

Solutions

DATE : 20th Oct- 27th Oct

1) **Answer:** b) Agriculture

Explanation:

The National Green Hydrogen Mission primarily focuses on decarbonizing key sectors such as steel, shipping, and mobility, which are responsible for significant greenhouse gas emissions. Agriculture, while important for environmental sustainability, is not a primary focus of this mission, which targets more industrial and energy-intensive sectors.

2) **Answer:** b) Bombing a military installation to destroy communication infrastructure.

Explanation:

Bombing a military installation is an example of **kinetic warfare**, which involves physical combat and destruction. **Non-kinetic warfare** includes tactics like cyberattacks, disinformation, and electronic jamming, which disrupt critical infrastructure or public sentiment without direct physical attacks.

3) **Answer:** d) None of the above

Explanation:

- Haemodialysis machines are used to treat patients with **kidney failure**, not heart failure.
- These machines remove toxins using **dialysate fluid** in a process called dialysis, which involves fluid exchange.
- The dialyzer filters blood by allowing waste products to diffuse into the dialysate fluid, requiring interaction with the fluid.

4) **Answer:** c) Artificial stone

Explanation:

Artificial stone (engineered stone or quartz) contains over 90% silica, posing a higher risk of silicosis compared to natural stones like marble and granite. Cutting or polishing artificial stone

generates fine silica dust, which can lead to severe lung diseases when inhaled.

5) **Answer:** d) Papua New Guinea

Explanation:

India provided haemodialysis machines to **Papua New Guinea** under the Forum for India-Pacific Islands Cooperation (FIPIC), enhancing healthcare support. Lebanon received medical supplies but not these machines.

6) **Answer:** a) Promote individual and organizational capacity-building for civil servants through competency-linked learning.

Explanation:

Karmayogi Saptah focuses on **capacity-building** among civil servants through competency-linked learning, encouraging continuous development to enhance governance and public service delivery.

7) **Answer:** c) 1 only

Explanation:

- The E-Cube Hindi Language Lab is for students in classes 5 to 7, offering **game-based learning** for Hindi.
- The lab uses **Free and Open-Source Software (FOSS)**, not proprietary technology.
- The program includes **monitoring mechanisms** for teachers to track student progress and provide feedback.

8) **Answer:** d) Strengthen India's ties with Pacific Island nations through cooperation in areas like healthcare and infrastructure.

Explanation:

The Forum for India-Pacific Islands Cooperation (FIPIC) aims to enhance cooperation between India and Pacific Island nations in sectors like **healthcare**, infrastructure, and climate

change, not focusing on financial aid to the Middle East or military alliances.

9) **Answer:** a) Promoting fossil-fuel based hydrogen production and export

Explanation:

The National Green Hydrogen Mission focuses on **green hydrogen** production using renewable energy, aiming to decarbonize key industries and establish India as a global hub for green hydrogen, not promoting fossil fuel-based hydrogen.

10) **Answer:** a-2, b-3, c-4, d-1

Explanation:

- **Cyber warfare** (a-2): Attacks critical infrastructure like power grids.
- **Economic warfare** (b-3): Disrupts the economy by targeting financial systems.
- **Psychological warfare** (c-4): Involves jamming communication networks and manipulating the enemy's mindset.
- **Information warfare** (d-1): Uses disinformation or propaganda to manipulate public opinion.

11) **Answer:** b) Only two

Explanation:

- **Statement 1 is correct:** The Kondh tribe follows a clan-based system with strong community structure and governance.
- **Statement 2 is incorrect:** The Kondh tribe has not largely converted to Buddhism; they primarily practice animism with reverence for nature and forest deities.
- **Statement 3 is correct:** Their religious practices are deeply connected to nature, centered around forest deities, reflecting their animistic beliefs.

12) **Answer:** a) 2 and 3 only

Explanation:

- **Statement 1 is incorrect:** The Emission Gap Report is published by UNEP, not the UNFCCC.
- **Statement 2 is correct:** It assesses the gap between current and necessary emissions to meet the Paris Agreement targets.

- **Statement 3 is correct:** The report emphasizes the importance of updating Nationally Determined Contributions (NDCs) by developed countries before 2025.

13) **Answer:** c) 2 only

Explanation:

- **Statement 1 is incorrect:** The Indian flapshell turtle is a freshwater species, found in rivers, ponds, lakes, and canals, not in saltwater environments.
- **Statement 2 is correct:** It is called “flapshell” because of the unique flaps on its plastron that cover its limbs when retracted.
- **Statement 3 is incorrect:** It is classified as Vulnerable on the IUCN Red List, not Critically Endangered.

14) **Answer:** b) 2 and 3 only

Explanation:

- **Statement 1 is incorrect:** The Livestock Census is conducted every five years, not ten.
- **Statement 2 is correct:** It covers data on livestock and poultry species, including indigenous breeds.
- **Statement 3 is correct:** The 21st Census will, for the first time, include independent data on livestock holdings by pastoralists.

15) **Answer:** a) 3 only

Explanation:

- **Statement 1 is incorrect:** The Great Indian Bustard is classified as Critically Endangered, not Endangered.
- **Statement 2 is incorrect:** It inhabits dry grasslands and scrublands, primarily in the Thar Desert of Rajasthan, not forested regions.
- **Statement 3 is correct:** Its diet includes grass seeds, insects, small rodents, and reptiles.

16) **Answer:** b) Only two

Explanation:

- **Statement 1 is correct:** The EBP target for 20% ethanol blending has been advanced to 2025 from 2030.

- **Statement 2 is incorrect:** The nodal ministry is the Ministry of Petroleum and Natural Gas, not the Ministry of New and Renewable Energy.
 - **Statement 3 is correct:** The program benefits sugarcane farmers by creating demand for ethanol, thereby increasing their income.
- 17) **Answer:** a) 1 only
Explanation:
- **Statement 1 is correct:** The NPPA provides recommendations on drug price revisions and pharmaceutical policies.
 - **Statement 2 is incorrect:** It does not rely solely on pharmaceutical companies' data; it also conducts independent data collection.
 - **Statement 3 is incorrect:** The NPPA was established to regulate pharmaceutical drug and medical device prices, not food items.
- 18) **Answer:** d) Zimbabwe
Explanation:
 Hwange National Park, Zimbabwe's largest wildlife reserve, recently drew attention due to the discovery of poached lions. It's known for diverse wildlife, including large populations of elephants and lions.
- 19) **Answer:** c) 3 only
Explanation:
- **Statement 1 is incorrect:** This was not the first instance of artificial insemination in birds; it has been done with other species like the houbara bustard.
 - **Statement 2 is incorrect:** WWII adopted the technique from a project in Abu Dhabi for houbara bustard, not independently developed.
 - **Statement 3 is correct:** This initiative is part of a captive breeding program aimed at releasing Great Indian Bustards into the wild.
- 20) **Answer:** d) 2 and 3 only
Explanation:
- **Statement 1 is incorrect:** The NPPA can revise prices as necessary, not restricted to once a year.
 - **Statement 2 is correct:** It enforces price controls on essential drugs under the Essential Commodities Act.
 - **Statement 3 is correct:** NPPA can take legal action against companies that fail to comply with pricing regulations under DPCO, 2013.
- 21) **Answer:** b) 2 only
Explanation:
- **Statement 1 is incorrect:** The Union List does not grant exclusive control to the Centre over all forms of alcohol. The Supreme Court has ruled that industrial alcohol remains under State control as it pertains to intoxicating substances affecting public health.
 - **Statement 2 is correct:** The State List allows States to regulate "intoxicating liquor," which includes industrial alcohol.
 - **Statement 3 is incorrect:** The regulation of industrial alcohol falls under State authority, despite its role in sectors like fuel production and pharmaceuticals.
- 22) **Answer:** c) Indonesia
Explanation:
 The Korowai tribe is primarily associated with **Papua, Indonesia**, where they live a traditional lifestyle, including constructing elevated treehouses and depending on hunting and gathering.
- 23) **Answer:** d) None of the above
Explanation:
- **Statement a is incorrect:** WorldSkills 2024 took place in Lyon, not Paris.
 - **Statement b is incorrect:** WorldSkills is held every two years, not annually.
 - **Statement c is incorrect:** It is not limited to technology-related skills; it covers diverse vocational skills, including construction, manufacturing, and arts.
- 24) **Answer:** d) None of the above
Explanation:
- **Statement 1 is incorrect:** Not all E. coli strains produce Shiga toxins; only certain harmful strains like O157 do.

- **Statement 2 is incorrect:** E. coli primarily spreads through contaminated food, water, or fecal matter, not airborne particles.
 - **Statement 3 is incorrect:** Most E. coli infections resolve on their own without antibiotics.
 - **Statement 4 is incorrect:** Common symptoms include diarrhea, cramps, nausea, and fever, not respiratory problems or headaches.
- 25) **Answer:** c) Denatured alcohol contains additives that make it poisonous and unfit for human consumption, unlike absolute alcohol.
Explanation: Denatured alcohol is ethanol mixed with toxic additives to make it non-consumable, while **absolute alcohol** is pure ethanol without additives, often taxed higher due to its consumability potential.
- 26) **Answer:** a) Only one
Explanation:
- **Statement 1 is incorrect:** The Korowai tribe has a social structure based on equality, without a strict hierarchy or designated leaders.
 - **Statement 2 is correct:** They rely on hunting and gathering for food, closely connected to their forest environment.
 - **Statement 3 is incorrect:** Cannibalism, once practiced, has largely ceased in recent years.
- 27) **Answer:** b) “Strengthening Multilateralism for Just Global Development and Security”
Explanation: The theme of the **16th BRICS Summit 2024** was "Strengthening Multilateralism for Just Global Development and Security," focusing on equitable development and security through multilateral cooperation.
- 28) **Answer:** a) Only one
Explanation:
- **Statement 1 is correct:** Arugam Bay is located on Sri Lanka’s southeastern coast.
 - **Statement 2 is incorrect:** It is known as a tourist hub, especially for surfing, rather than for cultural heritage.
- **Statement 3 is incorrect:** “Arugam Kudah” translates to the “Bay of Cynodon dactylon,” a type of grass, not “River of Palms.”
- 29) **Answer:** a) Only one
Explanation:
- **Statement 1 is incorrect:** Rat Tail Falls is in Tamil Nadu, not Kerala, and ranks as the sixth tallest waterfall in India.
 - **Statement 2 is correct:** The waterfall’s appearance resembles a long, thin stream, hence the name “Rat Tail.”
 - **Statement 3 is incorrect:** It is formed by the Manjalar River, a tributary of the Vaigai River, not the Bhavani River.
- 30) **Answer:** d) None
Explanation:
- **Statement 1 is incorrect:** Hemolytic uremic syndrome (HUS) from E. coli affects the kidneys, not the liver.
 - **Statement 2 is incorrect:** Children and the elderly are more susceptible to severe complications like HUS.
 - **Statement 3 is incorrect:** Hydration is essential in managing E. coli infections, and medical intervention is only needed in severe cases.
- 31) **Answer:** b) Only two
Explanation:
- **Statement 1 is incorrect:** India currently operates only two SSBNs, INS Arihant and INS Arighaat, not three.
 - **Statement 2 is correct:** The newly launched S4* submarine is equipped with K-4 missiles, capable of striking targets up to 3,500 km away.
 - **Statement 3 is correct:** SSBNs provide a second-strike capability, crucial for India’s nuclear deterrence strategy.
- 32) **Answer:** a) 1 only
Explanation:
- **Statement 1 is correct:** Nandankanan Zoological Park is located near Bhubaneswar in Odisha.

- **Statement 2 is incorrect:** The park is known for breeding white tigers, not white lions.
 - **Statement 3 is incorrect:** The State Botanical Garden focuses on plant conservation and education, not animal conservation.
- 33) **Answer:** d) None of the above
Explanation:
- **Statement 1 is incorrect:** Bima Sugam is developed by IRDAI under the Ministry of Finance, not the Ministry of Commerce and Industry.
 - **Statement 2 is incorrect:** It covers both life and non-life insurance products, not just life insurance.
 - **Statement 3 is incorrect:** Bima Sugam includes services for policy purchase, renewal, claims settlement, and grievance redressal.
- 34) **Answer:** c) 1 and 2 only
Explanation:
- **Statement 1 is correct:** Mission Mausam focuses on weather modification, including rainfall, fog, and lightning.
 - **Statement 2 is correct:** IITM is developing a cloud chamber to simulate Indian monsoon clouds with convection properties.
 - **Statement 3 is incorrect:** The mission is not centered on oceanographic phenomena but rather on cloud physics and weather management.
- 35) **Answer:** a) Only one
Explanation:
- **Statement 1 is incorrect:** Urea, not DAP, is the most widely used fertilizer in India.
 - **Statement 2 is incorrect:** DAP contains 18% Nitrogen and 46% Phosphorus, not the reverse.
 - **Statement 3 is correct:** DAP is crucial for early root development due to its nitrogen and phosphorus content, essential during the sowing stage.
- 36) **Answer:** d) None
Explanation:
- **Statement 1 is incorrect:** The Kartarpur Corridor connects Dera Baba Nanak in India to Darbar Sahib in Pakistan, not the reverse.
 - **Statement 2 is incorrect:** Indian pilgrims can visit Darbar Sahib without a visa, using a special permit instead.
 - **Statement 3 is incorrect:** The corridor was inaugurated on the 550th birth anniversary of Guru Nanak Dev, not the 500th.
- 37) **Answer:** c) 1 and 3 only
Explanation:
- **Statement 1 is correct:** The genus Tenkana was discovered in southern India and is named after the Kannada word for “south.”
 - **Statement 2 is incorrect:** Tenkana species are found in drier, ground habitats, not dense forests.
 - **Statement 3 is correct:** Tenkana manu and Tenkana arkavathi were moved from the Colopsus genus to the Tenkana genus.
- 38) **Answer:** b) The Bima Sugam platform includes services for life insurance but excludes non-life insurance policies.
Explanation:
 Bima Sugam includes both life and non-life insurance services, making statement b incorrect. The platform aims to provide transparency and accessibility, while the Bima Vahaks initiative empowers women as insurance intermediaries in rural areas.
- 39) **Answer:** a) 1 and 2 only
Explanation:
- **Statement 1 is correct:** The cloud chamber simulates cloud formation by injecting water vapor, aerosols, and particles under controlled temperature and humidity.
 - **Statement 2 is correct:** India’s version simulates convection, which is crucial for studying monsoon clouds.
 - **Statement 3 is incorrect:** The chamber is designed for studying Indian weather conditions, not global forecasting.
- 40) **Answer:** d) None
Explanation:

- **Statement 1 is incorrect:** DAP is produced by reacting ammonia with phosphoric acid, not sulfuric acid.
 - **Statement 2 is incorrect:** India has significant domestic production capacity for DAP, though it imports additional supplies to meet demand.
 - **Statement 3 is incorrect:** DAP is primarily used in the early stages of plant growth for root development, not during the flowering stage.
- 41) **Answer:** b) Only two
Explanation:
- **Statement 1 is correct:** Shadow fleets obscure ownership and cargo origin to circumvent international sanctions.
 - **Statement 2 is incorrect:** These fleets typically operate under the flags of convenience from countries with lenient maritime laws, not stringent ones.
 - **Statement 3 is correct:** Shadow fleets frequently change flags, names, and ownership to conceal their operations.
- 42) **Answer:** a) 1 only
Explanation:
- **Statement 1 is incorrect:** Bioluminescence is due to chemical reactions within living organisms, not physical processes.
 - **Statement 2 is correct:** *Noctiluca scintillans*, or “sea sparkle,” is a bioluminescent phytoplankton that creates blue waves.
- 43) **Answer:** c) 1 and 3 only
Explanation:
- **Statement 1 is correct:** Green hydrogen is produced through electrolysis using renewable energy sources.
 - **Statement 2 is incorrect:** The production process does not emit greenhouse gases.
 - **Statement 3 is correct:** Wind, solar, and hydropower are commonly used to generate green hydrogen.
- 44) **Answer:** a) 1 only
Explanation:
- **Statement 1 is correct:** The Moonlight Programme aims to create a constellation of lunar satellites for navigation and communication on the lunar surface.
 - **Statement 2 is incorrect:** The program focuses on the Moon’s South Pole, not the equatorial region, due to potential water ice deposits there.
- 45) **Answer:** c) The IRS is a classification society that operates exclusively within India.
Explanation:
The Indian Register of Shipping (IRS) operates internationally and is globally recognized, holding the Chair of the International Association of Classification Societies (IACS) since 2019. The other statements about IRS’s responsibilities and commitment to safety are correct.
- 46) **Answer:** d) The islands are situated above the Azores Triple Junction, where three tectonic plates meet.
Explanation:
The Azores Archipelago is located above the Azores Triple Junction, where the Eurasian, North American, and African tectonic plates converge. This tectonic setting contributes significantly to the volcanic activity in the region.
- 47) **Answer:** b) Only two
Explanation:
- **Statement 1 is correct:** Jawaharlal Nehru Port Trust (JNPT) is the largest container port in India.
 - **Statement 2 is incorrect:** Tuticorin Port is located in Tamil Nadu, not Karnataka.
 - **Statement 3 is correct:** Mormugao Port is situated in Goa.
- 48) **Answer:** b) 1 and 3
Explanation:
- **Statement 1 is correct:** Kala-azar is caused by the protozoan parasite *Leishmania donovani*.
 - **Statement 2 is incorrect:** The primary vector in India is the Phlebotomus sandfly, not the Aedes mosquito.
 - **Statement 3 is correct:** Severe anemia is a prominent symptom of Kala-azar, along with

fever, weight loss, and spleen/liver enlargement.

49) **Answer:** d) None of the above

Explanation:

- **Statement 1 is incorrect:** e-Shram is a database for unorganized sector workers, not organized sector workers.
- **Statement 2 is incorrect:** The platform integrates information from 12 central schemes, not just five.
- **Statement 3 is incorrect:** The nodal ministry for e-Shram is the Ministry of Labour &

Employment, not the Ministry of Rural Development.

50) **Answer:** a) 1 only

Explanation:

- **Statement 1 is correct:** The statue of Lady Justice at the Supreme Court is dressed in a saree, symbolizing Indian cultural heritage.
- **Statement 2 is incorrect:** The statue's eyes are open, representing awareness of social diversity.
- **Statement 3 is incorrect:** Instead of a sword, the statue holds the Indian Constitution, emphasizing constitutional supremacy.



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