

# Solutions

**DATE : 14<sup>th</sup> Oct-20<sup>th</sup> Oct**

**1) Answer: c) IndiaAI Global AI Governance Body.**

**Explanation:**

The **IndiaAI Mission** focuses on building a strong domestic AI ecosystem, addressing India's requirements in AI development, and advancing global AI leadership. Key components include **IndiaAI Compute Capacity, FutureSkills, and Startup Financing** to encourage innovation, skill development, and entrepreneurship in AI. There is no specific mention of a "Global AI Governance Body" as part of the mission, though the mission promotes the development of responsible AI within India's context.

**2) Answer: b) It allows foreign workers to change employers at will without legal process.**

**Explanation:**

The **Musaned platform** primarily focuses on **wage protection**, ensuring the legitimacy of employment contracts, tracking financial transactions between employers and workers, and providing health benefits and insurance. It does not allow foreign workers to change employers freely; such changes are subject to labor laws and formal legal processes. Musaned helps improve the working conditions of foreign domestic workers in Saudi Arabia.

**3) Answer: b) To offer concessional financial assistance to developing countries for strategic projects.**

**Explanation:**

The **Indian Development and Economic Assistance Scheme (IDEAS)** is designed to promote India's

political and economic interests by providing **Lines of Credit (LoCs)** on concessional terms to **developing countries**. These loans support sectors such as infrastructure, healthcare, and education in recipient countries, thereby strengthening India's diplomatic and strategic ties. The scheme does not focus on domestic industrial growth or providing grants to NGOs.

**4) Answer: c) 3 only.**

**Explanation:**

**Tar balls** are the remnants of oil spills that can travel long distances through **ocean currents** (hence, statement 1 is incorrect). They can persist in the environment for extended periods and pose **environmental hazards**, especially if they contain toxic substances like **Polycyclic Aromatic Hydrocarbons (PAHs)**, which contradicts statement 2. **Statement 3 is correct**, as tar balls can vary in size, from small pebbles to large clumps, depending on environmental conditions.

**5) Answer: a) 3 only.**

**Explanation:**

The "**Scam se Bacho**" campaign is led by the **Ministry of Information and Broadcasting (MIB)**, not the Ministry of Home Affairs or RBI, thus making statement 1 incorrect. The campaign targets both rural and urban users across India, aiming to raise awareness about online frauds, so statement 2 is incorrect. **The Indian Cyber Crime Coordination**

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**Centre (I4C)** plays a role in the campaign, making **statement 3 correct**.

**6) Answer: d) The President of India appoints the CJI based on the recommendation of the outgoing CJI.**

**Explanation:**

The **Chief Justice of India (CJI)** is appointed by the **President of India**, based on the recommendation of the **outgoing CJI**, who typically recommends the senior-most judge of the Supreme Court, following the principle of **seniority** as outlined in the **Memorandum of Procedure (MoP)**. While seniority plays a crucial role, the President formalizes the appointment after consultation with other stakeholders.

**7) Answer: c) Migrants entering India between January 1, 1966, and March 25, 1971, are granted citizenship after 10 years of residence.**

**Explanation:**

As per **Section 6A** of the Citizenship Act, **Bangladeshi migrants** who entered India between January 1, 1966, and March 25, 1971, could obtain Indian citizenship after **10 years of residence**, provided they met certain conditions. Those who entered before January 1, 1966, were granted citizenship retrospectively, and those entering after March 25, 1971, were to be detected and deported under the law.

**8) Answer: d) None.**

**Explanation:**

The **Safe & Trusted AI initiative** under the **IndiaAI Mission** focuses on developing **indigenous AI tools** and frameworks for responsible AI development, rather than using global tools. It supports AI use in

both the **public and private sectors** and is managed under the **Ministry of Electronics and Information Technology (MeitY)**, not the Ministry of Science and Technology.

**9) Answer: d) None of the above.**

**Explanation:**

The **Musaned platform** is designed for **foreign domestic workers** in Saudi Arabia, not for Saudi citizens. Its primary function is **wage protection**, contract verification, and ensuring employer compliance with labor laws, rather than filing legal complaints, which are addressed through formal judicial processes. The platform supports Saudi Arabia's **Vision 2030** goals by ensuring transparency and security in the labor market.

**10) Answer: a) Only one.**

**Explanation:**

The **Chief Justice of India (CJI)** cannot be appointed for a second term, and the **principle of seniority** is not a constitutional mandate but a **convention** that has evolved over time, outlined in the **Memorandum of Procedure (MoP)**. Hence, **statement 3 is correct**, while the other two statements are incorrect.

**11) Answer: d) India.**

**Explanation:**

The **Five Eyes Intelligence Alliance** consists of the United States, Canada, the United Kingdom, Australia, and New Zealand. It focuses on signals intelligence and was established post-World War II. India is not a member of this alliance, which primarily involves intelligence sharing among these English-speaking countries.

**12) Answer: c) Comprehensive cost, including rent and capital interest.**

**Explanation:**

In the context of Minimum Support Prices (MSP), the **C2** cost represents the **comprehensive cost** that includes not only the **paid-out costs** (A2) and **unpaid family labor** (A2+FL) but also the **rent and interest on capital**. This is used as a reference benchmark to ensure fair compensation to farmers.

**13) Answer: a) 1 and 2.**

**Explanation:**

**Kaziranga National Park** is located entirely in **Assam** and is a **UNESCO World Heritage Site** known for its population of **one-horned rhinoceroses**. It has also been recognized as the **second-largest butterfly diversity hub** in India. However, it is not located in both Assam and Arunachal Pradesh, making statement 3 incorrect.

**14) Answer: b) 1, 3, and 4.**

**Explanation:**

The **Drugs Technical Advisory Board (DTAB)** is the highest statutory body advising on drug-related matters in India. It was established under the **Drugs and Cosmetics Act, 1940**, and is part of the **Central Drugs Standard Control Organization (CDSCO)**. However, it functions under the **Ministry of Health and Family Welfare**, not the Ministry of Chemicals and Fertilizers.

**15) Answer: c) 2 and 4.**

**Explanation:**

The **Battle of Walong** occurred during the **1962 Sino-Indian War**, not the Indo-Pak war. Indian forces held off a much larger Chinese army in **Walong**, located in **Arunachal Pradesh**, near the **McMahon Line**. This

battle marked India's only counteroffensive during the Sino-Indian War.

**16) Answer: a) 1 only.**

**Explanation:**

**Neutrinos** are elementary particles produced in **high-energy processes**, such as **nuclear reactions in stars**. They are difficult to detect because they rarely interact with matter, making statement 2 incorrect. The **Jiangmen Underground Neutrino Observatory (JUNO)** is being constructed in **China**, not the United States, making statement 3 incorrect. Neutrinos are also **electrically neutral**, contradicting statement 4.

**17) Answer: b) Recommending new drug prices.**

**Explanation:**

The **Drugs Technical Advisory Board (DTAB)** advises on drug-related technical matters, provides guidelines for drug approval, and assists in enforcing the **Drugs and Cosmetics Act**. However, the responsibility for **drug pricing** lies with the **National Pharmaceutical Pricing Authority (NPPA)**, not the DTAB.

**18) Answer: c) Cotton.**

**Explanation:**

**Cotton** is a **Kharif crop**, sown during the monsoon season and harvested in autumn. **Wheat, Gram, and Mustard** are all **Rabi crops**, sown in winter and harvested in spring.

**19) Answer: d) The alliance's origins trace back to codebreaking collaborations during World War II.**

**Explanation:**

The **Five Eyes Intelligence Alliance** originated from codebreaking collaborations between the **US** and **UK** during **World War II**, and later expanded to include

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**Canada, Australia, and New Zealand.** It focuses on **signals intelligence (SIGINT)**, and India is not a member.

**20) Answer: b) Men from “safe” countries.**

**Explanation:**

Under the Italy-Albania migration pact, only **men from “safe” countries** like **Bangladesh** and **Egypt** are sent to **Albania** for asylum processing. Vulnerable individuals, such as women, children, or those showing signs of illness or torture, are taken to **Italy**.

**21) Answer: a) 1 and 2 only**

**Explanation:**

Stratovolcanoes are tall, steep, cone-shaped volcanoes made primarily of layers of lava and ash. They are known for explosive eruptions due to the high viscosity of their magma. Hence, Statement 3 is incorrect because these volcanoes do not typically have calm eruptions.

**22) Answer: c) X-rays**

**Explanation:**

X-rays are used in radiographic techniques to estimate age by examining bone structure and growth plate closure. Other forms of radiation, like gamma rays, infrared radiation, and ultraviolet radiation, are not typically used for this purpose.

**23) Answer: d) 2 only**

**Explanation:**

Third-Party Litigation Funding (TPLF) allows a third party to fund a legal case in exchange for a share of the settlement. The Supreme Court of India has permitted TPLF with restrictions, such as prohibiting lawyers from funding their clients' cases. TPLF is not

regulated under the Representation of the People Act, 1951, making Statements 1 and 3 incorrect.

**24) Answer: b) 1 and 3 only**

**Explanation:**

BEML was established with the assistance of the Soviet Union and is involved in manufacturing equipment for mining and railways. However, it is not fully owned by the Indian government anymore, as the government has divested a significant portion of its stake, retaining only a minority share.

**25) Answer: b) 2, 3, and 4 only**

**Explanation:**

The India Mobile Congress (IMC) 2024 is co-hosted by the Department of Telecommunications (DoT) and the Cellular Operators Association of India (COAI). The theme is “The Future is Now,” focusing on 6G, AI, and quantum technology, and it is considered Asia's premier digital technology exhibition.

**26) Answer: a) Only one**

**Explanation:**

The Haber-Bosch process is crucial for large-scale fertilizer production and involves combining nitrogen and hydrogen under high pressure to produce ammonia. However, the process uses iron-based catalysts, not platinum-based catalysts, making Statement 2 incorrect.

**27) Answer: c) 1 and 2 only**

**Explanation:**

Ossification tests determine age by assessing bone development and can estimate age with a margin of error of up to two years. However, ossification rates can be influenced by external factors like climate and diet, making Statement 3 incorrect.

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

**Explanation:**

ANRF was operationalized in 2024 but under the **Ministry of Science & Technology**, not the Ministry of Education, making statement 1 incorrect. It aims to bridge the gap between academic research and industrial applications, and positioning India as a global leader in science and technology, making statements 2 and 3 correct. However, it is chaired by the **Prime Minister**, not the President, making statement 4 incorrect.

**29) Answer: a) Developing electric aviation technologies**

**Explanation:**

The **MAHA-EV Mission** does not focus on electric aviation technologies. Instead, it is focused on **EV batteries, power electronics, machines and drives (PEMD)**, and **charging infrastructure**, which are essential to support the transition to electric mobility.

**30) Answer: a) 1, 2, and 3 only**

**Explanation:**

The **Samarthak Vessel** is a multi-purpose vessel built by L&T Shipyard for the Indian Navy and is involved in functions like towing, launching targets, and operating autonomous vehicles. It is part of the **Make in India** initiative. However, it is designed for support operations, not primarily for offensive naval operations, making statement 4 incorrect.

**31) Answer: d) None**

**Explanation:**

All statements about the **Nile River** are correct. The Nile forms a delta as it flows into the **Mediterranean Sea**, and it has two principal tributaries: the **Blue Nile**

and **White Nile**. The **Nile Basin** includes regions of Kenya, Ethiopia, and Egypt.

**32) Answer: c) 1 and 2 only**

**Explanation:**

The **e-Migrate Portal** promotes safe and legal migration for Indian workers abroad and integrates with Digilocker for seamless document submission. However, it was launched by the **Ministry of External Affairs**, not the Ministry of Labor and Employment, making statement 3 incorrect.

**33) Answer: b) Catching the Super Heavy booster mid-air during its descent**

**Explanation:**

The **Mechazilla** structure is designed by SpaceX to catch the **Super Heavy booster** during its descent after launch. It uses mechanical arms, often called “chopsticks,” to perform this task. It is not involved in launching rockets or refueling Starship.

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

**Explanation:**

The **MAHA-EV Mission** focuses on **EV batteries, power electronics, and charging infrastructure**, so it does not solely focus on batteries and charging (making statement 1 incorrect). It supports domestic innovation to reduce import dependency and aligns with the long-term vision of achieving a **Viksit Bharat by 2047**, making statements 2 and 3 correct.

**35) Answer: b) Only two**

**Explanation:**

The **PMECRG** provides flexible budgets for early-career researchers (statement 1 is correct) and aims to position India as a leader in global scientific innovation (statement 3 is correct). However, it does

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not specifically focus on multidisciplinary research or global collaborations, making statement 2 incorrect.

**36) Answer: c) 1 and 3 only**

**Explanation:**

The **World Telecommunication Standardization Assembly (WTSA)** is held every four years to set global telecommunication standards, and it focuses on emerging technologies like **6G** and **AI**. The 2024 edition will be held in **New Delhi, India**, not Tokyo, making statement 2 incorrect.

**37) Answer: d) 1, 2, and 3**

**Explanation:**

All statements are correct. The **International Telecommunication Union (ITU)** was founded as the **International Telegraph Union** in 1865. It is now a specialized agency of the United Nations and plays a central role in setting **global telecommunication and ICT standards**.

**38) Answer: d) Dry weather and increasing marshland**

**Explanation:**

The declining production of water chestnuts in **Wular Lake** is primarily due to **dry weather** and the expansion of **marshland**, which negatively impacts the harvesting process and local livelihoods. These environmental factors have reduced the productive areas of the lake.

**39) Answer: c) Melting snow and glaciers**

**Explanation:**

**Roopkund Lake** is primarily fed by **melting snow and glaciers** from the surrounding Garhwal Himalayas. The lake relies on glacial meltwater, making it vulnerable to changes in climate and precipitation patterns.

**40) Answer: a) Member contributions from public funds**

**Explanation:**

The **Inter-Parliamentary Union (IPU)** is primarily funded through **member contributions** from public funds. Each member nation's parliament contributes to the IPU's budget, which finances its operations and activities.

**41) Answer: b) Only two**

**Explanation:**

Statements 1 and 2 are correct: **Tele MANAS** provides **24/7 toll-free** mental health support and operates in a **two-tier system** with initial counseling (Tier 1) and specialist consultations (Tier 2). Statement 3 is incorrect because Tele MANAS serves both **rural and urban areas** and is designed to be a **long-term initiative**.

**42) Answer: d) To intercept and destroy short- to medium-range ballistic missiles during their final flight phase**

**Explanation:**

The **THAAD (Terminal High Altitude Area Defense)** system is designed to intercept and destroy **short- to medium-range ballistic missiles** during their **final flight phase** (terminal phase). It is a defensive system used to neutralize missile threats before they reach their targets.

**43) Answer: a) Climate change, shifting precipitation patterns, and increased silting**

**Explanation:**

The primary reason for the shrinking of **Roopkund Lake** is **climate change**, which has caused **shifting precipitation patterns** and increased **silting** from

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moraine slides, reducing both the depth and surface area of the lake.

**44) Answer: c) It has a shorter range due to higher attenuation of the signal**

**Explanation:**

**X-band radar** has a shorter range due to the **higher attenuation** of its signal at higher frequencies. While it is effective for localized studies such as monitoring landslides and floods, its range is limited compared to lower frequency bands.

**45) Answer: b) 1 and 3 only**

**Explanation:**

The **IPU Assembly** is the main body that brings together parliamentarians to discuss global issues and make recommendations (Statement 1). It also addresses international problems (Statement 3). However, **budget and administrative matters** are handled by the **Governing Council**, not the Assembly (Statement 2).

**46) Answer: d) None**

**Explanation:**

All the statements are correct. **Water chestnuts** are harvested in **autumn** in Wular Lake, and the edible part is dried and ground into flour. They are rich in **potassium** and carbohydrates, while low in **sodium** and fat.

**47) Answer: a) 1 and 3 only**

**Explanation:**

**THAAD** uses a radar system to detect incoming missiles (Statement 1) and destroys them using **kinetic energy** rather than explosive warheads (Statement 3). Statement 2 is incorrect because

**THAAD** covers a **wider area** of defense compared to the **Patriot missile defense system**.

**48) Answer: b) Only two**

**Explanation:**

- Statement 1 is correct because auroras primarily occur near the poles, where Earth's magnetic field traps charged particles.
- Statement 2 is also correct since during strong solar activity, like solar flares and coronal mass ejections (CMEs), auroras can be visible at mid-latitudes due to geomagnetic storms.
- Statement 3 is incorrect because CMEs and solar flares increase the likelihood of auroras being visible rather than reducing it.

**49) Answer: c) Regulation of the export of Indian drugs**

**Explanation:**

The **Central Drugs Standard Control Organisation (CDSCO)** does not regulate the export of Indian drugs. Its primary functions include the approval of new drugs, overseeing clinical trials, and monitoring the quality of imported drugs, ensuring drug safety and compliance in India.

**50) Answer: c) Confirm the withdrawal of Israeli forces from southern Lebanon**

**Explanation:**

One of the primary roles of **UNIFIL** (United Nations Interim Force in Lebanon) is to confirm the withdrawal of Israeli forces from southern Lebanon following the 1978 invasion. This was a key part of the mandate established by the UN Security Council.