

Solutions

DATE : 11th Nov- 17th Nov

1. Answer: d)

- The **catalyst developed by NTPC** for the methanol synthesis process does not require **sulfur**; it is designed for a clean catalytic reaction, producing **high-purity methanol**.
- **CO₂ is captured** directly from **industrial flue gases**, not from **ambient air**, aligning with NTPC's strategy to reduce emissions.
- The **methanol produced** in the facility is versatile and can be used in **fuel blending, chemical feedstock, and hydrogen generation**, making it a valuable resource for **India's green energy transition**.

2. Answer: b)

- One of the **main objectives** of **CARICOM** (Caribbean Community and Common Market) is to **coordinate foreign policy** among its member states. This allows small Caribbean nations to present a **unified stance in global forums**, amplifying their collective voice.
- CARICOM does not focus on establishing a **common currency**, unrestricted **immigration**, or maintaining a **regional military**.

3. Answer: c)

- **Article 30(1)** of the Indian Constitution grants **minorities the right to establish and administer educational institutions** of their choice, safeguarding their **cultural and educational rights**.
- **Article 28** does not allow **religious instruction in state-funded institutions**, though it is permitted in minority institutions not maintained by the state.
- Minority institutions enjoy a degree of **autonomy**, but they are subject to **regulations** to ensure **quality education** and compliance with **national standards**.

4. Answer: c)

- **Project Shaurya Gatha** is aimed at enhancing **military tourism** by documenting and promoting **historical military sites and**

battlefields, encouraging public engagement with **India's military heritage**.

- It is a **collaborative initiative** involving the Department of Military Affairs and United Service Institution (USI) of India, not exclusively by the **Indian Army**.
- The project documents **India's military history across all eras**, not just post-independence battles, and its **educational programs target the general public and youth**, not only military personnel.

5. Answer: c)

- The discovery of an **ancient ocean on Mars** by Zhurong strengthens the theory of Mars transitioning from a **warm, wet planet** capable of supporting water bodies to its current **cold and arid state**.
- While this suggests **significant climate changes**, it does not conclusively prove the existence of **microbial life** or indicate that Mars had a **stable Earth-like atmosphere**.
- No evidence suggests the presence of **stable liquid water on Mars' surface today**.

6. Answer: d)

- Not all seaplanes can operate on **both water and land**. While **amphibious planes** are versatile, **floatplanes** and **flying boats** are designed exclusively for **water operations**.
- **Floatplanes** use pontoons (floats) and do not have a specialized hull structure, making them less suited for **saltwater** due to **corrosion risks**.
- **Flying boats** are generally used for **passenger transport, tourism**, and specialized operations, rather than **routine cargo transport**.

7. Answer: b)

- The **seaplane project under RCS-UDAN (Regional Connectivity Scheme)** aims to improve **regional connectivity** and promote **tourism** by providing affordable air travel in areas with limited infrastructure.
- The primary focus is on **passenger transport**, leveraging India's **extensive water bodies**. It is not centered on **freight movement, emergency**

medical evacuation, or seaplane manufacturing.

8. Answer: b)

- **Zhurong**, part of the **Tianwen-1 mission**, is designed to study **Mars' geological history** and **environmental changes** by conducting geological and atmospheric analysis.
- It landed on **Utopia Planitia**, located in **Mars' northern hemisphere**, not **Gale Crater** in the southern hemisphere.
- The rover is equipped to analyze **Martian soil** for chemical composition and detect **biosignatures**, contributing to the study of Mars' habitability.

9. Answer: a)

- **CARICOM** promotes **trade among member states** through the **CARICOM Single Market and Economy (CSME)**, which facilitates the **free movement of goods, services, labor, and capital**.
- It has not achieved **complete economic integration** or a **customs union** across all members.
- **CARICOM** collaborates with **non-member states** and regional organizations like **OECS** for **economic cooperation and development**.

10. Answer: c)

- **Minority institutions** can receive **government funding** or contributions from other communities without losing their **minority status**.
- They must be **established and administered** by a minority community and should primarily **benefit the minority community**.
- Institutions established **before the Constitution's enactment** are also eligible for minority status if they meet these criteria.

11. Answer: d)

- The **rebellion among the sepoys in Shahjahanpur** in 1857 was triggered by rumors of cartridges greased with **cow and pig fat**, offensive to both **Hindu and Muslim sentiments**.
- Additionally, rumors of **adulterated flour** added to distrust toward British policies.
- These issues, especially the greased cartridges, directly violated **religious beliefs**, leading to immediate outrage and rebellion.

12. Answer: b)

- The **primary mandate of FAO** is to improve **global nutrition**, enhance **agricultural productivity**, uplift **rural living standards**, and stimulate **economic growth in agriculture**.
- FAO achieves these through **technical assistance, research, and policy coordination**.
- It does not regulate trade, fund projects, or enforce quotas.

13. Answer: a)

- The **Pinaka Rocket Missile System** was developed by the **Armament Research and Development Establishment (ARDE)** under **DRDO**.
- It replaced imported rocket systems, enhancing India's **indigenous defense capabilities** and **firepower** against enemy positions.

14. Answer: d)

- The **"EV as a Service" program** is under the **Ministry of Power and Housing & Urban Affairs**, not the Ministry of New and Renewable Energy.
- India's net-zero target is **2070**, not 2050.
- The program allows departments to select **various makes/models** of E-Cars and has facilitated the deployment of **17,000 E-Buses**, not 1,00,000.

15. Answer: b)

- The initiative includes **upgrading laboratory networks** and **vaccine manufacturing facilities** to strengthen India's **animal health infrastructure**.
- It was developed under the **G20's Pandemic Fund initiative** in 2022.
- However, its focus is on **preventing and responding** to animal health threats rather than **eradication** of zoonotic diseases.

16. Answer: c)

- The **QS World University Rankings** are published annually by **Quacquarelli Symonds**, based in **London**.
- The rankings evaluate universities on **Research and Employability**, among other dimensions.
- A survey of employers is conducted to assess **graduate employability**.

17. Answer: a)

- FAO publishes key reports like **The State of the World's Forests, The State of World Fisheries and Aquaculture**, and others.
- FAO does not set **mandatory standards**; it provides **guidelines and recommendations**.
- It is funded entirely by **assessed contributions**, not voluntary donations.

18. Answer: b)

- The **Sirpur Wetland** relies on **surface channels** and connections with nearby water bodies, not underground springs.
- Restoration efforts transformed it from an **urban waste site** into an **ecologically valuable wetland**.
- It was designated as a **Ramsar site** in 2022, recognizing its **ecological importance**.

19. Answer: c)

- **Carbon offset projects** are not limited to nature-based solutions; they include **renewable energy, energy efficiency, and sustainable agriculture**.
- Carbon offsets primarily focus on **emission reduction**, not energy self-sufficiency.
- **EV adoption** is supported under carbon offset mechanisms to reduce emissions from **transportation**.

20. Answer: a)

- **Shahjahanpur** was established by the British in **1813-14**, making it relatively new during the 1857 rebellion.
- It became a hub for revolutionaries like **Maulvi Ahmadullah Shah** and **Nana Sahib**.
- The attack on the **Roman Catholic Church** symbolized local resistance but did not mark the **end of British influence** in the area.

21. Answer: a)

- **Statement 2 is correct:** *Dicliptera polymorpha* has pyrophytic adaptations, enabling it to thrive in fire-prone grasslands.
- **Statement 1 is incorrect:** The plant is found in the **northern Western Ghats**, specifically around Talegaon-Dabhade in Maharashtra, not the southern region.
- **Statement 3 is incorrect:** It has a **dual-blooming cycle**, flowering both post-monsoon (November to April) and post-fire (May and June), showcasing its adaptability.

22. Answer: a)

- **Statement 1 is correct:** The Eurasian Otter is protected under **Schedule II** of the Wildlife Protection Act in India.
- **Statement 3 is correct:** Its diet mainly consists of **fish, crustaceans**, and occasionally amphibians.
- **Statement 2 is incorrect:** The Eurasian Otter is associated with **water bodies**, such as rivers, lakes, and streams, rather than tropical forests.

23. Answer: b)

- **Statement 1 is correct:** The Digital Euro is a **CBDC issued by the European Central Bank (ECB)** to facilitate direct digital transactions without intermediaries.
- **Statement 3 is correct:** It aims to reduce Europe's reliance on **non-EU financial service providers** and enhance sovereignty.
- **Statement 2 is incorrect:** The preparation phase began in **November 2023**, not 2020, and it is intended to complement, not replace, physical cash.

24. Answer: d)

- **Statement 1 is correct:** Antariksha Abhyas – 2024 is conducted by the **Defence Space Agency** to address space-related threats and opportunities.
- **Statement 2 is correct:** The exercise includes participation from military branches and organizations like **ISRO and DRDO**.
- **Statement 3 is incorrect:** The exercise is conducted in **New Delhi**, not Bengaluru.

25. Answer: b)

- **Statement 1 is correct:** The Digital Rupee provides a **regulated alternative to cryptocurrencies**.
- **Statement 2 is correct:** It is **exchangeable 1:1** with physical currency in India.
- **Statement 3 is incorrect:** It is not intended to replace physical currency but to function alongside it.

26. Answer: c)

- **Statement 1 is correct:** Maulana Abul Kalam Azad was the **youngest President of the Indian National Congress** in 1923.
- **Statement 3 is correct:** He served as India's **first Minister of Education**, emphasizing universal education.

- **Statement 2 is incorrect:** He was arrested during the **Salt Satyagraha** and detained in **Meerut jail**, not during the Quit India Movement.
27. **Answer: a)**
- **Statement 1 is correct:** The Mattupetty Dam reservoir supports **wildlife**, including elephants and birds.
 - **Statement 2 is correct:** The dam is surrounded by the **Kanan Devan Hills Reserve Forest**, which provides habitat to protected species.
 - **Statement 3 is incorrect:** The **Anamudi Shola National Park** is located approximately **3.5 km north** of Mattupetty, not directly adjacent to the dam.
28. **Answer: b)**
- **Statement 2 is correct:** Bihar faces high vulnerability to lightning due to **population density** and frequent thunderstorms.
 - **Statement 3 is correct:** **Lake Maracaibo in Venezuela** experiences the **highest frequency of lightning strikes globally**.
 - **Statement 1 is incorrect:** Lightning is **not a notified disaster** in India, although there are calls for its recognition.
29. **Answer: d)**
- **Statement 1 is correct:** The Defence Space Agency (DSA) was formed based on the **Naresh Chandra Task Force (2012)** recommendations.
 - **Statement 3 is correct:** It includes personnel from the **Army, Navy, and Air Force**.
 - **Statement 2 is incorrect:** The DSA is headquartered in **Bengaluru**, Karnataka, not New Delhi.
30. **Answer: c)**
- The **Mattupetty Dam** is a **concrete gravity dam** located near Munnar in Kerala's Idukki district.
 - It was constructed primarily for **hydroelectric power generation** and **water conservation**.
 - Other options misrepresent the dam type and functions. It is not an earth-fill, arch, or steel dam and is not primarily for irrigation, flood control, or transportation.
31. **Answer: b)**
- **Statements 1 and 3 are correct:** The LRLACM has a range of **1,000 km** with precision strike capability. It can be launched from **ground-based mobile launchers** and **naval platforms** using universal vertical launch modules.
- **Statement 2 is incorrect:** While Bharat Dynamics Limited (BDL) is a key production partner, the missile was developed by the **Aeronautical Development Establishment (ADE)** under **DRDO**, with Bharat Electronics Limited also contributing.
32. **Answer: d)**
- The "**State of the Global Climate Report**" is an **annual report** by the **World Meteorological Organization (WMO)** providing updates on key climate indicators, such as temperature, greenhouse gases, sea levels, and extreme weather events.
 - It has been published annually since **1993** and complements the **IPCC's Assessment Reports**. Preliminary findings have been presented to the COP annually since **2016**.
33. **Answer: c)**
- **CISF does not have a mandate for maritime security** at offshore oil rigs. This responsibility falls under the **Indian Navy** and **Indian Coast Guard**.
 - **CISF's roles include** fire protection services for private entities, security for Indian airports and Delhi Metro, and specialized roles like **VIP security** involving an **all-women battalion**.
34. **Answer: a)**
- **Statements 1 and 2 are correct:** Before the 2019 amendment, companies could carry forward **unspent CSR funds** to the next fiscal year. The amendment mandates that **unspent CSR funds** must be deposited in a **government-specified fund** and utilized within three years.
 - **Statement 3 is incorrect:** The amendment does not restrict CSR spending to certain predefined sectors but encourages contributions across a **broad spectrum of activities** outlined in Schedule VII of the Companies Act.
35. **Answer: d)**
- **Statements 1 and 3 are correct:** The **WIPI report** tracks global trends in **intellectual property filings** and encourages nations to align their **IP frameworks** with international standards to foster innovation and growth.

- **Statement 2 is incorrect:** The report does not rank countries based on **innovation or competitiveness**; it focuses on trends in IP filing and growth patterns.
36. **Answer: c)**
- **Statements 1 and 3 are correct:** The Morans are **indigenous** to Assam and Arunachal Pradesh and belong to the **Kachari family** of Tibeto-Burman origin. They are demanding **Scheduled Tribe (ST) status** for enhanced opportunities.
 - **Statement 2 is incorrect:** While the Moran language is historically linked to the community, most members now predominantly speak **Assamese** due to cultural assimilation.
37. **Answer: b)**
- The **Nirbhay Cruise Missile** is a **sub-sonic missile** with a **range of 1,000 km**, capable of operating at **very low altitudes** and has **deep penetration capabilities**.
 - It is **indigenously developed by DRDO** and is capable of carrying both **conventional and nuclear warheads**, making it versatile.
38. **Answer: a)**
- **Only Statement 3 is correct:** CISF is led by a **Director-General**, typically an officer from the Indian Police Service (IPS).
 - **Other statements are incorrect:**
 - Headquarters is in **New Delhi**, not Mumbai.
 - CISF operates under the Ministry of Home Affairs as part of the **Central Armed Police Forces (CAPFs)**, not independently.
 - Its responsibilities include **seaports, heritage sites**, and other critical infrastructure beyond nuclear and airport facilities.
39. **Answer: a)**
- **Statements 1 and 2 are correct:** **WIPO** is a **specialized agency of the United Nations**, based in **Geneva, Switzerland**, and has **near-universal membership** of 193 countries.
 - **Statement 3 is incorrect:** WIPO's primary role is to **foster international cooperation** on intellectual property, not dispute resolution.
40. **Answer: b)**
- **The WMO** is a **specialized UN agency** focusing on **meteorology, climate, operational hydrology**, and related geophysical sciences.
 - It supports **international cooperation** and serves all member states.
 - Options (a) and (d) are incorrect as WMO's scope extends beyond greenhouse gas monitoring and providing weather data exclusively to developed nations. Option (c) is incorrect as WMO is affiliated with the UN.
41. **Answer: d)**
- The **Spratly Islands** are significant due to their **rich natural resources, fishing zones, and strategic military installations**.
 - The islands are frequently the site of **China-Philippines clashes**, including incidents involving lasers and water cannons used by Chinese vessels.
 - They do not house **international shipping headquarters** or represent the **largest oil reserves in the region**.
42. **Answer: c)**
- The primary objective of **Operation Kawach** is to combat **gang-related violence, drug trafficking, and organized crime** in Delhi.
 - It focuses on:
 - Dismantling networks linked to gangs like **Lawrence Bishnoi and Neeraj Bawana**.
 - Preventing the illegal trade of **firearms, liquor, and narcotics**.
 - Enhancing public safety by targeting areas across multiple districts with joint efforts by **local units, Special Cell, and Crime Branch**.
43. **Answer: c)**
- **Statement 1 is correct:** African elephants have **two-finger-like processes** at the tip of their trunks.
 - **Statement 2 is correct:** The **African Forest Elephant** is classified as **Critically Endangered** by the IUCN.
 - **Statement 3 is correct:** Both male and female **African Forest Elephants** have tusks, though they are **smaller and darker** compared to those of the Bush Elephant.
 - Conservation Status:

- **African Bush Elephant:** Endangered (IUCN).
- **African Forest Elephant:** Critically Endangered (IUCN).
- Both are listed under **CITES Appendix I** for protection.

44. **Answer: b)**

- **Statements 1 and 3 are correct:**
 - SATRC promotes **knowledge exchange** through seminars, training, and workshops.
 - It fosters **regulatory cooperation** among member countries.
- **Statement 2 is incorrect:** SATRC is governed by **member regulatory bodies**, not the host country's Ministry of Telecommunications.
- **Statement 4 is incorrect:** SATRC functions under the **Asia-Pacific Telecommunity (APT)**, not directly under the ITU.
- **Core Functions:** Address issues like **radio frequency coordination, regulatory trends, and telecommunication strategies** while promoting cooperation.

45. **Answer: d)**

- **Explanation:** Under the recent MoEFCC notification, industries with Environmental Clearance (EC) are **exempted from obtaining a separate Consent to Establish (CTE)** from State Pollution Control Boards (SPCBs).
- This change aims to **streamline regulatory procedures**, reducing duplication and delays while ensuring compliance with environmental standards.
- SPCBs remain involved during the EC process, addressing concerns previously covered under the CTE, thereby maintaining environmental oversight without compromising governance.

46. **Answer: b)**

- **Explanation:** Janjatiya Gaurav Divas was launched in 2021 to commemorate the **150th birth anniversary of Birsa Munda**, not the 100th, making Statement 1 incorrect.
- **Statement 2 is correct:** The day celebrates the **cultural heritage and history of tribal communities** in India.
- **Statement 3 is correct:** It honors **tribal movements for independence and social justice**, including Birsa Munda's leadership in the Munda Rebellion against British policies.

47. **Answer: d)**

- **Explanation:** The **Justice B.P. Jeevan Reddy Committee (2004)** recommended repealing **AFSPA** and incorporating its provisions into the **UAPA, 1967**.
- This aimed to balance **security requirements** with **human rights concerns**. Other committees addressed periodic reviews or handling specific cases under ordinary law.

48. **Answer: b)**

- **Explanation:**
 - **Statement 1 is incorrect:** While employment generation is a focus of the **Dharti Aaba Janjatiya Gram Utkarsh Abhiyan**, it also emphasizes **education, healthcare**, and overall socio-economic development.
 - **Statement 2 is correct:** The program prioritizes **preserving tribal traditions and culture**, along with socio-economic upliftment.
 - **Statement 3 is incorrect:** It is a **national campaign** and not limited to the **Chotanagpur Plateau**.

49. **Answer: c)**

- **Statement 1 is incorrect:** GRAP was approved in the **M.C. Mehta vs. Union of India case**, not the Taj Trapezium Zone case.
- **Statement 2 is incorrect:** GRAP is specifically implemented in the **Delhi-NCR region**, not across all metropolitan cities.
- **Statement 3 is correct:** The **revised GRAP (2023)** includes measures to handle **AQI deterioration** during winter, focusing on hotspots, vehicle emissions, and industrial restrictions.

50. **Answer: c)**

- **Statement 1 is incorrect:** The **IAEA** is an autonomous body under the UN system, not a specialized agency.
- **Statement 2 is incorrect:** The IAEA oversees compliance with the **NPT**, not the **CTBT** (monitored by CTBTO).
- **Statement 3 is correct:** The IAEA promotes **peaceful applications of nuclear energy** in medicine, agriculture, and energy production.

- **Statement 4 is incorrect:** The headquarters of the IAEA is in **Vienna, Austria**, not Geneva, Switzerland.



IQRA

Wisdom leads to success