## HINTS & SOLUTION

- **1.** (a) The contraction of eyeball brings about in a long- sighted eye. To see the nearby objects, a convex lens is used.
- 2. (d) The transpiration takes place from the leaves surface all the time. The water taken out from leaves absorbs heat from the surrounding atmosphere to vapourise so the area under a tree becomes cool.
- **3.** *(b)* The small leaves possess no or very few stomata thus the loss of water by transpiration is decreased and protects the plant from dehydration.
- 4. (a) When an antigen enters the body, the immune system responds by increasing the production of white blood cells (W.B.Cs), particularly lymphocytes, which are responsible for recognizing and fighting off the antigen. These cells help in producing antibodies and other immune responses to defend the body against illness.
- 5. (c) Intestines are soft tissues and do not have sufficient contrast in X-ray imaging, making it difficult to capture a clear picture. To better visualize the intestines, radiologists often use contrast agents (such as barium) that highlight the intestines, allowing clearer X-ray or imaging results.

- **6.** *(c)* Cinchona bark creates quinine which is an anti-malarial drug. Poppy plant creates morphine it is an opium alkaloid, which is a strong analgesic and also has sedative and soothing effect. Fungus and bacterium are the sources of antibiotics penicillin and tetracycline respectively.
- 7. (a) Water gas is a synthetic gas, having CO and H2. The gas is produced by passing steam over a red hot hydrocarbon fuel as coke.
- **8.** *(c)* Cereals are good source of carbohydrate.
- 9. (b) The coronary arteries deliver blood to the heart muscle, providing a continuous supply of oxygen and nutrients needed for it to stay healthy and function normally. The pulmonary veins receive oxygenated blood from the lungs and drain into the left atrium of the heart. The Hepatic artery supplies oxygen-rich blood to the liver, pylorus, pancreas, and duodenum. The renal arteries carry a large portion of total blood flow to the kidneys.
- **10.** *(d)* Astigmatism is caused by an irregular curvature of the cornea or lens, leading to distorted or blurred vision at all distances. This condition occurs because light rays do not focus evenly on the retina. To correct

- astigmatism, cylindrical lenses are used, which adjust the uneven curvature, allowing light to focus properly on the retina and thereby improving vision.
- 11. (a) An a-particle is identical with helium nuclei. It consists of 2 protons and 2 neutrons and represented by  ${}_{2}\text{He}^{4}$ .
- **12.** (*d*) German silver is an alloy of copper (25-50%), zinc (25-35%) and nickel (10-35%). It is used in utensils and resistance wire..
- 13. (a) Automobile batteries are usually lead-acid type, and are made of six galvanic cells in series to provide a 12volt system. Each cell provides 2.1 volts for a total of 12.6 volts at full charge. Lead-acid batteries are made up of plates of lead and separate plates of lead dioxide, which are submerged into an electrolyte solution of about 38% sulfuric acid and 62% water. This causes a chemical reaction that releases electrons, allowing them to flow through conductors to produce electricity. As the battery discharges, the acid of the electrolyte reacts with the materials of the plates, changing their surface to lead sulphate. When the battery is recharged, the chemical reaction is reversed: the lead sulphate reforms into lead dioxide and lead. With the plates restored to their original condition, the process may now be repeated.

- **14.** (b) Atoms are neutral. When an atom loses electron, it becomes positively charged and when an atom gains electron, it becomes negatively charged. Hence, a body is charged negatively when it has acquired some electrons from outside.
- **15.** *(c)* In making of bullet proof material. Polyethylene polymers is used because it is cheap, flexible, durable and chemically resistant.
- 16. (a) Ionic compound is a chemical compound in which ions are held together in a lattice structure by ionic bonds. Following the aphorism, "like dissolves like", ionic compounds dissolve in polar solvents, especially those that ionize, such as water and ionic liquids. They are usually appreciably soluble in other polar solvents such as alcohols, acetone. Solid ionic compounds cannot conduct electricity because there are no mobile ions or electrons present in the lattice..
- 17. (a) Liquid sodium is used as a coolant in fast breeder nuclear reactors because of its excellent thermal conductivity and ability to remain liquid at high temperatures without needing high pressures.
- **18.** (d) German silver has a colour resembling silver, but is an alloy of primarily copper, nickel and zinc.

Solder is an alloy of tin, antimony, copper and lead. Bleaching powder contains calcium chloride and calcium hypochlorite, used in solution as a bleach. Bleaching powder is sold on the basis of available chlorine, which is liberated when it is treated with a dilute acid. It is used for bleaching paper pulps and fabrics and for sterilizing water. Нуро solution used iodometric titration is sodium thiosulphate (Na2S2O3).

- 19. (c) Coke is added in blast furnace along with iron ore in a blast furnace. Coke being derived from fossil fuel by destructive distillation. Thus it contains higher percentage of carbon and have high calorific value that's why it functions as a fuel to supply heat. Coke also acts as a reducing agent and reduce metal(iron) oxide to metal..
- **20.** (d) Acid rain is caused by a chemical reaction that begins when compounds of sulphur dioxide and nitrogen oxide react with molecules in the atmosphere to produce acids..
- air, its velocity initially increases due to gravity. However, as it accelerates, the air resistance acting on it also increases. Eventually, the air resistance balances the force of gravity, causing the raindrop to reach a constant velocity known as terminal velocity. At this point, the raindrop continues to fall at this constant speed.

- **22.** *(c)* Fat can be separated from milk in a cream separator because of centrifugal force. In a cream separator, the milk is spun at high speed, which creates a centrifugal force that pushes the denser components (like the liquid part of the milk) outward, while the lighter fat molecules (cream) are forced inward. This process effectively separates the fat from the milk.
- **23.** (a) As the plug is pulled out, the value of resistance in the circuit decreases and hence more current tries to flow through the circuit. Pulling out the plug breaks the circuit and to complete the circuit for the flow of electricity a spark is observed.
- **24.** *(c)* a temperature difference of 10°C will correspond to a difference of 18°F on the Fahrenheit scale.
- 25. (b) A unit magnetic pole in the SI system is defined as a pole that, when placed 1 meter away from an equal and similar pole in air, repels it with a force of 1 Newton. This definition is based on the inverse square law of magnetism, which states that the force between two magnetic poles is directly proportional to the product of their strengths and inversely proportional to the square of the distance between them.
- **26.** *(d)* Evaporation: the process by which water is converted from its liquid form

to its vapor form (gas); Sublimation: the transition of a substance directly from the solid phase to the gas phase without passing through an intermediate liquid phase; Freezing: a phase transition in which a liquid turns into a solid when its temperature is lowered below its freezing point; and Melting: the process of heating a solid substance to a liquid.

- 27. (a) When a particle is thrown vertically upward, it slows down due to the force of gravity acting on it. At the highest point, the particle's velocity becomes zero, but gravity still acts on it, pulling it downward. Therefore, the particle has a downward acceleration equal to the acceleration due to gravity.
- **28.** (d) Mass is the quantity of matter contained by the object. Weight is the force of gravity acting on a body. Mass is constant anywhere in the universe but weight depends upon the quantity of gravity in a particular place.
- **29.** (*d*) Ultraviolet (UV) radiation has a shorter wavelength than visible light, which means it has higher energy photons. The correct relationship is that the photon energy of ultraviolet light is greater than that of visible light, not lesser.
- **30.** (a) In a vacuum, where there is no air resistance, all objects fall at the same rate due to gravity. This means that if a feather and a coin are dropped from the

same height, they will hit the ground simultaneously. The reason behind this is that gravity accelerates all objects equally, regardless of their mass, when there is no air resistance. Therefore, both the assertion and the reason are true, and the reason correctly explains the assertion.

- 31. (a) The boiling point of a liquid is the temperature at which its vapor pressure equals the external pressure. When the external pressure decreases (such as at higher altitudes), the vapor pressure required to make the liquid boil is lower, and therefore the boiling point decreases. Both the assertion and the reason are true, and the reason correctly explains the assertion.
- **32.** *(a)* The sky appears blue because of Rayleigh scattering, which causes shorter wavelengths of light (blue) to scatter more than longer wavelengths (red). The reason given is correct and directly explains why the sky appears blue during the day.
- **33.** (b) The Gupta period, particularly from the 4th to the 6th century CE, is often called the "Golden Age" of India because ofits remarkable achievements in various fields such as art, literature, science, and mathematics. During this period, there was a significant advancement in culture, and the empire witnessed prosperity and stability. The other options, like the Guptas issuing the

- first gold coins or establishing their empire in the south, are incorrect, as the Guptas were primarily based in northern India and were not the first to issue gold coins.
- **34.** (d) The Quit India Movement, led by Mahatma Gandhi, was launched in 1942, not in 1939. The movement was a mass protest demanding an end to British rule in India.
- 35. (a) Abul Fazl was a prominent historian and courtier in the court of the Mughal Emperor Akbar. He is best known for his work 'Ain-i-Akbari,' which is part of a larger work called the 'Akbarnama.' The 'Ain-i-Akbari' is a detailed document that provides a comprehensive account of administration, culture, and economy during Akbar's reign. It contains information about the functioning of the Mughal Empire, including details on the court, military, revenue system, and various aspects of society.
- 36. (a) The Bhakti Movement indeed emphasized personal devotion (bhakti) and rejected the need for intermediaries such as priests, making statement 1 correct. It also promoted social equality, challenging the caste system, so statement 2 is correct as well. However, the Bhakti Movement had significant influence in southern India as well, with saints like Alvars and Nayanars.

- 37. (d) Qutb-ud-din Aibak, a former slave of Muhammad Ghori, established the Delhi Sultanate. The Tughlaq dynasty, particularly under Muhammad bin Tughlaq, is known for administrative reforms and territorial expansion. The Delhi Sultanate's downfall came with Babur's victory at the Battle of Panipat in 1526, marking the beginning of the Mughal Empire.
- **38.** (d) The Vijayanagara Empire was indeed founded by Harihara I and Bukka I. Hampi, the capital, is renowned for its architecture and cultural significance. The Battle of Talikota in 1565 was a major turning point that led to the decline of the empire.
- 39. (c) The Cholas had a powerful navy and extended their influence to Southeast Asia. They also had an efficient system of local governance, with well-organized village assemblies. However, the Brihadeeswara Temple was built by Rajaraja Chola I, not Rajendra Chola, so statement 2 is incorrect.
- **40.** *(b)* The Mansabdari system was introduced by Akbar as a means to organize the military and bureaucracy. Aurangzeb was known for his orthodox Islamic policies, including the re-imposition of Jizya. However, the Mughal Empire reached its greatest territorial extent under Aurangzeb, not

Shah Jahan, making statement 3 incorrect.

- **41.** *(d)* Akbar's policy of Sulh-i-Kul was based on the idea of universal peace and tolerance. He abolished the Jizya tax to promote religious inclusiveness. Din-i-Ilahi, although it was not widely adopted, was Akbar's attempt to blend aspects of different religions.
- **42.** *(c)* The Harappan Civilization is indeed referred to as the Indus Valley Civilization, named after the Indus River, around which many of its cities were located. Harappan Civilization is known for its advanced urban planning, including sophisticated drainage systems and the use of uniform brick sizes in construction.
- 43. (c) The Pyramids of Giza, including the Great Pyramid, were built during Egypt's Old Kingdom (circa 2600–2500 BCE) and were intended as monumental tombs for pharaohs. the Great Pyramid of Giza is the only one of the Seven Wonders of the Ancient World that still exists today in relatively good condition.
- 44. (b) The Rigveda, the oldest of the four Vedas, is primarily a collection of hymns dedicated to various deities. Among these, Indra is the most frequently mentioned god. He is celebrated as the king of the gods and the god of thunder and war, and many hymns in the Rigveda praise his heroic

deeds, particularly his victory over the demon Vritra.

- **45.** (d) The "Periplus of the Erythraean Sea" is a Greek travel document from the 1st century CE, which describes the navigation and trading opportunities Roman Egypt to various locations around the Red Sea, and particularly along the coast of India. It provides detailed accounts of the trade between the Roman Empire and the Satavahana Kingdom, particularly highlighting the ports along the western coast of India, like Sopara and Bharuch, which were part of the Satavahana territory.
- **46.** (a) The Vernacular Press Act of 1878 was introduced by Lord Lytton, the then Viceroy of India. The act was designed to curtail the freedom of the Indian-language press, which was becoming increasingly critical British rule. The law allowed the British government to censor and publications suppress in Indian languages, which were seen as a threat to colonial authority. The act was widely opposed by Indian leaders and journalists, and it was eventually repealed by Lord Ripon in 1882.
- 47. (a) The Congress ministries resigned in 1939 following the outbreak of World War II. The British government had involved India in the war without consulting Indian leaders, which led to widespread discontent. The Congress

- decided to resign from the ministries as a protest against this unilateral decision.
- **48.** (b) Mahatma Gandhi authored Hind Swaraj (also known as Indian Home Rule), which he wrote during his time in South Africa. The work is a critical examination of modern civilization and a call for Indian self-rule and resistance against British colonial rule.
- **49.** (c) The judicial reforms undertaken by Lord Cornwallis laid a strong foundation in the British Indian administrative system in the year 1793. The judicial reforms of Cornwallis were documented in the famous Cornwallis Code. However the new iudicial reforms of Lord Cornwallis were based on the principle of Separation of Powers. Cornwallis at first sought to separate the revenue administration from the administration of justice. The collector used to be the head of the Revenue Department in a district and also enjoyed extensive and magisterial iudicial powers. However Cornwallis wanted Separation of Power and the Cornwallis Code divested the collector of all the judicial and the magisterial powers. Thus the Collectors were given only the power of the revenue according administration Cornwallis Code. A new class of officer called the District Judge was created to preside over the district Civil Court. The district judge was also

- given the magisterial and the police function.
- **50.** *(c)* The first European power to occupy Pondicherry (Mahe in the Malabar, Yanam in Coromandal and Karikal in Tamil Nadu) were the French in 1739.
- **51.** (a) Ilbert Bill was introduced during the viceroyalty of Lord Rippon.
- **52.** *(d)* The National Security Guard (NSG) was set up in 1984 as a Federal Contingency Deployment Force to tackle all facets of terrorism in the country. The NSGs are trained to conduct counter-terrorism tasks including counter-hijacking tasks on land, sea, and air. NSG work under the aegis of Ministry of Home Affairs.
- **53.** *(a)* A Red Data Book contains lists of species whose continued existence is threatened. Species are classified into different categories of perceived risk. Each Red Data Book usually deals with a specific group of animals or plants (e. reptiles, insects, mosses). It has been published by International Union for the Conservation of Nature and Natural Resources (IUCN).
- **54.** (a) The prize is not awarded posthumously; however, if a person is awarded a prize and dies before receiving it, the prize may still be presented. Noble Prize in Economics is given since 1969.

- **55.** (a) National Institute of Ocean Technology is located in Chennai. Central Drug Research Institute is located in Lucknow. National Institute of Nutrition is located in Hyderabad.
- Forces (Special Powers) Act of 1958 (AFSPA) is an act to enable certain special powers to be conferred upon members of the armed forces in disturbed areas in the States of Assam, Manipur, Meghalaya, Nagaland, Tripura and the Union Territories of Arunachal Pradesh and Mizoram. The AFSPA gives the armed forces enormous powers to shoot, arrest and search in the name of aiding civil power. It was first applied to the north eastern states of Assam and Manipur.
- 57. (b) The UNGA is indeed the main deliberative, policymaking, and representative organ of the UN, where all 193 Member States have equal representation. Each member state has one vote in the General Assembly, irrespective of its size or power. Decisions on international peace and security in the General Assembly typically require a simple majority, not necessarily a two-thirds majority, except for certain important issues where a two-thirds majority is needed.
- **58.** *(c)* UNICEF focuses on providing humanitarian and developmental aid to children worldwide, including emergency food and healthcare.

- UNICEF's headquarters is located in New York City, USA, not Geneva, Switzerland. The Executive Board of UNICEF indeed consists of representatives from 36 countries.
- **59.** *(d)* ECOSOC is one of the six principal organs of the UN, established by the UN Charter. ECOSOC is responsible for coordinating the economic, social, and related work of the UN's specialized agencies. ECOSOC has 54 members, elected by the General Assembly for overlapping three-year terms.
- **60.** (c) It was formed with four Member States with the acronym 'BIST-EC' (Bangladesh, India, Sri-Lanka and Thailand Economic Cooperation).
- 61. (d) Ex Garuda Shakti is a bilateral joint training Exercise between Indian & Indonesia. Ajeya Warrior is a bilateral military exercise between India and the UK. Exercise 'Dharma Guardian' is an annual exercise conducted alternatively in India and Japan. Ex Desert cyclone is a join military exercise between India and UAE.
- **62.** *(d)* WIPO's headquarters is located in Geneva, Switzerland. While Least Developed Countries (LDCs) do have extended deadlines to implement TRIPS provisions, the duration and terms are subject to periodic extensions by the WTO, not a fixed 20-year period.

- **63.** (c) The Nag missile is an anti-tank guided missile that was developed to target enemy battle tanks. It is a fire to forget type missile. Agni and Prithvi are surface to surface ballistic missile whereas Akash is a surface to air ballistic missile.
- **64.** *(c)* Airforce Day is celebrated on 8th October every year to mark the formation of the Indian Air Force.
- **65.** (a) In an NCC unit, the rank of Senior Under Officer is the most prestigious cadet rank.
- **66.** (b) The correct pairing is: Polo with Chukker, Horse Racing with Triple Crown, Baseball with Knuckleball, and Fencing with Sabre.
- **67.** (a) Defence Research Development Organisation (DRDO) recently achieved success with four flight trials of 'ABHYAS,' a highexpendable aerial Developed by DRDO's Aeronautical Development Establishment. ABHYAS serves as a realistic threat scenario for weapon systems practice and validates Armed Forces equipment for aerial engagement. It features an autonomous flying design, indigenously made autopilot, and a laptop-based Ground Control System for integration and analysis.

- **68.** (b) It is a mid-ranged mobile surface-to-air missile defence system developed by the Defence Research and Development Organisation (DRDO) and produced by Bharat Dynamics Limited (BDL) and Bharat Electronics (BEL).
- **69.** *(d)* Ogaden region has been a source of conflict between Ethiopia and Somalia
- 70. (c) The first statement is incorrect because the Great Andamanese tribe, once one of the largest tribal groups in the Andaman Islands, has seen a significant decline in population and is no longer the largest tribal group. The second statement is correct, as the Jarwa tribe is known for maintaining isolation and having limited contact with outsiders, which they have done for centuries. The third statement is also correct, as the Onges are a seminomadic tribe primarily living on Little Andaman Island. Lastly, the fourth statement is because true Sentinelese tribe, inhabiting North Sentinel Island, is one of the most isolated tribes in the world, known for their resistance to outside contact and preservation of their traditional way of life.
- **71.** (b) Meteor is a small celestial body which has entered the earth's atmosphere by the gravitational force of earth, when they pass close to it. Meteors typically occurs in the

- mesosphere, and most range in altitude from 75 km to 100 km.
- **72.** *(c)* It is a tropical cyclone of north-west Australia. Willy Willy originates in the Timor sea and causes rainfall in different parts of Australia.
- **73.** *(c)* The asteroids are group of small pieces of rocky debris of different sizes. Some asteroids are small and some asteroids even have diameter 1000 km. The asteroids revolve between Mars and Jupiter.
- **74.** (d) Hottest planet is Venus; Largest planet is Jupiter; red planet is Mars; Mercury is the nearest planet to the sun.
- 75. (d) All the statements are correct.
- 76. (b) Both the statements are correct, but reason is not the correct explanation of the statement. The sun, the earth and the moon come in the position of quadrature (form-a right angle) on seventh and eighth day of every fortnight of a month and thus the tide producing forces of the sun and the moon works in opposite direction, causing low tide. This is lower in height than the normal tide and is called neap tide. But the spring tide occurs during full moon and are called high tides.

- 77. (a) Ukraine borders seven countries: Poland, Slovakia, Hungary, Romania, Moldova, Russia, and Belarus.
- **78.** *(b)* The Suez Canal connects the Mediterranean Sea to the Red Sea, providing the shortest maritime route between Europe and the Indian Ocean. It was opened in 1869, but it is a manmade waterway, not a natural one.
- 79. (c) The correct sequence of different layers of atmosphere from the surface of earth is Troposphere, Stratosphere, Mesosphere and Ionosphere. Troposphere extends upto 8 km from earth surface, but at equator it is 16–18 km. Stratosphere extends above Troposphere 18–50 km. Mesosphere extends up to 80 km and above Mesosphere Ionosphere is present, which extends up to 400 km.
- **80.** *(d)* This date marks the Summer Solstice in the Northern Hemisphere. On 21 June, the Sun is directly overhead the Tropic of Cancer, resulting in the longest day and the shortest night of the year in the Northern Hemisphere.
- **81.** *(b)* A positive IOD is linked to warmer waters in the western Indian Ocean and can enhance monsoon activity in India. The negative IOD often leads to drought conditions in East Africa. The IOD has a significant impact on Indian monsoons.

- **82.** (c) The Kuroshio Current is a warm ocean current that flows northward along the east coast of Japan, moderating the climate of Japan, especially in winter.
- **83.** (a) Igneous rocks are formed from the cooling and solidification of molten magma or lava. When this process happens beneath the Earth's surface, it results in the formation of intrusive igneous rocks. Sedimentary rocks are created through the compaction and cementation of sediments, which accumulate in layers over time. Metamorphic rocks when form existing rocks undergo transformation due to intense heat and pressure, altering their mineral composition and structure. Intrusive rocks, a type of igneous rock, are specifically formed when magma cools inside the Earth's crust.
- **84.** *(b)* The 38th Parallel is the line that divides North Korea and South Korea, established after World War II.
- **85.** (b) Chile does not share a land border with Brazil, as it is separated by Argentina.
- **86.** (a) The correct order of the process of soil erosion is splash erosion, sheet erosion, rill erosion, and gully erosion. The process begins with splash erosion, where raindrops hit the soil surface, displacing soil particles and causing them to scatter. Following this,

- sheet erosion occurs, characterized by the removal of thin layers of soil over large areas due to the impact of rainfall and surface runoff. As water continues to flow, rill erosion develops, forming small channels called rills in the soil as the water collects and flows, further eroding the surface. Finally, the most severe form of erosion, gully erosion, takes place when larger, deeper channels, or gullies, are carved into the landscape, resulting in significant soil loss and altering the terrain.
- **87.** (a) El Nino is a climatic phenomenon characterized by the warming of ocean surface temperatures in the central and eastern Pacific Ocean. This event significantly disrupts normal ocean currents and atmospheric circulation patterns, which in turn can lead to extreme weather events across the globe. For example, during an El Nino event, countries along the western coasts of South America experience increased rainfall and flooding, while regions like Australia and Southeast Asia may suffer from droughts.
- **88.** (a) The Coriolis effect is a fundamental principle in meteorology that describes how the rotation of the Earth affects the direction of winds and ocean currents. As the Earth rotates from west to east, the speed of rotation varies with latitude—it's fastest at the equator and slowest at the poles. This difference in rotational speed causes moving air to

be deflected: to the right in the Northern Hemisphere and to the left in the Southern Hemisphere. As a result, this deflection influences the formation of major wind patterns, such as trade winds and westerlies, and contributes to the development of weather systems.

- **89.** *(d)* The marked countries in figure are Kazakhstan, Turkmenia, Uzbekistan, Kirgizia, Tajikistan.
- **90.** *(d)* Thailand, Laos and Bangladesh are countries bordering Myanmar.
- **91.** (b) With reference to India, the dominant source of irrigation is by canals. About 45% land is irrigated by canals.
- **92.** (a) Onge is the major tribes of the union territory of Andaman and Nicobar. They were fully dependent on hunting and gathering. They belong to the Negrito race.
- 93. (d) Maharashtra is ranked 2nd after Uttar Pradesh among Indian states. So, option '3' is correct. But option '1' and '2' are incorrect, because Goa is the smallest state based on area (i.e., 3702 sqkm), not the Sikkim. Union territory with highest literacy rate is Lakshadweep i.e. 86.7%.
- **94.** (c) The Narmada river originates from a tank 1057 m high west of Amarkantak plateau in Madhya

Pradesh. River Damodar originates from Chhota Nagpur plateau, Mahanadi originates from Bastar plateau and Tapti originates from Satpura hills.

- 95. (b) Tropical grasslands, particularly the savannas, are known for their clear division between wet and dry seasons. These grasslands are typically found in regions near the equator, such as parts of Africa. South America. Australia. The climate of these regions is influenced by the movement of the Intertropical Convergence (ITCZ), a belt of low pressure that moves north and south with the seasons. Temperate grasslands, such as the prairies of North America, the pampas of Argentina, and the steppes of Eurasia, are highly suitable for agriculture. This is because these regions have deep, fertile soils, which are rich in organic matter due to the seasonal die-back of grasses
- 96. (b) Requires high rainfall (1000–2000 mm) and warm temperatures (25°–30°C) for proper growth. Thrives in moderate to high rainfall (700–1500 mm) and warm temperatures (21°–27°C). Grows in lower rainfall areas (250–400 mm) and cooler climates (10°–20°C). Prefers moderate rainfall (600–800 mm) and warm temperatures (20°–25°C).
- **97.** (d) MSP is the price at which the government buys crops from farmers,

- intended to ensure them a minimum profit.
- **98.** (a) The FRBM Act focuses on fiscal deficit reduction but does not mandate bringing the revenue deficit to zero by 2025. It primarily applies to the central government, though some states have adopted similar legislation.
- **99.** *(c)* NIIF does attract international and private sector investments, alongside government funding. It finances both greenfield and brownfield projects.
- 100. (d) All statements are correct. Inflation targeting is a monetary policy where the central bank sets an inflation rate target, and India currently targets 4%, with a tolerance of  $\pm 2\%$ .
- **101.** (a) MGNREGA provides rural employment but not specifically in industrial zones. PMGKY (Pradhan Mantri Garib Kalyan Yojana) is related to economic reforms rather than social security for informal workers.
- **102.** (b) Disinvestment proceeds are not solely directed toward infrastructure. They are used for various purposes, including fiscal consolidation and social sector development.
- 103. (c) Repo rate is the rate at which RBI lends to commercial banks, and the reverse repo rate is the rate at which RBI borrows. GDP represents the total market value of final goods and

- services, and CRR is the percentage of total deposits that banks must maintain with RBL
- 104. (d) 'Atmanirbhar Bharat' promotes self-reliance and focuses on boosting local industries, but it does not specifically incentivize foreign companies to set up manufacturing in India.
- Veblen goods are luxury items where higher prices increase demand due to their status symbol. The other statements are incorrect: Statement 1 reverses the law of demand, Statement 2 reverses the law of supply, and Statement 3 incorrectly states that Giffen goods follow the law of demand when they actually do not.
- 106. (a) Statement 1 is incorrect because not all amendments can be made by a simple majority; some require a special majority ratification by states. Statement 2 is correct as certain amendments do need ratification by at least half of the state legislatures. Statement 3 is incorrect; while the President's assent is required for certain amendments, not amendments require it. Statement 4 is correct as the 42nd Amendment made significant changes, earning it the title of 'Mini-Constitution.'.
- in 2003, established the National

Commission for Scheduled Castes and Scheduled Tribes to address issues related to their social, economic, and educational development. The 73rd and 74th Amendments relate to local self-government, while the 92nd Amendment deals with the inclusion of additional languages in the Eighth Schedule.

- **108.** *(c)* The writ of Prohibition is issued to prevent a lower court from exceeding its jurisdiction or acting contrary to the rules of natural justice.
- **109.** (a) Article 352 allows the President to proclaim a National Emergency when there is a threat to the security of India or any part thereof due to war, external aggression, or armed rebellion.
- **110.** *(b)* The Attorney General of India serves as the chief legal advisor to the government and represents it in the Supreme Court.
- 111. (d) The Speaker does not have the power to dissolve the Lok Sabha at will; dissolution is done by the President based on the advice of the Prime Minister.
- **112.** *(b)* The Chief Justice of India is appointed by the President, based on seniority among the judges of the Supreme Court.

- **113.** (a) The Vice President of India serves as the ex-officio Chairman of the Rajya Sabha and presides over its sessions
- 114. (b) Statement 1 is incorrect because the UPSC was established under the Constitution of India in 1950, not under the Government of India Act, 1919. Statement 2 is correct as the Chairman and members are appointed by the President. Statement 3 is also correct: the UPSC conducts examinations for various Central services but does not conduct examinations for State services (this is done by State Public Service Commissions). Statement incorrect as the UPSC does not have supervise authority to recruitment process for public sector undertakings; that responsibility lies with the respective organizations.
- 115. (b) The CAG is responsible for auditing the financial accounts of both the Union and State governments in India
- 116. (b) Statement 1 is correct as the 73rd Amendment introduced the Panchayati Raj system in 1992. Statement 2 is also correct, detailing the three-tier structure. Statement 3 is correct; the State Election Commission conducts elections to the Panchayati Raj institutions. Statement 4 is incorrect because members of the Zilla

- Parishad are also directly elected by the people.
- 117. (a) It his administrative capacity he is subject to writ judiciary in (Article 1720–224).
- 118. (b) According to Indian order of precedence, Judges of the Supreme Court Rank 9 Deputy Chairman of Rajya Sabha Rank 10 Attorney General of India Rank 11 Members of Parliament Rank 21.
- 119. (c) There are 6 groups of Fundamental Rights: Right to Equality (14-18), Right to Freedom (19-22), Right against Exploitation (23 and 24), Right to Freedom of Religion (25 and 28), Cultural & Educational Rights (29 and 30), Right to Constitutional remedies (32).
- **120.** *(b)* Parliament shall have power to authorise by law the withdrawal of moneys from the Consolidated Fund of India for the purposes for which the said grants are made..