

General Studies

Current Affair Test (January-2024)

1. Answer: A

India holds a preeminent position in global tiger conservation efforts, harboring more than 70% of the world's wild tiger population, totaling a minimum of 3,167 tigers. The recent release of the 5th cycle of the All India Tiger Estimation 2022 summary report underscores India's commitment to tracking and preserving its tiger population. Hence, statement 1 is correct. In a noteworthy achievement, six tiger reserves have received Conservation Assured Tiger Standards (CA|TS) accreditation this year, contributing to a total of 23 accredited reserves in the country. Hence, statement 2 is not correct. Despite the positive growth rate of 6% per year in India's wild tiger numbers, challenges such as poaching and habitat fragmentation persist. The National Tiger Conservation Authority (NTCA) remains actively engaged in collaborative efforts with Forest Departments to address these challenges and safeguard crucial habitats and corridors for the thriving tiger population. Hence, statement 3 is not correct.

2. Answer: B

Statements 1 and 2 are correct. Attracting foreign direct investment (FDI) for infrastructure development is one of the objectives of the Make in India initiative. The initiative seeks to create a favorable investment climate and encourage multinational companies to set up manufacturing facilities in India, thereby boosting the country's infrastructure and industrial capacity. The Production Linked Incentive (PLI) scheme is a key component of the Make in India initiative, offering financial incentives to domestic manufacturers to boost production in various sectors. The scheme aims to enhance India's manufacturing capabilities, promote exports, and reduce the country's dependence on imports. Statement 3 is incorrect. A foreign company establishing a manufacturing plant in India under the Make in India initiative is not an example of portfolio investment but rather an example of foreign direct investment (FDI). Portfolio investment refers to investments made in financial assets, such as stocks and bonds, while foreign direct investment involves investing in tangible assets, such as establishing a manufacturing plant.

3. Answer: C

Credit-to-GDP gap is a measure used in macroeconomics and financial stability analysis to assess the potential buildup of systemic risk in the financial system. The credit-to-GDP gap is specifically used to evaluate the potential risks associated with excessive credit growth and its impact on the stability of the financial system. A widening credit-to-GDP gap can signal potential risks of financial instability, such as asset bubbles or banking

crises.

4. Answer: C

Statements 1 and 2 are correct. India has a large population and a high unemployment rate, making it a labor-surplus country. Over the years, Indian workers have been migrating to other countries for employment opportunities. According to the United Nations, India is one of the top labor-sending countries in the world. Migrant workers from India send a significant amount of money back home in the form of remittances, which are a major source of foreign exchange reserves for the country. According to the World Bank, India is one of the top recipients of remittances globally. These remittances contribute to the country's economic growth by increasing household income, stimulating domestic demand, and enabling investment in various sectors.

5. Answer: C

Statements 1 and 3 are correct. The Global South is a term used to describe a group of countries, primarily located in Africa, Asia, and Latin America, that are generally considered to be less economically developed than the countries of the Global North. These countries often face challenges such as poverty, inequality, and political instability. India, as the G20 president for the year 2023, has played a key role in giving a voice to the Global South by inviting the African Union as a guest to the G20 summit. This marks the first time that the African Union has been included in the G20 summit, providing a platform for African countries to voice their concerns and priorities at the high table of global governance. India's move is seen as a significant step towards promoting inclusive growth and addressing the challenges faced by developing countries. Statement 2 is incorrect. The Brandt Line divides the countries of Global North and the Global South. The Brandt Line was proposed by Willy Brandt in the 1980s. It is an imaginary line that divides the world into richer countries (mainly in the Northern Hemisphere) and poorer countries (mostly in the Southern Hemisphere). The line basically shows the socio-economic divide between northern countries and southern countries.

6. Answer: A

The 'T+1 settlement cycle' means that trades are cleared and funds exchanged one day after the trade execution. In the T+1 settlement cycle, the transaction is completed within one day of the trade being executed. This means that the transfer of funds and securities between the buyer and seller is completed within 24 hours, enabling faster settlement and reducing the risk of default.

7. Answer: C

Statements 1 and 2 are correct. Formaldehyde is a colorless, pungent gas that has been traditionally used as a preservative, including in the preservation of fish. However, its use as a food preservative has been banned in many countries due to its potential toxicity. Formaldehyde is found naturally in the environment, including in the atmosphere, cigarettes, and even in some foods like fruits and vegetables.

8. Answer: C

Mudiyettu is a ritual theater and dance drama of Kerala that enacts the mythological tale of a battle between the goddess Kali and the demon Darika. Hence, statement 1 is correct.

The ritual is a part of the bhagavathi or bhadrakali cult and is performed in Bhagavati temples, usually between February and May, after the harvest. Hence, statement 2 is correct.

The performance is done by members of the Marar and Kuruppu communities, who paint their faces and wear elaborate costumes and headgears.

It involves various characters such as Shiva, Narada, Darika, Kali, Daanavendra, Koyichaadar and Kooli .

The ritual ends with a victorious Kali entering the stage holding the head of Darika, followed by a song of praise to Shiva.

Mudiyettu is a UNESCO Intangible Cultural Heritage of Humanity and the second art form from Kerala after Kutiyattam. Hence, statement 3 is correct.

9. Answer: C

The electronic soil (eSoil) developed is a novel conductive cultivation substrate tailored specifically for hydroponic systems. Unlike traditional substrates like mineral wool, which are non-biodegradable and manufactured using energy-intensive processes, eSoil is composed of cellulose, a biopolymer, blended with a conductive polymer known as PEDOT (Poly(3,4-ethylenedioxythiophene)). Hence, statement 1 is correct.

Hydroponics is a method of growing plants in a water based nutrient rich solution in a soilless media. It does not use soil, instead the root system is supported using an inert medium such as perlite, rockwool, clay pellets, peat moss, or vermiculite. The fundamental is to allow the plants roots to come in direct contact with the nutrient solution, while also having access to oxygen, which is essential for proper growth. Hence, statement 2 is correct.

10. Answer: C

Prasar Bharati is India's largest public broadcasting agency. It is a statutory autonomous body set up by the Prasar Bharati Act in 1997 and comprises the Doordarshan Television Network and All India Radio, which were earlier media units of the Ministry of Information and Broadcasting. Hence, both statements 1 and 2 are correct.

11. Answer: A**Breakthrough Prizes:**

They were founded in 2012 by prominent Silicon Valley figures including Yuri Milner, Mark Zuckerberg, Priscilla Chan (from Facebook), and Sergey Brin (from Google). Hence, Statement 1 is not correct.

The prizes aim to honor outstanding individuals who have made transformative contributions in fundamental sciences, specifically in fields like life sciences, mathematics, and fundamental physics. Hence, Statement 2 is correct.

The Breakthrough Prizes are awarded in distinct categories, including life sciences (biology, genetics, medicine), fundamental physics, and mathematics.

12. Answer: A

The Organization of the Petroleum Exporting Countries (OPEC) is a permanent, intergovernmental organization, created at the Baghdad Conference in 1960. Hence, statement 1 is not correct.

It aims to manage the supply of oil in an effort to set the price of oil in the world market, in order to avoid fluctuations that might affect the economies of both producing and purchasing countries.

It is headquartered in Vienna, Austria. Hence, statement 2 is not correct.

Iran, Iraq, Kuwait, Saudi Arabia and Venezuela are its founding members. Hence, statement 3 is correct.

13. Answer: C

In north India, the Bhakti movement spread through Ramananda, regarded as in the direct line of descent from Ramanuja. Ramananda lived in Banaras fourteenth-fifteenth century and founded the Ramanandi sect, which worshipped Rama as the supreme deity. Hence, statement 1 is not correct.

14. Answer: D**PM Street Vendor's Atmanirbhar Nidhi (PM SVANidhi)**

- PM SVANidhi is a Special Micro-Credit Facility.
- PM SVANidhi was launched by the Ministry of Housing and Urban Affairs for providing affordable Working Capital loan to street vendors to resume their livelihoods that have been adversely affected due to Covid-19 lockdown.
- Under the Scheme, the vendors can avail a working capital loan of up to Rs. 10,000, which is repayable in monthly instalments in the tenure of one year.
- The scheme promotes digital transactions through cash back incentives.
- Beneficiaries: 50 lakh Street Vendors.

PM SVANidhi and SIDBI

- Small Industries Development Bank of India (SIDBI) is the Implementation Agency for PM Street Vendor's Atmanirbhar Nidhi (PM SVANidhi)
- SIDBI will also manage the credit guarantee to the lending institutions through Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE).

- SIDBI will leverage the network of lending Institutions like Non-Bank Finance Companies (NBFCs), Co-operative Banks etc., for the Scheme implementation.

15. Answer: A

IUCN has an observer status at the United Nations.

IUCN is the only international observer organization in the UN General Assembly with expertise in issues concerning the environment, specifically biodiversity, nature conservation and sustainable natural resource use.

16. Answer: A

About the Pegasus Project

- Pegasus is a type of malicious software or malware classified as a spyware that enables law enforcement and intelligence agencies to remotely and covertly extract” data “from virtually any mobile devices”
- Pegasus is designed to gain access to devices, without the knowledge of users, and gather personal information and relay it back to whoever it is that is using the software to spy.
- A zero-click attack helps spyware like Pegasus gain control over a device without human interaction or human error. Pegasus can infect a device without the target’s engagement or knowledge. So, all awareness about how to avoid a phishing attack or which links not to click are pointless.
- Pegasus was developed by the Israeli firm NSO Group that was set up in 2010 and since then NSO’s attack capabilities have become more advanced.

17. Answer: C

Pantoea Tagorei:

Researchers at Visva-Bharati University have discovered a new species of bacteria that could transform agricultural practices.

They named it *Pantoea Tagorei* after the famous Nobel laureate Rabindranath Tagore. Hence, option C is correct.

18. Answer: C

The Allahabad High Court recently ruled that a survey will be conducted for the Shahi Idgah, a three-domed mosque in Mathura. It is seeking appointment of a court commission to inspect the Shahi Idgah mosque that stands adjacent to the Krishna Janmabhoomi temple in Mathura. Hence, Statement 1 is correct.

The Places of Worship Act, 1991 was enacted to freeze the status of religious places of worship as they existed on August 15, 1947, and prohibits the conversion of any place of worship and ensures the maintenance of their religious character. Hence, Statement 2 is correct.

The Act does not apply to ancient and historical monuments, archaeological sites, and remains covered by the Ancient Monuments and Archaeological Sites and Remains Act, 1958. It also excludes cases that have already been settled or resolved and disputes that have been resolved by mutual agreement or conversions

that occurred before the Act came into effect. Hence, Statement 3 is correct.

19. Answer: D

Demand-Pull Inflation: Demand Pull inflation occurs when the demand for goods and services exceeds their supply. When the overall demand in the economy is high, consumers are willing to pay more for the available goods and services, leading to a general rise in prices. Hence, statement 1 is correct.

A booming economy with high consumer spending can create excess demand, putting upward pressure on prices.

Cost-Push Inflation: Cost-push inflation is driven by an increase in the production costs for goods and services. This can be caused by factors such as increased incomes, increased costs of raw materials, or disruptions in the supply chain. Hence, statement 2 is correct.

Structural inflation: This occurs when there is a mismatch between demand and supply, which leads to an increase in the general price level. This can happen due to factors such as a shortage of goods, an increase in population, or a decrease in productivity. Hence, statement 3 is correct.

Built-In or Wage-Price Inflation: This type of inflation is often described as a feedback loop between wages and prices. When workers demand higher wages, businesses may raise prices to cover the increased labor costs. This, in turn, prompts workers to seek higher wages, and the cycle continues. Hence, statement 4 is correct.

Collective bargaining by labor unions can result in higher wages, leading to increased production costs and subsequently higher prices for goods and services.

20. Answer: D

Recently, scientists have uncovered evidence of rapid evolution in a flowering plant found in Paris, France. The plant, identified as Field Pansy (*Viola arvensis*) is showing signs of self-pollination, a behaviour contradicting the conventional reliance on external pollinators.

The Field Pansy (*Viola arvensis*), is a common wildflower that can be found in many parts of Europe, Asia, and North America.

It belongs to the group of plants called angiosperms, which produce seeds inside a protective structure called a fruit. Hence, statement 1 is not correct.

The field pansy has evolved to self-pollinate, reducing its reliance on pollinators due to a decreasing availability of insects. Hence, statement 2 is not correct.

21. Answer: B

Substandard assets signify non-performing assets (NPAs) lingering for up to 12 months, displaying early signs of credit deterioration. Hence statement 1 is correct. Doubtful assets denote loans persistently classified as NPAs for 12 months, representing increased uncertainty and default risk. Hence statement 2 is correct. Loss assets indicate loans with identified losses

where some residual value remains, avoiding complete write-off. Hence statement 3 is incorrect. These classifications in banking help gauge the severity of credit quality deterioration and guide institutions in managing risk. Substandard assets signal initial concerns, doubtful assets mark a higher risk level, and loss assets acknowledge identified losses with potential recoverable value.

22. Answer: D

Huntington's disease is a neurodegenerative disorder primarily affecting brain cells that govern voluntary movement and memory. Involuntary movements, a hallmark of the disease, result from damage to the basal ganglia, disrupting coordination. Symptoms include difficulty swallowing (dysphagia), slurred speech, and loss of coordination (ataxia). Juvenile Huntington's disease, an early-onset form, affecting children and teenagers, is rarer than the adult-onset type, which manifests after age 30. The genetic mutation in the HTT gene leads to the abnormal huntingtin protein, crucial for nerve cell function. The malformed protein causes the destruction of neurons in the basal ganglia, impacting movement regulation, and the brain cortex, affecting cognitive functions. This progressive condition intensifies over time, making daily tasks increasingly challenging. Hence all the statements are correct.

23. Answer: A

Statement 1 is correct. The Indian Ocean Naval Symposium (IONS) is a voluntary initiative aimed at increasing maritime cooperation among the littoral states of the Indian Ocean Region. It was established in 2008 with the goal of building trust and confidence among the navies of the region, as well as enhancing maritime security and cooperation. Statements 2 and 3 are incorrect. China is not a member of IONS. Currently, it has 24 member states and 8 observer states, primarily focusing on countries bordering the Indian Ocean. IONS is not intended to be a military alliance or a collective defense pact. Its focus is on non-traditional security challenges and collaborative efforts like combating piracy, search and rescue, disaster relief, and information sharing. It promotes communication and understanding rather than forming a military bloc.

24. Answer: C

Statements 1 and 3 are correct. The Prime Minister's Development Initiative for North East (PM-DevINE) aims to accelerate infrastructure and social development projects in the Northeastern region. It seeks to promote balanced and inclusive growth by addressing infrastructure gaps, improving connectivity, and boosting social development in the region. Tourism and connectivity sectors are among the focus areas of PM-DevINE. The scheme aims to develop sustainable tourism infrastructure, improve transport connectivity, and enhance digital connectivity in the Northeastern region. Other focus areas of the scheme include agriculture, education,

health, and skill development. Statement 2 is incorrect. PM-DevINE is not a centrally sponsored scheme with 50% Central and 50% State funding. It is a Central Sector scheme with 100% funding from the Central government.

25. Answer: A

Statement 1 is correct. Magnetars are a type of neutron star that possess ultra-strong magnetic fields, which can be hundreds of millions of times stronger than the magnetic field of Earth. Neutron stars are the collapsed cores of massive stars that have undergone supernova explosions. Magnetars are a rare sub-class of neutron stars that have extremely powerful magnetic fields. Statement 2 is incorrect. Magnetars are known for their rapid rotation, not slow rotation. They often exhibit high degrees of spin, with some magnetars rotating hundreds of times per second. This rapid rotation, combined with their strong magnetic fields, can produce intense bursts of energy, including gamma-ray bursts and X-ray bursts.

26. Answer: A

Statement 1 is correct. Technology-driven governance is one of the core principles of Mission Karmayogi. The program aims to leverage technology to deliver training and capacity-building programs to civil servants, enabling them to enhance their skills and performance. The iGOT Karmayogi digital platform is a key component of this approach. Statement 2 is incorrect. iGOT is not primarily focused on performance appraisal. While the platform may offer some resources or training modules related to performance management principles and best practices, its core function lies in capacity building and skill development for civil servants.

27. Answer: B

Statement 1 is incorrect. Gati Shakti Vishwavidyalaya is a university focused on the development of infrastructure and transportation in India. Its programs are centered around engineering, planning, and management of infrastructure projects. It subsumes the previously-existing National Rail and Transportation Institute (NRTI). It aims to create best in class manpower and talent for the entire transportation and logistics sectors. GSV is a "first of its kind" university aiming to fulfill the mandate of the National Developmental Plans (PM Gati Shakti National Master Plan 2021 and National Logistics Policy 2022) across railways, shipping, ports, highways, roads, waterways and aviation etc. Statement 2 is correct. Disaster management has been included in the training programs for railway officers. According to recent reports, disaster management has become an integral part of railway officers training, included in both induction courses and mid-career training programs. This move aims to enhance the safety and preparedness of railway personnel in responding to emergency situations. The training includes topics such as disaster risk assessment, emergency preparedness, and crisis management.

28. Answer: B

Recently, the researchers have developed knittable aerogel fiber based on polar bear fur structure. Aerogel fiber is a new type of functional clothing fiber with excellent thermal insulation, moisture absorption and breathability. It has unique properties, such as high porosity, low density and low thermal conductivity. It is an ideal material for thermal insulation. The fiber has exceptional thermal and mechanical properties and is washable, dyeable and durable. It is also suitable for knitting or weaving. The fiber is made using aerogel, a thermal insulation material that's mainly used in the aerospace industry. The resulting fiber is ultralight and coated with polyurethane. It can protect wearers from the cold at a fraction of the thickness needed for conventional sweaters or down jackets. Hence, statement 2 is not correct.

29. Answer: C

Microbiome refers to the collection of bacteria, fungi, viruses, algae, protozoa and viruses present in a particular location, such as the human eye. The microbiome is a collection of microorganisms that live in a particular environment. Microbes are so small that they can only be seen with a microscope, but they contribute significantly to human health and wellness. In humans, the microbiome is often used to describe the microorganisms that live in or on a specific part of the body, such as the skin or gastrointestinal tract. The human body contains around 39 trillion bacteria. Hence, both statements are correct.

30. Answer: B

A credit rating involves assessing the creditworthiness of a borrower in a general context or in relation to a specific financial obligation. This evaluation is applicable to various entities seeking to borrow funds, including individuals, corporations, state or provincial authorities, and sovereign governments.

The assessment of an instrument's creditworthiness encompasses both qualitative and quantitative analyses, making credit rating a complex process that goes beyond a simple mathematical calculation. Credit Rating Agencies (CRAs) are organizations tasked with rating debtors based on their capacity to repay interests and loan amounts punctually, as well as the likelihood of default. CRAs play a crucial role by offering independent research-based opinions on the issuer's ability and willingness to fulfill debt service obligations, essentially assigning a probability of default to a particular instrument.

In India, the establishment of credit rating agencies dates back to the latter part of the 1980s. The regulation of CRAs in the country falls under the SEBI (Credit Rating Agencies) Regulations, 1999, as stipulated by the Securities and Exchange Board of India Act, 1992.

CARE Ratings

- Established in 1993, Credit Analysis and Research

Limited Ratings (CARE Ratings) is a credit rating company.

- It receives support from Canara Bank, Unit Trust of India (UTI), Industrial Development Bank of India (IDBI), and various other financial institutions.
- CARE Ratings is recognized as the second-largest credit rating company in India.
- The company is headquartered in Mumbai.

31. Answer: B

Statement 1 is correct. The Bill aims to streamline the registration process for periodicals by eliminating the need for physical interaction with local authorities. Applicants can now submit all necessary documents and information electronically through a designated online portal, reducing administrative burdens and delays. Statements 2 and 3 are incorrect. The Bill does not specifically address pre-publication censorship, which is not practiced in India. The Press and Registration of Periodicals Bill 2023 does not propose the creation of a new regulatory body like the Media Accreditation Commission. The bill primarily focuses on revamping the registration process and penalties for non-compliance with the regulations.

32. Answer: B

Statements 1 and 3 are correct. The Green Industrial Strategy aims to transform various industries – energy, transportation, manufacturing, etc. – to become more environmentally friendly and technologically advanced. This involves promoting renewable energy sources like solar and wind power, developing cleaner production processes, and creating new green jobs. Ethanol blending with gasoline (usually E10 or E20) is included in India's Green Industrial Strategy as a way to reduce carbon emissions from transportation. Statement 2 is incorrect. While India's Green Industrial Strategy incentivizes the shift from fossil fuels to renewables, it doesn't offer full subsidies. Instead, it uses a combination of mechanisms like: Production-Linked Incentive (PLI), Tax breaks, green bonds, etc.

33. Answer: C

1. Higher Borrowing Costs: When a country's credit rating is downgraded, it indicates an increased risk of default to investors. This makes them demand higher interest rates on loans they provide to the government and businesses in that country. As borrowing becomes more expensive, it can hinder government spending, infrastructure development, and private sector investment, ultimately impacting economic growth.
2. Reduced foreign direct investment (FDI): Investors seeking stable and secure investment destinations are less likely to invest in a country with a lower credit rating. This can lead to a decline in foreign direct investment, which can impact economic growth, job creation, and technology transfer.
3. Currency Depreciation: A credit rating downgrade

can also lead to a loss of confidence in the country's economy, which can put downward pressure on its currency. This is because investors may be more likely to sell the currency and invest in assets from countries with higher credit ratings. However, a downgrading of a country's sovereign credit rating will lead to reduce in investor's confidence as investors may become less confident in the country's ability to meet its financial obligations.

34. Answer: C

Statements 1 and 3 are correct. The Palna Scheme focuses on establishing safe and reliable crèches, primarily in Anganwadi centres, to provide affordable childcare for working mothers, particularly those from the unorganized sector. The Ministry of Women and Child Development (MWCD) is the central government agency responsible for planning, coordinating, and implementing the Palna Scheme across India. They work in collaboration with state governments and other stakeholders to set up and manage the crèches. Statement 2 is incorrect. The Palna Scheme does not specifically provide financial assistance to orphaned children.

35. Answer: B

Statement 1 is incorrect. DAY-NRLM's key feature is the formation of Self-Help Groups (SHGs), not Village Development Committees. Statements 2, 3 and 4 are correct. Microfinance and credit linkage for income-generating activities are critical components of DAY-NRLM. The mission provides access to financial services to rural poor households through SHGs, facilitating their engagement in various economic activities. DAY-NRLM addresses both demand and supply-side issues in financial inclusion. It aims to increase rural households' access to financial services while improving the capacity of financial institutions to serve them effectively. The Ministry of Rural Development (MoRD) is responsible for implementing DAY-NRLM.

36. Answer: D

Justification: Statement 1: In India, the minerals are classified as minor minerals and major minerals. Central Government by notification in the Official Gazette declares minerals to be a minor or major mineral. The major/minor classification has nothing to do with the quantum /availability of these minerals, though it is correlated with the relative value of these minerals. Further, this classification is based more on their end use, rather than level of production, level of mechanization, export and import etc. (e.g. Sand can be a major mineral or a minor mineral depending on where it is used; same is the case for limestone.) Major minerals are those specified in the first schedule appended in the Mines and Minerals (Development and Regulation) Act, 1957 (MMDR Act 1957) and the common major minerals are Lignite, Coal, Uranium, iron ore, gold etc. It may be noted that there is no official definition for "major minerals" in the MMDR Act. Hence, whatever is not declared as a "minor mineral" may be treated as

the major mineral. Major minerals are exploited by the Centre, and minor by the State.

37. Answer: B

Study the gravitational pull of Earth on Apophis

38. Answer: B

- The 1st statement is incorrect.

About Guru Gobind Singh Ji

- He is tenth Sikh Gurus, his birth anniversary is commemorated based on the Nanakshahi calendar.
- He became the Sikh guru at the age of nine, following the demise of his father, Guru Tegh Bahadur, the ninth Sikh Guru.
- He fought against the Mughals in the battle of Muktsar in 1705.
- He also founded the principles of Khalsa or the Five 'K's.

The Five K's

Kesh (uncut hair),

Kanga (wooden comb),

Kara (iron or steel bracelet),

Kirpan (dagger)

Kachera (short breeches).

- These were the five articles of faith that a Khalsa must always adorn.

39. Answer: B

Statements 1 and 3 are correct. SVEEP is a flagship program of the Election Commission of India (ECI) aimed at enhancing voter education and electoral participation in India. It recognizes the significance of youth involvement in shaping the democratic landscape and implements targeted efforts to educate and mobilize young voters. Statement 2 is incorrect. SVEEP does not provide information about specific candidates, parties, or election issues, but rather focuses on voter education and awareness about the electoral process.

40. Answer: C

Statements 1 and 3 are correct. Camelids are large animals that have long necks, slender legs, and a hump (or humps) on their back. They include camels, llamas, alpacas, guanacos, and vicunas. Camelids are a family of mammals belonging to the Camelidae family. They have a three-chambered stomach, split upper lips allowing separate mobility, and elliptical red blood cells, setting them apart from other mammals. They are usually found in herds. They are instrumental in achieving Sustainable Development Goals (SDGs) by supplying milk and meat for fighting hunger as well as fiber for clothing and shelter. They are known to survive in harsh conditions. Statement 2 is incorrect. Camelids are primarily herbivorous. They have a unique digestive system that allows them to digest tough, fibrous plants that other animals cannot eat.

41. Answer: B

Statements 1 and 3 are correct. The Jnanpith Award is considered the highest literary honor in India, and the Sahitya Akademi Award is generally considered one of

the most prestigious, after the Bharatiya Jnanpith. To be eligible for the award, the author must be an Indian national or a person of Indian origin. Statement 2 is incorrect. The Sahitya Akademi Awards are solely based on literary merit. Popularity and commercial success are not considered in the selection process. The focus is on originality, creativity, and the book's contribution to the specific language and literature.

42. Answer: B

Statement 1 is incorrect. While some rare earth elements (REEs) may be found in remote and inaccessible locations, this is not the primary reason why they are considered "rare." The difficulty in extracting and separating REEs from other minerals due to their chemical properties is the main reason for their rarity. Statement 2 is correct. Renewable energy technologies like solar panels and wind turbines rely heavily on REEs. These elements are crucial for components like magnets in wind turbine generators and for the photovoltaic cells in solar panels. Permanent magnets made with REEs like neodymium and dysprosium are highly efficient and essential for compact and powerful wind turbines. Similarly, certain REEs like gallium and indium are used in the thin-film solar cells found in some solar panels.

43. Answer: C

Statement 1 is correct: Kuppali Venkatappa Puttappa, popularly known by the pseudonym 'Kuvempu' was the first among the Kannada writers to be awarded the prestigious Jnanpith Award for his work 'Sri Ramayana Darshanam'. He wrote popular novels like 'Kaanuru Heggadati' and 'Malegalalli Madumagalu'.

Statement 2 is correct: The award carries a cash prize of Rs five lakh and a silver medal. Kuvempu made the distinction between mati (reason and rationality) and mata (sectarian belief or dogmatic knowledge based on false understanding). Mata is illusionary and misleading and mati is the power of intelligence.

Statement 3 is correct: The Rashtrakavi Kuvempu Trust instituted this national annual literary award in 2013 to recognise litterateurs who had contributed to any language recognised by the constitution of India. Shirshendhu Mukyopadhyaya, the renowned Bengali writer and novelist, is the recipient of the 2023 Kuvempu Rashtriya Puraskar.

44. Answer: C

In a significant development, the Indian government has decided to extend the deadline for the completion of Phase 1 of the Bharatmala project by six years now set for the financial year 2027-28. Originally, the ambitious road development initiative was scheduled to conclude by the financial year 2021-22.

About Bharatmala Pariyojana:

Bharatmala Pariyojana is an umbrella program for the highways sector that focuses on optimising the efficiency

of freight and passenger movement across the country by bridging critical infrastructure gaps.

Phase-I of Bharatmala Pariyojana includes the development of:

Economic Corridor – the construction of 9000 km of Economic Corridors will be undertaken by the central government. Hence, statement 1 is correct.

Feeder Route or Inter Corridor – The total length of the roads, which fall under the Feeder Route or Inter Corridor category, is a whopping 6000 km.

National Corridor Efficiency Improvement – 5000 km of roads constructed under the scheme will fall in the category of National Corridor for better connection between roads.

Border Road and International Connectivity – the project has provision for constructing 2000 km of roads that fall in the Border Road or International Connectivity category. Hence, statement 2 is correct.

Port Connectivity and Coastal Road – To connect the areas that are dotted along the shorelines and important ports.

28 cities have been identified for Ring Roads; 125 choke points and 66 congestion points have been identified for their improvements. Hence, statement 3 is correct.

The main agencies tasked with the construction are the National Highways Authority of India, National Highway and Industrial Development Corporation and state public works departments.

45. Answer: A

Reserve Bank of India (RBI) Governor Shaktikanta Das announced the launch of UPI Tap and Pay feature among other new digital payment functionalities at the Global Fintech Fest in September this year.

Statement 1 is correct: The feature utilises near-field communication (NFC) technology to capture details about a payee's UPI ID or a Virtual Payment Address (VPA) without capturing a quick response (QR) code via a camera. Mobiles and devices, that have the NFC capability, can use the service.

Statement 2 is incorrect: If a user enables the UPI LITE account for the tap feature, transactions with a value of less than Rs 500 will be processed through UPI LITE. Transactions of over 500 will require a UPI PIN. However, to expand the service of UPI Tap and Pay, merchants will need to have UPI Smart QRs or tags, which are certified for NFCs.

46. Answer: D

SLIM is a spacecraft built and launched by the Japan Aerospace Exploration Agency (JAXA) on September 7, 2023, from the Tanegashima spaceport. It weighed only 590 kg at launch, which is almost one-seventh of Chandrayaan 3, which weighed 3,900 kg at launch. SLIM was launched together with XRISM, a next-generation X-ray space telescope, onboard an H-2A

rocket. JAXA had planned to launch SLIM and XRISM together, so delays in readying XRISM pushed SLIM's launch date from 2021 to 2023. JAXA launched SLIM only two weeks after the surface component of India's Chandrayaan 3 mission succeeded and Russia's Luna 25 spacecraft failed. SLIM will also mark the second Japanese attempt this year to soft-land on the moon, the first one being the HAKUTO-R M1 lander.

47. Answer: C

Statement 1 is correct: The Jal Jeevan Mission was launched by the Ministry of Jal Shakti. The vision of the mission is that every rural household has a drinking water supply in adequate quantity of prescribed quality on a regular and long-term basis at affordable service delivery charges leading to improvement in the living standards of rural communities.

Statement 2 is correct: Jal Jeevan Mission was launched to assist, empower and facilitate:

States/ UTs in the planning of participatory rural water supply strategy for ensuring potable drinking water security on a long-term basis to every rural household and public institution, viz. GP buildings, Schools, Anganwadi centres, Health centres, wellness centres, etc.

States/ UTs for creation of water supply infrastructure so that every rural household has a Functional Tap Connection (FHTC) by 2024 and water in adequate quantity of prescribed quality is made available on a regular basis. States/ UTs to plan for their drinking water security.

48. Answer: B

Statement 1 is correct: The implementation of the One Nation One Ration Card (ONORC) plan is one of the top priorities of the Department of Food & Public Distribution, Government of India to provide an option to all eligible ration card holders/beneficiaries covered under NFSA to access their entitlements from anywhere in the country.

Statement 2 is incorrect: Beneficiaries can quote either their ration card number or the Aadhaar number to any Fair Price Shop dealer across the country. Anyone in the family, who has seeded Aadhaar in the ration card can undergo authentication and lift the ration. There is no need to share or carry the ration card or Aadhaar card with a ration dealer to avail of the benefit. Beneficiaries can undergo Aadhaar authentication by using their fingerprints or iris-based identification.

Statement 3 is correct: If the beneficiary took some foodgrains from any fair price shop, the ONORC system also allows their family members back home to claim the balance of foodgrains on same the ration card. Apart from this, ONORC will also give the beneficiaries the opportunity to choose their own ration dealer.

49. Answer: A

The Prime Minister, Shri Narendra Modi applauded

the artists performing at Madhya Pradesh's Tansen Festival for entering the Guinness Book of World Records.

Statement 1 is incorrect: Tansen Samaroh or Tansen Sangeet Samaroh is celebrated every year in the month of December in Gwalior district, Madhya Pradesh.

It is a 5 day musical extravaganza. Artists and music lovers from all over the world gather here to pay tribute to the Great Indian Musical Maestro Tansen. The event is organised near the tomb of Tansen by the Academy of the department of culture, Government of Madhya Pradesh. Artists from all over India are invited to deliver vocal and instrumental performances. Tansen Samaroh is organised jointly by Ustad Alauddin Khan Kala Evam Sangeet Academy and Department Of Culture, Govt. of Madhya Pradesh.

Statement 2 is correct: This is the 99th edition of Tansen Festival and it celebrates the 'City Of Music' tag given to Gwalior by UNESCO.

The city of Gwalior in Madhya Pradesh was added to UNESCO's Creative Cities Network (UCCN) on November 1 for its "strong commitment to harnessing culture and creativity".

50. Answer: B

Fresh formal jobs creation falls 10% to 9.06 mn in 2023: EPFO data

Statement 1 is incorrect: The Employees' Provident Fund Organisation (EPFO) payroll data does not reflect a clear picture of employment generation in the country as it forms only a minuscule proportion of the labour force in the country.

"EPFO data only shows the extent of formalisation of the workforce, which in turn means as many people (under the EPFO) will be getting social security benefits."

Statement 2 is correct:

The objective of The Periodic labour force survey PLFS is primarily twofold:

- to estimate the key employment and unemployment indicators (viz. Worker Population Ratio, Labour Force Participation Rate, Unemployment Rate) in the short time interval of three months for the urban areas only in the 'Current Weekly Status' (CWS).
- to estimate employment and unemployment indicators in both 'Usual Status' (ps+ss) and CWS in both rural and urban areas annually.

51. Answer: B

Recently, the World Health Organization (WHO) added the R21/MatrixM malaria vaccine, developed by Oxford University and manufactured by Serum Institute of India, to its list of prequalified vaccines. The R21/Matrix-M vaccine is a malaria vaccine recommended by the World Health Organization (WHO) to protect children from malaria in at-risk countries. The vaccine targets the first form of the malaria parasite to enter the body after a person is bitten by an infected mosquito. Hence, statement 1 is correct.

The vaccine is not administered orally, but rather through intramuscular injection. It is the first malaria vaccine to reach the WHO's target of 75% efficacy. Hence, statement 2 is not correct. The R21 vaccine is the second malaria vaccine recommended by the WHO, following the RTS,S/AS01 vaccine, which received a WHO recommendation in 2021. Hence, statement 3 is correct.

52. Answer: A

Recently, the Namdapha Flying Squirrel has been found resurfaces in Arunachal Pradesh (Rediscovery after 42 Years). The Namdapha flying squirrel (*Biswamoyopterus biswasi*) is a nocturnal and arboreal flying squirrel that is endemic to Arunachal Pradesh. The species is known from a single specimen collected in Namdapha National Park in 1981. Hence, statement 1 is correct.

It is listed as critically endangered by the IUCN. It is among the 25 "most wanted lost" species that are the focus of Global Wildlife Conservation's "Search for Lost Species" initiative. Hence, statement 2 is not correct.

The Namdapha Flying Squirrel is not hunted specifically for medicines. It is primarily hunted for its meat, which is considered a delicacy by the local tribes residing in the region. The hunting of this squirrel for food poses a threat to its population and conservation efforts, as it is a species of conservation concern. Hence, statement 3 is correct.

53. Answer: A

The Rajya Sabha recently approved the Chief Election Commissioner and Other Election Commissioners (Appointment, Conditions of Service and Term of Office) Bill, 2023, which outlines the procedures for appointing the Chief Election Commissioner (CEC) and Election Commissioners (EC).

Key Features:

- The Bill replaces the Election Commission (Conditions of Service of Election Commissioners and Transaction of Business) Act, 1991.
- It addresses the appointment, salary, and removal of the CEC and ECs.

Appointment Process:

- The CEC and ECs will be appointed by the President upon the recommendation of a Selection Committee. Hence, statement 1 is not correct.
- The Selection Committee will consist of the Prime Minister, a Union Cabinet Minister, and the Leader of Opposition/leader of the largest opposition party in Lok Sabha. Hence, statement 2 is correct.
- Recommendations of the Selection Committee will be valid even when there is a vacancy in this Committee.

Changes in Salary and Conditions:

- The salary and conditions of service of the CEC and ECs will be equivalent to that of the Cabinet Secretary.
- Under the 1991 Act, it was equivalent to the salary

of a Supreme Court Judge. Hence, statement 3 is not correct.

54. Answer: A

Asian Development Bank(ADB):

ADB is a regional development bank established in 1966 with the objective of promoting social and economic development in Asia and the Pacific. Hence, statement 1 is not correct.

It has 68 members; 49 are from within Asia and the Pacific and 19 outside.

India is a founding member. Hence, statement 2 is correct.

ADB assists its members and partners by providing loans, technical assistance, grants, and equity investments to promote social and economic development.

As of 31st December 2022, ADB's five largest shareholders are Japan and the US (each with 15.6% of total shares), China (6.4%), India (6.3%), and Australia (5.8%). Hence, statement 3 is not correct.

It is headquartered in Manila, Philippines.

55. Answer: D

- A Truth and Reconciliation Commission, also known as a 'truth and justice commission' or simply, a 'truth commission', is an official mechanism to not just acknowledge, but also reveal, wrongdoings by a government or sometimes non-state actors. Hence, Statement 1 is correct.
- The truth commission is one that is focused on the past, rather than in ongoing events.
- It investigates a pattern of events that took place over a period of time.
- The commission engages directly and broadly with the affected population, gathering information on their experiences. Hence, Statement 2 is correct.
- It is a temporary body, with the aim of concluding with a final report.
- Commission is officially authorized or empowered by the state under review.
- The two best known and most consequential commissions are considered to be set up in South Africa, Australia and Canada.
- In India's neighborhood, truth commissions have been set up in Sri Lanka and Nepal. Hence, Statement 3 is correct.

56. Answer: D

Food and Agriculture Organisation (FAO) is a specialised agency of the United Nations that leads international efforts to defeat hunger.

World Food Day is celebrated every year around the world on 16th October. The day is celebrated to mark the anniversary of the founding of the FAO in 1945.

It is one of the UN food aid organisations based in Rome (Italy).

Initiatives Taken:

Globally Important Agricultural Heritage Systems (GIAHS).

Monitors the Desert Locust situation throughout the world.

The Codex Alimentarius Commission or CAC is the body responsible for all matters regarding the implementation of the Joint FAO/WHO Food Standards Programme.

The International Treaty on Plant Genetic Resources for Food and Agriculture was adopted by the Thirty-First Session of the Conference of the FAO in 2001.

Flagship Publications:

- The State of World Fisheries and Aquaculture (SOFIA).
- The State of the World's Forests (SOFO).
- The State of Food Security and Nutrition in the World (SOFI).
- The State of Food and Agriculture (SOFA).
- The State of Agricultural Commodity Markets (SOCO).

Hence, option D is correct.

57. Answer: C

About Web Browser:

The web browser is an application software to explore www (World Wide Web).

It provides an interface between the server and the client and requests to the server for web documents and services. Hence, statement 1 is correct.

It works as a compiler to render HTML (Hypertext Markup Language) which is used to design a webpage. Hence, statement 2 is correct.

Whenever we search for anything on the internet, the browser loads a web page written in HTML, including text, links, images, and other items such as stylesheet and JavaScript functions.

Google Chrome, Microsoft Edge, Mozilla Firefox, and Safari are examples of web browsers. Hence, statement 3 is correct.

58. Answer: A

Baboons are Old World monkeys that are part of the genus Papio.

Papio anubis and Papio hamadryas are both species of baboons. Papio anubis is the most broadly distributed baboon species, ranging through most of central sub-Saharan Africa. Papio hamadryas is found on the African continent in the area of the southern Red Sea, in Ethiopia, Somalia, and Eritrea. Hence, statement 1 is correct.

The IUCN Red List rates them "Lower Risk, Least Concern." Hence, statement 2 is not correct.

59. Answer: D

Kala-Azar:

Visceral leishmaniasis commonly known as kala-azar, is a slow-progressing indigenous disease caused by a protozoan parasite of genus Leishmania. Hence, statement 1 is correct.

It is also known as Black Fever or Dumdum Fever. Hence, statement 2 is correct.

In India, Leishmania donovani is the only parasite causing this disease. Hence, statement 3 is correct.

60. Answer: B

About International Labor Organization:

It is the only tripartite United Nation (UN) agency. It brings together governments, employers and workers of 187 member States (India is a member), to set labour standards, develop policies and devise programmes promoting decent work for all women and men. Hence, statement 1 is correct.

It received the Nobel Peace Prize in 1969.

It was established in 1919 by the Treaty of Versailles as an affiliated agency of the League of Nations and became the first affiliated specialized agency of the UN in 1946. Hence, statement 2 is not correct.

It is headquartered in Geneva, Switzerland. Hence, statement 3 is correct.

61. Answer: B

Recently, the NASA has unveiled an image of the Christmas Tree Galaxy Cluster, situated 4.3 billion light-years away, captured by the James Webb Space Telescope. The Christmas Tree Galaxy Cluster is a composite image that combines visible light from Hubble and infrared light from James Webb Space Telescope. The image shows the MACS0416 galaxy cluster, which is about 4.3 billion light-years from Earth.

James Webb Space Telescope is the result of an international collaboration between NASA, the European Space Agency (ESA) and the Canadian Space Agency which was launched in December 2021. Hence, statement 1 is not correct.

It is currently at a point in space known as the Sun-Earth L2 Lagrange point, approximately 1.5 million km beyond Earth's orbit around the Sun. The Lagrange Point 2 is one of the five points in the orbital plane of the Earth-Sun system. Hence, statement 2 is correct. It's the largest, most powerful infrared space telescope ever built. It's the successor to Hubble Telescope. It can see backwards in time to just after the Big Bang by looking for galaxies that are so far away that the light has taken many billions of years to get from those galaxies to our telescopes. It will examine every phase of cosmic history from the Big Bang to the formation of galaxies, stars, and planets to the evolution of our own Solar System. Hence, statement 3 is correct.

62. Answer: B

The term greenwashing was first used in 1986 by Jay Westerveld, an American environmentalist and researcher. Greenwashing is the practice in which firms and governments mark all kinds of activities as climate-friendly, as something that would lead to emissions reduction, or avoidance of emissions. Developed countries are often accused of greenwashing their normal business investments in developing countries by highlighting

climate co-benefits of the financial flows, sometimes with very little justification. Greenwashing can degrade customer satisfaction, erode brand loyalty and potentially affect repeat purchases. Several multinational corporations, including oil giants like Shell and BP, and Coca Cola have faced accusations of greenwashing. Hence, both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I.

63. Answer: B

Bihar Chief Minister Nitish Kumar recently launched a Rs 72-crore development plan for Goddess Sita's birthplace at Punaura Dham in Sitamarhi. Punaura Dham is a Hindu pilgrimage temple in the Sitamarhi district of Bihar. Hence, statement 1 is not correct.

The destination of Punaura Dham has been recently included under PRASHAD Scheme of the Ministry of Tourism. Punaura Dham, considered to be the birthplace of Hindu Goddess Sita. The shrine compound has a Ram Janki temple, a pond called Sita Kund and a hall. Hence, statement 2 is correct.

64. Answer: C

NASA's new satellite to hourly measure air pollution hourly has shown significant progress and now the space agency officials are already thinking about ways to extend its life. TEMPO is NASA's first Earth-observation satellite in geostationary orbit and has developed further from previous polar-orbiting satellites provided daily observations to provide 10 to 12 daily scans. TEMPO is a space-based ultraviolet-visible spectrometer designed to monitor air pollution across greater North America. It provides high-resolution, hourly data on atmospheric pollutants like ozone, nitrogen dioxide, and formaldehyde. Hence, all statements are correct.

65. Answer: A

Recently, the Parliamentary Committee questioned the accuracy of the Union Animal Husbandry Ministry's data on the deaths of over two lakh cattle and buffaloes due to lumpy skin disease in 2022 and 2023. Lumpy skin disease (LSD) is a viral disease that affects cattle and water buffalo. It is caused by the lumpy skin disease virus (LSDV), which is a member of the Poxviridae family. Hence, statement 1 is not correct.

LSD infects cattle and water buffalo mainly through vectors such as blood-feeding insects. Signs of infection include the appearance of circular, firm nodes on the animal's hide or skin that look similar to lumps. Infected animals immediately start losing weight and may have fever and lesions in the mouth, along with a reduced milk yield. Other symptoms include excessive nasal and salivary secretion. Pregnant cows and buffaloes often suffer miscarriage and, in some cases, diseased animals can die due to it as well. Hence, statement 2 is correct.

LSDV is not a zoonotic virus, meaning the disease

cannot spread to humans. This skin disease is transmitted by blood-feeding insects, such as certain species of flies and mosquitoes or ticks. It is characterized by fever, nodules on the skin, mucous membranes and internal organs, emaciation, enlarged lymph nodes and sometimes death. The first case of LSD in India was reported in Gujarat in May 2022. There is no treatment for the virus, so prevention by vaccination is the most effective means of control. Hence, statement 3 is not correct.

66. Answer: C

The Large Magellanic Cloud (LMC) is an irregular satellite galaxy that orbits the Milky Way every 1,500 million years. It is one of the closest galaxies to Earth. It is about 163,000 light-years away from the earth and is visible to the naked eye in the Southern Hemisphere. The LMC and the Small Magellanic Cloud (SMC) are two irregular galaxies that orbit the Milky Way. The Magellanic Clouds share a gaseous envelope and lie about 22° apart in the sky near the south celestial pole. The LMC is rich in dark matter, which makes its mass considerably larger. The interaction of the LMC with the Milky Way is creating new stars. The Magellanic Clouds are named after the Portuguese explorer Ferdinand Magellan, who observed them during his voyage. Hence, both statements are correct.

67. Answer: C

Photoreception is the biological process by which photoreceptors in the eye detect and convert light into electrical signals that the brain interprets as vision. Photoreceptors are specialized cells in the retina that absorb light waves and convert them into electrical signals. There are two types of photoreceptors, Rods and Cones. Rods detect dim light (scotopic vision) and are used for night vision while cones mediate daylight vision and color perception (photopic vision). Humans have three distinct color-sensing cones—for red, green and blue light. Diurnal creatures have cone-rich retinas for clear daylight vision, while nocturnal animals use rod cells and rhodopsin for better low-light sight. Hence, Statement-I is correct but Statement-II is incorrect.

68. Answer: A

Solar prominences are large, loop-like structures visible on the edge of the solar disk against the dark background of space. They are anchored to the Sun's surface in the photosphere and extend into the corona. They are cooler and denser than the surrounding plasma in the Sun's corona and are shaped by the Sun's magnetic field. Prominences can extend for thousands of kilometers and can last for several days or up to several months. Some prominences erupt and give rise to coronal mass ejections (CMEs). Hence, statement 2 is not correct.

69. Answer: B

Union minister for Communications, Electronics & Information Technology Ashwini Vaishnav presented

the Telecommunications Bill, 2023 in the Lok Sabha. The Telecommunications Bill, 2023 aims to amend and consolidate laws related to the development, expansion, and operation of telecommunication services and networks, spectrum assignment, and related matters. It replaces the Indian Telegraph Act, 1885, the Indian Wireless Telegraphy Act, 1933, and the Telegraph Wires (Unlawful Possession) Act, 1950. The statement of objectives and reasons highlights the telecommunications sector's role in economic and social development, serving as a gateway to digital services. The Bill grants the government the authority to take temporary control of telecom services and intercept messages in the interest of national security and during emergencies. In cases of public emergencies or disaster management, the Central or State Government, or authorized officers, can, by notification, take possession of telecommunication services or networks from authorized entities. The Bill allows for the interception, detention, or non-transmission of messages during public emergencies or for public safety, safeguarding the sovereignty, integrity, defense, and security of the state. Hence, statement 3 is not correct.

70. Answer: A

A Bone Marrow Transplant (BMT), also known as a stem cell or hematopoietic stem cell transplant, is a medical procedure that involves replacing diseased or damaged bone marrow with healthy cells, either from the patient's own body or a donor. This procedure is primarily utilized in the treatment of cancers such as leukemia, myeloma, and lymphoma, as well as various blood and immune system disorders. Hence statement 3 is correct.

Stem cells, which have the unique ability to replicate and differentiate into different cell types required by the body, play a crucial role in this process. Hematopoietic stem cells, specifically important for blood cell production, are situated in the bone marrow and circulate in the bloodstream. The significance of hematopoietic stem cells becomes evident in the context of cancer and its treatments, which can harm these cells, affecting the production of red and white blood cells, as well as platelets. Hence statement 2 is correct.

Red blood cells carry oxygen, white blood cells are integral to the immune system, and platelets contribute to the clotting process. Thus, maintaining the health and functionality of hematopoietic stem cells is essential for overall blood and immune system function. There are two primary types of transplants in the context of bone marrow procedures. The first is the autologous transplant, which entails utilizing the patient's own stem cells. These stem cells are collected before undergoing intensive cancer treatment, and following the treatment, they are reintroduced into the patient to restore the immune system and facilitate blood cell production. On the other hand, the allogenic transplant involves the

use of stem cells from a donor. Typically, this occurs after the patient has undergone chemotherapy or radiation. The success of an allogenic transplant often hinges on finding a suitable donor match, which can include siblings, family members, or unrelated volunteers. This distinction in transplant types allows for tailored approaches to address individual patient needs and circumstances. Hence statement 1 is incorrect.

71. Answer: C

States' performance shows a positive shift as indicated by LEADS 2023 across crucial pillars: Logistics Infrastructure, Logistics Services, and Operating and Regulatory Environment. The report furnishes region-specific insights to facilitate informed decision-making and foster comprehensive growth.

Key highlights from LEADS 2023 include notable performance distinctions among state groups:

Coastal Group:

Achievers: Andhra Pradesh, Gujarat, Karnataka, Tamil Nadu.

Fast Movers: Kerala, Maharashtra.

Aspirers: Goa, Odisha, West Bengal.

Landlocked Group:

Achievers: Haryana, Punjab, Telangana, Uttar Pradesh.

Fast Movers: Madhya Pradesh, Rajasthan, Uttarakhand.

Aspirers: Bihar, Chhattisgarh, Himachal Pradesh, Jharkhand.

North-East Group:

Achievers: Assam, Sikkim, Tripura. Hence statement 2 is correct.

Fast Movers: Arunachal Pradesh, Nagaland.

Aspirers: Manipur, Meghalaya, Mizoram.

Union Territories:

Achievers: Chandigarh, Delhi.

Fast Movers: Andaman & Nicobar, Lakshadweep, Puducherry.

Aspirers: Daman & Diu/Dadra & Nagar Haveli, Jammu & Kashmir, Ladakh.

Hence statement 1 is correct.

72. Answer: B

Somatic gene therapies are designed to modify a patient's DNA for the treatment or cure of diseases caused by genetic mutations. In a specific clinical trial, scientists extract blood stem cells from a patient, use CRISPR techniques to rectify the genetic mutation responsible for the production of defective blood cells, and then reintroduce the corrected cells into the patient. This process results in the production of healthy hemoglobin, thereby transforming the patient's blood cells. Hence statements 1 and 3 are correct. It's important to note that this treatment only impacts the patient's blood cells and not their sperm or eggs.

In contrast, germline human genome editing operates

by altering the genome of a human embryo during its earliest stages and moves on to next generations. Hence statement 2 is incorrect. This intervention has the potential to affect every cell, not only influencing the individual who emerges from the edited embryo but potentially impacting future generations. Due to these far-reaching consequences, there are significant restrictions on the use of germline human genome editing to ensure ethical and safety considerations are upheld.

73. Answer: B

New Delhi Declaration: It primarily emphasizes promoting responsible AI development and innovation. It focuses on equitable access, economic growth, and human-centric AI development. It promotes a multi-stakeholder approach to AI governance, involving governments, businesses, civil society, and academia. It emphasizes the importance of ethical considerations and human values in AI development. **Bletchley Declaration:** It primarily focuses on mitigating the security risks associated with advanced AI systems. It emphasizes the need for international cooperation and responsible development of AI that aligns with human values. It calls for international cooperation and regulation to address security risks associated with AI. It emphasizes the need for international norms and standards for responsible AI development.

74. Answer: B

Statement 1 is incorrect. India is the third largest producer of renewable energy in the world. Statements 2 and 3 are correct. As of July 2023, India's non-fossil fuel capacity (including large hydro and nuclear) has crossed 40%, reaching approximately 43% of the total installed electricity capacity. Solar and wind power are the leading renewable energy sources in India, collectively contributing over 30% of the total installed capacity. As of July 2023, solar power accounts for roughly 70.1 GW and wind power for 43.7 GW, exceeding 30% combined.

75. Answer: B

Pangolakha Wildlife Sanctuary is located in Sikkim and is known for its unique high-altitude habitat, which is home to a diverse flora and fauna, including the tiger. This sighting at an elevation of 3,640 meters sets a new record for the highest altitude where tigers have been spotted in India. The sanctuary is home to Red Panda (Sikkim's state animal), Himalayan Black Bear, Musk Deer among others. The sanctuary encompasses various eco-regions like Terai-Duar savanna, Eastern Himalayan broadleaf forests, Himalayan subtropical pine forests among others.

76. Answer: C

The components of Amrit Dharohar Scheme are - Species and Habitat Conservation, Nature Tourism, Wetlands Livelihoods, Wetlands Carbon. Amrit Dharohar Scheme is a government initiative aimed at

conserving and sustainably managing India's wetlands. It was launched by the Ministry of Environment, Forest and Climate Change (MoEF&CC). The scheme is being implemented in convergence with various Central Government ministries and agencies, State Wetland Authorities and a network of formal and informal institutions.

77. Answer: B

Statements 1 and 3 are correct. Ramsar Sites are designated specifically for the conservation of wetlands, while National Parks can cover various types of ecosystems. Ramsar Sites fall under an international treaty, the Ramsar Convention, while National Parks are typically managed by national legislation and regulations. Statements 2 and 4 are incorrect. National Parks generally prioritize strict conservation with limited human activities rather than emphasizing sustainable use. Whereas, Ramsar Sites focus on sustainable use. While some areas may overlap and hold both designations, being a National Park does not automatically make an area a Ramsar Site. However, some National Parks may also be designated as Ramsar Sites if they meet the criteria for wetland importance.

78. Answer: A

The Indira Gandhi Peace Prize is given for promoting peace, disarmament, and development. It is awarded annually by the Indira Gandhi Memorial Trust to individuals or organizations that have made outstanding contributions in these areas. The prize aims to recognize the efforts of individuals and organizations that work to promote peace, reduce conflict, and encourage sustainable development around the world. Eliminating insurgents is not a purpose for which the Indira Gandhi Peace Prize is given. Recently, Daniel Barenboim and Ali Abu Awwad have been jointly awarded Indira Gandhi Peace Prize 2023 for their efforts in bringing together the people of Israel and the Arab World for a non-violent resolution of the Israel-Palestine conflict.

79. Answer: B

Statement 1 is incorrect. TIWB is not a private firm. It is an international initiative led by the United Nations Development Programme (UNDP) and the Organisation for Economic Co-operation and Development (OECD) that provides support and assistance to developing countries in strengthening their tax audit and administration systems. Statement 2 is correct. One of the key activities of TIWB is to provide training and capacity-building programs for tax officials in developing countries. These programs help tax officials improve their skills in areas such as international tax cooperation, transfer pricing, and cross-border tax issues. Recently, Tax Inspectors Without Borders (TIWB) launched a programme in Saint Lucia. India has been selected as the Partner Administration and will contribute Tax Experts to this programme.

80. Answer: D

Statements 1, 2 and 3 are correct. Under Dare to Dream (D2D) Scheme, annual Dare to Dream Contests are organised to promote innovations by individual and start-ups for advancements in defence and aerospace technologies. It was initiated in memory of the former President of India, Dr APJ Abdul Kalam. The scheme has been launched by Defence Research and Development Organisation (DRDO). Winners are eligible to secure funding through DRDO's TDF scheme for realizing prototypes, contingent on merit and feasibility.

81. Answer: D

Pradhan Mantri Formalisation of Micro food processing Enterprises (PMFME) Scheme:

The PMFME Scheme is a centrally sponsored scheme launched by the Ministry of Food Processing Industries (MoFPI) under the Aatmanirbhar Bharat Abhiyan in June 2020. Hence, Statement 1 is correct.

It aims to enhance the competitiveness and formalization of the unorganized micro food processing sector and provide support to Farmer Producer Organizations (FPOs), Self Help Groups (SHGs), and Producers Cooperatives along their entire value chain.

The scheme envisages an outlay of Rs. 10,000 crore over a period of five years from 2020-21 to 2024-25.

Under the scheme, 2,00,000 micro food processing units will be directly assisted with credit-linked subsidies at 35% of the eligible project cost with a maximum ceiling of Rs.10 lakh per unit. Hence, Statement 2 is correct.

The scheme also provides for common infrastructure, branding and marketing support, capacity building and research, and a robust project management framework.

The scheme adopts a One District One Product (ODOP) approach to identify food products for districts keeping in view the existing clusters and availability of raw material. Hence, Statement 3 is correct.

The ODOP could be a perishable produce based or cereal based or a food item widely produced in an area.

The scheme also provides seed capital of Rs. 40,000 per member of SHG for working capital and purchase of small tools, with a maximum limit of Rs. 4 lakh per SHG. Hence, Statement 4 is correct.

82. Answer: C

Global Warming Potential (GWP)

GWP is a measure of how much heat a greenhouse gas traps in the atmosphere over a specific time period, usually 100 years, compared to carbon dioxide (CO₂). Hence, statement 1 is correct.

It is used to evaluate the potential impact of different greenhouse gases on global warming. The GWP allows for the comparison of the warming effects of various gases based on their ability to absorb and retain heat in the atmosphere.

Carbon dioxide is the reference gas with a GWP of 1. Other greenhouse gases, such as methane (CH₄) and nitrous oxide (N₂O), have higher GWPs because they are more effective at trapping heat. Hence, statement 2 is correct.

The Intergovernmental Panel on Climate Change (IPCC) provides GWP values for different gases. It's important to note that GWP values can vary depending on the time horizon chosen for the comparison. Hence, statement 3 is correct.

83. Answer: B

The Assam Accord was a tripartite agreement between the Central Government, the State Government of Assam, and the leaders of the Assam Movement. Hence, statement 1 is not correct.

The Assam Accord, signed in 1985, introduced Section 6A into the Citizenship Act, of 1955, exclusively for Assam. Hence, statement 2 is correct.

The Assam Accord sought to end the influx of illegal migrants from Bangladesh. Hence, statement 3 is correct.

This provision addresses the issue of large-scale migration preceding the 1971 Bangladesh Liberation War. Notably, it mandates the detection and deportation of foreigners who entered Assam after March 25, 1971, marking the creation of Bangladesh.

84. Answer: D

Diel Vertical Migration (DVM):

DVM is a synchronized movement of marine organisms, often seen in deep-sea creatures like zooplankton, as they migrate vertically in the water column, ascending towards the surface at night and descending to deeper levels during the day. Hence, statement 1 is correct.

This pattern helps these organisms find food while avoiding predators, showcasing a strategic survival tactic. Hence, statement 2 is correct.

At dusk, organisms from the mesopelagic layer (Deeper Layer or Twilight Zone) rise to the safety of the epipelagic zone (Upper Layer), capitalizing on darkness to feed on microscopic phytoplankton while evading diurnal predators.

This synchronized migration, finely attuned to natural light cycles, stands as the planet's largest biomass migration, occurring daily across all oceans.

Organisms inhabiting the mesopelagic layer actively extract substantial carbon from upper ocean layers while feeding on surface plankton, transporting it to deeper waters.

Within the twilight zone, migratory animals contribute to the food chain, passing on consumed carbon to their predators. The resultant carbon-rich waste sinks to the ocean floor, becoming a crucial carbon sink, trapping carbon dioxide and aiding in atmospheric carbon concentration regulation. Hence, statement 3 is correct.

85. Answer: B

HERVH:

In 2016, researchers made a surprising discovery while analyzing gene expression data from early human embryos.

Research identified a group of non-committed cells (they did not become a part of the later stages of the embryo) within the inner cell mass that undergo early elimination.

Most inner cell mass cells express HERVH, a gene crucial for maintaining pluripotency. Hence, statement 1 is not correct.

However, the non-committed cells, destined for elimination, do not express HERVH.

The Role of HERVH in Cell Fate:

The absence of HERVH in non-committed cells revealed a startling connection to "jumping genes" or transposons (dangerous little pieces of Deoxyribonucleic Acid (DNA) that can insert themselves into different regions of the genome, damaging it and leading to cell death).

HERVH protects cells from transposons, preventing DNA damage and ensuring the survival of cells committed to forming the developing embryo. Hence, statement 2 is correct.

86. Answer: D

De-dollarisation refers to a deliberate or unintentional process undertaken by a country or region to reduce reliance on the US dollar in its financial system or economy. Hence, Statement 1 is correct.

This can involve various measures aimed at decreasing the use of the dollar in transactions, reserves, trade, or as a standard for pricing goods and services. Hence, Statement 2 is correct.

Reasons Associated: Governments might pursue de-dollarisation for several reasons, such as reducing exposure to the impact of US monetary policy, asserting economic sovereignty, mitigating the effects of dollar fluctuations, or seeking greater independence in global finance.

Strategies for De-dollarisation: It can include diversifying currency reserves, promoting

87. Answer: A

'Codex Alimentarius Commission (CAC)' is an international food standards body established jointly by the Food and Agriculture Organization (FAO) and the World Health Organization (WHO). Hence, statement 1 is correct.

India has been unanimously elected as a member representing the Asian region in the Executive Committee of Codex Alimentarius Commission (CAC) during its 46th meeting at Food and Agriculture organization (FAO) headquarters at Rome.

The Agreement on Application of Sanitary and Phytosanitary Measures (SPS) of the World Trade Organization (WTO) recognizes Codex standards, guidelines and recommendations as reference standards for international trade and trade dispute settlement. Hence, statement 2 is not correct.

Currently the Codex Alimentarius Commission has 189 Codex Members made up of 188 Member Countries and one Member Organization (The European Union).

The objective of 'Codex Alimentarius Commission (CAC)' is to protect consumer's health and ensure fair practices in the food trade. Hence, statement 3 is correct.

88. Answer: D

Gujral Doctrine:

It encourages a unilateral approach to extend cooperation and support to neighboring countries without expecting immediate reciprocity.

The doctrine underscores the importance of resolving disputes through peaceful means and building trust in the South Asian region.

Panchsheel:

The principles include mutual respect for each other's territorial integrity and sovereignty, non-aggression, non-interference in internal affairs, equality and mutual benefit, and peaceful coexistence.

Policy of Non-Alignment:

Non-alignment implies that a country does not align itself with any major power bloc or alliance, maintaining independence in foreign policy.

The goal is to promote sovereignty, peace, and development by avoiding entanglement in military alliances and conflicts between major powers.

Peaceful Settlement of International Disputes:

This principle emphasizes resolving international conflicts through peaceful means rather than resorting to war or aggression. Hence, statement 4 is correct.

Methods for peaceful settlement include negotiation, mediation, arbitration, and adjudication through international organizations.

Hence, option D is correct.

89. Answer: D

Global Initiative for Academic Networks (GIAN) Scheme:

Union Cabinet has approved a programme titled Global Initiative for Academic Networks (GIAN) in Higher Education aimed at tapping the talent pool of scientists and entrepreneurs internationally to encourage their engagement with the institutes of Higher Education in India so as to augment the country's existing academic resources, accelerate the pace of quality reform, and elevate India's scientific and technological capacity to global excellence.

GIAN is envisaged to catalyse higher education

institutions in the country, and that it will initially include all IITs, IIMs, Central Universities, IISc Bangalore, IISERs, NITs and IIITs subsequently cover good State Universities where the spinoff is vast. Hence, statement 1 is not correct.

GIAN is an evolving scheme which will initially include participation of foreign faculty in Institutes as Distinguished / Adjunct / Visiting faculty / Professors of Practice, etc., to participate in delivering Short or Semester-long Courses. Other activities will be included in due course.

MHRD has already constituted a GIAN Implementation Committee headed by Secretary (HE), MHRD to finalize and approve the GIAN implementation through courses and also decide on budget allocation. Hence, statement 2 is not correct.

90. Answer: A

The Paris Club is a group of mostly western creditor countries that grew from a 1956 meeting in which Argentina agreed to meet its public creditors in Paris.

It describes itself as a forum where official creditors meet to solve payment difficulties faced by debtor countries. Hence, statement 1 is correct

India is not a member of Paris Club. Hence, statement 2 is not correct.

The members are: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Israel, Japan, Netherlands, Norway, Russia, South Korea, Spain, Sweden, Switzerland, the United Kingdom and the United States.

91. Answer: B

The Asia-Pacific region, home to 370.7 million undernourished individuals, accounts for half of the worldwide total. Although undernourishment in this region decreased to 8.4% in 2022 from 8.8% in the preceding year, it remains 55 million higher than the 2019 figure. Hence statement 1 is correct. In 2022, approximately 55 million additional individuals in Asia experienced undernourishment compared to pre-COVID-19 levels. The most severely impacted area is Southern Asia, where around half of the global undernourished and food-insecure population resides within the Asia-Pacific region. Hence statement 2 is correct. The rates of stunting, wasting, and obesity among children under the age of five are on the rise. Southern Asia stands out with the highest proportion of children under five affected by wasting, surpassing the global average in 2022. Hence statement 3 is incorrect.

92. Answer: D

The Global River Cities Alliance (GRCA) is inaugurated by the National Mission for Clean Ganga (NMCG) during the United Nations Climate Change Conference in Dubai. Launched under India's Ministry of Jal Shakti, the initiative includes partner countries such as Egypt,

Netherlands, Denmark, Ghana, Australia, Bhutan, Cambodia, Japan, and global river cities like Den Haag 'The Hague' (Netherlands), Adelaide (Australia), Szolnok (Hungary). Noteworthy international funding organizations, including the World Bank, Asian Development Bank, Asian Infrastructure Investment Bank, and knowledge partner KPMG, are also integral members of GRCA. Hence statements (a) and (b) are correct. It seeks to promote widespread adoption of sustainable river management practices worldwide. Encompassing 275+ river cities across 11 countries, its mission is to drive large-scale initiatives for the sustainable development of river ecosystems. Hence statement (c) is correct.

The Alliance centers its efforts on three main themes: Networking, Capacity Building, and Technical Support. The Secretariat of the Alliance is headquartered at the National Institute for Urban Affairs (NIUA). Hence statement (d) is incorrect.

93. Answer: A

Green hydrogen is generated by employing renewable power in the electrolysis of water.

The process of electrolysis, used to split water into hydrogen and oxygen, is energy-intensive. Hence statement 1 is correct.

The Green Hydrogen Catapult, a United Nations initiative focused on reducing the cost of green hydrogen, has declared its intention to nearly double its target for green electrolyzers. The previous goal, set at 25 gigawatts last year, is now increased to 45 gigawatts by 2027. Hence statement 2 is incorrect.

Green hydrogen serves as a clean and sustainable fuel with versatile applications, including:

1. Internal Combustion: Green hydrogen can be directly employed as a fuel for internal combustion engines. This involves mixing hydrogen with air and igniting the mixture. Internal combustion engines powered by hydrogen function similarly to gasoline-powered engines but produce no emissions. Hence statement 3 is incorrect.
2. Blending with Natural Gas: Green hydrogen can be blended with natural gas and utilized as fuel for heat or power generation. When combined with natural gas, hydrogen contributes to the reduction of greenhouse gas emissions.
3. Hydrogen Fuel Cells: Green hydrogen finds application in hydrogen fuel cells for vehicle propulsion. Hydrogen fuel cells are devices that convert hydrogen and oxygen into electricity. The generated electricity can then power the motor of a vehicle, offering an environmentally friendly alternative for transportation.

94. Answer: B

Down syndrome stems from a genetic disorder originating from abnormal cell division, leading to an additional full

or partial copy of chromosome 21. This surplus genetic material contributes to the distinctive developmental alterations and physical characteristics associated with Down syndrome. Hence statement 1 is incorrect and statement 2 is correct.

Syndromes refer to specific groups of symptoms that occur simultaneously and may be identified by healthcare providers. Once a syndrome is recognized, it can lead to further classification of the condition as either a disorder or a disease.

Disorders encompass a set of symptoms that interfere with normal bodily functions or result in significant impairment. For instance, if you exhibit symptoms like joint pain indicative of arthritis, your healthcare provider might diagnose it as an arthritis disorder. Without pinpointing the precise cause, the diagnosis may be framed as an arthritis disorder.

Diseases, on the other hand, are medical conditions with clear, identifiable causes. Once the cause of a condition like arthritis is determined, it transforms from a disorder to a disease. In cases like rheumatoid arthritis, the immune system attacking the joints is the established cause of the disease.

There is no cure for Down Syndrome. ZOLGENSMA is a gene therapy utilizing an adeno-associated virus (AAV) vector. It is approved for treating spinal muscular atrophy (SMA) in pediatric patients under 2 years old who have bi-allelic mutations in the survival motor neuron 1 (SMN1) gene. Hence statement 3 is incorrect.

95. Answer: B

At COP28, a commitment was made by 118 countries to triple the world's green energy capacity, targeting 11,000 GW by 2030.

The commitment necessitates doubling the global average annual rate of energy efficiency improvements from 2% to over 4% annually until 2030.

The primary goal is to mitigate emissions and constrain the global average temperature increase to below 2 degrees Celsius, aligning with the 2015 Paris Agreement.

Pledge Specifics:

The commitment lacks legal binding and is not officially on the COP28 agenda.

COP28 will also delve into the matter of tripling renewable energy, with considerable anticipation for the outcomes.

The commitment reflects a unified resolve among global leaders to actively combat worldwide emissions.

India and China opted not to participate, expressing reservations about the call to phase down coal and halt investments in new coal-fired power plants.

96. Answer: C

GNoME stands for Graph Networks for Materials Exploration. It is a Deep Learning AI tool developed

by researchers at Google DeepMind. It is designed for predicting the structures of new materials. It is a state-of-the-art Graph Neural Network (GNN) model. The input data for GNoME takes the form of a graph, representing connections between atoms. It employs "active learning," a technique that allows the model to scale up from a small specialized dataset. This technique involves introducing new targets, enabling machine learning to label new data with human assistance. GNoME's predictions have implications for various sectors, including renewable energy, battery research, semiconductor design and computing efficiency. GNoME has significantly improved the accuracy of predicting material stability from 50% to approximately 80%. It has increased the number of known stable materials. This could lead to the development of new technologies such as more efficient batteries and superconductors. It uses filters to narrow down the list of potential materials. This saves time and money by avoiding the need to synthesize and test materials that are unlikely to be stable. Hence, all statements are correct.

97. Answer: A

Recently, the Union government told to the Parliament that the Char Dham project in Uttarakhand, under which the Silkyara tunnel is being developed, did not require an Environment Impact Assessment (EIA). Environmental Impact Assessment (EIA) is a tool used to evaluate the positive and negative environmental, economic and social impacts of a project. It is used to predict the environmental impacts of a project in the pre-planning stage so that decisions can be taken to reduce the adverse impacts. The concept of EIA emerged in the 1960s and 1970s as a response to growing concerns about the environmental impacts of large-scale development projects. On 27 January 1994, the Union Ministry of Environment and Forests, Government of India issued the first EIA notification. Hence, both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I.

98. Answer: B

Recently, Lakadong Turmeric of Meghalaya has been awarded with the Geographical Indication (GI) tag. Lakadong turmeric is a variety of turmeric that originated in Jaintia Hills, Meghalaya. Lakadong turmeric is considered to be one of the world's best varieties of turmeric with a curcumin content of around 6.8 to 7.5 per cent. Curcumin is the compound that gives turmeric its bright yellow color and has anti-inflammatory and antioxidant properties. Garo Dakmanda (traditional dress), Larnai pottery and Garo Chubitchi (alcoholic beverage) have also been awarded with the Geographical Indication (GI) tag. Hence, option (b) is correct.

99. Answer: C

"Garba of Gujarat" has been inscribed in the Representative List of Intangible Cultural Heritage (ICH) of Humanity

by UNESCO. Garba of Gujarat becomes the 15th element from India to join the Intangible Cultural Heritage (ICH) list. India's additions in Intangible Heritage List:

- 2023: Garba of Gujarat
- 2021: Durga Puja in Kolkata
- 2017: Kumbh Mela
- 2016: Nawrouz and Yoga
- 2014: Traditional brass and copper craft of utensil making among the Thatheras of Jandiala Guru, Punjab
- 2013: Sankirtana, ritual singing, drumming and dancing of Manipur
- 2012: Buddhist chanting of Ladakh: recitation of sacred Buddhist texts in the trans-Himalayan Ladakh region, Jammu and Kashmir
- 2010:

Chhau dance

Kalbelia folk songs and dances of Rajasthan

Mudi yettu, ritual theatre and dance drama of Kerala

- 2009: Ramman, religious festival and ritual theatre of the Garhwal Himalayas
- 2008:

Kutiyattam, Sanskrit theatre

Tradition of Vedic chanting

Ramlila, the traditional performance of the Ramayana

Hence, option (c) is correct.

100. Answer: B

The World's first portable hospital, 'Aarogya Maitri Aid Cube' was unveiled in Gurugram. It is designed indigenously under Project BHISHM (Bharat Health Initiative for Sahyog Hita and Maitri), the modular trauma management and aid system is made up of 72 detachable mini-cubes, each being a specialized station for emergency response and humanitarian efforts. It contains medical equipment and supplies such as a mini-ICU, an operation theatre, cooking station, food, water, a power generator, blood test equipment, an X-ray machine, and more. The cubes are capable of handling patients with severe injuries up to 25 major burns, long limb fractures, chest injuries, spinal injuries and approximately 10 head injuries. It can treat as many as 200 patients. These cubes are light and portable, and can be rapidly deployed anywhere, from airdrops to ground transportation. It consists of 72 cubes that can be combined to form a specialized cage capable of accommodating 36 mini-cubes. The mini-cubes are packed with everything essential for the survival of 100 individuals for duration of 48 hours. Hence, statement 1 is not correct.

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