

BPSC – 2024

09-11-2024

Test - 9 Explanation

Q. 1. Answer: D

- *Balyakalasakhi* is a Malayalam romantic tragedy novel.
- Written by Vaikom Muhammad Basheer, first published in 1944.
- The story revolves around Majeed and Suhra, who are childhood lovers.

Q. 2. Answer: B

- Statement 1: Incorrect - Farrukhsiyar's farman (1717) granted duty-free trade to the British East India Company only in Bengal.
- Statement 2: Correct - Allowed the Company to rent more lands around Calcutta, strengthening its commercial base in Bengal.

Q. 3. Answer: B

- Statement 1: Incorrect - The Cripps Mission proposed Dominion Status for India post-WWII, without immediate independence.
- Statement 2: Correct - Indian National Congress opposed it for lacking immediate self-governance and allowing provinces to secede.
- Statement 3: Correct - Muslim League rejected it as it did not meet their demand for a separate state of Pakistan.

Q. 4. Answer: D

- Statement 1: Incorrect - Bose won the Congress presidential election in Haripura (1938) and re-elected at Tripuri (1939), but left due to ideological differences.
- Statement 2: Incorrect - Gandhi was elected national President of INC in 1924 at Belgaum.

Q. 5. Answer: D

- In 1942, Gandhiji referred to Subhash Chandra Bose as the "Prince among the Patriots."

Q. 6. Answer: D

- The Muhammadan Educational Conference was founded by Sir Syed Ahmad Khan in 1886.
- Aimed to promote modern education for the Muslim community in India.

Q. 7. Answer: D

- The Whitley Commission (1929) examined labour conditions in India, recommending improvements in working hours, wages, and environments.

Q. 8. Answer: C

- The Ilbert Bill (1883) aimed to allow Indian judges to preside over cases involving Europeans.
- The First All India Youth Congress was formed in 1928 to involve youth in the nationalist movement.
- The Wavell Plan (1945) aimed to restructure the executive council for better community representation.

Q. 9. Answer: C

- Statement 1: Correct - Murder of Swami Shraddhanand occurred in 1926 during Lord Reading's tenure.
- Statement 2: Incorrect - Tilak's death was in 1920 during Lord Chelmsford's tenure.
- Statement 3: Incorrect - The department of commerce and industry was established during Lord Curzon's tenure.

Q. 10. Answer: A

- Dr. B.R. Ambedkar worked with the Simon Commission in 1928, advocating for universal adult franchise and provincial autonomy.

Q. 11. Answer: A

- Odisha: Gopalbandhu Choudhuri led Satyagraha.
- Dharasana: Sarojini Naidu led the raid after Gandhi's arrest.
- Bihar: Ambika Kant Sinha led the salt law breaking.

Q. 12. Answer: A

- Statement 1: Correct - Sadar Diwani Adalat and Sadar Nizamat Adalat were set up in Allahabad for North Provinces.
- Statement 2: Incorrect - District Faujdari Adalats dealt with criminal cases, not civil disputes.

Q. 13. Answer: B

- George Yule was the first European President of the Indian National Congress, presiding over its 4th session in 1888.

Q. 14. Answer: B

- Statement 1: Incorrect - The Chittagong Armoury Raid was organized by Surya Sen.
- Statement 2: Correct - Aimed to capture British armory in 1930 to weaken British rule.

Q. 15. Answer: A

- Statement 1: Incorrect - Bhikaji Rustom Cama was a proponent of Revolutionary Nationalism and hoisted the first Indian National Flag.
- Statement 2: Correct - Shyamji Krishna Verma founded the Indian Home Rule Society and 'India House.'

Q. 16. Answer: A

- Statement 1: Correct - The Ghadar Party aimed for India's independence, founded in 1913.
- Statement 2: Incorrect - The Komagata Maru incident highlighted inconsistencies in Canadian immigration laws.

Q. 17. Answer: D

- The Ghadar Party aimed to overthrow British rule in India, founded by Indian expatriates in 1913.
- Key founders included Lala Har Dayal, Sant Baba Wasakha Singh, and others.

Q. 18. Answer: D

- Statement 1: Incorrect - Tagore criticized the Swadeshi movement.
- Statement 2: Incorrect - Sir Andrew Henderson Leith Fraser was involved in the partition of Bengal.

Q. 19. Answer: D

- Chittaranjan Das was a prominent leader in the independence movement and mentor to Subhash Chandra Bose.

Q. 20. Answer: C

- Statement 1: Correct - Annie Besant arrived in India for the Theosophical Society.
- Statement 2: Correct - Launched political and educational campaigns for self-rule.
- Statement 3: Incorrect - Founded the All-India Home Rule League in September 1916.
- Statement 4: Correct - First female president of the Indian National Congress in 1917.

Q 21. Ans. C

- Treaty of Bhairowal signed in December 1846.
- Rani Jindan was removed as regent; a council of regency for Punjab was established.
- The council included 8 Sikh sardars, presided over by English Resident Henry Lawrence.

Q 22. Ans. C

- **Statement 1:** The All-India Trade Union Congress (AITUC) was formed under Bal Gangadhar Tilak and Lala Lajpat Rai.
 - Lala Lajpat Rai was the first president; Joseph Baptista was the vice president.
- **Statement 2:** The Communist International (Comintern) was founded in March 1919 by Lenin and the Bolshevik Party of Russia.

Q 23. Ans. C

- Saumyendranath Tagore founded the Revolutionary Communist Party of India in 1934.
- M. N. Roy established the Radical Democratic Party in 1940.
- Ajeet Rai and Indrasen founded the Indian Bolshevik Lenin Party in 1941.

Q 24. Ans. D

- Both statements are correct.
- The Madras Labour Union, India's first trade union, was founded in 1918 under B.P. Wadia, aiming to address workers' grievances at Buckingham and Carnatic mills.

Q 25. Ans. D

- The Curzon-Kitchener controversy involved a disagreement between Viceroy Lord Curzon and Commander-in-Chief Lord Kitchener over military reforms and army control.

Q 26. Ans. A

- **Statement 1:** The troposphere contains ground-level (bad) ozone, harmful to health and vegetation.
- **Statement 2:** Incorrect; Arctic stratosphere temperatures do not stay as low as in Antarctica, leading to less ozone depletion.

Q 27. Ans. C

- **Statement 1:** Red Sanders is endemic to the Eastern Ghats in India, mainly Andhra Pradesh and parts of Tamil Nadu.
- **Statement 2:** Valued for red wood, used in furniture, musical instruments, and dye.
- **Statement 3:** Incorrect; thrives in rocky, degraded lands with red soil and a hot, dry climate.
- **Statement 4:** Listed as "Endangered" by IUCN due to overexploitation and habitat loss.

Q 28. Ans. C

- **Statement 1:** Gibbons, the smallest and fastest apes, inhabit tropical and subtropical forests in Southeast Asia and Northeast India.
- **Statement 2:** Palms are generally unbranched with a single trunk (caudex) and a crown of large leaves.

Q 29. Ans. B

- Correctly matched pairs:
 - Nanjarayan Bird Sanctuary - Tamil Nadu
 - Pala Wetlands - Mizoram
 - Tawa Reservoir - Madhya Pradesh
 - Rudrasagar Lake - Tripura

Q 30. Ans. C

- The E-8 countries hosted the 1st International Congress of the E-50:50 forum in New Delhi in early 2013 to establish a global vision for elephant conservation across 50 range countries.

Q 31. Answer: B

- **Statement 1:** Correct - Article 148 establishes the independent office of the Comptroller and Auditor General (CAG) of India.
- **Statement 2:** Incorrect - CAG's salary and service conditions are set by a law passed by Parliament; all expenses are charged to the Consolidated Fund of India (CFI).
- **Statement 3:** Correct - CAG is ineligible for any further positions in central or state governments after their tenure.
- **Statement 4:** Correct - The CAG can be removed by the President in the same manner as a Supreme Court judge.

Q 32. Answer: C

- Both the Dhar Commission and JVP Committee rejected language as the basis for state reorganisation.
- The Fazl Ali Commission accepted language as a criterion but rejected a one-language, one-state policy.

Q 33. Answer: B

- **Statement 1:** Incorrect - The Constitution does not specify the term of the Attorney General of India, nor the procedure or grounds for removal; the Attorney General serves at the President's pleasure.
- **Statement 2:** Correct - The Attorney General should avoid advising or representing any party against the Government of India to prevent conflicts of duty.

Q 34. Answer: C

- In the Raghunath Rao case (1993), the Supreme Court highlighted:
 - **Principle of Equality:** Foundation of the Welfare State, ensuring essential equality through social rights.
 - **Unity and Integrity of India:** Emphasizes national unity and cohesion.

Q 35. Answer: B

- Two correct matches:
 - **Concurrent List:** Australia
 - **Judicial Review:** United States of America
- The concept of "procedure established by law" is adopted from the Japanese Constitution.

Q 36. Answer: B

- **Limitation of Powers:** Government and officials are regulated by enforceable laws, including separation of powers among legislative, executive, and judiciary.
- **Equality before Law:** All individuals are treated equally under the law, without discrimination based on personal characteristics.
- **Liberty and Civil Rights:** Individuals have rights like freedom of speech, assembly, and religion, safeguarded by law.

Q 37. Answer: A

- **Equality** signifies no special privileges and equal opportunities for all, with everyone treated equally under the law.

Q 38. Answer: C

- **Shadow Cabinet:** A feature of the Westminster system, formed by the opposition as an alternative cabinet. It is unique to the British cabinet system, not present in India.

Q 39. Answer: B

- **Statement 1:** Correct - Electoral offences or corrupt practices, such as bribery, can disqualify an MP.
- **Statement 2:** Correct - An MP's interest in government contracts or services may lead to disqualification.
- **Statement 3:** Incorrect - Article 102 allows disqualification under any law enacted by Parliament.
- **Statement 4:** Incorrect - MPs holding office of profit under Union or State government can be disqualified, as per Article 102.

Q 40. Answer: A

- The **President of India** determines the date for the election of the Lok Sabha Speaker.

Q 41. Ans. D

- Both statements are correct.
- Article 64 states that the Vice-President is the ex-officio Chairman of the Rajya Sabha and cannot hold another office of profit.
- He can be removed as Chairman only when removed from the Vice-President's position; during a removal resolution, he cannot preside but may participate as a member.

Q 42. Ans. B

- **Statement 1:** The National Commission for Protection of Child Rights (NCPCR) was established under the CPCRA Act, 2005.
- **Statement 2:** The Chairperson and Members are appointed by the Central Government; the Chairperson is chosen by a three-member committee led by the Minister of Education.
- **Statement 3:** Incorrect; the Chairperson's tenure is a maximum of three years or until age sixty-five, whichever is sooner.

Q 43. Ans. A

- **Statement 1:** Advises the President on disqualifications of Parliament members; can cancel polls due to rigging or booth capturing.
- **Statement 2:** Incorrect; the President appoints the Chief Election Commissioner and Election Commissioners, who serve six years or until age 65, with status and perks equal to Supreme Court judges.

Q 44. Ans. D

- **Statement 1:** Incorrect; UPSC and State PSCs are constitutional bodies, but Joint State PSCs are statutory, created by Parliament upon a state's request.
- **Statement 2:** Incorrect; the President of India determines the number of members and their service conditions.

Q 45. Ans. A

- **Statement 1:** A secondary cell (rechargeable battery) converts chemical energy to electrical energy during discharge, reversible during recharge.
- **Statement 2:** Incorrect; Alessandro Volta discovered electricity production through chemical reactions and created the voltaic pile, the first modern battery, in 1800.

Q 46. Ans. D

- **Statement 1:** Incorrect; specific conductance, inversely related to resistivity, measures a material's ability to conduct electricity.
- **Statement 2:** Incorrect; specific conductance increases with ion concentration, enhancing conductivity.
- **Statement 3:** Incorrect; while metals like silver are excellent conductors, graphite (a non-metal) also conducts well.

Q 47. Ans. A

- **Statement 1:** Unstable nuclei typically have high atomic numbers due to proton repulsion, leading to radioactivity.
- **Statement 2:** Incorrect; the strong nuclear force binds protons and neutrons but weakens with nucleus size, making larger nuclei unstable.

Q 48. Ans. A

- **Statement 1:** Alpha particles consist of two protons and two neutrons, giving them a positive charge.
- **Statement 2:** Incorrect; alpha particles have high ionizing power, causing significant ionization as they pass through materials.

Q 49. Ans. B

- Control rods, made of neutron-absorbing materials like boron or cadmium, regulate the fission process in nuclear reactors for stability and safety.

Q 50. Ans. C

- A cloud chamber (Wilson chamber) is a particle detector that visualizes ionizing radiation by showing trails left by charged particles in a supersaturated vapor.

Q 51. Ans. D

- A manometer measures internal pressure of liquids or gases, typically measuring relative pressure rather than external.

Q 52. Ans. C

- Electromagnetic wave order (increasing wavelength): Cosmic rays < Gamma rays < Ultraviolet < Infrared < Radio waves.

Q 53. Ans. B

- The Stark effect describes the splitting or shifting of spectral lines in atoms/molecules under an external electric field, influenced by field strength and quantum states.

Q 54. Ans. A

- **Statement 1:** Pi (π) bonds form by lateral orbital overlap, creating a covalent bond.
- **Statement 2:** Incorrect; pi bonds restrict rotation around the bond axis due to required orbital overlap, unlike freely rotating sigma bonds.

Q 55. Ans. B

- **Statement 1:** Incorrect; covalent compounds are usually water-insoluble as they are non-polar.
- **Statement 2:** Correct; covalent compounds dissolve well in non-polar organic solvents (like benzene), following "like dissolves like."
- **Statement 3:** Correct; covalent bonds are directional due to localized shared electrons, creating specific geometries.

Q 56. Ans. A

- Disproportionation reaction is a redox reaction where the same element undergoes simultaneous oxidation and reduction.

Q 57. Ans. D

- Hess's Law states that the total enthalpy change in a reaction is constant, regardless of reaction path, based on the First Law of Thermodynamics.

Q 58. Ans. B

- Thiokol is a trademark for organic polysulfide polymers made by polymerizing ethylene chloride with sodium polysulfide, used in sealants and rocket propellants.

Q 59. Ans. B

- **Statement 1:** Lithium (Li) is the lightest metal and least dense solid element; highly reactive with strong reductant properties.
- **Statement 2:** Incorrect; calcium hydride (CaH_2) is known as hydrolith, used in fireproofing and waterproofing textiles.

Q 60. Ans. C

- Heavy water (D_2O) applications:
 - Used as a neutron moderator in nuclear reactors.
 - Produces deuterium.
 - Serves as a solvent in spectroscopy studies (infrared and NMR) of proteins.

Q 61. Answer: C

- Both statements are correct.
- Anti-knock agents, such as tetraethyl lead (TEL), are added to fuel to reduce knocking and improve the octane number by raising the temperature and pressure required for auto-ignition.

Q 62. Answer: B

- **Statement 1:** Incorrect - Mercury is a liquid metal but does not provide significant magnetic resistance; iron is ferromagnetic and enhances magnetic field flow.
- **Statement 2:** Correct - Gallium remains liquid near room temperature, like mercury, caesium, and rubidium, and expands upon solidifying.

Q 63. Answer: C

- Both statements are correct.
- Bryophytes are non-vascular plants without true roots, stems, or leaves, but they have simpler structures like rhizoids for attachment and water transport.

Q 64. Answer: D

- Lateral meristems (vascular cambium and cork cambium) are responsible for secondary growth (girth increase).
- Apical meristems lead to primary growth (elongation of the plant).

Q 65. Answer: D

- Mendel's law of independent assortment states that alleles of different genes are distributed into gametes independently.

Q 66. Answer: C

- **Simple Fruits:** Develop from a single ovary of a single flower (e.g., Banana, Guava).
- **Aggregate Fruits:** Develop from multiple ovaries of a single flower (e.g., Strawberry, Custard apple).
- **Composite Fruits:** Develop from a cluster of flowers (e.g., Jackfruit, Mulberry).

Q 67. Answer: A

- **Statement 1:** Correct - Traumatol is a plant hormone involved in tissue repair and regeneration.
- **Statement 2:** Incorrect - Traumatol is a naturally occurring monounsaturated dicarboxylic acid in plants.

Q 68. Answer: B

- **Copper deficiency:** Causes dieback in citrus trees (e.g., lemon).
- **Manganese deficiency:** Causes Marsh disease in peas.
- **Calcium and molybdenum deficiencies:** Lead to spots or deformities in turnips.
- **Potassium deficiency:** Causes leaf burning in litchi plants.

Q 69. Answer: D

- Osteoporosis weakens bones, making them more prone to fractures due to reduced density.

Q 70. Answer: B

- **Statement 1:** Correct - A child's heartbeat is faster than an adult's, ranging from 90-120 beats per minute compared to an adult's 60-100.
- **Statement 2:** Incorrect - The visceral nervous system is part of the peripheral nervous system, connecting the central nervous system to the internal organs.

Q 71. Answer: B

- **Statement 1:** Incorrect - The National Botanical Research Institute (NBRI) is under the CSIR and located in Lucknow, Uttar Pradesh.
- **Statement 2:** Correct - NBRI focuses on plant taxonomy, conservation, and biodiversity.

Q 72. Answer: D

- The Bosphorus Strait in Turkey links the Black Sea and the Sea of Marmara, separating the European and Asian parts of Turkey.

Q 73. Answer: A

- Laterite soils, rich in iron and aluminium oxides, are found in regions of Tamil Nadu, Odisha, and Meghalaya and support crops like cashew, tea, coffee, rubber, and spices.

Q 74. Answer: C

- Both statements are correct.
- Trade winds blow from subtropical high-pressure belts toward the equatorial low-pressure belt, part of the Hadley cell circulation.

Q 75. Answer: B

- A Lunar Tetrad refers to a sequence of four consecutive total lunar eclipses without partial eclipses in between.

Q 76. Answer: C

- **Statement 1:** Correct - The Andromeda Galaxy is the farthest object visible to the naked eye.
- **Statement 2:** Correct - It appears as a faint, fuzzy patch with millions of stars.
- **Statement 3:** Incorrect - Andromeda is a spiral galaxy, the closest large galaxy to the Milky Way.

Q 77. Answer: D

- **Statement 1:** Correct - Lieutenant Ram Charan participated in India's first Antarctic expedition in 1982.
- **Statement 2:** Correct - Giriraj Singh Sirohi was the first Indian to reach the South Pole.

Q 78. Answer: B

- **Statement 1:** Incorrect - The area between the Arctic Circle and the North Pole is called the Frigid Zone, as is the area between the Antarctic Circle and the South Pole.
- **Statement 2:** Correct - The polar regions receive slanting sunlight, resulting in colder temperatures.

Q 79. Answer: B

- Aphelion is the point where Earth is farthest from the Sun, occurring in early July. Seasons are influenced by Earth's axial tilt, not its distance from the Sun.

Q 80. Answer: D

- **Statement 1:** Correct - Monsoon winds reverse direction between summer and winter.
- **Statement 2:** Correct - Southwest monsoon brings moisture-laden winds in summer, leading to heavy rains in South Asia.
- **Statement 3:** Correct - Winter monsoon brings dry winds from land to sea, particularly from the northeast.

Q 81. Answer: C

- Aghil Pass: Ladakh region of India
- Banihal Pass: Connects Jammu region to Kashmir Valley
- Bilafond La: Located in Siachen Glacier region, Ladakh
- Chanshal Pass: Situated in Himachal Pradesh, India

Q 82. Answer: D

- Indus River: Originates in Tibet, flows through northern India, then into Pakistan
- Jhelum River: Originates in Kashmir, flows into Pakistan
- Chenab River: Originates in Himalayas, Himachal Pradesh; flows through Punjab, Pakistan
- Ravi River: Originates in Kullu Valley, Himachal Pradesh; joins Chenab in Pakistan
- Beas River: Originates in Himachal Pradesh, flows into Sutlej in Punjab
- Sutlej River: Starts in Tibet, flows through Himachal Pradesh and Punjab into Pakistan

Q 83. Answer: B

- Santa Ana winds: Warm, dry winds in cooler months (October to March) in California
- Cape Doctor winds: Strong south-easterly wind along South African coast from spring to summer
- Simoom: Strong, dry, dusty desert wind in Arabian Peninsula and Sahara

Q 84. Answer: C

- Twelfth Plan: Focused on restoring economy to a rapid, inclusive, sustainable growth path
- Ninth Five-Year Plan: Aimed for "Growth with Social Justice and Equality," and boosted agriculture sector

Q 85. Answer: D

- Licence Raj: System with strict government control over India's economy through licences
- Purpose: Promote technology use, protect small-scale producers, distribute industries, prevent monopolies, and ensure planned investment

Q 86. Answer: C

- Central sector schemes: Funded and implemented by central government, covering union list topics
- Centrally Sponsored Schemes (CSS): Funded by central government, implemented by states on state list topics

Q 87. Answer: A

- e-Way Bill: Required under GST for transporting goods worth over ₹50,000
- Replaces physical Way Bill used in VAT system

Q 88. Answer: A

- Equalisation Levy: Introduced in 2016 on digital ad services payments to non-resident companies; expanded in 2020 for e-commerce at a 2% rate

Q 89. Answer: B

- Public account liability: Includes small saving schemes like PPF and Kisan Vikas Patra
- External debt: Borrowing from other governments
- Government total debt: Includes internal debt, external debt, public account, and off-budget liabilities

Q 90. Answer: A

- BEPS (Base Erosion and Profit Shifting): Tax strategies by multinationals to shift profits to low-tax jurisdictions, eroding tax base in high-tax countries

Q 91. Answer: B

- Under IBC: Corporate insolvency resolution process initiated if default exceeds ₹1 crore
- Requires a 10-day demand notice to corporate debtor

Q 92. Answer: A

- Narasimham Committee – II (1998): Recommended strengthening DRTs
- SARFAESI Act (2002): Introduced for enforcement of financial asset recovery

Q 93. Answer: C

- Galloping inflation: Price increases from 10–100% annually, sometimes up to 200% as per economist Paul Samuelson

Q 94. Answer: C

- Factors of production: Land, labor, capital, and entrepreneurship (inputs used in production of goods and services)

Q 95. Answer: B

- ICOR (Incremental Capital Output Ratio): Additional capital needed for one extra unit of output

Q 96. Answer: D

- Medha Diwas: Celebrated by BSEB to honor top students on the birth anniversary of Dr. Rajendra Prasad

Q 97. Answer: D

- Bihar's state prayer: "Meri Raftaar Pe Suraj Ki Kiran Naaz Kare," sung by Udit Narayan, written by M.R. Chishti

Q 98. Answer: C

- Rajya Sabha representation: Bihar elects 16 members, reduced after Bihar Reorganisation Act, 2000
- Manihari and Katoria Assembly constituencies: Reserved for Scheduled Tribes

Q 99. Answer: A

- Vratyas: People of ancient Magadha (now Bihar), ascetics outside traditional Vedic society

Q. 100. Answer: C

- Vaishali kingdom: Established by Namodishta, ruled by 33 kings, founded by King Vishal

Q. 101. Ans. D

- Bindusara is referred to as "Sinhasena" in Jain literature.
- He is the son of Chandragupta Maurya and the father of King Ashoka.

Q. 102. Ans. C

- Malik Mohammad Jaisi completed the epic poem "Padmavat" during Sher Shah Suri's reign.

Q. 103. Ans. A

- Ganga Narayan Singh was a notable leader in the Kol movement.
- He mobilized tribal communities in the Chotanagpur region against exploitation and injustices.

Q. 104. Ans. C

- Patna Kalam is a blend of Mughal painting and Company style art.
- Mughal painting thrived during Jahangir's reign but faced decline under Aurangzeb, leading artists to migrate.
- Famous painters include Sevak Ram, Hulas Lal, and others; notable women artists are Sona Bibi and Dacchho Bibi.

Q. 105. Ans. A

- Jadopatiya painting is a folk art form inspired by Santhal mythology and ancient painting traditions.

Q. 106. Ans. B

- Sir Walter Maude was a British administrator in India, joined Indian Civil Service in 1881, and served in Bihar and Orissa.

Q. 107. Ans. D

- Satish Prasad Singh was the shortest-serving CM of Bihar, serving only 4 days from January 28 to February 1, 1968.

Q. 108. Ans. D

- Nitish Kumar took oath as Chief Minister of Bihar for a record ninth time on January 28, 2024.

Q. 109. Ans. C

- Four divisions of Bihar—Palamu, Santhal Pargana, North Chotanagpur, and South Chotanagpur—were transferred to Jharkhand.
- Bihar now consists of nine divisions.

Q. 110. Ans. A

- The Bihar Commission for Protection of Child Rights (BSCPCR) was established in September 2010 to safeguard child rights in the state.

Q. 111. Ans. B

- Katihar, Purnia, and Kishanganj are the three eastern districts of Bihar that border Bengal.

Q. 112. Ans. C

- Takhat Sri Harimandir Ji Patna Sahib is the birthplace of Sri Guru Gobind Singh Ji Maharaj and is a significant Sikh holy site.

Q. 113. Ans. A

- Sheikhpura district has the smallest forest cover in Bihar at 1.19 km².
- Kaimur district has the largest forest cover at 1,051.56 km².

Q. 114. Ans. A

- Banka district recorded the maximum gain in forest cover from 2019 to 2021 due to afforestation efforts.

Q. 115. Ans. B

- India has 28 states and 8 union territories; Rajasthan is the largest state by land area.
- Bihar ranks 12th in area at 94,163 km² (2.864%).

Q. 116. Ans. C

- International Museum Day 2024's theme highlights the role of cultural institutions in education.
- Patna Museum was established on April 3, 1917, and is known for its Mughal and Rajput architecture.

Q. 117. Ans. C

- Bihar participated in India Skills 2024, winning 3 gold, 1 silver, and 3 bronze medals.

Q. 118. Ans. C

- Avada Group commissioned Bihar's largest solar energy project of 50 MW in Banka district, increasing total solar capacity to 181.1 MW.

Q. 119. Ans. C

- Bihar Museum and Cardiff University organized a workshop on the 'Xuanzang Trail' on May 14th and 15th, 2024.

Q. 120. Ans. D

- Reservoirs in Bihar include:
 - Baskund Reservoir (Lakhisarai district)
 - Anjan Reservoir (Jamui district)
 - Morve Reservoir (Lakhisarai district)
 - Kharagpur Reservoir (Munger district)

Q. 121. Ans. B

- IIT Madras, Extra C Patna, AICTE, and IIM Mumbai signed an MoU for the National inter-college Crossword Expedition (NICE) for the next 2 years.
- Promotes crosswords as an educational tool to enhance cognitive and soft skills of students and spread knowledge of India's heritage.

Q. 122. Ans. B

- UAE-India CEPA Council and Bihar Industries Association hosted a business roundtable on May 22, 2024.
- Focused on opportunities for Bihar-based enterprises in agriculture and food processing sectors.

Q. 123. Ans. C

- Bihar Agriculture Department approved seed hubs in ten districts on October 11, 2023.
- Farmers to receive 80% subsidy on seeds; additional support available for three years.

Q. 124. Ans. B

- Sapna Sinha named in Forbes' 30 Under 30 Asia for research in brain and cognitive sciences.
- Hails from Muzaffarpur, Bihar; currently a professor at MIT, USA.

Q. 125. Ans. C

- Bihar government implementing Mushroom Hut Scheme under National Agricultural Development Scheme.
- 50% grant for construction of huts; 20 huts for general and 5 for SC/ST category farmers.

Q. 126. Ans. D

- Ganges river dolphin (*Platanista gangetica*) reported over 4,000 in the Gangetic River basin, with over 2,000 in Uttar Pradesh.
- Increase indicates reduced river pollution and effective conservation efforts.

Q. 127. Ans. B

- Patna district developed Election Mitra App and WhatsApp chatbot.
- App assists voters in finding polling booths and checking queue status.

Q. 128. Ans. D

- Both statements incorrect regarding GYANDEEP Portal launched for marginalised community enrollment in private schools.
- Monitors enrollment under RTE Act; schools must meet criteria to receive government funds.

Q. 129. Ans. C

- World Menstrual Hygiene Day 2024 theme: “Together for a #PeriodFriendlyWorld.”
- 58.8% of women in Bihar use safe menstrual products; notable increase in hygienic practices.

Q. 130. Ans. A

- Biggest culinary dialogue PANGAT held in Bihar, organized by Grand Trunk Road Initiatives (GTRI).

Q. 131. Ans. C

- India added two bird sanctuaries, Nagi and Nakti, as Ramsar sites, both manmade reservoirs in Jamui district.
- Home to over 75 bird species; support for bar-headed geese gatherings.

Q. 132. Ans. A

- Digital Health Incentive Scheme (DHIS) extended until June 30, 2025, for digitizing health records linked to ABHA ID.
- Facilities earn Rs 20 per additional record digitized beyond 100 transactions/month.

Q. 133. Ans. A

- Kavli Prize awarded in Astrophysics, Nanoscience, and Neuroscience.
- Established in 2005; first prizes presented in 2008 by Crown Prince of Norway.

Q. 134. Ans. A

- Scientists from India, China, and the UK developed a water-repellent catalyst for cost-effective biodiesel production.

Q. 135. Ans. B

- Landslides and rain in Lachung, Sikkim caused property damage and disrupted connectivity; at least six fatalities reported.

Q. 136. Ans. A

- INCOIS developed Bayesian Convolutional Neural Network (BCNN) for climate modelling and predicting El Niño and La Niña.

Q. 137. Ans. B

- Highest complaints to the National Commission for Women from Uttar Pradesh; only three from Manipur.
- Total complaints in 2024: 12,648; Bihar had 586 complaints.

Q. 138. Ans. A

- Review meeting on India-U.S. Critical and Emerging Technology initiative chaired by National Security Advisors on June 17, 2024.

Q. 139. Ans. D

- Digi Yatra: Biometric boarding system using facial recognition for identity verification at airports.

Q. 140. Ans. D

- 'Ele-fence', the first AI-based smart fence project, being installed in Wayanad, Kerala to address human-wildlife conflict.

Q. 141. Ans. C

(DRAFT = GUDIW):-

$$D(4) + 3 = G(7)$$

$$R(18) + 3 = U(21)$$

$$A(1) + 3 = D(4)$$

$$F(6) + 3 = I(9)$$

$$T(20) + 3 = W(23)$$

And

(LIMIT = OLPLW):-

$$L(12) + 3 = O(15)$$

$$I(9) + 3 = L(12)$$

$$M(13) + 3 = P(16)$$

$$I(9) + 3 = L(12)$$

$$T(20) + 3 = W(23)$$

Similarly

(MAJOR = ?):-

$$M(13) + 3 = P(16)$$

$$A(1) + 3 = D(4)$$

$$J(10) + 3 = M(13)$$



$$O(15) + 3 = R(18)$$

$$R(18) + 3 = U(21)$$

Q. 142. Ans. C

Q. 143. Ans. D

Q. 144. Ans. C

1. Universe

5. Galaxy

3. Sun

4. Earth

2. Country

Q. 145. Ans. A

Q. 146. Ans. B

According to the question, Rate = 10%

Compound interest for 2 years = $10 + 10 + 10 \times 10/100 = 21\%$

$$\Rightarrow 21\% = ₹403.2$$

$$\Rightarrow 1\% = ₹19.2$$

$$\Rightarrow 100\% = ₹1920$$

Simple interest for 3 years = $3 \times 10\% = 30\%$

$$\Rightarrow 30\% = ₹1920 \times 30/100$$

$$= ₹576$$

Q. 147. Ans. C

According to the question,

$$12.5\% = 1/8$$

Let the marked price of the item = N

$$\Rightarrow N \times (8 - 1)/8 \times 90/100 = ₹630$$

$$\Rightarrow N \times 7/8 \times 9/10 = ₹630$$

$$\Rightarrow N = ₹630 \times 80/63$$

$$\Rightarrow N = ₹800$$

Hence the marked price of the item is ₹800.

Q. 148. Ans. A

According to the question,

$$N + 360 \times 75\% = 400 \times 65\% + 60$$

$$\Rightarrow N + 270 = 260 + 60$$

$$\Rightarrow N = 50$$

$$\text{Value of } \sqrt{2N} = \sqrt{2 \times 50} = \sqrt{100} = 10$$

Q. 149. Ans. D

According to the question,

$$\text{Efficiency of B} = [(A + B) + (B + C)] - (A + B + C)$$

$$\Rightarrow B = (10 + 9) - 15 = 4$$

$$\text{Efficiency of (A + C)} = 15 - 4 = 11$$

Total work = 180 unit

$$\text{Required time} = 180/11 \times 11/20 = 9 \text{ days}$$

Q. 150. Ans. C

According to the question,

Distance is constant, so the ratio of speed will be inversely proportional to the ratio of time.

$$\text{Initial time} = 8.5 \text{ hours}$$

$$\text{New time} = 8.5 - 3.5 = 5 \text{ hours}$$

$$\text{Ratio of the time} = 8.5 : 5 = 17 : 10$$

$$\text{Ratio of the speed} = 10 : 17$$

$$\text{Initial speed } 10 \text{ unit} = 70 \text{ km/h}$$

$$1 \text{ unit} = 7 \text{ km/h}$$

$$\text{New speed (17 unit)} = 17 \times 7 = 119 \text{ km/h}$$

Hence the train should run at a speed of 119 km/hr