

1. Answer: (b) Only two

Explanation:

- Statement 1 is correct. The Lieutenant Governor (LG) has final authority over matters of public order, police, and land in Delhi, as per Article 239AA of the Constitution and the provisions of the 2023 amendment. These areas remain outside the purview of the Delhi Legislative Assembly and fall solely under the LG's jurisdiction.
- Statement 2 is incorrect. The Act establishes the National Capital Civil Service Authority to make recommendations regarding transfers and disciplinary actions for Group A officers in the Delhi Government. This authority is chaired by the Chief Minister and includes the Chief Secretary and the Principal Secretary (Home). These two members will be appointed by the central government not Chief Minister.
- Statement 3 is correct. In cases where there is a disagreement between the LG and the National Capital Civil Service Authority, the LG's decision will prevail, thereby reinforcing the LG's authority over Delhi government officers' transfers and disciplinary actions.

2. Answer: (d) Neither 1 nor 2

Explanation:

- Statement 1 is incorrect. A person detained under preventive detention laws can be held for a maximum of three months without the opinion of an Advisory Board in normal circumstances. But Article 22(7) mentions that a person can be detained for more than three months without the opinion of an advisory in parliament by law provides – 1. Maximum period of such detention, 2. Circumstances, classes of persons and circumstances of cases to which such a law may apply.
- Statement 2 is also incorrect. Preventive detention laws are not restricted solely to defence, foreign affairs, and public order. The Constitution allows preventive detention for a broader range of concerns related to security and public order, as the central and state governments may specify according to their respective legislative powers.

- Both the Central and State Governments have powers to enact preventive detention laws under their legislative jurisdiction. Preventive detention for national security, foreign affairs, and interstate issues falls under the central government, whereas states may enact laws to address public order and local security concerns.

3. Answer: (c) 1 and 3 only

Explanation:

- Statement 1 is correct. Personality rights are not mentioned in the Constitution, but they are traced to Article 21, which guarantees the right to life and personal liberty. These rights protect an individual's dignity and personal identity, thus offering a constitutional safeguard against misuse of one's personality for commercial exploitation without consent.
- Statement 2 is incorrect. The concept of personality rights is broader than just physical attributes like name, image, or likeness. It also extends to intangible aspects such as voice, personal style, and even certain behaviours or signatures, particularly in the context of the entertainment and media industry.
- Statement 3 is correct. The unauthorized commercial use of a person's identity, such as in advertisements, films, or endorsements, without their consent, is a violation of their personality rights. The individual can seek legal recourse for damages or injunctions in such cases under tort law or privacy law.
- Personality rights refer to the right of a person to protect his/her personality under the right to privacy or property.
- Two Components of Personality Rights
- Right to publicity: Right to keep one's image and likeness from being commercially exploited without permission. It is governed by statutes like the Trade Marks Act, of 1999 and the Copyright Act, of 1957.
- Right to privacy: Right to not have one's personality represented publicly without permission. It is broadly governed under Article 21 of the Constitution and the Supreme Court judgment in Justice K.S. Puttaswamy (Retd.) Case (2018).

4. Answer : (a) Konkani, Manipuri, Nepali**Explanation:**

- The 71st Constitutional Amendment Act, 1992, is a significant amendment in the Indian Constitution related to the official languages recognized under the Eighth Schedule. This amendment expanded the list of recognized languages, allowing more linguistic communities to have their languages officially acknowledged and preserved. It added only three languages—Konkani, Manipuri, and Nepali. The inclusion of these languages in the Eighth Schedule allowed speakers of Konkani, Manipuri, and Nepali to use their languages in Parliamentary proceedings, educational institutions, and for official documentation purposes, promoting linguistic representation and recognition.
- Sindhi was introduced by the 21st Amendment Act of 1967, and Santali, Dogri, Maithili, and Bodo by the 92nd Amendment Act of 2003.

5. Answer: (b) Both statement I and II are correct, and statement II is not the correct explanation of statement I.**Explanation:**

- Statement I is correct. Under Article 352, when a National Emergency is declared, Parliament gains the power to legislate on subjects within the State List without needing state approval. This temporary change centralizes legislative authority to ensure national cohesion, impacting the federal balance.
- Statement II is also correct. Article 358 suspends certain Fundamental Rights guaranteed under Article 19 during a National Emergency due to war or external aggression but not due to an internal emergency or other Fundamental Rights. Additionally, Article 359 allows the suspension of the right to seek enforcement of Fundamental Rights, but not their absolute suspension. Therefore both statements are correct but Statement II does not explain Statement I. Statement I is about changes on federal system during national emergency and Statement II focuses impact of national emergency on fundamental rights.

6. Answer: (a) Only one**Explanation:**

- Statement 1 is incorrect. A no-confidence motion can only be introduced in the Lok Sabha, not in the Rajya Sabha, as only the Lok Sabha has the power to express confidence or no confidence in the Council of Ministers. Rajya Sabha, being a permanent house, does not hold this function.
- Statement 2 is incorrect. According to the Rules of Procedure in Lok Sabha, a no-confidence motion requires the support of at least 50 members to be admitted for discussion.
- Statement 3 is correct. If the no-confidence motion is passed, it necessitates the resignation of the entire Council of Ministers, including the Prime Minister, as they collectively hold office only as long as they enjoy the confidence of the Lok Sabha.
- Statement 4 is incorrect. While there is a convention to take up a no-confidence motion expeditiously, but the Speaker is not bound by a specific timeframe such as 10 days. The motion is generally taken up at the earliest feasible opportunity, depending on the Speaker's discretion.

7. Answer: (b) Only 2 and 3**Explanation:**

- Statement 1 is incorrect. PESA requires that Gram Sabha in Scheduled Areas are consulted before giving approval for land acquisition and grant of mining licenses for minor minerals in the Scheduled Areas to protect tribal interests in their land and resources.
- Statement 2 is correct. PESA grants Panchayats in Scheduled Areas exclusive rights over minor forest produce, acknowledging their traditional dependence on forest resources and providing them with economic autonomy. It mandates every panchayat at the village shall be required to obtain from the Gram Sabha a certification of utilisation of funds for the above plans, programmes and projects.
- Statement 3 is also correct. PESA mandates that local governance must respect customary laws, social, and religious practices of tribal communities, reinforcing the importance of traditional practices in governance.



8. Answer : (c) Only three

Explanation :

- Parliamentary committees are smaller groups of members from the Lok Sabha and Rajya Sabha, formed to scrutinize specific areas of work or legislation. These committees play a crucial role in the functioning of the Parliament by enabling in-depth discussions, expert consultations, and detailed examination of complex issues. The committees in which Speaker is a member, s/he become ex-officio chairperson of the committee.
- The committee which are headed by Speaker:
 1. Business Advisory Committee
 2. Rules Committee
 3. General Purpose Committee

9. Answer: (d) 1 and 3 only

Explanation:

- Statement 1 is incorrect. The Central Government can establish a tribunal without the prior consent of the states involved in the dispute. The requirement is to refer the matter to a tribunal if a dispute arises, not necessarily after consent from all states.
- Statement 2 is correct. The decision of an inter-state water dispute tribunal is binding on the states concerned. The Act provides that the decision is final, and no appeal is allowed against the verdict, ensuring resolution of disputes without further judicial interventions.
- Statement 3 is incorrect. The tribunal shall comprise of a Chairperson and two other members all nominated by the Chief Justice of India from among the persons who are Judges of Supreme Court or High Court.

10. Answer: (b) 2 only

Explanation:

- Statement 1 is incorrect. The Chief Election Commissioner and Other Election Commissioners Act, 2023 prescribes that the CEC and other Election Commissioners will be appointed by a high-

powered committee that includes the Prime Minister, the Leader of Opposition in the Lok Sabha, and a Union Cabinet Minister to be nominated by the Prime Minister. This provision aims to reduce executive dominance and ensure a more balanced appointment process for maintaining the Election Commission's autonomy.

- Statement 2 is correct. The Act specifies that the tenure of the Chief Election Commissioner and Election Commissioners shall be six years or until they reach the age of 65, whichever is earlier. This fixed tenure helps maintain consistency in the Election Commission's functioning and reduces premature changes in leadership.

11. Answer: (b) 1, 2, and 3 only

Explanation:

- Statement 1 is correct. The Nyaya School emphasizes logical reasoning (tarka) and systematic inquiry as tools for understanding mysteries like life, death, and salvation.
- Statement 2 is correct. The Vaisheshika School developed a sophisticated atomic theory, explaining the material world as composed of indivisible atoms combined to form matter.
- Statement 3 is correct. Both schools believe in the existence of God as the ultimate guide and regulator of the universe.
- Statement 4 is incorrect. The Nyaya School explicitly accepts perception (pratyaksha) as one of the valid means of acquiring knowledge, along with inference (anumana), comparison (upamana), and verbal testimony (shabda).
- Nyaya School of Philosophy: The Nyâya School is founded by the sage Gotama, who shall not be confused as Gautama Buddha. He is familiarized as 'Aksapâda'. Nyâya means correct thinking with proper arguments and valid reasoning. Thus, Nyâya philosophy is known as tarkashâstra (the science of reasoning); pramânashâstra (the science of logic and epistemology); hetuvidyâ (the science of causes); vâdavidyâ (the science of debate); and anviksiki (the science of critical study). The Nyâya philosophy as a practitioner and believer of realism seeks for acquiring knowledge of reality.



- Vaisheshika School of Philosophy: The Vaisheshika School is younger to Samkhya and contemporary with Jainism and Buddhism. A sage named 'Kanada' is the founder of this school. But according to some, its founder is Ulooka, therefore it is called as the aulookya philosophy. The school derives its name from 'visesa' which means particularity of eternal substances. There are five eternal substances. These are ether, space, time, soul, and mind (manas).
- As Nyaya Philosophy is devoted to the study of the criterion of valid knowledge (pramana), likewise the Vaisheshika philosophy devotes to the study of metaphysical reflections.

12. Answer: (a) Only one

Explanation:

- Statement 1 is correct. The Sakas were a group of nomadic tribes of Iranian origin or Scythian tribes, who lived in present day Kazakhstan in Central Asia. They entered the states of Kashmir, Punjab, Gujarat, Maharashtra and Rajasthan in India by defeating the native rulers and were successful in establishing a strong foundation of the kingdom of Saka in India. The 2nd century BC saw an outbreak in the Central Asia. The invasion by the Central Asian nomadic tribes and tribes from the Chinese region was responsible for the migration of the Sakas to India.
- Statement 2 is incorrect. King Chandragupta II of Ujjain, who took the title of Vikram Aditya, established the Vikram Samvat era after defeating the Sakas.
- Statement 3 is incorrect. The Shakas did not meet very effective resistance from the rulers and the masses of India. They were not viewed as conquerors, but rather as native people who migrated and invaded a significant part of North-western India. While the Indo-Scythians were recognized as rulers of India, they were considered ethnic or native groups, not part of the ruling class. In reality, they migrated in groups along with their leaders or chiefs, establishing their kingdoms in India.
- The Saka era came to an end with the defeat of the last Shaka ruler, Rudrasimha III by Chandragupta-II of the Gupta dynasty.

13. Answer: (d) 1, 2 and 3

Explanation:

- Statement 1 and 2 are correct: The Ajivika sect, considered unorthodox, arose concurrently with the emergence of Buddhism and Jainism. Founded by Gosala Maskariputra during the 5th century BC, the Ajivikas adhered to a simplistic, ascetic lifestyle, abstain clothing and material possessions, and often practicing nudity.
- Statement 3 is correct: The foundation of their belief system centered around the Niyati doctrine, emphasizing absolute determinism, negating free will, and asserting that all events are preordained by cosmic principles, thereby refuting the concept of Karma.
- They held a belief in atomic theory, where all entities were composed of atoms, and their attributes were predetermined.
- Other important facts:
 - Ajivikas were in opposition to Buddhism and Jainism, identifying as atheists and rejecting the Karma doctrine.
 - They shared the rejection of Vedic authority with Buddhism and Jainism but believed in the existence of the soul (atman) in all living beings, viewing it as a material entity, distinct from the formless soul concept in Jainism.
 - Bindusara, a follower, was part of the Ajivika sect in the 4th century BC.
 - Sravasti in Uttar Pradesh was recognized as the central location for the Ajivikas.
 - Ashoka's seventh pillar edicts made mention of the Ajivikas.

14. Answer: (c)

Explanation:

- Statement 1 is correct. Krishna Deva Raya was an emperor of the Vijayanagara Empire who reigned from 1509-1529 CE. He is the third ruler of the Tuluva Dynasty. Presiding over the empire at its zenith, he is regarded as an icon by many Indians. Krishna Deva Raya earned the titles Kannada Raj/a



Rama Ramana (lit, “Lord of the Kannada Empire”), Andhra Bhoja and Moom Rayara Ganda (“King of three Kings”).

- Statement 2 is also correct. He authored a book named Amuktamalyada in Telugu and Jambavati Kalyanam on Sanskrit. Amuktamalyada is one of the most famous poetic works in the entire Telugu literature.
- Statement 3 is also correct. The Ashtadiggajas, a term meaning “eight-pointed elephants,” represents the eight eminent Telugu poets and scholars in the court of King Krishnadevaraya. Reigning from 1509 to 1529, Krishnadevaraya’s period is renowned as a golden age for Telugu literature and culture. The Ashtadiggajas played a crucial role in this cultural renaissance, each contributing significantly to the Prabandha literary form, which evolved into a distinct genre during this era.

15. Answer: (c) Both 1 and 2

Explanation:

- Statement 1 is correct: The Deccan Riots, which took place in 1875, began in Pune, Maharashtra. The Deccan “Riots” began spontaneously on 12th May 1875, in Supa, located in Pune. The “riots” were an expression of the peasant discontent against the British administration that had systematically ruined agriculture with exaggerated revenue demands and maladministration. Several factors contributed to the outbreak of peasant agitations in 1875. Most notable among them was the exaggerated land revenue demand made by the British, which most peasants found impossible to pay without incurring substantial debts from the moneylenders. Organisations such as the Poona Sarvajanik Sabha also threw their weight behind the peasantry, and campaigned actively for relief to the struggling agriculturalists.
- Statement 2 is also correct: The demonstration of anger by the peasantry compelled the administration to swing into action, and the Deccan Agriculturalists Relief Act was passed in 1879 to extend protection to them against the moneylenders.

16. Answer: (b) Facilitating inheritance of property despite religious conversion.

Explanation:

- The Religious Disabilities Act, 1850 was passed in British India under East India Company rule that abolished all laws affecting the rights of persons converting to another religion or caste.
- It enabled a convert from Hinduism to another religion to inherit the property of his father. The political situation got highly affected because of this Act as it was seen as an incentive to give up one’s own faith.
- The Hindu regarded this as an incentive to give up one’s religious faith. The law was passed in British India under East India Company rule.
- This law is also known as Caste Disabilities Removal Act.

17. Answer: (a) 2-1-4-3

Explanation:

- Blue Rebellion, 1859: The Blue Rebellion, also known as the Indigo Rebellion, was a significant peasant uprising in Bengal during 1859-60 against the oppressive cultivation practices of indigo by British planters. It was led by Bishnucharan Biswa and Digambar Biswas.
- Bhumkal Rebellion, 1910: Bastar, the largest princely state in Chhattisgarh, was the site of the historically significant Bhumkal Rebellion of 1910. This uprising occurred during the reign of Rudra Pratap Dev, son of Bhairamdev. The British government, imposing selfish colonial laws, divided Bastar into 84 Parganas, enforced various forms of forced labour, bought goods at arbitrarily low prices, and strictly implemented the Forest Act across the region.
- Ahmedabad Mill Strike, 1918: The textile mill workers in Ahmedabad went on strike in 1918 to demand economic justice after the mill owners stopped giving out plague bonuses.
- Eka movement, 1921-1922: The Eka movement (1921-1922) or Unity movement was the movement of Pasi tribal peasants of Bahraich against the British. The movement first started in Lucknow, and then it

moved to Barabanki, Hardoi, Bahraich, and Sitapur. Initially, It was supported by Congress but as this movement turned non-violent movement, it lost the support of the Congress. Later it was led by Madari Pasi who began this movement from Barabanki.

18. Answer: (d) All four

Explanation:

- The 1937 elections in British India resulted in the Indian National Congress winning majorities in most provinces. The Congress won control of the governments in all provinces except Bengal, Punjab, and Sindh. The Muslim League failed to form the government in any province, winning only 109 out of 482 seats.
- The Congress ministry's initiatives after the 1937 election are:
 - Laws giving emergency powers were repealed.
 - Ban was lifted from certain books and journals.
 - Press restrictions were lifted
 - Newspapers were taken out of black lists.
 - Confiscated arms and arms licenses were restored.
 - Police powers were curbed, and the CID stopped shadowing politicians.
 - Reduction in rent for the peasantry.
 - Political prisoners and revolutionaries were released, and deportation and internment orders were revoked.
 - In Bombay, lands confiscated by the government during the Civil Disobedience Movement were restored.
 - Pensions of officials associated with the Civil Disobedience Movement were restored.
 - Social Welfare Reforms
 - Measures for the welfare of Harijans taken— temple entry, use of public facilities, scholarships, increased numbers in government service and police, etc.

- Attention was given to primary, technical, higher education, public health, and sanitation.
- Encouragement was given to khadi through subsidies and other measures.
- Prison reforms were undertaken.
- Encouragement was given to indigenous enterprises.
- Efforts were made to develop planning through the National Planning Committee set up under Congress president Subhash Bose in 1938.

19. Answer: (d) Bandipur tiger reserve

Explanation:

- The Karnataka Forest Department has imposed restrictions on the annual Jathra of Beladakuppe Sri Mahadeshwaraswamy Temple which is in the core area of Bandipur Tiger Reserve. It is located at the ecological confluence of the Western and Eastern Ghats at Mysore and Chamarajanagar districts of southern Karnataka. From the other sides it is surrounded by Mudumalai Tiger Reserve, Wayanad Wildlife Sanctuary and Nagarahole Tiger Reserve.
- Rivers: Kabini & Moyar
- Flora: Diverse vegetation of dry deciduous to tropical mixed deciduous like teak, rosewood, sandalwood, Indian-laurel etc.
- Fauna: Bengal tigers, Indian elephants, sloth bears, dholes, four-horned antelopes, Gray langurs, bonnet macaques etc.

20. Answer: (c) 1, 2 and 3 only

Explanation:

- Statement 1 is correct. CAQM is a statutory body for air quality management in the National Capital Region (NCR) and adjoining areas. It was Established under the Commission for Air Quality Management in NCR and Adjoining Areas, Act 2021, replacing the Environmental Pollution (Prevention and Control) Authority (EPCA) (formed in 1998).



- Statement 2 is also correct. The Commission for Air Quality Management (CAQM) has the power to issue binding as well as non-binding directions authorities and individuals. The CAQM has jurisdiction over air quality in the National Capital Region (NCR), which includes Delhi, Punjab, Haryana, Uttar Pradesh, and Rajasthan.
- Statement 3 is also correct. The CAQM is empowered to take punitive measures, such as imposing fines and shutting down polluting units, ensuring compliance with air quality norms.
- Statement 4 is incorrect. The NGT does not directly oversee the CAQM. Instead, the commission functions independently, although it may consult or coordinate with other environmental regulatory bodies.

21. Answer: (b) only two

Explanation:

- Statement 1 is correct. The roots of mangroves are called pneumatophores. Pneumatophores are specialized aerial roots that grow from the ground and help mangroves access oxygen, even when their roots are partially submerged. They are also known as breathing roots.
- Statement 2 is incorrect. Because the Mangroves for the Future initiative was developed by IUCN and UNDP (not UNEP).
- Statement 3 is correct. Bhitarkanika is India's second largest mangrove ecosystem after the Sundarbans. The National park is essentially a network of creeks and canals which are inundated with waters from rivers Brahmani, Baitarani, Dharma and Patasala forming a unique ecosystem.
- The devastation caused by the Indian Ocean tsunami of December 2004 laid bare the vital link between coastal ecosystems and human livelihoods. It was United States President Bill Clinton's vision that rebuilding in tsunami-hit areas should improve natural infrastructure and strengthen resilience against future natural disasters. In response to this vision, IUCN (International Union for Conservation of Nature) and the United Nations Development Programme (UNDP) developed Mangroves for the Future in 2006.

- Mangroves for the Future (MFF) is a unique partnered initiative to promote investment in coastal ecosystem conservation for sustainable development. Co-chaired by IUCN and UNDP, MFF provides a platform for collaboration among the many different agencies, sectors and countries which are addressing challenges to coastal ecosystems and livelihood issues.

22. Answer: (b) only two

Explanation:

- Statement 1 is correct and 2 is incorrect. The All India Tiger Estimation is a nationwide exercise conducted every four years not five years to assess the population, distribution, and status of tigers in India. It is one of the most comprehensive wildlife monitoring programs globally and plays a critical role in tiger conservation. The top states are Madhya Pradesh having the highest number of tigers 526, followed by Karnataka (524) and Uttarakhand (442).
- Statement 3 is correct. Madhya Pradesh's Pench sanctuary and Kerala's Periyar sanctuary emerged as the best managed tiger reserves in the country in 2019.
- All India Tiger Estimation(AITE): The All India Tiger Estimation (AITE) is the largest wildlife survey of its kind globally and plays a critical role in tiger conservation. It is conducted by the National Tiger Conservation Authority (NTCA) in collaboration with the Wildlife Institute of India (WII), and state forest departments.

23. Answer: (a) 1 only

Explanation:

- Statement 1 is correct. Genetic biodiversity refers to the variation of genes within species. Genetic diversity refers to the variation in genetic information within a population or species. It is a fundamental component of biodiversity and plays a critical role in the survival, adaptability, and sustainability of species and ecosystems.
- Statement 2 is incorrect. Human beings genetically belong to the homo sapiens group. Different human

ances are not examples of genetic diversity, as there is no genetic basis for race.

24. Answer: (a) 1 only

Explanation:

- Statement 1 is Correct. Bioaccumulation refers to how pollutants enter a food chain. In bioaccumulation, there is an increase in the concentration of a pollutant from the environment to the first organism in a food chain.
- Biomagnification refers to the tendency of pollutants to concentrate as they move from one trophic level to the next. Thus in biomagnification there is an increase in concentration of a pollutant from one link in a food chain to another.
- Statement 2 is incorrect. Bioaccumulation results in a higher concentration in older organisms, as the organism consumes contaminated food or absorbs the substance from its environment. So the concentration increases in its tissues. On the other hand, biomagnification results in a higher concentration in apex predators because they consume prey that has already accumulated the substance.

25. Answer: (c) Both 1 and 2

Explanation:

- Statement 1 is correct. The Intergovernmental Panel on Climate Change (IPCC) is the United Nations body for assessing the science related to climate change. It was created in 1988 by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP), the objective of the IPCC is to provide governments at all levels with scientific information that they can use to develop climate policies.
- Statement 2 is correct. Through its assessments, the IPCC identifies the strength of scientific agreement in different areas and indicates where further research is needed. The IPCC does not conduct its own research.

26. Answer: (a) only one

Explanation:

- Statement 1 is incorrect. Project Elephant (PE) was launched by the Government of India in the year 1992 as a Centrally Sponsored Scheme with the objectives to protect elephants, their habitat and corridors and to address issues of man-animal conflict. It offers financial and technical assistance to states' attempts to manage their free-ranging populations of wild Asian elephants.
- Statement 2 is incorrect. Because the maximum number of elephant reserves under the project are located in the state of Tamil Nadu. It has the maximum number of elephant reserves, namely, Nilgiri ER, Coimbatore ER, Anamalai ER, Srivilliputtur ER and Agasthyamalai ER whereas Karnataka has only two elephant reserves, Mysore ER, and Dandeli ER.
- Statement 3 is Correct. The elephant was declared the National Heritage Animal of India in 2010.
- Additional Information:
 - The Project is being mainly implemented in 16 States / UTs, viz. Andhra Pradesh, Arunachal Pradesh, Assam, Chhattisgarh, Jharkhand, Karnataka, Kerala, Maharashtra, Meghalaya, Nagaland, Orissa, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh, West Bengal.

27. Answer: (a) 1, 2 and 3 only

Explanation:

- Statement 1 is correct. Olive Ridley Turtles exhibit a unique mass nesting behaviour called "arribada," where thousands come ashore simultaneously to lay eggs. Odisha's Gahirmatha Beach and Rushikulya are globally significant nesting sites.
- Statement 2 is correct. Hawksbill Turtles are critically endangered under the IUCN Red List, Hawksbill turtles are hunted for their beautiful shells, often referred to as "tortoiseshell," which is used in decorative items.
- Statement 3 is correct. Leatherback turtles are the largest of the seven sea turtle species. It is found in all oceans except the Arctic and the Antarctic. Its



IUCN Status is vulnerable and comes under Indian Wildlife (Protection) Act- schedule I.

- Statement 4 is incorrect. While CITES regulates and restricts the international trade of many turtle species, not all turtle species are covered. Some are listed in Appendix II, which allows regulated trade.

28. Answer: (a) Eagle Nest

Explanation:

- Eagle Nest is a protected area of India in the Himalayan foothills of West Kameng District, Arunachal Pradesh. It conjoins Sessa Orchid Sanctuary to the northeast and Pakhui Tiger Reserve across the Kameng river to the east. It is home to over 500 bird species. It is also a part of the Kameng Elephant Reserve.
- Flora: The temperate cloud forest is intermixed with dense bamboo patches and broadleaved evergreen forest across a wide altitudinal range, with conifers and rhododendrons at the higher elevations.
- Fauna: Capped langur, Bengal tiger, Asian elephant, red panda, Asiatic black bear, Arunachal macaque and gaur.

29. Answer: (c) The opportunity cost is transferred from the consumers of the product to the tax-paying public.

Explanation:

- When the government provides a commodity free of cost to the public, its production or acquisition still incurs costs, which are financed through taxes. This means the opportunity cost, or the value of the next best alternative foregone, is not eliminated but transferred from the consumers of the commodity to the tax-paying public. Taxpayers bear the financial burden indirectly, as the funds used by the government could have been allocated to other public services or initiatives. Therefore, the opportunity cost exists and is redistributed, ensuring that the public benefits without directly incurring monetary expenses for the free commodity.

30. Answer: (a) 1 and 4 only

Explanation:

- Statement 1 is correct: Substitutes are goods that can be used in place of each other, like tea and coffee. When the price of a substitute rises, consumers often switch to the cheaper option. For example, if the price of coffee increases, people may buy more tea instead. Thus, the demand for tea increases when the price of coffee goes up.
- Statement 2 is incorrect: Complements are goods that are typically used together, such as cars and gasoline. When the price of a complement rises, it becomes more expensive to use both goods together. If the price of gasoline increases, the overall cost of driving a car goes up, which can lead to a decrease in car usage and thus a decrease in the demand for cars. Therefore, there's an inverse relationship between the price of a complement and the demand for the good.
- Statement 3 is incorrect: Inferior goods are those that see a decrease in demand as consumer incomes rise because people can afford better alternatives. For instance, as incomes grow, individuals might opt for fresh produce over canned food. This characteristic of inferior goods means their demand drops when consumer incomes increase, reflecting an inverse relationship between income and demand for inferior goods.
- Statement 4 is correct: According to the law of demand, when the price of a good decreases, its demand typically increases. This is because consumers are more likely to buy more goods at a lower price. This principle applies widely in economics, as lower prices generally stimulate higher consumption.

31. Answer: (d) When there is no net factor income from abroad

Explanation:

- GDP (Gross Domestic Product) represents the total value of goods and services produced within a country, whereas GNP (Gross National Product) includes the net factor income from abroad, which is the income residents earn from foreign investments minus the income foreign residents earn domestically.

Thus, GDP equals GNP when there is no net factor income from abroad. When the net factor income from abroad is zero, the income earned by residents from foreign sources precisely matches the income earned by foreign residents within the country. In such a situation, GDP and GNP become identical since there is no adjustment needed for foreign income.

32. Answer: (b) It measures the changes in prices for all of the goods and services produced in an economy.

Explanation:

- The GDP deflator is an economic metric that reflects the changes in prices of all goods and services produced within an economy during a specific period. Unlike measures like the Consumer Price Index (CPI) or Wholesale Price Index (WPI), which focus on a fixed basket of goods, the GDP deflator accounts for all domestically produced goods and services, making it a broader measure of inflation. It does not rely on a fixed base year, as its calculation compares nominal GDP (at current prices) with real GDP (at constant prices). It is calculated quarterly, along with GDP estimates. The Ministry of Statistics and Programme Implementation (MOSPI) publishes the GDP deflator in National Accounts Statistics

- Additional Information:

$$\text{GDP deflator} = (\text{Nominal GDP} \div \text{Real GDP}) \times 100.$$

It is a key tool for policymakers to assess inflation trends and adjust fiscal or monetary policies accordingly.

33. Answer: (b) 2 and 3 only

Explanation:

- Statement 1 is incorrect: The Purchasing Managers' Index (PMI) is typically released at the start of each month, making it a leading indicator of economic activity. It provides an early glimpse into the business conditions of the current month. In contrast, the Index of Industrial Production (IIP) is generally released later and measures the actual output of various sectors such as manufacturing, mining, and electricity over a specific period. Therefore, PMI data often

serves as an early signal of economic trends that the IIP might confirm later.

- Statement 2 is correct: The IIP quantifies the production levels in various industrial sectors, providing a concrete measure of output. It reflects the volume of production and is a key indicator of industrial performance. On the other hand, PMI is based on surveys of purchasing managers in the manufacturing and service sectors, capturing their views on new orders, inventory levels, production, supplier deliveries, and employment. Hence, PMI measures activity at the purchasing or input stage and gives insights into business conditions and expectations.
- Statement 3 is also correct: PMI surveys are typically conducted by private organizations, such as IHS Markit or the Institute for Supply Management, and they gather data from a representative sample of purchasing managers across industries. These surveys provide timely information about business conditions. Conversely, the IIP is compiled and published by government agencies, such as the Central Statistical Office (CSO) in India, and it provides official statistics on industrial production.

34. Answer: (c) Monetization of the fiscal deficits by RBI pushing India towards deflation.

Explanation:

- The 1991 economic crisis in India was primarily due to a combination of high fiscal deficits, large current account deficits, and a severe balance of payments crisis. The fiscal deficit was driven by high non-development expenditures, and the current account deficits were financed through external borrowing. Public Sector Undertakings (PSUs) became a liability instead of generating revenue, further exacerbating the economic situation.
- However, the Reserve Bank of India (RBI) did not push India towards deflation through the monetization of fiscal deficits. Instead, the crisis was characterized by high inflation and a depletion of foreign exchange reserves. The RBI's role was more about managing the crisis and implementing measures to stabilize the economy, rather than causing deflation.



35. Answer: (b) 3 only

Explanation:

- An increase in a country's Gross Domestic Product (GDP) signifies overall economic growth and an increase in the total value of goods and services produced within the country. However, the implications of a rising GDP on various socio-economic factors are not as straightforward.
- Statement 1 is incorrect: While GDP growth can lead to improvements in the quality and standard of living, it does not guarantee that the benefits will be evenly distributed across all social classes. The middle and lower classes may not experience proportional improvements if economic gains are not equitably shared.
- Statement 2 is incorrect: A growing GDP generally correlates with job creation, but it does not ensure a decreasing unemployment rate. Various factors, such as technological advancements, labour market mismatches, and economic policies, influence employment levels. Even in prosperous economies, there is usually some level of frictional or structural unemployment.
- Statement 3 is correct: As GDP increases, the overall resources available to people typically grow. This includes better access to goods, services, and infrastructure. Increased economic output often leads to improved public services and investments in infrastructure, enhancing the availability of resources.
- Statement 4 is incorrect: Economic growth does not necessarily reduce income inequality. In some cases, GDP growth can exacerbate income disparities if the wealth generated is disproportionately accrued by the rich. Income distribution depends on various factors, including government policies, taxation, and social safety nets.

36. Answer: (a) 1 and 2 only

Explanation:

- Statement 1 is correct: One of the critical objectives of the National Rail Plan is to enhance the modal share of railways in freight traffic to 45% by 2030. This involves modernizing infrastructure, improving efficiency, and reducing costs to make rail transport more competitive with other modes like road

transport. The aim is to shift a significant portion of freight traffic from roads to railways, thereby reducing congestion, fuel consumption, and emissions, and promoting sustainable transportation.

- Statement 2 is correct: The vision of the National Rail Plan includes achieving 100% electrification of Indian Railways by 2024. Electrification of the rail network is crucial for reducing dependency on fossil fuels, lowering greenhouse gas emissions, and cutting down operational costs. Electric trains are more efficient and environmentally friendly compared to their diesel counterparts. This goal aligns with India's broader commitment to sustainable development and reducing its carbon footprint.
- Statement 3 is incorrect: The plan proposes the elimination of all level crossings on the Golden Quadrilateral-Golden Diagonal (GQ/GD) routes by 2024. This measure is aimed at enhancing safety and efficiency on these critical routes, which connect major cities and industrial hubs across India. The elimination of level crossings reduces the risk of accidents and delays, thereby improving the overall reliability and speed of train operations. However, the plan does not explicitly mention the elimination of level crossings on all rail routes throughout India by 2030.

37. Answer: (a) 1 only

Explanation:

- Statement 1 is correct: The Incremental Capital-Output Ratio (ICOR) is a metric that reflects the relationship between investment and the resultant GDP growth. It is calculated as the ratio of investment (capital) to the increase in output (GDP). Essentially, ICOR indicates how many units of capital investment are needed to produce an additional unit of output. It represents the relationship between investment and GDP growth rate. A lower ICOR implies that a smaller amount of investment is required to generate a unit of GDP growth, reflecting higher capital efficiency.
- Statement 2 is incorrect: A lower ICOR value indicates higher efficiency of capital since less investment is needed to achieve the same level of output growth. Conversely, a higher ICOR implies that more investment is required for the same amount of output growth, reflecting lower capital efficiency.



38. Answer: (b) Only two

Explanation:

- Statement 1 is correct. Bt. cotton is the only Genetically Modified (GM) crop approved in 2002 by the Genetic Engineering Appraisal Committee (GEAC) of Ministry of Environment, Forest and Climate Change for commercial cultivation in the Country. Other GM crops, such as GM mustard and GM brinjal, have also been developed and are under consideration for limited trials.
- Statement 2 is correct. The bar gene, derived from the bacterium *Streptomyces hygroscopicus*, confers resistance to the herbicide phosphinothricin (also known as glufosinate). This allows farmers to control weeds effectively without harming the mustard plants, thus enhancing agricultural productivity.
- Statement 3 is incorrect. The GEAC, which is responsible for approving GM crops and overseeing their safety assessments, operates under the Ministry of Environment, Forest and Climate Change, not the Ministry of Agriculture.

39. Answer: (c) Statement-I is correct, but Statement-II is incorrect.

Explanation:

- Statement I is correct. The barnase-barstar system is a genetic engineering technique used in GM mustard to induce male sterility, which prevents self-pollination. This system involves the use of the barnase gene, which produces an enzyme that degrades RNA, leading to male sterility in plants. The barstar gene acts as a suppressor of barnase, allowing for controlled pollination when necessary. By inducing male sterility, this system enhances cross-pollination with non-GM mustard plants, promoting genetic diversity and improving crop yields.
- Statement II is incorrect. Herbicide-tolerant GM crops, including GM mustard, are designed to withstand specific herbicides, allowing farmers to apply these chemicals without harming the crop. While this can lead to more effective weed control and potentially reduce the overall quantity of herbicides used, it does not eliminate the need for chemical herbicides entirely. In fact, it can lead to the use of certain herbicides more frequently,

leading to concerns about herbicide resistance and environmental impact.

- Hence, Statement I is correct and statement II is incorrect.

40. Answer: (c) Statement I is correct, but Statement II is incorrect.

Explanation:

- Facial Recognition Technology (FRT) has gained significant attention for its potential applications in security and law enforcement. The statements provided address critical aspects of FRT's capabilities and limitations.
- Statement I is correct. FRT has been effectively utilized by law enforcement agencies to identify individuals in various contexts, including locating missing persons and apprehending suspects.
- For example, systems like Telangana's 'Darpan' have been employed to match facial images of missing children against databases, demonstrating FRT's practical utility in enhancing public safety and aiding investigations.
- Statement II is incorrect. FRT systems are not immune to inaccuracies. In fact, they often exhibit biases based on skin tone, gender, and varying lighting conditions. Studies have shown that these systems can misidentify individuals from underrepresented groups, leading to significant concerns about fairness and reliability. Factors such as image quality, angle, and environmental conditions can also affect the accuracy of facial recognition results.
- Hence, Statement I is correct and statement II is incorrect.

41. Answer: (b) 1 and 3 only

Explanation:

- The Bharatiya Antariksh Station (BAS) is a proposed space station by the Indian Space Research Organisation (ISRO), aimed at enhancing India's capabilities in space exploration and research.
- Statement 1 is correct. The planned operational



altitude for BAS aligns with that of the International Space Station (ISS) and other similar space stations, which typically orbit within this range. This altitude is optimal for conducting scientific experiments and observing Earth, as it allows for minimal atmospheric interference while maintaining a stable orbit.

- Statement 2 is incorrect. While both the BAS and Chandrayaan missions are part of India's broader space exploration efforts, they serve different purposes. Chandrayaan missions focus on lunar exploration, whereas BAS aims to establish a human presence in low Earth orbit for various scientific research and technology demonstrations.
- Statement 3 is correct. The establishment of BAS is expected to encourage collaboration with private industries, promoting innovation and investment in space technology. This aligns with India's goal of enhancing its space economy by involving private players in various aspects of space exploration and research.

42. Answer: (b) 1 and 3 only

Explanation:

- Statement 1 is correct. The Nobel Prize in Physiology or Medicine 2024 was awarded to Victor Ambros and Gary Ruvkun for their groundbreaking discovery of microRNA and its role in gene regulation post-transcription, which was a new concept in molecular biology.
- Statement 2 is incorrect. MicroRNAs regulate gene expression after transcription by binding to messenger RNA (mRNA) and preventing its translation into proteins or degrading it entirely. This discovery overturned previous beliefs that gene regulation was limited to transcription factors during the transcription process itself.
- Statement 3 is correct. The discovery of microRNAs has critical applications in understanding various diseases. In cancer, for instance, mutations in microRNA can cause abnormal regulation of genes, contributing to unchecked cell division and tumor growth. Additionally, microRNAs are involved in processes like cellular development and immune response.

43. Answer: (a) 1 and 2 only

Explanation:

- Statement 1 is correct: BharatGen is the world's first government-funded project in the generative AI space, tailored specifically to address India's linguistic and cultural diversity. BharatGen, a pioneering initiative in generative AI designed to revolutionize public service delivery and boost citizen engagement through developing a suite of foundational models in language, speech and computer vision. It will be spearheaded by IIT Bombay under the National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS), of the Department of Science and Technology (DST), the initiative will create generative AI systems that can generate high-quality text and multimodal content in various Indian languages.
- Statement 2 is correct: The initiative aligns with NM-ICPS, which aims to advance translational research and promote interdisciplinary cyber-physical systems, including AI technologies.
- Statement 3 is incorrect: Bharat Data Sagar is designed to create a repository of India-centric data, primarily for domestic AI development, not for global research collaboration.

BharatGen

- BharatGen will deliver generative AI models and their applications as a public good by prioritizing India's socio-cultural and linguistic diversity. It strives to address India's broader needs such as social equity, cultural preservation, and linguistic diversity, while ensuring that generative AI reaches all segments of society.

44. Answer: (d) 1, 2 and 4 only

Explanation:

- Statement 1 and statement 2 are correct: Ocean currents are classified into surface and deep currents. Surface currents are driven by atmospheric wind patterns, while deep currents are controlled by thermohaline circulation, which is influenced by differences in water temperature and salinity.
- Statement 3 is incorrect: Warm currents flow from equatorial regions towards higher latitudes, carrying



heat, while cold currents flow from polar or temperate regions towards the equator, cooling the surrounding areas. However, the Canary Current is a cold current, and the Brazil Current is a warm current. Thus, this statement misclassifies these currents.

- Statement 4 is correct: The interaction of warm and cold currents fosters nutrient upwelling, essential for rich marine biodiversity. For instance, the meeting of the Gulf Stream (warm) and the Labrador Current (cold) near the Grand Banks results in one of the richest fishing grounds in the world.

Oceanic Currents

- Oceanic currents are continuous, directional movements of seawater driven by factors such as wind patterns, Earth's rotation (Coriolis effect), salinity variations, and temperature differences. These currents play a critical role in regulating global climate, marine ecosystems, and human activities.

Types of Oceanic Currents

Based on Depth

- Surface Currents: Found in the upper 400 meters of the ocean and primarily driven by prevailing winds (e.g., Gulf Stream, Kuroshio Current).
- Deep Currents: Result from thermohaline circulation, caused by differences in water density due to temperature and salinity variations (e.g., Antarctic Bottom Water).

Based on Temperature

- Warm Currents: Flow from equatorial to polar regions, transferring heat (e.g., Brazil Current, Gulf Stream).
- Cold Currents: Flow from polar or temperate regions towards the equator, cooling adjacent areas (e.g., Labrador Current, Benguela Current).

45. Answer: (d) All four

Explanation:

- Statement 1 is correct. Epiphytes, which grow on other plants for support and absorb moisture and nutrients from the air, are commonly found in

equatorial rainforests due to the high humidity and dense vegetation.

- Statement 2 is also correct. Equatorial rainforests are known for their diverse and rich vegetation, including tropical hardwoods such as Mahogany and Ebony, which thrive in the warm, moist environment.
- Statement 3 is also correct. Equatorial regions experience bimodal rainfall patterns, with peaks around the equinoxes due to the sun's position directly over the equator, enhancing convective rainfall.
- Statement 4 is also correct. Equatorial climates are characterized by continuous, year-round rainfall with no distinct dry season, and temperatures remain relatively stable, meaning there is no winter season.
- **Equatorial climate key characteristics:**
 - Equatorial climate is hot and wet throughout the year. It is ideal weather for rainforests, and so most of the world's rainforests are located in this region.
 - The region experiences high rainfall and constant temperatures.
 - Generally, the equatorial climate is found between 0° to 10° north and south of the equator, with its greatest extent found in the lowlands of the Amazon, the Congo, Malaysia and the East Indies.

46. Answer: (c) Only three

Explanation:

- Statement 1 is correct: Alluvial soils are primarily found in the river basins of northern India, notably in the Indo-Gangetic Plains, where the Ganges, Brahmaputra, and Yamuna rivers deposit sediment over vast areas. These soils are rich in nutrients and minerals, making them fertile and suitable for various crops, such as rice, wheat, and sugarcane.
- Statement 2 is correct: Black soils, also known as regur soils, are primarily found in the Deccan Plateau region, including Maharashtra, Madhya Pradesh, Gujarat, and parts of Andhra Pradesh and Tamil Nadu. They are especially suited for cotton cultivation due to their high clay content, moisture-



retaining capability, and nutrient richness, which is ideal for cotton's growth requirements. Hence, they are often referred to as "cotton soils."

- Statement 3 is incorrect: Red soils, found mainly in southern and eastern India, including Tamil Nadu, Karnataka, Odisha, and parts of Chhattisgarh and Jharkhand derive their colour from iron oxide. However, their fertility is generally lower because they lack essential nutrients like nitrogen, phosphorus, and organic matter.
- Statement 4 is correct: Lateritic Soils are found in Tropical climatic conditions like high temperature and heavy rainfall, which causes leaching of nutrients. This soil type is common in areas like Kerala, Karnataka, Tamil Nadu, and Odisha. Lateritic soils are rich in iron and aluminium oxides but are generally low in fertility and require fertilization for agricultural use, especially for tea, coffee, and cashew plantations.

47. Answer: (c) All three pairs

Explanation:

- Pair one is correctly matched. Davis Strait: Between southeast Greenland (right) and Baffin Island Canada (left) lies the Davis Strait. The Strait connects the Labrador Sea (Atlantic Ocean) in the south with Baffin Bay to the north.
- Pair two is also correctly matched. Strait of Gibraltar: The Strait of Gibraltar connects the Mediterranean Sea with the Atlantic Ocean and separates southernmost Spain from northernmost Africa.
- Pair three is also correctly matched. Strait of Hormuz: The Strait of Hormuz is a narrow waterway that connects the Persian Gulf and the Gulf of Oman, the only passage from the oil-rich gulf to the Indian Ocean for maritime traffic. The Strait is among the world's most important oil chokepoints.

48. Answer: (c) Only three

Explanation:

- Statement 1 is correct: The Lithium Triangle is a lithium-rich region in the Andean southwest corner of South America, spanning the borders of Argentina, Bolivia, and Chile and forming a geographic triangle

of lithium resources underneath their salt flats. It is also called "white gold".

- Statement 2 is also correct: India signed agreement for Lithium Exploration & Mining Project in Argentina. This is the first ever lithium exploration and mining project by a Government Company of India. Khanij Bidesh India Ltd. (KABIL) will start exploration and development of 5 lithium brine blocks. The project cost is about 200 crores.
- Statement 3 is incorrect: Australia was the world leader in terms of lithium mine production, with an estimated output of 86,000 metric tons. Chile and China ranked second and third, with lithium production totalling 44,000 and 33,000 metric tons, respectively.
- Statement 4 is correct: According to 2020-2021 data from Chile's Copper Commission, Chile has the world's largest lithium reserves (36%) and is the second-largest global producer (32%) after Australia.

49. Answer: (b) Only two

Explanation:

- Statement 1 is incorrect and 2 is correct: The Nile River, the longest river in the world, flows from south to north through north-eastern Africa. It originates at Lake Victoria and empties into the Mediterranean Sea on Egypt's coast flowing through borders of Kenya, Tanzania and Uganda. The river's three main tributaries are the Atbara, the Blue Nile and the White Nile.
- Statement 3 is correct: Lake Malawi is an African Great Lake and the southernmost lake in the East African Rift System, located between Malawi, Tanzania and Mozambique. It is the ninth largest lake in the world and third largest and second deepest lake in Malawi. Lake Malawi is a lake of tectonic origin a typical rift or graben lake.

50. Answer: (c) Only four

Explanation:

- The Baltic Sea is the world's youngest sea having formed between 10 thousand and 15 thousand years

ago from glacial erosion. It contains a unique mixture of saltwater and freshwater, making it the largest brackish water body on the planet.

- Sweden, Denmark, Germany, Poland, Lithuania, Latvia, Estonia, Russia, Finland share border with Baltic Sea.
- Romania shares border with the Black Sea.

51. Answer: (b) 2 and 3 only

Explanation:

- Statement 1 is incorrect. A national party is required to win 2% of the total seats in the Lok Sabha and these candidates are elected not less than three states.
- Statement 2 is correct. One of the conditions for a party to attain national party status is securing at least 6% of the total valid votes in a minimum of four states in a Lok Sabha or State Assembly election, along with winning at least four Lok Sabha seats. This criterion is intended to ensure a minimal level of widespread voter support and representation.
- Statement 3 is correct. A party can also qualify as a national party if it is recognized as a state party in at least four states. This recognition shows that the party has a significant electoral base and influence in multiple regions across India.
- As of November 2024, there are six political parties - BJP, Congress, CPI (M), BSP, National People's Party (NPP) and the AAP – that are recognised as National Political party by the Election Commission of India.

52. Answer: (d) 1, 2 and 3

Explanation:

- Statement 1 is correct. The Multi-State Cooperative Societies (Amendment) Act, 2023, was enacted to address various issues faced by cooperative societies, particularly in the context of governance, financial management, and member protection. It seeks to simplify the regulatory framework for multi-state cooperative societies by introducing provisions for online registration, e-voting, and digital audits.

- Statement 2 is also correct. The Central Registrar is empowered to conduct inquiries and investigations into the affairs of multi-state cooperative societies, including their financial transactions and governance practices.
- Statement 3 is also correct. The Act mandates the appointment of independent directors on the boards of large multi-state cooperative societies to enhance transparency and accountability.

53. Answer: (b) Only two

Explanation:

- Statement 1 is correct. In the recent Bhartiya Nagarik Suraksha Sanhita, 2023, it mentions under section 472 that No appeal shall lie in any Court against the order of the President or of the Governor made under Article 72 or Article 161 of the Constitution and it shall be final, and any question as to the arriving of the decision by the President or the Governor shall not be inquired into in any Court.
- Statement 2 is incorrect. The President is not bound by any time limit to grant pardon. Although, the Supreme Court of India has recommended that the President shall hear mercy petition appeal in a reasonable time limit.
- Statement 3 is also incorrect. In India, the President's pardoning power in death penalty cases is an important aspect of the clemency powers provided by the Constitution under Article 72. This power is not discretionary, it is exercised with the aid and advice of the Council of Ministers, as per constitutional provisions.
- The President has the power to grant pardons in all cases where the sentence given is the sentence of death. On the other hand, Governors can only suspend, remit, or commute death sentences.

54. Answer: (b) 2 only

Explanation:

- Statement 1 is incorrect. Article 11 of the Constitution provides Parliament the power to make laws regarding the acquisition and termination of



Indian citizenship, empowering it to enact legislation such as the Citizenship Act of 1955 and subsequent amendments.

- Statement 2 is correct. A person born in India on or after January 26, 1950, but before July 1, 1987 is an Indian citizen irrespective the nationality of his/her parents. S/he is considered an Indian citizen if at least one parent is an Indian citizen, according to the Citizenship Act of 1955. However, exceptions exist, such as if the other parent is an illegal migrant, which may disqualify the individual from acquiring citizenship by birth.
- Statement 3 is incorrect. The Indian Constitution does not provide a permanent or detailed framework for citizenship; instead, it delegates this power to Parliament. Articles 5 to 11 address citizenship at the time of commencement of the Constitution, but for a permanent framework, the Citizenship Act of 1955 was enacted by Parliament.

55. Answer: (a) 1, 3, 4, and 6 only

Explanation:

- Education: Education is a subject on the Concurrent List, allowing both the Union and State governments to make laws related to educational policies and administration.
- Public Health and Sanitation: Public Health and Sanitation fall under the State List, giving states the exclusive authority to legislate on these issues.
- Criminal Law: Criminal law is a Concurrent List subject, which allows both the Union and states to address criminal justice through shared or independent legislation.
- Forests: Forests were moved to the Concurrent List by the 42nd Amendment Act, recognizing the need for coordinated policy on environmental conservation.
- Police: Police is exclusively under the State List, meaning states have full authority over law enforcement within their jurisdiction.
- Trade Unions: Trade Unions are part of the Concurrent List, allowing both the Union and states to make laws on labour rights, union registration, and related matters.

56. Answer: (b) Both Statement-II and Statement-III are correct, but only one explains Statement-I

Explanation:

- Statement 1: Pressure groups play a significant role in a democracy by holding governments accountable through their advocacy, campaigns, and lobbying efforts. This enhances the responsiveness of the government to public needs.
- Statement 2: While pressure groups represent sectional interests, this does not always ensure accountability. Sometimes, these groups can lead to policies favouring only specific sections, potentially undermining democratic fairness. Hence, Statement 2 does not explain the statement 1 correctly.
- Statement 3: The lobbying efforts of pressure groups often encourage public participation by highlighting issues and mobilizing citizens to demand action from the government. This active participation supports democratic accountability and makes the government more responsive to people's needs. Hence, statement 3 is correct and explains the statement 1.
- Pressure groups such as trade unions, business associations, farmers' groups, and NGOs enrich democracy by amplifying diverse voices. However, their influence can sometimes lead to policy bias or undue pressure on the government, necessitating a balance between sectional and national interests.

57. Answer: (b) To enhance the efficiency and effectiveness of civil servants through capacity building and training.

Explanation:

- Mission Karmayogi - National Programme for Civil Services Capacity Building (NPCSCB) offers civil service officers the Karmayogi Bharat Portal, an online learning platform with the aim to create a competent civil service rooted in Indian ethos, with a shared understanding of India's priorities, working in harmonisation for effective and efficient public service delivery. Mission Karmayogi aspires to build a Future Ready Civil Service equipped with the right Attitude, Skills and Knowledge, aligned with the vision of New India.



- Karmayogi Bharat’s vision is to transform the Indian civil services capacity-building landscape by establishing a robust digital ecosystem enabling continuous anytime-anywhere learning to make the officials future ready. To fulfil the vision, the mission adopted the aim to guide civil service officials in their competency-based capacity building journey by enabling online, face-to-face, and blended learning, facilitating discussions through topical forums, managing career paths, and enabling reliable assessments that credibly signal competencies of officials.

58. Answer: (c) Indian councils act of 1861

Examination:

- The Indian Councils Act of 1861 was a significant legislative reform by the British government aimed at involving Indians in the legislative process and decentralising administration.
- Other key provisions of the act:
 - It reintroduced legislative functions for the Governor-General’s Council, which had been curtailed by the Charter Act of 1833.
 - Allowed the Governor-General’s Council to make laws for the whole of British India.
 - The Act added non-official members to the Governor-General’s Council, thereby introducing Indians into the legislative process for the first time.
 - Non-official members included Indian princes, landlords, and other elites, selected primarily to advise rather than legislate effectively.
 - It empowered the Governors of Bombay and Madras to create legislative councils for their presidencies. This marked the beginning of legislative decentralization in India.
 - The Governor-General (now called Viceroy) was given the authority to issue ordinances during emergencies, valid for six months.

59. Answer: (b) 1, 4 and 5

Explanation:

- The Drafting Committee of the Constituent Assembly was formed on August 29, 1947, to prepare the draft Constitution of India. It consisted of seven members, with Dr. B.R. Ambedkar as the Chairperson.
- Members of the Drafting Committee:
 1. Dr. B.R. Ambedkar (Chairperson) : He is known as the “Father of the Indian Constitution”. He provided leadership and synthesised diverse viewpoints into the draft.
 2. N. Gopalaswami Ayyangar: He was the former Prime Minister of Jammu and Kashmir.
 3. Alladi Krishnaswamy Ayyar: He significantly contributed to the legal and structural framework of the Constitution.
 4. K.M. Munshi: He was one of the prominent member of the constituent assembly. He provided insights on fundamental rights and cultural aspects.
 5. Syed Mohammad Saadullah: Only member from northeast region. He advocated for the interests of minorities and north-eastern regions.
 6. N. Madhava Rao: He replaced BL Mitter who resigned due to ill health.
 7. T.T.Krishnamachari: He replaced DP Khaitan who died in 1948.

60. Answer: (a) Only one

Explanation:

- Statement 1 is correct. Article 29(2) provides that no citizen shall be discriminated on the grounds of Race, Religion, Cast or Language or any of them, while giving admission into educational institutions receiving grants from State.
- Statement 2 is incorrect. The protection under Article 30 is confined only to religious and linguistic minorities and does not extend to any section of citizens. The constitution does not mention cultural minorities and neither does it define the word minorities.



- Statement 3 is also incorrect. The right to establish and administer educational institutions is not absolute. Nor does it include the right to maladminister. There can be regulatory measures for ensuring educational character and standards and maintaining academic excellence.

61. Answer: (c) Both 1 and 2

Explanation:

- Statement 1 is correct: Thumri, characterized by its lyrical structure and presentation, falls into the category of 'semi' or 'light' classical music forms. Thumri, being a love song, places significant emphasis on textual beauty, closely aligned with its musical rendition.
- It is typically set to ragas such as Khamaj, Kaphi, and Bhairavi, with flexibility in adhering to strict musical grammar.
- Thumri singing encompasses two distinct styles: the Poorab or Banaras style, known for its slow and composed pace, and the Punjab style, characterized by its lively and spirited performance.
- Renowned musicians like Rasoolan Devi and Siddheshwari Devi have made significant contributions to this genre.
- Statement 2 is also correct: Tappa, characterized by Fast-paced note patterns, making it a challenging composition requiring extensive practice.
- Like Thumri, Tappa singing demands specialized training, akin to the Dhrupad and Khayal forms of singing.

62. Answer: (c) All three

Explanation:

- Statement 1 is correct: The decline of the Kushan Empire started with the successors of Kanishka, such as Vasishka, Huvishka, Kanishka II, and Vasudeva I. Vasudeva I was the final great ruler, and after his death in 232 AD, the empire fragmented, signalling the end of the Kushan era.
- Statement 2 is also correct: The Parthians were

followed by Kushanas. The Kushanas were a branch of Yueh-chi tribe, whose original home was central Asia. A nomadic people from the steppes of north central Asia living in the neighbourhood of China, the Kushanas first occupied Bactria where they displaced the Sakas. Then they gradually moved to the Kabul valley and seized the Gandhara by crossing the Hindu Kush replacing the Greeks and Parthians.

- Statement 3 is also correct: After Vasudeva's death, the Sasanian dynasty rose to power in Iran and North India, marking the gradual decline of the Kushana rule. The Sasanian Empire (224-651 CE, also given as Sassanian, Sasanid or Sassanid) was the last pre-Islamic Persian Empire, established in 224 CE by Ardashir I, son of Papak, descendant of Sasan.
- The Kushan Empire was a syncretic empire, founded by the Yuezhi tribal chief, Kujula Kadphises (30 CE – c. 80 CE) in the early 1st century CE. The Kushan Empire under Kanishka encompasses much of the modern-day territory of Uzbekistan, Tajikistan, Afghanistan, Pakistan, and Northern India, at least as far as Sarnath and Patliputa. To rule his vast empire effectively, he established two capitals, one at Purushapura (Peshawar) and another at Mathura.

63. Answer: (b) 1, 3, 4 and 6 only

Explanation:

- Post-Gupta Period Dynasties: Following the decline of the Gupta Empire and preceding the rise of the Harshvardhan, various ruling dynasties emerged in different parts of Northern India.
- Prominent Dynasties:
 - The Guptas of Magadha: The later Gupta dynasty, which is also known as the Later Guptas of Magadha, were the rulers of Magadha and Malwa from the 6th to 8th centuries CE.
 - The Pushyabhutis of Thaneshwar: King Pushyabhuti was the founder and established their capital in Thanesar (Thanesvara) in Kurukshetra. Achieved prominence under Prabhakarvardhana, who defeated the Hunas, consolidating influence in Punjab and Haryana.

- The Maukharis of Kannauj: Hari-varman was the first Maharaja of Kannauj and the founder of the Maukhari dynasty. The Maukharis ruled over Kannauj in western Uttar Pradesh, gradually supplanting Pataliputra as a political center in North India. Initially subordinate rulers of the Guptas, using the title of samanta. Harshavardhana's sister Rajyashri was married to Grihavarman.
- The Maitrakas of Valabhi: Maitraka dynasty, ruled in Gujarat and Saurashtra (Kathiawar) from the 5th to the 8th century CE. Its founder, Bhatarka, was a general who, taking advantage of the decay of the Gupta Empire, established himself as ruler of Gujarat and Saurashtra with Vallabhi as his capital. Dhruvasena II, a significant ruler, was a contemporary of Harshavardhana and married to his daughter.
- Deccan Rulers:
 - The Yadava Dynasty: Governed the Deccan region near Devgiri (Daultabad) during the 12th–14th centuries AD.
 - The Paramara Dynasty: Ruled over Malwa and surrounding areas in west-central India from the 9th to the 14th centuries AD.

64 Answer: (b) Only two

Explanation:

- The famous Chinese pilgrim, Fa-Hien visited India during the reign of Chandragupta II. Out of his nine years stay in India, he spent six years in the Gupta Empire. He characterizes the Gupta administration as mild and benevolent. He was the first Chinese monk to visit India.
- Statement 1 is correct: Fa-hien had appreciated the efficiency of the Gupta administration as he was able to travel without any fear throughout the Gangetic valley. On the whole the administration was more liberal than that of the Mauryas.
- Statement 2 is incorrect: He mentioned that the administration was so efficient that the roads were kept safe for travellers, and there was no fear of thieves. He mentioned that people were generally prosperous and the crimes were negligible.

- Statement 3 is correct: Fa-hien characterises the Gupta administration as mild and benevolent. There were no restrictions on people's movements and they enjoyed a large degree of personal freedom. There was no state interference in the individual's life.

65. Answer: (b) Both Statement-I and Statements-II are correct and Statement-II is not the correct explanation for Statement-I

Explanation:

- "The Portuguese followed their merchandise as their chief occupation, but like the English and the Dutch of the same period, had no objection to plunder, when it fell in their way."
- Statement I is correct. The Portuguese were intolerant and fanatical in religious matters. They indulged in forcible conversion 'offering people the alternative of Christianity or sword.' Their approach in this respect was particularly hateful to people of India where religious tolerance was the rule.
- Statement II is also correct. They also indulged in inhuman cruelties and lawlessness. In spite of their barbaric behaviour their possessions in India survived for centuries because they enjoyed control over the high seas, their soldiers and administrators maintained strict discipline, and they did not have to face the might of the Mughal Empire as South India was outside Mughal influence.
- Hence both Statement-I and Statements-II are correct and Statement-II is not the correct explanation for Statement-I

66. Answer: (c) Only three

Explanation:

- Statement 1 is correct and statement 2 is incorrect. The August Offer refers to a statement made on 8th August 1940 by Lord Linlithgow, the then Viceroy of India.
- This was his response to the Congress, who had called for a formal commitment to the idea that India should have its own separate Constituent Assembly.
- It marked the first time that the rights of Indian citizens were formally acknowledged, and the promise of



Dominion Status was made by the British government not the complete independence.

- Statement 3 and 4 are correct. Expansion of the viceroy's executive council with a majority of Indians who would be drawn from major political parties was one of the proposals of the offer and other proposals like setting up a constituent assembly after the war where mainly Indians would decide the constitution according to their social, economic, and political conceptions, subject to fulfilment of the obligation of the government regarding defence, minority rights, treaties with States, all India services. The proposal assured that no future constitution to be adopted without the consent of minorities.
- It was for the first time, the inherent right of Indians to frame their constitution was recognized, and Congress's demand for a constituent assembly was conceded.
- In July 1941, the viceroy's executive council was enlarged to give the Indians a majority of 8 out of 12 for the first time, but the British remained in charge of defence, finance, and home. They also set up a National Defence Council, which had purely advisory functions.

67. Answer: (d) 1, 2 and 3

Explanation:

- Statement 1 is correct: The Indian Independence League (also known as IIL) was a political organisation operated from the 1920s to the 1940s to organise those living outside India into seeking the removal of British colonial rule over India. Rash Behari Bose, the revolutionary leader was the founder of the Indian Independence League in 1942 during a conference in Tokyo convened by him.
- Statement 2 is also correct: It was founded by Indian nationalists. It was located in various parts of Southeast Asia and included Indian expatriates and Indian nationalist in-exile under Japanese occupation following Japan's successful Malayan Campaign during the first part of the Second World War.
- Statement 3 is also correct: During the Japanese occupation in Malaya, the Japanese encouraged Indians in Malaya to join the Indian Independence League.

68. Answer: (c) Both 1 and 2

Explanation:

- Statement 1 and 2 are correct: The 53rd session of Congress that was held in Ramgarh, in present-day Jharkhand, was a milestone session in many ways. It is known for the Anti-Compromise Conference held in 1940, organised by the radical nationalists belonging particularly to the Forward Bloc, who were not in alignment with the vision of the Congress regarding the war crisis. Subhash Chandra Bose was the chairperson of the anti-compromise conference.
- The Anti-Compromise Conference was a step towards preventing India from being an active participant in the war and a critique of the imperialist policies of the British.

69. Answer: (a) Only one

Explanation:

- Statement 1 is correct. The king cobra (*Ophiophagus hannah*) is the world's largest venomous snake, measuring up to 18 feet (5.5 meters) long.
- Statement 2 is incorrect. Its IUCN status is vulnerable and it belongs to CITES Appendix II.
- Statement 3 is correct. The king cobra is the only nest building snake found in India. The main reason for building a nest is to keep the eggs safe.
- Statement 4 is correct. It has been reclassified into 4 distinct species:
 - Northern King Cobra (*Ophiophagus hannah*): Found from Pakistan to Indo-China and parts of northern India.
 - Sunda King Cobra (*Ophiophagus bungarus*): Found in Southeast Asia, including Malaysia, Singapore, and Indonesia.
 - Western Ghats King Cobra (*Ophiophagus kaalinga*): Endemic to the Western Ghats in southern India.
 - Luzon King Cobra (*Ophiophagus salvatana*): Found on Luzon Island, Philippines.

70. Answer : (c) only three

Explanation:

- Statement 1 is correct. India has set its sight on becoming energy independent by 2047 and achieving Net Zero carbon emission by 2070. To achieve this target, increasing renewable energy use across all economic spheres is central to India's Energy Transition.
- Statement 2 is correct. National Green Hydrogen Mission (NGHM) aims to reduce annual greenhouse gas emissions by nearly 50 million metric tonnes by 2030.
- Statement 3 is correct. Oil India Limited (OIL) commissioned India's first pure green hydrogen pilot plant in Assam in April 2022.
 - Location: The plant is located at the Jorhat Pump Station in central Assam
 - Capacity: The plant has an installed capacity of 10 kilograms of hydrogen per day
- Statement 4 is incorrect, because Blue (not Green) hydrogen is produced via natural gas or coal gasification combined with carbon capture storage. Green hydrogen is produced by splitting water into hydrogen and oxygen using electricity from renewable sources like solar, wind, or hydropower.

71. Answer: (c) Only three

Explanation:

- Statement 1 is incorrect, because the rules cover all types of batteries, viz. Electric Vehicle batteries, portable batteries, automotive batteries and industrial batteries.
- Statement 2 is incorrect. The Battery Waste Management Rules, 2022 do not require the use of labels to indicate a battery's carbon footprint. However, the rules do include other measures to ensure the environmentally responsible handling of batteries.
- Statement 3 is incorrect, because Extended Producer Responsibility is introduced for all battery producers and importers. This holds battery producers responsible for the collection and recycling of discarded batteries

- Statement 4 is correct. the Battery Waste Management Rules, 2022 are based on the concept of outcome orientation, with measurable targets for waste collection and recycling:
- Collection and recycling targets:
 - The rules set minimum yearly recovery targets for producers and recyclers:
 1. 2024–2025: 70% of batteries placed in the market
 2. 2025–2026: 80% of batteries placed in the market
 3. 2026–2027 and onwards: 90% of batteries placed in the market

72. Answer: (d) 1, 2 and 3

Explanation:

- Statement 1 is correct. Coral reefs are formed in tropical marine environments where the water is warm and clear, and there is a lot of sunlight.
- Statement 2 is correct. Australia is home to the Great Barrier Reef, the world's largest coral reef. Indonesia and the Philippines, due to their relevant geographic locations, also harbour substantial amounts of coral reefs.
- Statement 3 is correct. While rainforests are rich in biodiversity, coral reefs are known as the "rainforests of the sea" because they host such a high concentration of life, including a variety of animal phyla.

73. Answer: (b) 2 only

Explanation:

- Statement 1 is incorrect. The Gangetic River dolphin, or susu, inhabits the Ganges-Brahmaputra-Meghna and Karnaphuli-Sangu river systems of Nepal, India, and Bangladesh. Its IUCN status is "Endangered" (not Critically endangered).
- Statement 2 is correct. The Vikram Shila Gangetic Dolphin Sanctuary (VGDS) was designated in 1991. It is the only protected area for the endangered Gangetic dolphins in Asia. It is spread from



Sultanganj to Kahalganj on the Ganga in Bihar is the only dolphin sanctuary in the country. But the habitat of the Ganges dolphin is not limited to the sanctuary.

74. Answer: (a) 1 and 2 only

Explanation:

- Statement 1 is correct. Biosphere Reserves are the largest of the three protected areas in India, which also includes National Parks and Wildlife Sanctuaries. These are the largest protected areas, with the restrictions on human activity. They are designed to conserve biodiversity, research, and sustainable development. Biosphere Reserves are made up of core zones, buffer zones, and transition zones, each with different levels of protection and human activity.
- Statement 2 is correct. The level of restriction in increasing order is Biosphere Reserves, Wildlife Sanctuaries, and National Parks.
- Statement 3 is incorrect. In case of merger of protected areas (National Parks, Wildlife Sanctuaries, etc.) and Biosphere reserves, the protected area becomes part of the BR without change in their legal status.

75. Answer: (a) Increased plant growth due to increased concentration of carbon dioxide in the atmosphere.

Explanation:

- Carbon fertilisation: It is the phenomenon that the increase of carbon dioxide in the atmosphere increases the rate of photosynthesis in plants. As human-caused emissions add more carbon dioxide to the atmosphere, forests across the globe are using it to grow faster, reducing the amount that stays airborne. Tropical forests absorb 1.4 billion metric tonnes of carbon dioxide out of a total global absorption of 2.5 billion metric tonnes - more than what is absorbed by forests in Canada, Siberia and other northern regions, called boreal forests.
- Plants actually benefit from an oversupply because high CO₂ concentrations mean they must open their pores only briefly to absorb the gas. This way they lose less water and can better survive droughts.

76. Answer: (c) only three

Explanation:

- Statement 1 is correct. Aerosols are minute particles suspended in the atmosphere. When these particles are sufficiently large, we notice their presence as they scatter and absorb sunlight. Their scattering of sunlight can reduce visibility (haze) and redden sunrises and sunsets.
- Statement 2 is correct. At sunrise and sunset the light from the Sun has to shine through the most air to get to us. And the air that has to pass through, is polluted with smoke and other particles (atmospheric aerosols), that makes light bounce off them and scatter. Red light has the longest wavelength, so we see all the red that comes from the sun.
- Statement 3 is correct. Aerosols also can act as sites for chemical reactions to take place (heterogeneous chemistry). The most significant of these reactions are those that lead to the destruction of stratospheric ozone. During winter in the polar regions, aerosols grow to form polar stratospheric clouds. The large surface areas of these cloud particles provide sites for chemical reactions to take place. These reactions lead to the formation of large amounts of reactive chlorine and, ultimately, to the destruction of ozone in the stratosphere.
- Statement 4 is incorrect. Atmospheric aerosols do have an effect on Earth's energy budget:
 - Cooling effect: Aerosols can reflect sunlight back into space, which cools the Earth.
 - Warming effect: Aerosols can absorb and release heat energy in the atmosphere, which warms the Earth.
 - Indirect effect: Aerosols can alter the reflectivity of clouds, which can also impact the Earth's energy budget.

77. Answer: (c) 2, 3 and 4 only

Explanation:

- SLCPs are greenhouse gases and air pollutants that contribute to climate change and air pollution. They are responsible for nearly half of today's warming.



- Statement 1 is incorrect, because Black Carbon is considered a Short Lived Climate Pollutants (SLCPs) and not brown carbon.
- Statement 2, 3 and 4 are correct: The Climate and Clean Air Coalition (CCAC) focuses on reducing the following short-lived climate pollutants (SLCPs), Methane, Black carbon, Hydrofluorocarbons (HFCs), and Tropospheric ozone.
- Additional Information:
 - The Climate and Clean Air Coalition is a voluntary partnership of governments, intergovernmental organizations, businesses, scientific institutions and civil society organizations committed to improve air quality and protection of the climate through actions to reduce short-lived climate pollutants.
 - SLCPs are thousands of times more potent than carbon dioxide (CO₂) in warming up the planet. However, because they are in the atmosphere for a relatively short time, they respond very quickly to reduction efforts.

78. Answer: (a) only one

Explanation:

- Statement 1 is correct. Eutrophication is the process in which a water body becomes overly enriched with nutrients, leading to the abundant growth of simple plant life. Excessive nutrients, such as nitrogen and phosphorus, favour the growth of algae, plankton, and simple plant life over more complex plant life in ecosystems.
- Statement 2 is incorrect. Because decrease in dissolved oxygen in water is an indicator of eutrophication and not the increase. It leads to death of aquatic organisms.
- Statement 3 is correct. Eutrophication often leads to the deterioration of water quality which results in decreased water transparency.

79. Answer: (d) Neither 1 nor 2

Explanation:

- Statement 1 is incorrect. The classification of an

enterprise as part of the unorganized sector is not strictly determined by the number of workers. According to the National Commission for Enterprises in the Unorganised Sector (NCEUS), unorganized enterprises are characterized by the absence of formal registration, lack of regular employment terms, and small-scale operations. The NCEUS defines unorganized enterprises as those employing less than 10 workers if not using power, or less than 20 workers if using power, in accordance with the Factories Act, 1948. There is no fixed threshold of 50 workers for defining unorganized enterprises.

- Statement 2 is incorrect. The term “unorganized worker” is defined under the Unorganised Workers’ Social Security Act, 2008. It refers to workers such as home-based workers, self-employed workers, and daily wage labourers who are not covered by organized social security schemes. This legal definition provides a framework for addressing the social security needs of workers in the informal economy.

80. Answer: (c) 1 and 3

Explanation:

- Statement 1 is correct: When the Central Bank buys government securities from the public, it pays for these securities with money, which increases the availability of money with the public. This enables banks to create more money through the process of lending, effectively increasing the money supply in the economy. This is known as an open market operation and is a common tool used by central banks to control money supply.
- Statement 2 is incorrect: When the public deposits currency in commercial banks, it does not directly increase the money supply. Instead, it changes the form of money from cash to demand deposits. However, through the process of credit creation, banks can use these deposits to lend more, potentially increasing the money supply indirectly. But, the direct impact of just depositing currency does not result in an immediate increase in the money supply.
- Statement 3 is correct: When the government borrows from the Central Bank, the Central Bank essentially creates new money by crediting the government’s account, increasing the money supply



in the economy. This is often done to finance government spending and is another way to inject liquidity into the economy.

81. Answer: (c) 2, 3 and 4 only

Explanation:

- Statement 1 is incorrect: Allowing NBFCs to perform banking functions does not directly relate to inclusive governance. While it might improve financial inclusion by providing more banking services, it is not a fundamental part of governance aimed at inclusiveness. It is more about financial market regulation and expansion.
- Statement 2 is correct: Effective District Planning Committees (DPCs) play a crucial role in inclusive governance. They ensure that planning at the district level reflects the needs and aspirations of the local population. By involving local stakeholders in decision-making, DPCs help bridge gaps between different socio-economic groups, promoting equitable development and resource allocation.
- Statement 3 is correct: Enhancing public health spending is essential for inclusive governance. It ensures that all citizens, especially the underprivileged, have access to healthcare services. Investing in public health infrastructure, preventive care, and affordable treatment helps reduce health disparities and improves the overall well-being of the population, which is a cornerstone of inclusive governance.
- Statement 4 is correct: The Mid-day Meal Scheme is a critical component of inclusive governance. It aims to improve nutritional levels among school children, particularly from economically weaker sections. By providing free meals, the scheme helps boost school attendance, reduce dropout rates, and improve educational outcomes. Strengthening this scheme ensures that vulnerable children receive necessary nutrition and education, promoting social equity.

82. Answer: (c) 2 and 3 only

Explanation:

- Statement 1 is incorrect: A high share of revenue

deficit does not indicate higher investment in the economy. Revenue deficit refers to the excess of revenue expenditure over revenue receipts. It indicates that the government is not able to cover its routine expenditures like salaries, subsidies, and interest payments from its revenue receipts, such as taxes and fees. A high revenue deficit suggests that the government is borrowing not for investment purposes, but to finance its day-to-day expenditures, which is not conducive to long-term economic growth.

- Statement 2 is correct: The primary deficit is defined as the fiscal deficit minus interest payments on previous borrowings. It essentially represents the current fiscal imbalances excluding interest obligations. It focuses on the present fiscal scenario by showing the extent of the government's borrowing needs for current expenditures, excluding past debt servicing.
- Statement 3 is correct: Fiscal deficit refers to the excess of total expenditure over total revenue (excluding borrowings). During a recession, economic activity slows down, leading to lower tax revenues and higher government spending on social welfare programs and stimulus measures to revive the economy. This results in an increase in the fiscal deficit. Governments often use deficit financing to spur growth during economic downturns, making this statement accurate.

83. Answer: (b) 2 only

Explanation:

- Statement 1 is incorrect: India follows a managed float exchange rate system where the value of the Indian Rupee is determined by market forces with occasional interventions by the Reserve Bank of India (RBI) to stabilize or avoid excessive volatility in the exchange rate. This means the RBI does not regulate the Rupee-dollar rate directly in a fixed or pegged manner but influences it when necessary to ensure stability. Hence, statement 1 is not entirely accurate as the regulation is not direct or constant but rather managed.
- Statement 2 is correct: The RBI intervenes in the forex market through buying or selling foreign exchange indirectly to manage excessive volatility and maintain orderly market conditions. This intervention



is often conducted through public sector banks or other financial intermediaries to avoid direct involvement and market distortion.

84. Answer: (b) 2 Only

Explanation:

- Statement 1 is incorrect: Payments banks are not permitted to undertake lending activities. They can only accept deposits, provide remittance services, and offer payment and financial services. The primary objective of payments banks is to enhance financial inclusion by providing banking services to underserved and unbanked segments of the population. They are restricted from engaging in lending to ensure their operations remain focused on low-risk, transaction-based activities.
- Statement 2 is correct: Payments banks are required to maintain a Cash Reserve Ratio (CRR) with the Reserve Bank of India (RBI). This requirement ensures that a portion of the banks' deposits is kept in reserve with the central bank to manage liquidity and maintain financial stability.
- Statement 3 is incorrect: Payments banks can issue debit cards, but they are not allowed to issue credit cards. The prohibition on issuing credit cards aligns with their restricted mandate of not engaging in credit-related activities. Debit cards allow payments banks to facilitate cashless transactions and enhance financial inclusion without taking on the risks associated with credit issuance.

85. Answer: (d) 1, 2 and 4 only

Explanation:

- Statement 1 is correct. A promissory note is a written promise by one party to pay a certain sum of money to another party either on demand or at a specified time date. It is a negotiable instrument because it can be endorsed and transferred to another party.
- Statement 2 is correct. A cheque is a written order directing a bank to pay a specific amount of money from the drawer's account to the person named on the cheque or to the bearer. Cheques are considered negotiable instruments because they can be endorsed and transferred.

- Statement 3 is incorrect. A currency note (paper money) is not a negotiable instrument in the legal sense because it does not require endorsement and delivery for transfer. Currency is legal tender, and its transfer is governed by different principles and laws compared to negotiable instruments.
- Statement 4 is correct. A bill of exchange is a written order by one party to another to pay a specified amount to a third party either on demand or at a future date. It is a common negotiable instrument used in international trade and can be endorsed and transferred.

86. Answer: (d) All four

Explanation:

- Statement 1 is correct: Loans to minorities are included under Priority Sector Lending (PSL). The RBI mandates that banks must provide a certain percentage of their loans to specific sectors that impact a large portion of the population, including economically weaker sections and minorities, to ensure inclusive growth.
- Statement 2 is correct: Education loans also fall under the PSL category. These loans are intended to support students from economically weaker sections in pursuing higher education. By including education loans in PSL, the RBI aims to promote education and skill development, which are critical for economic development.
- Statement 3 is correct: Loans for renewable energy projects are considered under PSL to encourage the adoption of sustainable energy sources. This includes loans for solar, wind, biomass, and other renewable energy projects. The inclusion of renewable energy in PSL is part of the broader initiative to promote environmental sustainability and reduce carbon footprints.
- Statement 4 is correct: The overdraft facility provided under the Pradhan Mantri Jan-Dhan Yojana is also part of PSL. PMJDY aims to provide financial inclusion by ensuring access to financial services, including basic savings bank accounts, affordable credit, insurance, and pensions. Overdraft facilities under this scheme support the financially underserved segments of society.



87. Answer: (b) 2 only

Explanation:

- Cash Reserve Ratio (CRR) is a monetary policy tool used by the Reserve Bank of India (RBI) to control liquidity in the economy. It requires commercial banks to hold a certain percentage of their total deposits as reserves with the RBI. It is one of the tools through which the RBI manages inflation, controls credit, and ensures liquidity.
- Statement 1 is incorrect: Under CRR, banks are required to deposit a percentage of their net demand and time liabilities (NDTL) with the RBI, not keep it with themselves. This reserve is held in cash form with the central bank and is not available for lending or investment. This ensures liquidity control in the banking system and prevents excessive money circulation.
- Statement 2 is correct: NBFCs are financial institutions but do not fall under the regulatory framework of CRR and Statutory Liquidity Ratio (SLR) requirements that apply to commercial banks. Instead, NBFCs have their own capital adequacy and liquidity norms set by the RBI. CRR requirements are specific to scheduled commercial banks and are a direct instrument of monetary policy for these institutions.
- An increase in CRR reduces the amount banks can lend, tightening liquidity. Conversely, a decrease in CRR increases lending capacity and boosts liquidity.

88. Answer: (a) 2 only

Explanation:

- Statement 1 is incorrect: The Eastern Coastal Plains are generally wider and more fertile than the Western Coastal Plains. The Western Coastal Plains are narrow, running along the Arabian Sea coast, while the Eastern Coastal Plains stretch along the Bay of Bengal, where large river deltas have formed.
- Statement 2 is correct: The Eastern Coastal Plains are home to important river deltas, including the Godavari, Krishna, Mahanadi, and Kaveri. These deltas make the region agriculturally productive, supporting the cultivation of rice and other crops.
- Statement 3 is incorrect: The Western Coastal Plains

do not have large lagoons like Chilika Lake, which is located on the Eastern Coastal Plains in Odisha. The Western Coastal Plains are known for their backwaters, especially in Kerala.

Coastal Plains in India

- Coastal plains are low-lying flat lands located near the seashore, bordered by the sea on one side and hills on the other. They gradually rise in elevation, forming flat terraces with altitudes of 100 to 300 meters. India has two main coastal plains:
 - Eastern Coastal Plains: Stretching from West Bengal to Tamil Nadu, this region includes fertile deltas formed by rivers like the Mahanadi, Krishna, Godavari, and Cauvery with width varying from 80-100 Km. It comprises three sections: the Utkal coast, Andhra coast, and Coromandel Coast.
 - Western Coastal Plains: Extending from Gujarat to Kerala, these plains cover about 1,500 kilometers, with widths varying from 10 to 25 kilometers. This region is divided into: Kachchh and Kathiawar coast, Konkan coast, and Malabar Coast.

89. Answer: (d) 1, 2 and 3

Explanation:

- Statement 1 is correct. Tropical grasslands experience warm temperatures throughout the year, with distinct dry and wet seasons and receive 50 cm to 130 cm of rainfall. The short vegetation in these regions, such as the African savanna, makes it an ideal hunting ground.
- Statement 2 is also correct. Temperate grasslands are located in mid-latitudinal zones and interior continental areas. The grass is typically short and nutritious, and common wildlife includes wild buffaloes, bison, and antelopes.
- Statement 3 is correct. Temperate grasslands are characterized by grasses and/or shrubs, lacking trees except for riparian or gallery forests along streams and rivers. These regions have fertile soil with rich nutrients and minerals, but they experience extreme climates differing significantly from tropical grasslands.

90. Answer: (b) Only two

Explanation:

- Statement 1 is correct. Wheat is the second-most-produced cereal grain behind maize, and the global trade of wheat is greater than all other crops combined. In 2020, the total global production of wheat was 760 million tons.
- Statement 2 is incorrect. China, the world's largest wheat producer, has yielded more than 2.4 billion tonnes of wheat over the last two decades, making up roughly 17% of total production from 2000-2020. The second-largest wheat-producing country is India. Over the last two decades, India has produced 12.5% of the world's wheat. Like China, India keeps most of its wheat domestic because of significant food demand across the country. Russia, the world's third-largest wheat producer, is also the largest global exporter of wheat.
- Statement 3 is correct. China, India, and Russia are the three largest individual wheat producers in the world, accounting for about 41% of the world's total wheat production. The United States is the fourth-largest individual wheat producer in the world. However, the European Union, if it were counted as a single country, its wheat production would exceed that of any country except China.

91. Answer: (a) Only one

Explanation:

- Bara-lacha la: Bara-lacha la is a high mountain pass located in the Indian state of Himachal Pradesh, specifically in the Zaskar Range of the Himalayas. It is positioned on the Leh–Manali Highway, a crucial route connecting the towns of Leh in Ladakh and Manali in Himachal Pradesh.
- Significance: Bara-lacha la holds strategic importance due to its location on the Leh–Manali Highway, serving as a gateway for travellers journeying between the cold deserts of Ladakh and the lush greenery of Himachal Pradesh.
- Chang La:

- Location: Chang La is a high mountain pass situated in the Ladakh region of the Indian union territory of Jammu and Kashmir.
- It lies on the route to Pangong Lake from Leh, making it a vital passage for those traveling to the scenic lake.
- Altitude: Chang La is renowned as one of the highest motorable passes globally, with an elevation of approximately 5,360 meters (17,590 feet) above sea level.
- The altitude, coupled with the challenging terrain, makes it a demanding but rewarding journey for adventurers and tourists.
- Pangong Lake Connection: Chang La is a gateway to the mesmerizing Pangong Lake, a high-altitude lake renowned for its crystal-clear blue waters and captivating scenery.

• Jelep La:

- Location: Jelep La is a mountain pass located on the border between the Indian state of Sikkim and the Tibet Autonomous Region of China. This pass is situated in the eastern Himalayas and serves as a significant passage between the two regions.
- Historical Significance: Jelep La has historical importance as it was a part of the ancient Silk Route, facilitating trade and cultural exchanges between India and Tibet.
- The pass continues to be a crucial route for cross-border trade.
- Connectivity: The pass connects the capital of Sikkim, Gangtok, with the Tibetan town of Lhasa. The journey through Jelep La offers spectacular views of the Himalayas and is known for its challenging terrain and scenic beauty.

92. Answer: (c) Only three

Explanation:

- Directed Energy Weapons (DEWs) are advanced military systems that utilize concentrated energy, such as lasers, microwaves, or particle beams, to



incapacitate or destroy targets without relying on traditional kinetic projectiles.

- Statement 1 is correct. DEWs operate by focusing energy on a target, which can cause damage through various mechanisms such as heating, disrupting electronics, or causing structural failure. Unlike conventional weapons that rely on mass and velocity, DEWs can deliver precise strikes with minimal collateral damage.
- Statement 2 is correct. High Energy Lasers have the capability to target satellites in low Earth orbit by damaging their sensors or propulsion systems. This application raises strategic implications for space warfare and satellite defense, as nations explore ways to protect their assets in space from adversarial actions.
- Statement 3 is correct. Atmospheric conditions significantly impact the performance of DEWs, particularly laser systems. Fog, rain, and storms can scatter or absorb the directed energy, reducing its intensity and effectiveness against targets. This limitation necessitates careful consideration of environmental factors when deploying DEWs in operational scenarios.
- Statement 4 is incorrect. The DragonFire laser is a British-developed high-energy laser system, not tested by India. It has demonstrated significant capabilities in precision targeting and neutralizing aerial threats. It is an example of HEL technology.

93. Answer: (b) Both Statement II and Statement III are correct, but only one of them explains Statement I

Explanation:

- Statement I is correct. Vishvasya provides BaaS, enabling secure and distributed software architectures, fostering trust, and promoting innovative applications across domains, which aligns with India's goal of global technological leadership.
- Statement II is correct and explains statement I. Blockchain's integration can revolutionize India's R&D ecosystem by fostering partnerships and advancing application-based research. For example, the use of the NBFLite platform enables startups to prototype Blockchain solutions, thereby supporting

academia-industry collaboration. However, while this aligns with India's R&D priorities, it is not the primary rationale for Vishvasya's implementation.

- Statement III is correct but does not explain statement I. Challenges like legal ambiguities (e.g., data localization conflicts), scalability concerns, and energy demands remain significant obstacles for Blockchain adoption. These issues must be addressed for Vishvasya to achieve seamless integration with India's R&D framework. However, these challenges are more relevant as barriers rather than direct explanations for Vishvasya's establishment.
- Vishvasya: National Blockchain Technology Stack is a key initiative by MeitY designed to position India as a frontrunner in Blockchain technology. By leveraging Blockchain-as-a-Service (BaaS), Vishvasya supports various applications across sectors such as health, education, and finance, which align with the broader goals of India's R&D ecosystem to drive innovation and industrial collaboration.
- Both Statements II and III are correct. However, Statement II explains the significance of Vishvasya's role in enhancing the R&D ecosystem, whereas Statement III highlights the barriers, making only one directly relevant to Statement I.

94. Answer: (c) Statement-I is correct, but Statement-II is incorrect.

Explanation:

- Statement I is correct: Improper disposal of antibiotics, pharmaceutical waste, and untreated wastewater significantly contribute to environmental contamination, fostering the development of resistant microbes.
- Statement II is incorrect. The "One Health Approach" recognizes the interconnection between human health, animal health, and environmental health, emphasizing a holistic strategy for combating AMR. It does not solely focus on human health.
- Antimicrobial Resistance (AMR)
 - Antimicrobial Resistance (AMR) is a significant global health threat. It occurs when

microorganisms like bacteria, viruses, fungi, and parasites evolve to resist the antimicrobial drugs designed to kill them. This means that standard treatments become ineffective, leading to persistent infections and increased risk of disease spread, severe illness, and death.

- The misuse and overuse of antimicrobials in humans, animals, and plants are the primary drivers of AMR. This issue affects all regions and income levels, but low- and middle-income countries are hit hardest. AMR also poses a substantial economic burden, with the World Bank estimating that it could result in \$1 trillion in additional healthcare costs by 2050.

(ICBM), etc. Ballistic missiles have fixed targets and parabolic paths. E.g. Agni Missile, Trident

- Statement 3 is correct. Brahmos is a supersonic cruise missile.
- Statement 4 is correct. Prithvi is India's first indigenously developed ballistic missile produced by the Integrated Guided Missile Development Programme.
- Variants:
 1. Prithvi-I: Army version with a range of ~150 km, payload up to 1,000 kg.
 2. Prithvi-II: Air Force version with a range of ~250 km, payload ~500 kg.
 3. Prithvi-III (Dhanush): Naval version with a range of ~350 km, used for ship-to-surface strikes.

95. Answer: (b)

Explanation:

- India's first Dark Sky Reserve located in Hanle, Ladakh. Hence statement 1 is Incorrect.
- A Dark Sky Reserve is a designation given to a place that has policies in place to ensure that a tract of land or region has minimal artificial light interference. Hence statement 2 is correct.

96. Answer: (c) Only three

Explanation:

- Statement 1 is incorrect. A cruise missile is a guided missile designed to deliver a payload (conventional or nuclear) with high precision. It flies at relatively low altitudes, often following the terrain (terrain-hugging capability) to avoid radar detection. Cruise missiles do not leave the earth's atmosphere, they remain within the earth's atmosphere. E.g. Nirbhay, BrahMos etc...
- Statement 2 is correct. A ballistic missile is a rocket-propelled missile that follows a parabolic trajectory to deliver a payload (nuclear or conventional). After the initial powered phase, the missile travels unpowered (ballistically) during most of its flight. Ballistic missiles are classified based on their range: short-range, medium-range, intercontinental

97. Answer: (b) 2 only

Explanation:

- The Kavaratti is the capital of the Union Territory Lakshadweep in India. The Island of Kavaratti lies 360 Kms of the coast of the State of Kerala at 10.57°N 72.64°E. It has a lagoon area of 3.46 sq. mi.
- Statement 1 is correct: This Island is at a distance of 404 km (218 nautical miles) from Kochi and is located between Agatti Island on the west and Andrott Island on the east.
- Statement 2 is incorrect: Malayalam is spoken in all the islands except Minicoy where people speak Mahl which is written in Divehi script and is spoken in Maldives also. The entire indigenous population has been classified as Scheduled Tribes because of their economic and social backwardness.
- Statement 3 is correct: Kavaratti has been selected as one of the hundred Indian cities to be developed as a smart city under PM Narendra Modi's flagship Smart Cities Mission.

98. Answer: (c) 3-4-1-2

Explanation:

- As one travels in South East Asia from South to North, first destination would be Jakarta (Indonesia), Singapore, Bangkok (Thailand), Hanoi (Vietnam).



99. Answer: (d) None

Explanation:

- Statement 1 is correct: Lake Victoria is the world's second largest freshwater lake in surface area, second only to Lake Superior in North America.
- Statement 2 is correct: It is bordered by Tanzania, Kenya and Uganda. Lake Victoria is the largest lake in Africa, with a surface area of 68,800 square kilometre. The lake contains numerous islands, and has a highly indented shoreline estimated to be about 3,460 km long.
- Statement 3 is correct: Lake Victoria touches the Equator in its northern side. A population of over 30 million people live in its basin.
- It is a source of the White Nile River which flows northward and eventually joins the Blue Nile in Sudan to form the Nile River which drains into the Mediterranean Sea.





100. Answer: (c) All three

Explanation:

- Pangong Lake, one of the most famous lakes in Leh Ladakh, derives its name from the Tibetan word, “Pangong Tso”, which means “high grassland lake”.
- Statement 1 and 2 are correct: Pangong Lake, situated at a height of almost 4,350m, is the world’s highest saltwater lake. Its water, which seems to be dyed in blue, stand in stark contrast to the arid

mountains surrounding it. Extending to almost 160km, one-third of the Pangong Lake lies in India and the other two-thirds in China.

- Statement 3 is correct: Pangong Lake is a stunning high-altitude lake in the Himalayas at an elevation of 4350 m. Spanning over 134 km and extending from India to China, the lake is noted for its ever-changing shades, ranging from deep blue to turquoise. It gained international attention due to its proximity to the Line of Actual Control between India and China.