

Solutions

DATE : 8th Dec – 15th Dec

1) Correct Answer: a) Only one

- **Explanation:**
 - **Statement 1:** Incorrect. Desert Knight is **not a trilateral exercise involving Russia and UAE**; it is between **India and France**.
 - **Statement 2:** Correct. The exercise enhances military capabilities and focuses on combat readiness.
 - **Statement 3:** Incorrect. The exercise does not focus on humanitarian assistance or disaster relief.

2) Correct Answer: c) Angola

- **Explanation:**
 - Cameroon shares borders with **Nigeria, Chad, Central African Republic, Republic of the Congo, Gabon, and Equatorial Guinea**. Angola is **not** one of the bordering countries.

3) Correct Answer: a) Only one

- **Explanation:**
 - **Statement 1:** Incorrect. The **High Courts** of respective jurisdictions, not the Supreme Court, implement the project.
 - **Statement 2:** Correct. **Phase I** (2007-2015) focused on **Case Information Systems** and basic computerization.
 - **Statement 3:** Incorrect. **Video conferencing** for hospitals and jails is part of **Phase III**, not Phase II.

4) Correct Answer: c) Statement-I is correct but Statement-II is incorrect

- **Explanation:**
 - **Statement 1:** Correct. Salar de Uyuni is part of the '**Lithium Triangle**' (Chile, Argentina, Bolivia).
 - **Statement 2:** Incorrect. Bolivia has **vast lithium reserves**, but its contribution is limited due to a lack of **extraction technology** compared to Chile and Argentina.

5) Correct Answer: b) Fédération Internationale des Échecs (FIDE)

- **Explanation:**
 - FIDE (International Chess Federation) is the official **governing body for international chess competitions**, organizing the **World Chess Championship** since 1948.

6) Correct Answer: d) None of the above

- **Explanation:**
 - **Statement 1:** Incorrect. Salt flats are **not formed by volcanic ash** but by **evaporation of prehistoric lakes**.
 - **Statement 2:** Incorrect. Salt flats **do not expand** after rainfall but reflect the sky due to their flat surface.
 - **Statement 3:** Incorrect. Salt flats form in **arid or semi-arid regions** with limited rainfall.

7) Correct Answer: b) 2, 3, and 4 only

- **Explanation:**
 - **Statement 1:** Incorrect. Manganese is **essential in trace amounts** but becomes toxic at higher concentrations.
 - **Statements 2 and 3:** Correct. Natural erosion, sedimentation, and industrial effluents are significant contributors.
 - **Statement 4:** Correct. Chronic manganese exposure can cause **neurological disorders** and is linked to **cancer**.

8) Correct Answer: d) 1 and 2 only

- **Explanation:**
 - **Statement 1:** Correct. Implementation requires amendments to Articles **82A, 83(2), and 327** of the Constitution.
 - **Statement 2:** Correct. The **Ram Nath Kovind Committee** was formed to evaluate the policy's feasibility.
 - **Statement 3:** Incorrect. The policy focuses on **Lok Sabha and State Assembly elections**, not local body elections.

9) Correct Answer: a) 1, 2, and 3 only

- **Explanation:**
 - **Statements 1, 2, and 3:** Correct. **Agricultural runoff, mining operations, and geogenic leaching** are significant sources of manganese contamination.
 - **Statement 4:** Incorrect. **Domestic sewage** is not a major source of manganese pollution.

10) Correct Answer: b) To enable real-time statistics on pending and disposed cases

- **Explanation:**
 - The NJDG provides **real-time statistics** on the **number of pending and disposed cases** in Indian courts. It enhances **transparency** and helps in monitoring judicial performance.

11) Answer: (c) Volga River

Explanation:

- The Volga River contributes **80%** of the total inflow to the Caspian Sea.
- The Ural and Terek rivers contribute smaller inflows, while the Don River does not flow into the Caspian Sea.

12) Answer: (d) None

Explanation:

- Malaria is caused by **Plasmodium parasites**, not bacteria.
- It is transmitted by the **female Anopheles mosquito**, not Aedes.
- Malaria is **curable** and preventable with proper diagnosis and treatment, even without vaccines.

13) Answer: (d) Afghanistan, Iran, Pakistan

Explanation:

- The **Death Crescent** refers to Afghanistan, Iran, and Pakistan as primary heroin production hubs.
- The **Death Triangle** refers to Myanmar, Laos, and Thailand.

14) **Answer:** (a) Both Statement-I and Statement-II are correct, and Statement-II is the correct explanation for Statement-I

Explanation:

- Hyperloop uses **magnetic levitation** to eliminate friction.
- Combined with low-pressure vacuum tubes, it allows pods to achieve very high speeds.

15) **Answer:** (b) Only two

Explanation:

- **Correct:** Subramania Bharati revolutionized Tamil literature with **social and political themes**.
- **Incorrect:** He translated the **Bhagavad Gita**, not the Ramayana.
- **Correct:** He strongly advocated for **women's rights and education**.

16) **Answer:** (a) Only one

Explanation:

- The **Speaker/Chairman** can admit or reject an impeachment motion.
- The investigative committee consists of a **Supreme Court judge**, a High Court Chief Justice, and a **distinguished jurist**, not the Chief Justice of India.
- A motion is **not automatically passed** for voting; it first undergoes investigation.

17) **Answer:** (d) Both 1 and 2

Explanation:

- The **DRI** enforces the **Customs Act** and collaborates with international agencies to combat transnational crimes.
- It operates under the **Ministry of Finance**, not the Ministry of Home Affairs.

18) **Answer:** (c) 2 only

Explanation:

- The Caspian Sea is **not completely freshwater**; salinity varies.
- It is a remnant of the **Paratethys Sea**.
- Its seafloor contains **oceanic basalt**, not continental granite.

19) **Answer:** (b) 2 only

Explanation:

- **Section 7** of the **RBI Act, 1934** allows the central government to issue directions to the RBI in matters of **public interest**.
- There is **no provision** to dissolve the RBI Board.

20) **Answer:** (b) Only two

Explanation:

- The NMSA promotes **organic farming** for soil conservation and encourages **efficient irrigation practices** to prevent water-induced soil erosion.
- It does **not support afforestation** efforts, which fall under other schemes.

21) **Solution:** c)

Explanation:

- **Statement 1:** Correct. C. Rajagopalachari led the Salt Satyagraha in the Madras Presidency.
- **Statement 2:** Correct. He founded the Swatantra Party in 1959, advocating economic liberalization and free-market principles.
- **Statement 3:** Correct. He represented the Indian National Congress at the Round Table Conferences in London.
- **Statement 4:** Incorrect. He did not serve as India's Chief Election Commissioner.

22) **Solution:** b)

Explanation:

- **Article 105:** Protects Members of Parliament's freedom of speech but does not protect unruly behavior.
- **Code of Conduct:** It mandates ethical behavior but does not have statutory backing.

23) **Solution:** a)

Explanation:

The **Euphrates River** flows through Syria and is its lifeline, providing vital water resources for agriculture and settlement.

24) **Solution:** d)

Explanation:

Madhav Gadgil was awarded **UNEP Champion of the Earth 2024** for his significant work in conserving the **Western Ghats**, focusing on biodiversity and eco-sensitive planning.

25) **Solution:** b)

Explanation:

- **Statement 1:** Correct. AgeXtend uses machine learning to predict anti-aging properties of compounds.
- **Statement 2:** Incorrect. It analyzes Ayurvedic, Chinese medicine molecules, and commercial drugs.
- **Statement 3:** Correct. AgeXtend provides open-source data to promote global collaboration in aging research.

26) **Solution:** a)

Explanation:

C. Rajagopalachari was awarded the **Ramanujan Award in 1962** for his **translation of Thirukkural into English**.

27) **Solution:** c)

Explanation:

The **Golan Heights** is a disputed territory between **Syria** and **Israel**, occupied by Israel since 1967.

28) **Solution:** b)

Explanation:

- **Statement 1:** Incorrect. Antimatter is not yet practical for renewable energy production.
- **Statement 2:** Correct. Antimatter is used in **PET scans** for medical imaging.
- **Statement 3:** Correct. Research on antimatter helps validate the **Standard Model of particle physics**.

29) **Solution:** d)

Explanation:

- **Statement 1:** Incorrect. No-trust motions require a **simple majority**, not two-thirds.
- **Statement 2:** Incorrect. Rajya Sabha allows no-trust motions against the Deputy Chairman.
- **Statement 3:** Incorrect. Political consensus is crucial for the success of such motions.

30) **Solution:** c)

Explanation:

- **Statement 1:** Incorrect. MARPOL focuses on preventing **marine pollution**, not compensation for oil spills.

- **Statement 2:** Incorrect. Shipwreck removal is addressed by the **Wreck Removal Convention**.
 - **Statement 3:** Incorrect. Safe working conditions for seafarers are under the **Maritime Labour Convention (MLC)**.
- 31) **Solution: c)**
- **Explanation:**
 - Statement 1 is incorrect: MuleHunter.AI was developed by the Reserve Bank Innovation Hub (RBIH), not the Ministry of Finance.
 - Statement 2 is incorrect: It focuses on online financial frauds, not offline frauds.
 - Statement 3 is correct: Its primary function is real-time monitoring and detection of mule accounts.
- 32) **Solution: b)**
- **Explanation:**
When antimatter comes into contact with matter, both annihilate each other, producing energy. This phenomenon is due to their identical masses and opposite charges.
- 33) **Solution: a)**
- **Explanation:**
 - Statement 1 is incorrect: Wind erosion affects a smaller area (9 million hectares) compared to water erosion (94 million hectares).
 - Statement 2 is correct: Chemical overuse leads to soil acidification and nutrient imbalance.
 - Statement 3 is incorrect: Deforestation increases erosion vulnerability, not salinity.
- 34) **Solution: b)**
- **Explanation:**
The Hindon River originates from the **Lower Shivalik ranges** in Saharanpur District, Uttar Pradesh, and flows into the Yamuna River.
- 35) **Solution: c)**
- **Explanation:**
 - Statement 1 is incorrect: Melye-Amiley is derived from **fermented bamboo shoots**, not mangoes.
 - Statement 2 is correct: It promotes fatty acid β -oxidation, aiding weight management.
 - Statement 3 is incorrect: Its primary benefit is **metabolic health improvement**, not boosting immunity.
- 36) **Solution: d)**
- **Explanation:**
 - Statement 1 is incorrect: The Eklingji Temple has faced invasions and was reconstructed multiple times.
 - Statement 2 is incorrect: The temple complex has intricate carvings, made of **marble and granite**, not just sandstone.
- 37) **Solution: a)**
- **Explanation:**
 - Statement 1 is incorrect: Article **90**, not Article 67(b), governs the removal of the Deputy Chairperson.
 - Statement 2 is incorrect: A joint session is not required.
 - Statement 3 is incorrect: A **14-day** notice is needed, not 7 days.
 - Statement 4 is correct: A simple majority in the Rajya Sabha suffices for removal.
- 38) **Solution: a)**
- **Explanation:**
 - Statement 1 is incorrect: Antimatter has the **same mass** but **opposite charge** to matter.
 - Statement 2 is correct: Antimatter was formed during the Big Bang.
 - Statement 3 is incorrect: Antimatter scarcity is due to **asymmetry in matter-antimatter populations**, not its dominance.
- 39) **Solution: d)**
- **Explanation:**
The **Bima Sakhi Yojana** trains women as LIC agents to promote financial literacy and increase insurance awareness, empowering women economically.
- 40) **Solution: d)**
- **Explanation:**
Individuals with **limited financial literacy** are often targeted by fraudsters to serve as "money mules," unknowingly aiding in laundering illicit funds.
- 41) **Correct Answer: d)** Freeze the status of places of worship as of August 15, 1947
Explanation:
The Act freezes the status of places of worship as they were on August 15, 1947, and prohibits conversion of religious sites. Exceptions include the Ram Janmabhoomi-Babri Masjid case and ancient monuments covered under existing laws.
- 42) **Correct Answer: c)** It is the first time India has chaired the CND
Explanation:
India, for the first time, has been elected Chair of the CND, showcasing its commitment to addressing global drug policy issues.
- 43) **Correct Answer: d)** Discussing regional security issues and conflict resolution
Explanation:
The Manama Dialogue, organized by IISS, focuses on regional security challenges, geopolitics, and conflict resolution, particularly in the Middle East.
- 44) **Correct Answer: a)** Only one
Explanation:
- Statement 1: Incorrect. CII engages globally with 300 international organizations.
 - Statement 2: Incorrect. CII does not offer grants; it promotes capacity building.
 - Statement 3: Correct. CII supports skill development and affirmative action.
- 45) **Correct Answer: a)** Only one
Explanation:
- Statement 1: Incorrect. It is found in northwest India, South India, and Sri Lanka.
 - Statement 2: Incorrect. It is strictly herbivorous.
 - Statement 3: Correct. Protected under Schedule I of the Wildlife Protection Act.
 - Statement 4: Incorrect. It is classified as **Vulnerable** under the IUCN Red List.
- 46) **Correct Answer: c)** It is Tamil Nadu's longest river
Explanation:
The Pennaiyar is Tamil Nadu's **second-longest** river after the Kaveri. It originates in the Nandi Hills and flows through Karnataka, Tamil Nadu, and Andhra Pradesh.
- 47) **Correct Answer: c)** 1, 2, and 4 only
Explanation:
- Statement 1: Correct. It is 10 times more effective than azithromycin.

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- Statement 2: Correct. It is the first new macrolide antibiotic in over 30 years.
- Statement 3: Incorrect. It is effective against atypical drug-resistant bacteria.
- Statement 4: Correct. It helps combat antimicrobial resistance (AMR).

48) **Correct Answer:** b) 3 only

Explanation:

- Statement 1: Incorrect. Make in India supports both domestic and export industries.
- Statement 2: Incorrect. Digital India focuses on fintech, e-governance, and connectivity.
- Statement 3: Correct. Green India Mission promotes renewable energy and urban sustainability.

49) **Correct Answer:** b) Only two

Explanation:

- Statement 1: Incorrect. CND members are elected by ECOSOC, not the General Assembly.
- Statement 2: Incorrect. It was established by ECOSOC, not the UN Security Council.
- Statement 3: Correct. CND oversees the implementation of drug control treaties and UNODC's budget.

50) **Correct Answer:** a) Only one

Explanation:

- Statement 1: Incorrect. NEP 2020 does not align education with global standards by 2030.
- Statement 2: Incorrect. PM Gati Shakti is a multi-modal infrastructure program.
- Statement 3: Correct. Aatmanirbhar Bharat focuses on domestic manufacturing for self-reliance.



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