and **drug development**.

→ Hence, Option (c) is correct.

8) **Correct Answer:** (d) 1, 2 and 3

📌 **Explanation:**

The **EIA Notification, 2006** under the **Environment Protection Act, 1986**, provides the basis for project assessments:

- **Statement 1: Correct**
 - ◆ **State Environmental Impact Assessment Authorities (SEIAAs)** evaluate **Category B** projects based on local environmental impact.
- **Statement 2: Correct**
 - ◆ **Prior Environmental Clearance (EC)** is mandatory **before any construction or activity starts**.
- **Statement 3: Correct**
 - ◆ **Category A** projects with potential national-level environmental impact are assessed by the **Central Government**, based on advice from the **Expert Appraisal Committee (EAC)**.

✓ EIA ensures **sustainable development** by identifying **risks in advance**.

→ Hence, Option (d) is correct.

9) **Correct Answer:** (d) 1, 2 and 3

📌 **Explanation:**

- **Statement 1: Correct**
 - ◆ UN Peacekeeping began with UNTSO in 1948, during the **Arab-Israeli conflict**, marking the first peacekeeping deployment.
- **Statement 2: Correct**
 - ◆ Core principles include **consent of parties, impartiality, and non-use of force** except in **self-defence** or to protect the mandate.
- **Statement 3: Correct**
 - ◆ India deployed the **first all-women Formed Police Unit** to Liberia in 2007, setting a global precedent for **gender-sensitive peacekeeping**.

 India is one of the **largest troop contributors** to UN peacekeeping missions.

 Hence, Option **(d)** is correct.

10) Correct Answer: (a) 1, 2 and 3

 **Explanation:**

Pseudomonas aeruginosa is a **multi-drug-resistant, gram-negative bacterium**:

- **Statement 1: Correct**
 - ◆ A major cause of **nosocomial infections** like ventilator-associated pneumonia, especially in **ICUs**.
- **Statement 2: Correct**
 - ◆ Recent research has shown this bacterium's enzymes (like **Pap1**) can **break down polyurethane**, a common **medical-grade plastic**.
- **Statement 3: Correct**
 - ◆ Found in **soil, water, and hospital surfaces**, making it both **ubiquitous** and **opportunistic** in infecting hosts.

 Its **adaptive metabolism** makes it both a **pathogen** and a **potential agent for bioremediation**.

 Hence, Option **(a)** is correct.

11) Correct Answer: (b) A dedicated digital portal for mandatory procurement and sale of goods and services by Central and State Government Organizations

 **Explanation:**

- **Government e-Marketplace (GeM)** is a **centralized e-procurement platform** launched in **2016** by the **Ministry of Commerce and Industry**.
- It facilitates **mandatory procurement** by **Central/State Government departments, PSUs, and other government entities**.
- GeM enhances **transparency, efficiency, and inclusivity** in public procurement.
- It replaced the older **Directorate General of Supplies and Disposals (DGS&D)**.
- Promotes participation of **MSEs, artisans, startups, and women entrepreneurs**.
- Integrates **AI tools, faceless procurement, analytics, and GeMAI chatbot**.

 Hence, Option **(b)** is correct.

12) Correct Answer: (d) A butterfly species with blue apical spots on forewings

 **Explanation:**

- **Euthalia malaccana** is a **butterfly species** recently recorded for the first time in **India (Arunachal Pradesh)**.
- Males display **blue apical spots on forewings**, and **reduced red markings** on hindwings.
- Earlier found in **Indo-Australian regions** like **Thailand, Malaysia, and Sunda Islands**.
- Serves as a **bioindicator**, contributing to biodiversity and **ecological health monitoring**.

 Hence, Option **(d)** is correct.

13) Correct Answer: (a) Funds that may use leverage including through investment in derivatives

 **Explanation:**

- **Category III AIFs** under SEBI (AIF) Regulations, 2012:
 - Include **hedge funds, PIPE funds**, etc.
 - Permitted to **use leverage**, including **derivatives** and short-selling.
 - Designed for **high-risk, high-return** strategies.
- **Category I AIFs:** For startups, social ventures, etc.
- **Category II AIFs:** Private equity & debt funds (no leverage, except operational).

 Hence, Option **(a)** is correct.

14) Correct Answer: (d) Only two

 **Explanation:**

- **Category I AIFs** include:
 - ◆ **Angel Funds**
 - ◆ **Infrastructure Funds**
- These promote **socially or economically desirable sectors**.
- **Private Equity Funds** → Category II
- **Hedge Funds** → Category III

→ Only **Angel** and **Infrastructure Funds** are under Category I.
Hence, Option **(d)** is correct.

15) Correct Answer: (a) 1, 2 and 3

📌 Explanation:

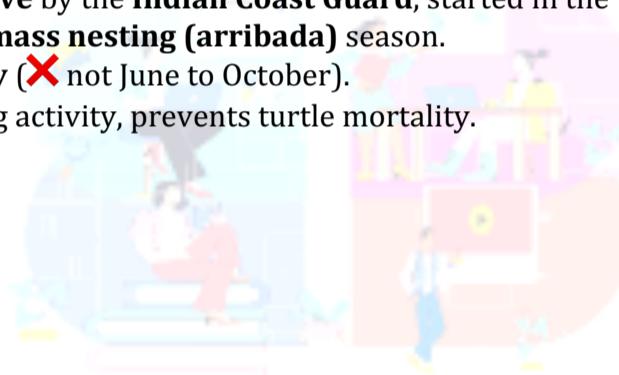
- GeM surpassed its **target for procurement from women-led enterprises**.
- It was launched by **Ministry of Commerce and Industry** to replace **DGS&D**.
- Introduced **GeMAI**, India's **first generative AI chatbot** in the public sector for real-time support and efficiency.

✓ All three statements are **factually accurate**.
→ Hence, Option **(a)** is correct.

16) Correct Answer: (a) 1 and 3 only

📌 Explanation:

- **Operation Olivia** is a **conservation initiative** by the **Indian Coast Guard**, started in the **1980s**.
- It protects **Olive Ridley turtles** during the **mass nesting (arribada)** season.
- Conducted annually from **November to May** (not June to October).
- Patrols along **Odisha coast**, monitors fishing activity, prevents turtle mortality.



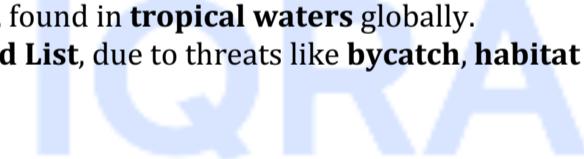
→ Hence, Option **(a)** is correct.

17) Correct Answer: (d) 1, 2 and 3

📌 Explanation:

- **Olive Ridley turtles**:
 - Are **not found in Gulf of Mexico** (largely absent).
 - Have a **circumtropical distribution**, found in **tropical waters** globally.
 - Listed as **Vulnerable** under **IUCN Red List**, due to threats like **bycatch, habitat loss, and plastic pollution**.

✓ All three statements are accurate.
→ Hence, Option **(d)** is correct.



18) Correct Answer: (b) 1, 2 and 3

📌 Explanation:

- **Global Environment Facility (GEF)**:
 - Established in **1992** at the **Rio Earth Summit**.
 - Financial mechanism for:
 - ◆ **Stockholm Convention** (Persistent Organic Pollutants)
 - ◆ **Convention on Biological Diversity**
 - ◆ Other multilateral environmental agreements (MEAs)
- Plays a critical role in **capacity building, project finance, and environmental sustainability** in developing nations.

✓ All statements are correct.
→ Hence, Option **(b)** is correct.

19) Correct Answer: (d) 1 and 2 only

📌 Explanation:

- **Official Secrets Act, 1923**:
 - Protects India's **national security** from **espionage, unauthorized information leaks, and sabotage**.
 - Criminalizes disclosure of **confidential government information**.
 - Applies to **all Indian citizens**, not just government employees, and has **extra-territorial application**.

✗ Statement 3 is incorrect.
→ Hence, Option **(d)** is correct.

20) **Correct Answer:** (a) 1 and 2 only

📌 **Explanation:**

- **e-Zero FIR** initiative:
 - Launched by **Indian Cybercrime Coordination Centre (I4C)** as a **pilot project** (currently in **Delhi** only).
 - Focuses on **cyber financial crimes** like **fraudulent transactions**.
 - After filing online, the **complainant must visit** the cybercrime police station to **convert Zero FIR to regular FIR**.

✗ Not yet nationwide.

➡ Hence, Option **(a)** is correct.

21) **Correct Answer:** (d) Only two

📌 **Explanation:**

- **Ladakh** achieved **functional literacy** under the **ULLAS programme**, recently declared by the **Ministry of Education**.
- **Mizoram** has crossed the **95% literacy rate**, meeting the benchmark for declaring **full literacy**.
- Although **Kerala and Goa** have high literacy rates, they haven't been **recently declared** as achieving **full literacy** under current official frameworks.
- Based on **latest government declarations** and **surveys** (e.g., PLFS, ULLAS), only **Ladakh and Mizoram** meet the updated criterion.

➡ Hence, Option **(d)** is correct.

22) **Correct Answer:** (d) An individual or group with expertise that assists the court in making its decision

📌 **Explanation:**

- **Amicus Curiae** literally means "**friend of the court**".
- Refers to an **expert or organization**, not a party in the case, who **provides information, insights, or legal perspective** to help the court reach an informed judgment.
- Commonly appointed in **public interest litigation, constitutional matters, or complex technical cases**.

➡ Hence, Option **(d)** is correct.

23) **Correct Answer:** (b) A collective voice of the Muslim world that safeguards the interests of member states

📌 **Explanation:**

- **Organization of Islamic Cooperation (OIC)**, founded in **1969**, represents the **political and socio-economic interests** of the **Muslim world**.
- It has **57 member countries** and functions as a **multilateral platform** for addressing issues affecting Muslim populations globally.
- It is **not** a trade body or military alliance, and **not** a financial lender like IMF or IDB.

➡ Hence, Option **(b)** is correct.

24) **Correct Answer:** (b) Manipur

📌 **Explanation:**

- The **Shirui Lily Festival** is held in **Ukhrul district, Manipur**, celebrating the **state flower Shirui Lily**, which **blooms only in the Shirui Hills**.
- The festival showcases the **Tangkhul Naga culture**, promotes **eco-tourism**, and enhances **local community participation**.

➡ Hence, Option **(b)** is correct.

25) **Correct Answer:** (b) 1 and 3 only

📌 **Explanation:**

- The **Pandemic Agreement** under **WHO**:
 - **Statement 1: Correct** – It builds upon the **International Health Regulations (IHR)** for **pandemic surveillance and preparedness**.
 - **Statement 2: Incorrect** – It is **not the first agreement** under **Article 19** of the WHO Constitution; the **Framework Convention on Tobacco Control** came first.
 - **Statement 3: Correct** – Establishes the **Pathogen Access and Benefit Sharing (PABS)** system for **equitable sharing** during health emergencies.

➡ Hence, Option **(b)** is correct.

26) **Correct Answer:** (d) 2 and 3 only

📌 **Explanation:**

- **ULLAS Program (Understanding Lifelong Learning for All in Society):**
 - **Statement 1: Incorrect** – It covers **literacy beyond reading and writing**, including **numeracy, digital, and financial skills**.
 - **Statement 2: Correct** – It is driven by **volunteerism**, promoting **community participation** and **social responsibility**.
 - **Statement 3: Correct – Schools** are the **main implementation units**, supported by **community centers**.

→ Hence, Option **(d)** is correct.

27) **Correct Answer:** (b) 1 and 2 only

📌 **Explanation:**

- **Trachoma:**
 - Caused by **Chlamydia trachomatis**, and is listed as a **Neglected Tropical Disease (NTD)**.
 - Integrated under the **National Programme for Control of Blindness** since **1976**.
 - India has **eliminated it as a public health problem**, but it is **not the first country** in Southeast Asia—**Nepal and Myanmar** did so earlier.

→ Hence, Option **(b)** is correct.

28) **Correct Answer:** (c) 1 and 3 only

📌 **Explanation:**

- **Judicial Appointments to Subordinate Judiciary:**
 - **Statement 1: Correct** – Supreme Court reinstated the rule requiring **minimum three years of legal practice** before judicial appointment.
 - **Statement 2: Incorrect** – **Control of district courts** is with the **High Court** under **Article 235**, not the state government.
 - **Statement 3: Correct** – Appointments made by the **Governor** after **consultation with High Court and State Public Service Commission**.

→ Hence, Option **(c)** is correct.

29) **Correct Answer:** (a) Only 1



📌 **Explanation:**

- **Statement 1: Correct** – India's **FSSAI** has regulated **trans fats**, restricting their level in edible oils and foods to **less than 2%**.
- **Statement 2: Incorrect** – Trans fats are **primarily found in processed foods** (e.g., margarine, baked goods), not in natural products.

→ Hence, Option **(a)** is correct.

30) **Correct Answer:** (d) 1 and 3 only

📌 **Explanation:**

- **Statement 1: Correct** – **S-400 Triumph**, developed by **Russia**, is a **long-range air defense missile system** used for tracking and neutralizing airborne threats.
- **Statement 2: Incorrect** – **THAAD** is developed by the **United States**, not China, and is designed for **ballistic missiles**, not cruise missiles.
- **Statement 3: Correct** – **Israel's layered defense** includes:
 - **Iron Dome** (short-range),
 - **David's Sling** (medium-range),
 - **Arrow Systems** (long-range ballistic missile defense).

→ Hence, Option **(d)** is correct.

31) **Correct Answer:** (b) To provide access to plant genetic materials and ensure benefit-sharing

📌 **Explanation:**

- The **International Treaty on Plant Genetic Resources for Food and Agriculture (Plant Treaty)** is administered by the **Food and Agriculture Organization (FAO)**.
- It aims to:
 - Facilitate **access to plant genetic materials** essential for **food and agriculture**.
 - Ensure **fair and equitable benefit-sharing** from their use, especially for **farmers and researchers**.
- Implemented through the **Multilateral System (MLS)** which covers 64 crops.
- **✗ It does not regulate trade** (like CITES), promote **organic farming**, or establish **plant variety protection rules**.

→ Hence, Option **(b)** is correct.

32) **Correct Answer:** (b) Facilitate capacity building for civil servants through a comprehensive learning ecosystem

📌 **Explanation:**

- The iGOT Karmayogi platform is part of **Mission Karmayogi**, India's National Programme for Civil Services Capacity Building.
- It provides:
 - **Self-paced, modular, and role-based learning** for government officials.
 - A **digital ecosystem** integrating content providers, tools, and assessment.
- Focus areas: **governance, administration, digital skills, behavioral competencies**.
- **✗ It does not maintain a personnel database, evaluate promotions, or distribute hardware.**

→ Hence, Option (b) is correct.

33) **Correct Answer:** (a) 2 and 3 only

✗ **Explanation:**

- **Statement 1: Incorrect** – The Aravalli Range is among the **oldest fold mountain ranges**, much older than the **Himalayas**.
- **Statement 2: Correct** – It influences **regional monsoon patterns** and helps in **moisture retention** across northern India.
- **Statement 3: Correct** – Acts as a **natural barrier** against the eastward spread of the **Thar Desert**, preventing **desertification**.

→ Hence, Option (a) is correct.

34) **Correct Answer:** (c) 1, 2 and 3

✗ **Explanation:**

- Dr. M.R. Srinivasan made **pioneering contributions** to India's **civilian nuclear energy programme**.
- **Statement 1: Correct** – Worked with **Homi Bhabha** on early nuclear projects.
- **Statement 2: Correct** – Served as **Chairman of Atomic Energy Commission**.
- **Statement 3: Correct** – Played a key role in the development of **India's first nuclear research reactor (Apsara)**.

→ Hence, Option (c) is correct.

35) **Correct Answer:** (d) 1 and 2 only

✗ **Explanation:**

- **Plant Treaty** (FAO-administered) ensures:
 - Access to **plant genetic resources** for **farmers/scientists**.
 - **India is a member** of this treaty.
- **✗ Statement 3 is incorrect** – It is **not administered by WTO**, but by **FAO** under the **International Treaty on Plant Genetic Resources**.

→ Hence, Option (d) is correct.

36) **Correct Answer:** (a) 1, 2 and 3

✗ **Explanation:**

- The **Doctrine of Essentiality**, established by the **Supreme Court in 1954 (Shirur Mutt case)**, is used to:
 - **Determine** which religious practices are **essential and protected** under **Article 25**.
 - Balance **freedom of religion** with other **fundamental rights** (like dignity, equality, liberty).
 - Prevent **superstitious, discriminatory, or harmful practices** from being shielded under religion.

→ Hence, Option (a) is correct.

37) **Correct Answer:** (a) 1 and 3 only

✗ **Explanation:**

- **Asian Giant Softshell Turtle** (*Pelochelys cantorii*):
 - Listed as **Critically Endangered** in the **IUCN Red List**.
 - Protected under **Schedule I** of the **Wildlife (Protection) Act, 1972**.
- **Statement 2: Incorrect** – It inhabits **not just freshwater**, but also **brackish and estuarine habitats**.

→ Hence, Option (a) is correct.

38) **Correct Answer:** (c) 1, 2 and 3

✗ **Explanation:**

- **iGOT Karmayogi** is a **national digital learning platform** for civil servants:
 - **Statement 1: Correct** – Offers a **comprehensive learning ecosystem** with domain-based and behavior-based modules.
 - **Statement 2: Correct** – Implemented by **Karmayogi Bharat SPV** under the **Department of Personnel and Training (DoPT)**.
 - **Statement 3: Correct** – A **core component** of **Mission Karmayogi**, supporting **lifetime learning** and **role-specific training**.

→ Hence, Option (c) is correct.

39) **Correct Answer:** (c) 2 and 3 only

✗ **Explanation:**

- **PBAT (Polybutylene Adipate Terephthalate):**
 - **Biodegradable**, made from **plant-based sources**, and **non-toxic**.
 - **Statement 1: Incorrect** – ~~✗~~ Not made from non-renewable petroleum; often derived from **renewable starch-based materials**.
 - **Statement 2: Correct** – Recognized as a **biodegradable thermoplastic** with low environmental toxicity.
 - **Statement 3: Correct** – Recently introduced in **Tripura** as a replacement for **single-use plastics**.

→ Hence, Option (c) is correct.

40) **Correct Answer:** (a) 1, 2 and 3

✗ **Explanation:**

- **Asian Productivity Organization (APO):**
 - **Established in 1961**, with **India as a founding member**.
 - Aims to improve **productivity and competitiveness** in the **Asia-Pacific region** through **cooperation, training, and research**.
 - Membership includes countries from **both Asia and the Pacific** (e.g., Japan, India, Thailand, Fiji).

→ Hence, Option (a) is correct.

41) **Correct Answer:** (b) To preserve family and traditional farming systems threatened by urbanization and other challenges

✗ **Explanation:**

- The **UN Decade of Family Farming (2019–2028)** recognizes the **crucial role of family-based farming** in ensuring **food security**, maintaining **biodiversity**, and preserving **indigenous knowledge**.
- It promotes **sustainability, resilience**, and **inclusive development** through the support of **traditional agricultural systems**.
- The initiative complements efforts like **GIAHS (Globally Important Agricultural Heritage Systems)** and supports **rural economies**.

→ Hence, Option (b) is correct.

42) **Correct Answer:** (c) Manasollasa

✗ **Explanation:**

- **Mallakhamb**, the traditional Indian sport combining yoga and wrestling postures, is **first directly referenced** in the **12th-century text 'Manasollasa'** by **Chalukya King Someshvara III**.
- Though ancient epics like the **Ramayana** and **Mahabharata** mention similar physical practices, **Manasollasa** provides the **earliest documented description** of Mallakhamb as a structured sport.

→ Hence, Option (c) is correct.

43) **Correct Answer:** (c) End of the Bosnian War in the former Yugoslavia

✗ **Explanation:**

- The **Dayton Peace Agreement** (1995), signed in **Dayton, Ohio**, officially ended the **Bosnian War**.
- It resulted in the creation of **Bosnia and Herzegovina** as a **federal state** with two autonomous entities.
- It remains a model in **post-conflict reconstruction and peacekeeping diplomacy**.

→ Hence, Option (c) is correct.

44) **Correct Answer:** (c) Mauritius

✗ **Explanation:**

- The **Chagos Archipelago**, previously under **UK control**, was recently **transferred to Mauritius** following **international legal pressure** and **ICJ rulings**.
- The move marks a step toward **decolonization** and restoring **sovereignty to Mauritius**.
- The archipelago includes **Diego Garcia**, which hosts a **US military base**, making it geopolitically strategic.

→ Hence, Option (c) is correct.

45) **Correct Answer:** (a) 1 and 2 only

✗ **Explanation:**

- The **GIAHS programme**, launched by the **FAO** in 2002 at the **World Summit for Sustainable Development**, protects **traditional agricultural systems**.
- It follows a **multistakeholder approach**, including **local communities, governments, and experts**, to preserve **agro-biodiversity, cultural practices, and resilience**.
- **India has only three** designated GIAHS sites (Kashmir saffron, Koraput farming, and Kuttanad system) — not seven.

→ Hence, Option **(a)** is correct.

46) Correct Answer: (d) 1, 2 and 3

📌 **Explanation:**

- **National Centre for Polar and Ocean Research (NCPOR)** is an **autonomous institute under the Ministry of Earth Sciences**.
- It maintains India's research stations in **Antarctica (Maitri & Bharati)**, the **Arctic**, and even **Himalayan observatories**.
- It plays a **key role** in implementing **India's Arctic Policy** and overseeing the **Indian Antarctica Act**.

→ Hence, Option **(d)** is correct.

47) Correct Answer: (a) 1 and 3 only

📌 **Explanation:**

- **Statement 1: Correct** – FDI refers to **equity-based investments** by **non-residents** in Indian companies.
- **Statement 2: Incorrect** – FDI is a form of **non-debt capital**, unlike **external commercial borrowings (ECBs)**.
- **Statement 3: Correct** – DPIIT under the **Ministry of Commerce** is the **nodal department** for FDI policy and promotion.

→ Hence, Option **(a)** is correct.

48) Correct Answer: (c) 1, 2 and 3

📌 **Explanation:**

- **Statement 1: Correct** – Research into **liquid carbon** can enhance future **high-temperature technologies** like **nuclear fusion**.
- **Statement 2: Correct** – Under normal pressure, **carbon sublimates** (solid → gas), **bypassing the liquid state**.
- **Statement 3: Correct** – Liquid carbon may exist **inside planetary cores**, like **Uranus and Neptune**, due to extreme **temperature and pressure**.

→ Hence, Option **(c)** is correct.

49) Correct Answer: (b) 1, 2 and 3



📌 **Explanation:**

- **Statement 1: Correct** – India's iron ore resources primarily consist of **hematite and magnetite**.
- **Statement 2: Correct** – Significant iron ore deposits lie near **coalfields in the Chota Nagpur Plateau (Jharkhand, Odisha)**.
- **Statement 3: Correct** – India holds the **largest iron ore reserves** in Asia, making it a key exporter.

→ Hence, Option **(b)** is correct.

50) Correct Answer: (d) 1 and 2 only

📌 **Explanation:**

- **New Development Bank (NDB)** was set up by **BRICS nations in 2015**, with **equal shareholding**.
- It primarily **finances infrastructure and sustainable development** projects in **emerging economies**.
- **Statement 3 is incorrect** – Membership is **not restricted** to BRICS or developing countries. Recently, **UAE, Bangladesh, Egypt** have joined.

→ Hence, Option **(d)** is correct.