

BPSC AEDO Sample Paper

Q1. _____ (NPS) is a voluntary, defined contribution retirement savings scheme to enable the subscribers to make optimum decisions regarding their future through systematic savings.

- (a) National Permit System
- (b) National Pension System
- (c) National Paid Scheme
- (d) National Payer System

Q2. 'Gonph' dance is a famous folk dance of which state?

- (a) Uttar Pradesh
- (b) Goa
- (c) Bihar
- (d) Odisha

Q3. Which of the following is not an essential Qualification for the candidature of President?

- (a) Qualified for election as a member of the House of the People
- (b) Minimum Thirty-Five years of Age
- (c) Citizen of India
- (d) Higher Education

Q4. In India, the responsibility of conducting the decadal census rests with which ministry?

- (a) Ministry of Home Affairs
- (b) Ministry of Finance
- (c) Ministry of Corporate Affairs
- (d) Ministry of Statistics

Q5. Identify the third layer of soil from top.

- (a) Unweathered parent bed rock
- (b) Sub soil
- (c) Top soil
- (d) Substratum weathered parent rock material

Q6. The Hemis festival is predominantly celebrated in _____.

- (a) Puducherry
- (b) Chandigarh
- (c) Ladakh
- (d) Lakshadweep

Q7. Which five year plan was running in India during the 1971 Indo-Pak war?

- (a) Eighth
- (b) Fourth
- (c) Second
- (d) Sixth

Q8. In India, the first phase of the green revolution was from mid _____ upto mid _____.

- (a) 1940, 1950
- (b) 1970, 1980
- (c) 1960, 1970
- (d) 1950, 1960

Q9. Which Article of the Constitution of India provides for a Council of Ministers with the Prime Minister at the head to aid and advice the President in the exercise of the President's functions?

- (a) Article 77
- (b) Article 74
- (c) Article 71
- (d) Article 72

Q10. Aparna Satheesan was honoured with the prestigious Bharata Shashtra Nritya Praveena National Award for her outstanding performance in which dance form?

- (a) Kathakali
- (b) Bharatnatyam
- (c) Lavani
- (d) Kuchipudi

Q11. What is the diameter and weight of the discus used in a discus thrown in Men's category?

- (a) 3kg in weight and 24cm in diameter
- (b) 2kg in weight and 23cm in diameter
- (c) 2kg in weight and 22cm in diameter
- (d) 2.5kg in weight and 22cm in diameter

Q12. Which of the following is a key objective of Micro Finance Institutions in India?

- (a) Providing loans exclusively to women entrepreneurs
- (b) Encouraging large-scale industrialisation
- (c) Maximising profits for shareholders
- (d) Promoting financial inclusion and poverty alleviation

Q13. Which language is more prevalent in Darbhanga all India radio centre in Bihar?

- (a) Hindi
- (b) Bhojpuri
- (c) Maithili
- (d) Sanskrit

Q14. The _____ has the sole authority to issue banknotes in India.

- (a) State Bank of India
- (b) Securities bank
- (c) World Bank
- (d) Reserve bank of India

Q15. Who has been appointed as Vice Chairman of NITI AAYOG from 1 May 2022?

- (a) Gita Gopinath
- (b) Dr. Hiren Joshi
- (c) Ranjan Gogoi
- (d) Suman Bery

Q16. As the Mauryan Empire was so large, different parts were ruled differently. The area around _____ was under the direct control of the emperor.

- (a) Taxila
- (b) Ujjain
- (c) Pataliputra
- (d) Lumbini

Q17. To defend the Khalifa's temporal powers, a Khilafat Committee was formed in Bombay in _____.

- (a) May 1918
- (b) May 1919
- (c) March 1918
- (d) March 1919

Q18. Where is Jai Prakash University in Bihar located?

- (a) Pawapuri
- (b) Nalanda
- (c) Gaya
- (d) Chapra

Q19. Which of the following duties was NOT added by the 42nd amendment to the Indian Constitution?

- (a) To provide opportunities for education to one's child or ward between the ages of six and fourteen years
- (b) To value and preserve the rich heritage of the country's composite culture
- (c) To safeguard public property and to abjure violence
- (d) To uphold and protect the sovereignty, unity and integrity of India

Q20. _____ is one of the most important festivals of Kamakhya temple of Guwahati. It is held every year during the monsoon (mid-June) season, when the temple is closed for three days for tantric rites.

- (a) Ambubachi
- (b) Bihu
- (c) Baishagu
- (d) Me-Dum-Me-Phi

Q21. Which of the following statements best defines a Micro Finance Institution (MFI)?

- (a) MFIs are investment firms that cater exclusively to high-net-worth individuals.
- (b) MFIs are non-profit organisations that provide financial services to low-income individuals and small businesses.
- (c) MFIs are banks that provide loans only to large corporations.
- (d) MFIs are government agencies that regulate the microfinance sector.

Q22. What is the purpose of the Saksham App introduced by the Election Commission?

- (a) To organize political rallies
- (b) To address the needs of voters above 85 years of age and PWDs
- (c) To count votes electronically
- (d) To monitor election campaigns

Q23. In which city is the cricket stadium M Chinnaswamy located?

- (a) Delhi
- (b) Kolkata
- (c) Bengaluru
- (d) Mumbai

Q24. In which of the following Parts of the Constitution of India are Fundamental Rights embodied?

- (a) IV
- (b) I
- (c) III
- (d) II

Q25. Where is the Archaeological Survey of India (ASI) conducting excavations to uncover potentially the oldest temple in India?

- (a) Nachne village, Panna district, Madhya Pradesh
- (b) Mumbai city, Maharashtra
- (c) Kolkata city, West Bengal
- (d) Jaipur city, Rajasthan

Q26. Prime Minister Narendra Modi launched the Jal Jeevan Mission in _____.

- (a) 2022
- (b) 2019
- (c) 2018
- (d) 2014

Q27. On which festival does people of North India worship goddess Lakshmi and lord Ganesha together?

- (a) Dussehra
- (b) Janmashtami
- (c) Holi
- (d) Diwali

Q28. Which means of transport is now being used to transfer crude oil, petroleum products and natural gas?

- (a) bus
- (b) pipelines
- (c) cable
- (d) airways

Q29. Which waterway connects the Atlantic Ocean with the Pacific Ocean?

- (a) Suez Canal
- (b) Kiel Canal
- (c) Volga-Don Canal
- (d) Panama Canal

Q30. Which dancing legend was the youngest recipient of Padma Bhushan in 1992?

- (a) Anuradha Pandey
- (b) Sonal Mansingh
- (c) Uday Shankar
- (d) Pandit Birju Maharaj

Q31. According to Article 243 of the Constitution of India, _____ means an institution of self-government constituted under Article 243B, for the rural areas.

- (a) Gram Sabha
- (b) Municipal Committee
- (c) Panchayat
- (d) Municipal Corporation

Q32. Lakshya Sen is a player of which sport?

- (a) Badminton
- (b) Table Tennis
- (c) Cricket
- (d) Kabbadi

Q33. Where has the 'Indian Institute of Handloom Technology' been set up in Bihar?

- (a) Purnia
- (b) Kishanganj
- (c) Gaya
- (d) Madhubani

Q34. Prior to the country's independence, India was particularly known for its _____ industries.

- (a) Flower
- (b) Spices
- (c) Metal
- (d) Handicraft

Q35. Which of the following organizations conducts the sample surveys for calculating the poverty line in India?

- (a) Ministry of Finance
- (b) RBI
- (c) CSO
- (d) NSSO

Q36. The Songi Mukhawate dance of _____ celebrates the victory of truth over falsehood. The name of the dance is derived from the two lion masks worn by two dancers who represent Narasimha, an aspect of Lord Vishnu.

- (a) Madhya Pradesh
- (b) Jharkhand
- (c) Maharashtra
- (d) Gujarat

Q37. India accounts for how much of total world's surface area?

- (a) 2.8%
- (b) 3.9%
- (c) 4.2%
- (d) 2.4%

Q38. _____ spent a lot of time at Harshavardhana's court and left a detailed account of what he saw.

- (a) Xuan Zang
- (b) Faxian
- (c) Kang Seng
- (d) Yijing

Q39. In which year was Jhansi annexed by Lord Dalhousie under the policy Doctrine of Lapse?

- (a) 1854
- (b) 1850
- (c) 1852
- (d) 1848

Q40. Who among the following is best known for creating a fusion style of dance by adapting European theatrical elements?

- (a) Yamini Krishnamurthy
- (b) Uday Shankar
- (c) Gopi Krishna
- (d) Sonal Mansingh

Q41. Battle of Panipat was fought in the year 1526 between Babur and _____.

- (a) Rana Sanga
- (b) Muhammad Bin Tughlaq
- (c) Ibrahim Lodi
- (d) Hemu

Q42. If a Panchayat is dissolved, elections are to be held within:

- (a) 1 month
- (b) 3 months
- (c) 6 months
- (d) 1 year

Q43. Under which article of the Indian Constitution, parliament has constituted the Inter-State Water Disputes Tribunal?

- (a) Article 262
- (b) Article 265
- (c) Article 263
- (d) Article 264

Q44. Which of the following is the first census of India?

- (a) 1881
- (b) 1872
- (c) 1861
- (d) 1851

Q45. Which state had the lowest literacy rate according to the 2011 Census?

- (a) Bihar
- (b) Rajasthan
- (c) Jharkhand
- (d) Uttar Pradesh

Q46. The soil which originates under tall-grass prairie vegetation is called

- (a) Chestnut soils
- (b) Black soils
- (c) Chernozem soils
- (d) Terra rosa soils

Q47. Prime Minister Narendra Modi has inaugurated Shivamogga airport. The airport has been built on 663 acres of land with an investment of ₹449.22 crore. In which state the airport has been located?

- (a) Tamil Nadu
- (b) Kerala
- (c) Karnataka
- (d) Telangana

Q48. Prime Minister Narendra Modi inaugurated the 'Barisu Kannada Dim Dimava cultural festival at Talkatora Stadium in-

- (a) New Delhi
- (b) Maharashtra
- (c) Madhya Pradesh
- (d) Karnataka

Q49. Who headed States Committee of the Constituent Assembly?

- (a) Gopinath Bishnoi
- (b) Jawahar Lal Nehru
- (c) Sardar Patel
- (d) Rajendra Prasad

Q50. Which of the following provisions is correct?

- (a) Part IV of the Constitution of India deals with Directive Principles of State Policy.
- (b) Part III of the Constitution of India deals with fundamental duties.
- (c) Part II of the Constitution of India deals with fundamental rights.
- (d) Part IVA of the Constitution of India deals with citizenship.

Q51. Which of the following substances is an acid?

- (a) Sodium hydroxide
- (b) Ammonia
- (c) Hydrochloric acid
- (d) Calcium carbonate

Q52. Which is the anti-coagulant substance in blood?

- (a) Fibrinogen
- (b) Heparin
- (c) Thrombin
- (d) Globin

Q53. Which of the following is not connective tissue?

- (a) Bone
- (b) Cartilage
- (c) Blood
- (d) Skeletal muscle

Q54. Which one of the following substances is normally found in urine?

- (a) Blood proteins
- (b) Creatinine
- (c) Red blood cells
- (d) White blood cells

Q55. An air bubble in water will act like a:

- (a) Convex mirror
- (b) Convex lens
- (c) Concave mirror
- (d) Concave lens

Q56. When we see an object, the image formed on the retina is _____.

- (a) Real and inverted
- (b) Real and erect
- (c) Virtual and erect
- (d) Virtual and inverted

Q57. Which of the following diseases is caused by a bacterial infection?

- (a) Influenza
- (b) Malaria
- (c) Tuberculosis
- (d) Diabetes

Q58. Which of the following diseases is caused by a virus?

- (a) Asthma
- (b) Hepatitis
- (c) Leukemia
- (d) Osteoporosis

Q59. Which of the following are longest cells of human body?

- (a) Pancreatic cells
- (b) Epithelial cells
- (c) Nerve cells
- (d) Epidermal cells

Q60. Which among the following does not have a cell wall?

- (a) Euglena
- (b) Paramecium
- (c) Gonyaulax
- (d) Mycoplasma

Q61. Which vitamin is essential for maintaining healthy eyesight?

- (a) Vitamin A
- (b) Vitamin C
- (c) Vitamin D
- (d) Vitamin K

Q62. Which vitamin is essential for collagen synthesis and wound healing?

- (a) Vitamin A
- (b) Vitamin C
- (c) Vitamin D
- (d) Vitamin K

Q63. What is the pH of a neutral solution?

- (a) 0
- (b) 7
- (c) 14
- (d) It depends on the concentration of hydrogen ions.

Q64. Which of the following is not a property of an acid?

- (a) It turns blue litmus paper red.
- (b) It has a sour taste.
- (c) It has a pH greater than 7.
- (d) It reacts with bases to form salts.

Q65. Which acid is present in vinegar?

- (a) Acetic acid
- (b) Hydrochloric acid
- (c) Nitric acid
- (d) Sulfuric acid

Q66. Blood group AB has -

- (a) No antigen
- (b) No antibody
- (c) Neither antigen nor antibody
- (d) Both antigen and antibody

Q67. Which disease is caused by a deficiency of vitamin C?

- (a) Scurvy
- (b) Rickets
- (c) Malaria
- (d) Tuberculosis

Q68. Lymph carries digested and absorbed fat from ____.

- (a) Lungs
- (b) Intestine
- (c) Stomach
- (d) Kidney

Q69. Alveoli are balloon-like structures within the ____.

- (a) Lungs
- (b) Kidney
- (c) Liver
- (d) Heart

Q70. Who discovered the electron as a constituent of the atom?

- (a) Ernest Rutherford
- (b) J.J. Thomson
- (c) Sir James Chadwick
- (d) Niels Bohr

Q71. Which subatomic particle was discovered due to the discrepancy in the expected atomic masses?

- (a) Proton
- (b) Electron
- (c) Neutron
- (d) Positron

Q72. Which law of physics relates Kinetic Energy to mass and velocity?

- (a) Newton's First Law
- (b) Newton's Second Law
- (c) Newton's Third Law
- (d) None of the above

Q73. What is the relationship between acceleration and velocity?

- (a) Acceleration is the rate of change of velocity
- (b) Velocity is the rate of change of acceleration
- (c) Acceleration and velocity are unrelated
- (d) Acceleration is the speed of an object

Q74. Who is known as the "Father of the Modern Periodic Table"?

- (a) Dmitri Mendeleev
- (b) John Newlands
- (c) Johann Wolfgang Dobereiner
- (d) Henry Moseley

Q75. Which one of the following does not belong to the family of alkali metals?

- (a) Li
- (b) Na
- (c) Be
- (d) K

Q76. Bihar Panchayati Raj Act came in which year?

- (a) 2005
- (b) 2006
- (c) 2007
- (d) 2008

Q77. In which of the following States was the third edition of Khelo India University Games held ?

- (a) Jharkhand
- (b) Uttar Pradesh
- (c) New Delhi
- (d) Punjab

Q78. Where was the Hindustan Socialist Republican Association founded in 1928?

- (a) Kanpur
- (b) Amritsar
- (c) Lucknow
- (d) Delhi

Q79. In which state of India is shifting cultivation known as Bringa?

- (a) Andhra Pradesh
- (b) Manipur
- (c) Odisha
- (d) Madhya Pradesh

Q80. What does the acronym 'ATM' stand for?

- (a) Automated Teller Machine
- (b) Automated Transaction Management
- (c) Account Tracking Module
- (d) All-Time Money

Q81. Who had founded the first Women's University in India?

- (a) Dhondo Keshav Karve
- (b) Ashutosh Mukherjee
- (c) William Hunter
- (d) Sayed Ahmed Khan

Q82. Which process is sometimes called "reduction division" because it reduces the number of chromosomes to half the normal number to form sperm and eggs?

- (a) Amitosis
- (b) Meiosis
- (c) Cytokinesis
- (d) Karyokinesis

Q83. Who had convened the second Buddhist council at Vaishali?

- (a) Ashoka
- (b) Kalashoka
- (c) Udayin
- (d) Ajatshatru

Q84. In which type of forests are Mahogany, Rosewood and Cinchona trees found in India?

- (a) Tropical Evergreen forests
- (b) Tropical Deciduous forests
- (c) Mangrove forests
- (d) Montane forests

Q85. Lebang Boomani dance is the harvest dance of _____.

- (a) Mizoram
- (b) Tripura
- (c) Assam
- (d) Meghalaya

Q86. Why is it important to distinguish between final and intermediate goods/services in national income accounting?

- (a) It helps track changes in consumer preferences and market demand.
- (b) It helps in more accurate measurement of economic growth and productivity.
- (c) It provides insights into the distribution of income among different sectors.
- (d) It helps in determining the overall quality of goods and services produced.

Q87. Which of the following is NOT a directive principle of state policy?

- (a) Separation of the judiciary from executive
- (b) Reside in any part of India
- (c) Uniform civil code
- (d) Protection of monuments

Q88. In which state is the Sanchi Stupa situated?

- (a) Bihar
- (b) Uttar Pradesh
- (c) Gujarat
- (d) Madhya Pradesh

Q89. Who is the nominal executive authority of India?

- (a) Vice President
- (b) Attorney General
- (c) President
- (d) Prime Minister

Q90. Who among the following is the author of the book, 'Unfinished: A Memoir'?

- (a) Alia Bhatt
- (b) Priyanka Chopra
- (c) Deepika Padukone
- (d) Kareena Kapoor

Q91. The South China Sea is a part of which of the following oceans?

- (a) Arctic Ocean
- (b) Pacific Ocean
- (c) Southern Ocean
- (d) Indian Ocean

Q92. The official language of which neighbouring country of India is 'Dhivehi'?

- (a) Maldives
- (b) Sri Lanka
- (c) Bhutan
- (d) China

Q93. Under which scheme of Airport Authority of India did the Jammu and Kashmir Lieutenant Governor inaugurate UMEED Market Place at Srinagar international airport for supporting local art and artisans of Self Help Groups of J&K Rural Livelihood Mission?

- (a) AVSAR Scheme
- (b) AKASH Scheme
- (c) AAKAR Scheme
- (d) ASAR Scheme

Q94. Who was the Iranian ruler who attacked the city of Delhi and took away an immense amount of wealth in 1739?

- (a) Ahmad Shah Qajar
- (b) Nadir Shah
- (c) Ahmad Shah Abdali
- (d) Abbas I

Q95. Pandit Bhimsen Joshi belonged to the ----- Gharana.

- (a) Banaras
- (b) Kirana
- (c) Agra
- (d) Dilli

Q96. Mahari Dance and Gotipua Dance belongs to which of the following states?

- (a) Odisha
- (b) Haryana
- (c) Uttar Pradesh
- (d) Bihar

Q97. Identify the wrong pair of dancer and the related dance form from the following.

- (a) Meenakshi Chitharanjan – Bharatanatyam
- (b) Kumkum Dhar – Kuchipudi
- (c) Sruti Bandopadhyay – Manipur
- (d) Trilochan Mohanta - Chhau

Q98. Which of the following musicians is popularly known as 'Panchamda'?

- (a) Ravi
- (b) Khayam
- (c) Naushad
- (d) RD Burman

Q99. The 'Mukteshwar' dance festival is held from 14th to 16th January at the Mukteshwar temple in the state of _____.

- (a) Uttarakhand
- (b) Odisha
- (c) Madhya Pradesh
- (d) Himachal Pradesh

Q100. Select from among the given options the autobiography of Milkha Singh.

- (a) A Shot at History
- (b) The Race of My Life
- (c) The Test of My Life
- (d) One Life Is Not Enough

Solutions

S1. Ans.(b)

Sol. The answer is (b), National Pension System.

- The National Pension System (NPS) is a voluntary, defined contribution retirement savings scheme in India. It is regulated by the Pension Fund Regulatory and Development Authority (PFRDA). The NPS is open to all Indian citizens between the ages of 18 and 65 years.
- Under the NPS, subscribers can contribute to their pension account on a regular basis, either monthly or quarterly. The contributions are invested in a variety of asset classes, including equity, government bonds, and corporate bonds. The subscribers can choose their own investment mix based on their risk appetite and time horizon.
- At retirement, the subscribers can withdraw a portion of their corpus as a lump sum and the remaining corpus is used to purchase an annuity, which provides them with a regular pension income.

The NPS offers a number of advantages, including:

- Flexibility: Subscribers can choose their own investment mix and contribution amount.
- Portability: The NPS account is portable, which means that subscribers can continue to contribute to their account even if they change jobs or cities.
- Transparency: The NPS is a transparent scheme and all transactions are recorded electronically.
- Tax benefits: Subscribers can get tax deductions on their contributions to the NPS account.

S2. Ans.(b)

Sol. The answer is (b). Goa.

- Gonph is a famous folk dance of Goa. It is a traditional dance performed by men and women, dressed in colorful costumes. The dance is performed to the accompaniment of drums, cymbals, and other traditional instruments.
- The Gonph dance is typically performed during festivals and other special occasions. It is a lively and energetic dance, and is known for its acrobatic moves. The dancers perform a variety of jumps, flips, and twists, while singing traditional songs.
- The Gonph dance is a unique and important part of Goan culture. It is a celebration of the state's rich heritage and traditions.

S3. Ans.(d)

Sol. The answer is (d) Higher Education.

The essential qualifications for the candidature of President of India are as follows:

- Citizen of India
- Minimum 35 years of age
- Qualified for election as a member of the House of the People

Higher education is not an essential qualification for the candidature of President.

Detailed explanation:

- Citizen of India: The President must be a citizen of India. This means that he/she must have been born in India or have acquired Indian citizenship through naturalization.
- Minimum 35 years of age: The President must be at least 35 years of age on the day of the election.
- Qualified for election as a member of the House of the People: The President must be qualified to be a member of the House of the People (Lok Sabha). This means that he/she must be a citizen of India, not less than 25 years of age, and not disqualified for membership of the Lok Sabha under any law made by the Parliament.

The Constitution of India does not specify any educational qualification for the President. However, in practice, most Presidents have been highly educated.

So the answer to the question is (d) Higher Education.

S4. Ans.(a)

Sol. The responsibility of conducting the decadal census in India rests with the Ministry of Home Affairs.

The Census of India is the largest single source of various statistical information on various characteristics of the people of India. It is conducted every 10 years, and the first census was conducted in 1872.

The Office of the Registrar General and Census Commissioner of India (ORGI), under the Ministry of Home Affairs, is responsible for conducting the census. The ORGI is also responsible for maintaining the Civil Registration System in the country.

The census data is used for a variety of purposes, including:

- Formulation of government policies and programs
- Demarcation of constituencies for elections
- Allocation of funds to states and union territories
- Planning for infrastructure development
- Research and academic purposes

S5. Ans.(d)

Sol. The third layer of soil from top is (d) Substratum weathered parent rock material, also known as the C-horizon.

The four layers of soil from top to bottom are:

1. Topsoil (A-horizon): This is the uppermost layer of soil, which is typically dark in color and rich in organic matter. It is also the most fertile layer of soil, as it is where most plants root and grow.
2. Subsoil (B-horizon): This layer is located below the topsoil and is typically lighter in color and more compact. It contains less organic matter than the topsoil, but it does contain more minerals. The subsoil is also where water and nutrients are stored.
3. Substratum (C-horizon): This layer is located below the subsoil and is made up of weathered parent rock material. It contains very little organic matter and is not very fertile.
4. Bedrock (R-horizon): This is the layer of solid rock that lies beneath the soil.

Therefore, the third layer of soil from top is the substratum, which is also known as the C-horizon.

S6. Ans.(c)

Sol. The answer is (c). Ladakh.

- The Hemis festival is a two-day Buddhist festival celebrated in the Hemis Monastery in Ladakh, India. It is one of the most important Buddhist festivals in Ladakh and is also one of the most popular festivals among tourists.
- The festival is celebrated on the 10th day of the fifth month of the Tibetan calendar, which usually falls in June or July. It is celebrated to commemorate the birth of Guru Padmasambhava, a revered Buddhist teacher who is credited with bringing Buddhism to Tibet.
- The main highlights of the Hemis festival are the masked dances (Cham dances) performed by the monks. The dances are symbolic and depict the victory of good over evil. The festival also features music, traditional Ladakhi food, and other cultural attractions.

S7. Ans.(b)

Sol. The correct answer is (b) Fourth.

- The Fourth Five-Year Plan of India was in operation from 1969 to 1974, and the 1971 Indo-Pak War took place in December of that year.
- The Fourth Plan was launched under the leadership of Prime Minister Indira Gandhi, and its main objectives were to achieve growth with stability and to achieve progressive self-reliance. The Plan also focused on the Green Revolution, which led to a significant increase in agricultural production in India.
- The 1971 Indo-Pak War was a major turning point in the history of both countries. It resulted in the independence of Bangladesh from Pakistan, and it also strengthened India's position as a regional power.

S8. Ans.(c)

Sol. The answer is (c). The first phase of the green revolution in India was from mid-1960 to mid-1970.

- The green revolution was a period of rapid agricultural growth in India that began in the 1960s and lasted until the 1970s. It was characterized by the introduction of high-yielding varieties of seeds, increased use of fertilizers and pesticides, and improved irrigation facilities. The green revolution led to a significant increase in food production, which helped to alleviate hunger and poverty in India.
- The first phase of the green revolution was concentrated in the northwestern states of Punjab and Haryana, which had good irrigation facilities and were well-suited for growing wheat. The high-yielding varieties of wheat seeds that were introduced during this phase were able to produce significantly more grain than traditional varieties, but they required more water and fertilizer.

S9. Ans.(b)

Sol. The correct answer is (b) Article 74.

- Article 74(1) of the Constitution of India states that the President of India will be aided and advised by a Council of Ministers headed by the Prime Minister.
- Part V of the Constitution of India, Chapter I (Executive), deals with the President, Vice-President, and Council of Ministers (COM).
- It establishes a parliamentary system of government at the Union level, an independent judiciary, and a separation of powers.
- Article 71: Deals with the matters related to the election of the President and Vice President of India, including disputes regarding their election.
- Article 72: Grants the President the power to grant pardons, reprieves, respites, or remissions of punishment, or to suspend, remit or commute the sentence of any person convicted of any offense.

S10. Ans.(d)

Sol. The correct answer is (d) Aparna Satheesan.

- Dancer Aparna Satheesan, an exponent in Kuchipudi, is honored with the prestigious National Nritya Shiromani award for her outstanding performance.
- Extraordinary contribution and excellent service to the promotion, preservation, and popularization of the heritage of Indian Performing Arts in the field of Kuchipudi dance across the world.
- Aparna is among India's most dynamic and technically brilliant dancers, an outstanding representative of the Kuchipudi dance form.
- Her recent Bharatanatyam project AMMA: Journey of a new mother, has already been a successful one and has got multiple appreciations from the dance community.

S11. Ans.(c)

Sol. The correct answer is (c), 2kg in weight and 22cm in diameter.

The men's discus is a metal disc that weighs 2kg and has a diameter of 22cm. It is thrown from a circle with a diameter of 2.5m. The thrower spins around in the circle and then releases the discus, trying to throw it as far as possible.

S12. Ans.(d)

Sol. The correct answer is (d) Promoting financial inclusion and poverty alleviation.

- MFI is a company that provides low-income people with financial services.
- Microloans, micro-savings, and microinsurance are some of these services.
- MFIs are financial institutions that offer modest loans to borrowers without access to banking services.
- By providing access to financial services like microloans, savings accounts, and other financial products, MFIs help to bring these individuals into the formal financial system, This is known as financial inclusion.
- Microloans can be used for various income-generating activities, allowing borrowers to improve their livelihoods, break the cycle of poverty, and contribute to economic development.

S13. Ans.(c)

Sol. Maithili language is more prevalent in Darbhanga all India radio centre in Bihar.

S14. Ans.(d)

Sol. The answer is (d) Reserve Bank of India.

The Reserve Bank of India (RBI) is the central bank of India. It is responsible for issuing banknotes, regulating the banking system, and managing the Indian rupee. The RBI has the sole authority to issue banknotes in India, under Section 22 of the Reserve Bank of India Act, 1934.

The RBI issues banknotes in the denominations of ₹10, ₹20, ₹50, ₹100, ₹200, ₹500, and ₹2000. These notes are printed by the Security Printing and Minting Corporation of India (SPMCIL) and the Bharatiya Reserve Bank Note Mudran Private Limited (BRBNMPL).

The RBI also issues coins in the denominations of ₹1, ₹2, ₹5, and ₹10. These coins are minted by the India Government Mints at Kolkata, Mumbai, and Noida.

So the answer is (d) Reserve Bank of India.

S15. Ans.(d)

Sol. The answer is (d) Suman Bery.

Suman Bery was appointed as the Vice Chairman of NITI Aayog on 1 May 2022. He is an experienced policy economist and research administrator, and has served as the Director-General of the National Council of Applied Economic Research (NCAER), one of India's most respected institutions of empirical socioeconomic research. He has also served as the global Chief Economist of Royal Dutch Shell.

S16. Ans.(c)

Sol. The answer is (c), Pataliputra.

Pataliputra was the capital of the Mauryan Empire, and the area around it was under the direct control of the emperor. This meant that officials were appointed to collect taxes from farmers, herders, craftspersons, and traders who lived in villages and towns in the area. These taxes were used to fund the central government and its various activities, such as maintaining the army, building public works projects, and providing for the welfare of the people.

S17. Ans.(d)

Sol. The correct answer is (d) March 1919.

- The Khilafat Committee was formed in Bombay in March 1919 to defend the temporal powers of the Khalifa, the spiritual head of the Islamic world. The committee was led by Muslim leaders such as the brothers Muhammad Ali and Shaukat Ali.
- The formation of the Khilafat Committee was a response to the defeat of the Ottoman Empire in World War I.
- The Khilafat Committee launched a mass movement to pressure the British government to support the Khalifa. The movement gained widespread support among Muslims in India, and it also attracted the support of some Hindu leaders.
- In 1920, the Khilafat Committee joined forces with the Indian National Congress to launch the Non-Cooperation Movement.

S18. Ans.(d)

Sol. Jai Prakash University is located in Chapra, Bihar. Jai Prakash University was established on 22 November 1990. The territorial jurisdiction of the University is stretched over the whole of Saran Division comprising three districts of Chapra, Siwan and Gopalganj.

S19. Ans.(a)

Sol. The correct answer is (a), To provide opportunities for education to one's child or ward between the ages of six and fourteen years. This duty was added by the 86th Amendment to the Indian Constitution in 2002.

The other three duties, (b), (c), and (d), were all added by the 42nd Amendment to the Indian Constitution in 1976. Therefore, the answer is (a).

S20. Ans.(a)

Sol. The correct answer is (a) Ambubachi.

- The Ambubachi Mela is an annual Hindu festival held at the Kamakhya Temple in Guwahati, Assam.
- Celebrated during the monsoon season in the Assamese month of Ahaar, around mid-June, this mela marks the annual menstruation cycle of Goddess Kamakhya.
- Devotees believe that during this time, Devi Kamakhya, the Mother Shakti, undergoes her yearly menstrual period.
- It is also thought that the monsoon rains make the creative and nurturing power of Mother Earth's menses accessible to devotees at the temple.
- Instead of an idol, the goddess is worshipped in the form of a yoni-like stone over which a natural spring flows.

S21. Ans.(b)

Sol. The correct answer is (b) MFIs are non-profit organisations that provide financial services to low-income individuals and small businesses.

- Microfinance Institutions (MFIs) are organizations that provide financial services to low-income individuals, groups, or small businesses who typically lack access to conventional banking services.
- These services include microloans, savings accounts, insurance, and payment systems.

- The primary goal of MFIs is to promote financial inclusion and empower economically disadvantaged populations by enabling them to start or expand small businesses, improve their living conditions, and enhance their economic resilience.
- **Grameen Bank (Bangladesh):** Founded by Nobel Laureate Muhammad Yunus, Grameen Bank is one of the pioneers of microfinance.
- **SKS Microfinance (India):** Now known as Bharat Financial Inclusion Limited, this MFI offers microloans and other financial services to low-income households in India, helping them improve their livelihoods.

S22. Ans.(b)

Sol. The Saksham App was introduced by the Election Commission with the purpose of addressing the needs of voters above 85 years of age and persons with disabilities (PWDs). This app is part of the Election Commission's efforts to make the voting process more accessible and convenient for elderly voters and those with disabilities, ensuring their participation in the democratic process. By focusing on these groups, the Saksham App aims to facilitate their voting experience, making it more inclusive and barrier-free. This initiative reflects the Commission's commitment to enhancing electoral engagement and ensuring that all sections of society can exercise their voting rights effectively.

S23. Ans.(c)

Sol. The M. Chinnaswamy Stadium is located in Bengaluru. So, the answer is (c).

The M. Chinnaswamy Stadium is a cricket stadium in Bangalore, Karnataka, India. It is owned by the Government of Karnataka and operated by the Karnataka State Cricket Association (KSCA).

It regularly hosts Test, ODI, T20I and first-class cricket matches, as well as musical, cultural events.

Some Additional facts:

Formerly known as the Karnataka State Cricket Association Stadium, it was later rechristened in tribute to Mangalam Chinnaswamy Mudaliar, a lawyer from Mandya and the founding member of the Mysore State Cricket Association.

He served the KSCA for four decades and was also president of the Board of Control for Cricket in India (BCCI) from 1977 to 1980.

S24. Ans.(c)

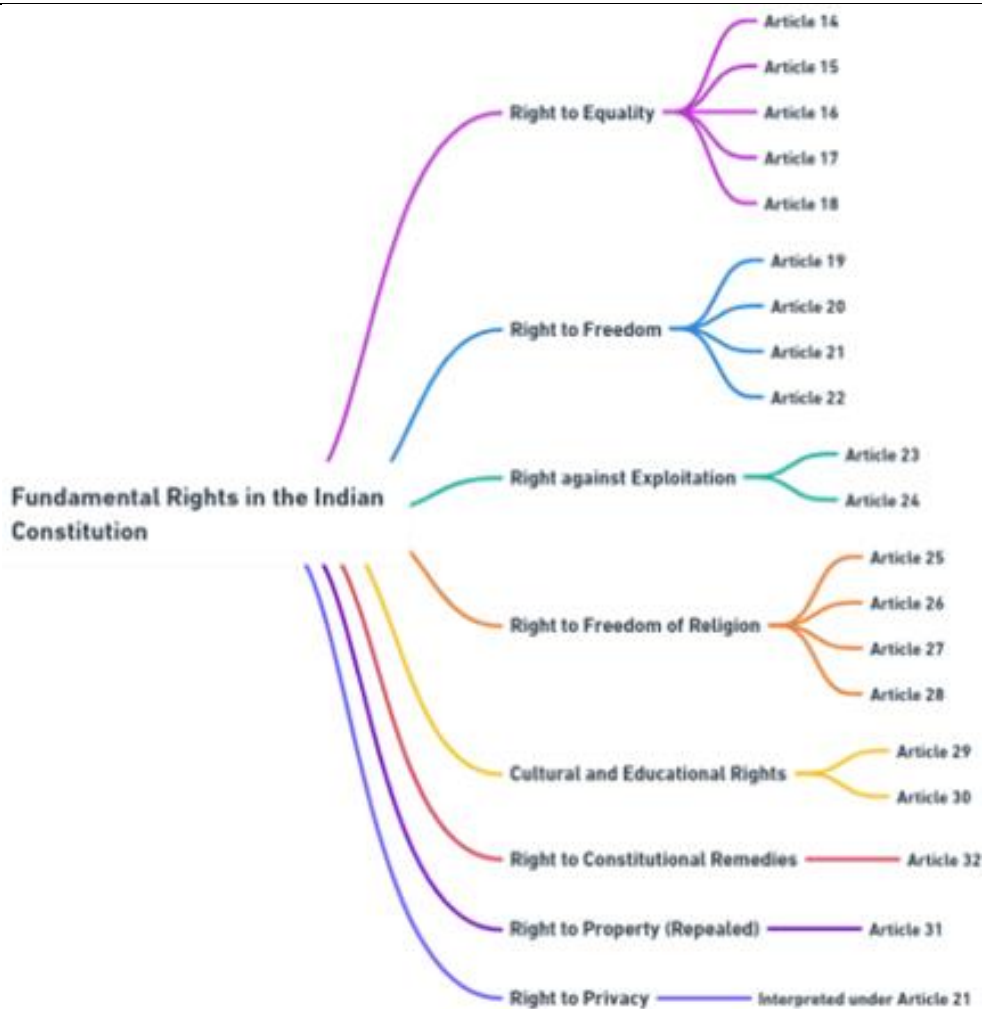
Sol. The Fundamental Rights of India are enshrined in Part III of the Constitution of India. So, the answer is (c).

Articles 12 to 35 contained in Part III of the Constitution deal with Fundamental Rights.

The six fundamental rights are:

1. Right to equality (Article 14–18)
2. Right to freedom (Article 19–22)
3. Right against exploitation (Article 23–24)
4. Right to freedom of religion (Article 25–28)
5. Cultural and educational rights (Article 29–30)
6. Right to constitutional remedies (Article 32–35)





S25. Ans.(a)

Sol. The Archaeological Survey of India (ASI) is conducting excavations in Nachna village, Panna district, Madhya Pradesh, to uncover what is potentially the oldest temple in India. This significant archaeological endeavor aims to explore and uncover historical structures that may offer invaluable insights into India's ancient religious architecture and heritage. Nachna village is known for its historical and archaeological importance, and the discovery of the oldest temple in India there would be a remarkable addition to our understanding of ancient Indian civilization and its architectural advancements.

S26. Ans.(b)

Sol. Prime Minister Narendra Modi launched the Jal Jeevan Mission on **15th August, 2019**. So, the answer is (b).

The Jal Jeevan Mission was officially launched by Prime Minister Narendra Modi on August 15, 2019. This mission aims to provide clean and safe drinking water to all rural households in India. The primary objective is to ensure every rural household has access to a piped water supply referred to as "Har Ghar Nal Se Jal" by 2024. The goal is to supply water at a rate of 55 liters per capita per day to every household.

S27. Ans.(d)

Sol. People of North India worship Goddess Lakshmi and Lord Ganesha together on the festival of **Diwali**. So, the answer is (d). Diwali is the festival of lights and is celebrated with great enthusiasm all over India. It is believed that on Diwali, Lord Rama returned to Ayodhya after defeating Ravana, and the people of Ayodhya lit diyas to welcome him back. It is also believed that on Diwali, Goddess Lakshmi, the goddess of wealth and prosperity, visits homes to bless her devotees.

S28. Ans.(b)

Sol. The primary means of transport used for transferring crude oil, petroleum products, and natural gas is: (b) pipelines. Pipelines are a highly efficient and cost-effective method to transport these materials over long distances, as they minimize loss, reduce transportation time, and ensure continuous flow. They are also relatively safe compared to other means of transport like road or rail, which are more prone to accidents and spills.

S29. Ans.(d)

Sol. The waterway that connects the Atlantic Ocean with the Pacific Ocean is the Panama Canal. So, Correct Answer is (d) Panama Canal.

The Panama Canal is an artificial waterway that connects the Atlantic Ocean with the Pacific Ocean. It is located in the Isthmus of Panama in Central America and serves as a key conduit for international maritime trade. The canal was completed in 1914 and has since been a vital link for ships traveling between the Atlantic and Pacific Oceans, allowing them to bypass the lengthy and dangerous route around South America.

Waterway	Connects Between
Suez Canal	Mediterranean Sea to Red Sea
Kiel Canal	North Sea to Baltic Sea
Volga-Don Canal	Volga River to Don River
Panama Canal	Atlantic Ocean to Pacific Ocean



S30. Ans.(b)

Sol. The answer is (b). Sonal Mansingh was the youngest recipient of Padma Bhushan in 1992.

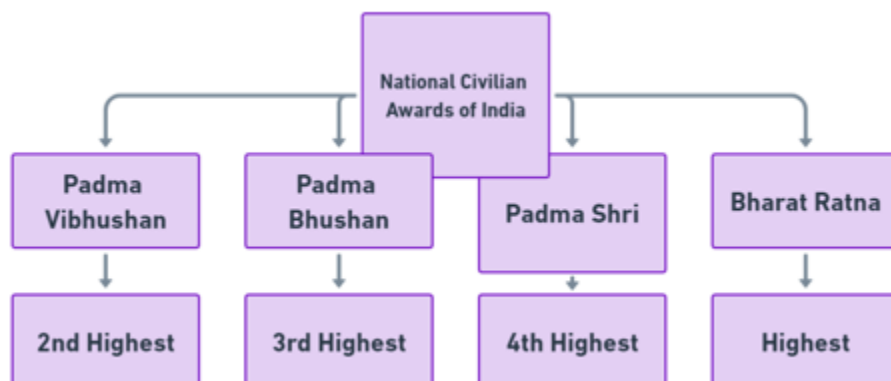
Sonal Mansingh is an Indian classical dancer and Guru in Bharatanatyam and Odissi dancing style. She has been nominated by the President of India to become a Member of Parliament, Rajya Sabha.

She is the youngest recipient of Padma Bhushan in 1992 and Padma Vibhushan in 2003.

Some Additional Facts:

The Padma Bhushan is the third-highest civilian award in India, and it is given for distinguished service of a high order in various fields.

Pandit Birju Maharaj was a renowned Indian dancer, guru, and exponent of Kathak, a traditional Indian dance form.



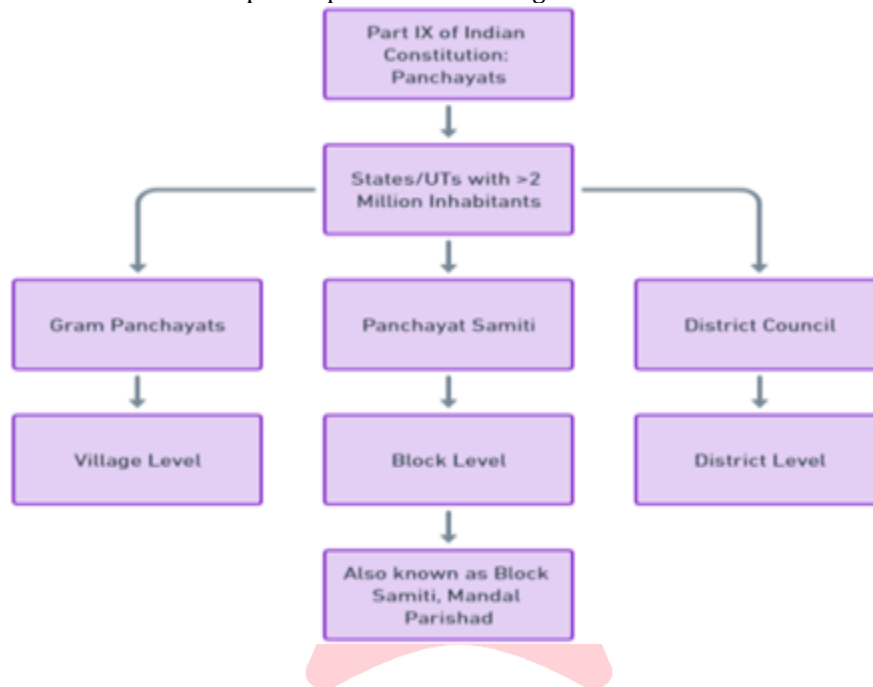
S31. Ans.(c)

Sol. The answer is (c).

According to Article 243 of the Constitution of India, Panchayat means an institution of self-government constituted under Article 243B, for the rural areas.

Article 243B of the Constitution of India provides for the constitution of Panchayats at the village, intermediate, and district levels in every State. The Panchayats are elected by the people and are responsible for the planning and implementation of development schemes at the local level.

Gram Sabha is a body consisting of all the adult members of a village and is responsible for overseeing the functioning of the Panchayat. Municipal Committee and Municipal Corporation are local government bodies in urban areas.



S32. Ans.(a)

Sol. The answer is (a).

Lakshya Sen is a professional badminton player from India. He is currently ranked world No. 15 in men's singles.

Sen has won several medals at major international tournaments, including a bronze medal at the 2021 World Championships, a silver medal at the 2022 All England Open, and a gold medal at the 2022 Commonwealth Games.

Sen was also a part of the Indian team which won the 2022 Thomas Cup.

S33. Ans.(b)

Sol. Kishanganj has the 'Indian Institute of Handloom Technology' been set up in Bihar.

S34. Ans.(d)

Sol. Prior to the country's independence, India was particularly known for its handicraft industries. Correct Answer: (d) Handicraft

Before gaining independence, India had a rich tradition of handicrafts that were highly valued both domestically and internationally. The country was famous for its textiles, pottery, metalwork, and other forms of handicrafts.

S35. Ans.(d)

Sol. The organization that conducts the sample surveys for calculating the poverty line in India is the National Sample Survey Office (NSSO). Correct Answer: (d) NSSO

The National Sample Survey Office (NSSO) is responsible for conducting large-scale sample surveys across India, including those related to calculating the poverty line. These surveys provide essential data that help in policy formulation and planning.

Some Additional Facts:

One of the earliest estimations of poverty was done by Dadabhai Naoroji in his book, 'Poverty and the Un-British Rule in India'. The current methodology for poverty estimation is based on the recommendations of an Expert Group to Review the Methodology for Estimation of Poverty (Tendulkar Committee) established in 2005.

S36. Ans.(c)

Sol. The correct answer is (c) Maharashtra.

- The Songi Mukhawate dance is a folk dance from Maharashtra, India that celebrates the victory of truth over falsehood.
- The dance is performed by tribals living on the border of Gujarat and Maharashtra, about 40 kilometers from Nashik.
- The dance is performed during auspicious functions, especially during the month of Chaitra to Holi Purnima.
- The dance derives its name from the two lion masks ("Mukhawate") worn by two dancers, representing Narasimha, an incarnation of Lord Vishnu, who embodies courage, power, and righteousness.

S37. Ans.(d)

Sol. The answer is (d). 2.4%

India accounts for only 2.4% of the world's surface area. It is the seventh largest country in the world by land area, with a total area of 3,287,590 square kilometers.

India occupies 2.41% of the world's land area but supports over 18% of the world's population.

Some Additional facts:

India is located in South Asia and is bordered by Pakistan to the west, Nepal, Bhutan, and Bangladesh to the north, and Myanmar to the east. It has a coastline of over 7,500 kilometers to the south, along the Indian Ocean and the Bay of Bengal.

India is the seventh-largest country by area; the most populous country as of June 2023; and from the time of its independence in 1947, the world's most populous democracy.

The north-south extent from Ladakh to Kanyakumari is about 3,200 km. And the east-west extent from Arunachal Pradesh to Kuchchh is about 2,900 km.

S38. Ans.(a)

Sol. The answer is (a).

Xuan Zang spent a lot of time at Harshavardhana's court and left a detailed account of what he saw.

Xuan Zang was a Chinese Buddhist monk who traveled to India in the 7th century to study Buddhist scriptures. He spent 17 years in India, and during that time he visited many different Buddhist sites and met with many important Buddhist scholars. He also spent time at Harshavardhana's court, where he was well-received by the king.

Xuan Zang's account of his travels in India is one of the most important sources of information about India during the 7th century.

S39. Ans.(a)

Sol. Jhansi was annexed by Lord Dalhousie under the policy Doctrine of Lapse in 1854.

The Doctrine of Lapse was a policy that was used by the British East India Company to annex Indian princely states. The policy stated that if a princely state did not have a male heir, the state would be annexed by the British East India Company.

Jhansi was ruled by Raja Gangadhar Rao II, who died in 1853 without a male heir. His widow, Rani Lakshmibai, adopted a son, Damodar Rao, but the British East India Company refused to recognize his claim to the throne. Instead, the British annexed Jhansi under the Doctrine of Lapse.

S40. Ans.(b)

Sol. The correct answer is (b) Uday Shankar.

- Uday Shankar was an Indian dancer and choreographer.
- He is credited with creating a fusion style of dance known as "Uday Shankar Dance," which combined elements of Indian classical dance with Western theatrical techniques.
- He received the Sangeet Natak Akademi Fellowship in 1962 for his lifetime achievements.
- He received the Padma Vibhushan from the Indian government, in 1971.
- Facts to remember:
- **Yamini Krishnamurthy** is a renowned Indian classical dancer, particularly known for her expertise in Bharatanatyam and Kuchipudi dance forms.
- **Gopi Krishna** was a renowned Kathak dancer and choreographer from India.
- **Sonal Mansingh** is a prominent Indian classical dancer known for her expertise in Odissi dance.

S41. Ans.(c)

Sol. Ibrahim Lodi

- The First Battle of Panipat, on 21 April 1526, was fought between the invading forces of Babur and the Ibrahim Lodi. It took place in north India and marked the beginning of the Mughal Empire.

S42. Ans.(c)

Sol. 6 Months

- Duration of Panchayats is five year. Fresh election to constitute a Panchayat shall be completed before the expiry of its term; or in case of dissolution before the expiry of a period of 6 months from the date of its dissolution.

S43. Ans.(a)

Sol. Article 262

- Under Article 262 Parliament has constituted the Inter-State Water Disputes Tribunal for adjudication of disputes between States for the waters of any inter-State river or river valley.
- Inter-State river water disputes are excluded from the jurisdiction of all Courts including the Supreme Court.

S44. Ans.(b)

Sol. 1972

- The first census of India was conducted in 1872 under the rule of Lord Mayo.
- The First Official Census in India was done in 1881 AD under Lord Rippon.

S45. Ans.(a)

Sol. Bihar

- According to the 2011 Census of India, Bihar had the lowest literacy rate among all states in the country.
- The total literacy rate of Bihar is 61.8% which is less than the average literacy rate of 72.98% in India. Also, the male literacy rate is 71.2% and the female literacy rate is 51.5% in Bihar.

S46. Ans.(c)

Sol. Chernozem soil

- Chernozem soils are a type of soil that is characterized by its high fertility and dark color.
- They are found in grassland regions of the world, including the tall-grass prairies of North America.

S47. Ans.(c)

Sol. Karnataka

- Prime Minister Narendra Modi has inaugurated Shivamogga airport in Karnataka.

S48. Ans.(a)

Sol. New Delhi

- Prime Minister Narendra Modi inaugurated the 'Barisu Kannada Dim Dimava cultural festival at Talkatora Stadium in New Delhi.
- Barisu Kannada Dim Dimava' cultural festival is being organized to celebrate Karnataka's culture, traditions, and history.

S49. Ans.(b)

Sol. Jawahar Lal Nehru

- The States Committee of the Constituent Assembly was headed by Jawahar Lal Nehru.

S50. Ans.(a)

Sol. Directive Principles of State Policy

- The Directive Principles of State Policy are enumerated in Part IV of the Constitution from Articles 36 to 51.

S51. Ans (c)

Sol. Hydrochloric acid is a strong acid and is commonly used in laboratory experiments and industrial processes. Sodium hydroxide and ammonia are examples of bases, while calcium carbonate is a salt.

- Hydrochloric acid, also known as muriatic acid or spirits of salt, is an aqueous solution of hydrogen chloride with the chemical formula HCl.

S52. Ans.(b)

Sol. Heparin

- Heparin is an anticoagulant substance that is naturally present in the body, particularly in mast cells and basophils. It helps to prevent blood clots from forming by inhibiting the activity of clotting factors, specifically thrombin, and factor Xa.

S53. Ans.(d)

Sol. Skeletal muscle

- Skeletal muscle is not a connective tissue. It is a type of muscle tissue that is responsible for voluntary movements of the body.

S54. Ans.(b)

Sol. Creatinine

- Creatinine is normally found in urine. High levels of creatinine in the bloodstream and urine can be an indicator of kidney disease.

S55. Ans.(d)

Sol. Concave lens

- When light passes from a denser medium (water) to a rarer medium (air), it undergoes refraction.
- The refractive index of water is higher than that of air. As light enters the air bubble in water, it bends away from the normal, which is the line perpendicular to the surface of the water.

S56. Ans.(a)

Sol. When we see an object, the image formed on the retina is real and inverted.

- The image formed on the retina of our eye is produced through the process of refraction. Light from an object enters the eye, passes through the lens, and converges onto the retina, which is a light-sensitive layer located at the back of the eye. The lens of the eye helps focus the incoming light onto the retina.
- In this process, the image formed on the retina is real, meaning it is formed at the actual location where the light converges. The image is also inverted, meaning it appears upside down compared to the actual object.

Therefore, option (a) real and inverted is the correct choice.

S57. Ans.(c)

Sol. Tuberculosis

- Tuberculosis is a bacterial infection caused by *Mycobacterium tuberculosis* bacteria.

Disease	Cause	Associated Bacteria/Virus
Influenza	Viral infection	Influenza viruses (e.g., Influenza A, B, C viruses)
Malaria	Parasitic infection	Plasmodium parasites (e.g., Plasmodium falciparum, Plasmodium vivax)
Tuberculosis	Bacterial infection	<i>Mycobacterium tuberculosis</i>
Diabetes	High blood sugar	Insulin not properly released by pancreas

S58. Ans.(b)

Sol. Hepatitis

- Hepatitis is a disease caused by viral infections that specifically affect the liver. There are several types of viral hepatitis, including hepatitis A, hepatitis B, hepatitis C, hepatitis D, and hepatitis E.
- These viruses can cause inflammation of the liver, leading to a range of symptoms and potential long-term liver damage.

S59. Ans.(c)

Sol. Nerve cells

- The longest cells in the human body are nerve cells.
- Nerve cells, also known as neurons, are specialized cells that transmit electrical and chemical signals throughout the body and are located in the base of the spinal cord and whose axons run down to the ends of toes.

S60. Ans.(d)

Sol. Mycoplasma

- It is a genus of bacteria that lacks a cell wall around its cell membrane.
- Without a cell wall, they are unaffected by many common antibiotics such as penicillin or other beta-lactam antibiotics that target cell wall synthesis.

S61. Ans.(a)

Sol. Vitamin A

- Vitamin A is essential for maintaining healthy eyesight. It plays a vital role in the functioning of the retina and helps prevent night blindness and other vision-related issues.
- Vitamin A can be found in foods such as liver, fish oil, egg yolks, dairy products (milk, cheese, butter), carrots, sweet potatoes, pumpkin, mangoes, apricots, spinach, kale, and fortified foods like cereals and margarine.

S62. Ans.(b)

Sol. Vitamin C

- Collagen is a protein that plays a crucial role in the structure and strength of connective tissues, including skin, tendons, and blood vessels.
- Vitamin C is required for the enzymatic reactions involved in collagen synthesis. It also acts as an antioxidant and aids in the absorption of iron, which is necessary for wound healing.
- Good dietary sources of vitamin C include citrus fruits, berries, kiwi, peppers, and leafy greens.

S63. Ans.(b)

Sol. The correct answer is (b) 7.

- A neutral solution has a pH of 7, which means that the concentration of hydrogen ions (H^+) and hydroxide ions (OH^-) is equal.
- solutions with a pH less than 7 are acidic, while solutions with a pH greater than 7 are basic.
- The pH of a solution does depend on the concentration of hydrogen ions, but a neutral solution has a fixed pH of 7.

S64. Ans.(c)

Sol. The correct answer is (c) It has a pH greater than 7.

- Acids have a pH of less than 7, and their properties include turning blue litmus paper red, having a sour taste, and reacting with bases to form salts. pH of greater than 7 indicates a base.

S65. Ans.(a)

Sol. The correct answer is (a) Acetic acid.

- Acetic acid is the main acid present in vinegar, which is a diluted solution of acetic acid in water. Hydrochloric acid, nitric acid, and sulfuric acid are examples of strong acids that are not typically found in vinegar.
- Acetic acid is also known as ethanoic acid, ethylic acid, vinegar acid, and methane carboxylic acid; it has the chemical formula of CH_3COOH .

S66. Ans.(b)

Sol. Group AB has both A and B antigens on red cells but neither A nor B antibodies in the plasma.

- Blood group AB has both A and B antigens on the surface of its red blood cells, which means that it can receive blood from individuals with blood groups A, B, AB, or O. However, it does not produce any antibodies against either A or B antigens.

S67. Ans.(a)

Sol. Scurvy is a disease that is caused by a deficiency of vitamin C (ascorbic acid).

- Vitamin C plays a crucial role in the synthesis of collagen, a protein important for the health of connective tissues, blood vessels, and bones. Without adequate vitamin C, the body is unable to produce or maintain healthy collagen, leading to various symptoms associated with scurvy.

S68. Ans.(b)

Sol. Lymph is a fluid that is similar to blood plasma, but it is colorless and does not contain red blood cells.

- One of the main functions of the lymphatic system is to absorb fats and fat-soluble vitamins from the small intestine.
- Lymphatic vessel is present in the intestinal villi.
- It acts as a reservoir of digested food and water.

S69. Ans.(a)

Sol. Alveoli are structures within the Lungs.

- Alveoli are small, balloon-like structures in the lungs that are responsible for gas exchange. They are the site of oxygen and carbon dioxide exchange between the lungs and the bloodstream.
- When we breathe in, air enters the lungs through the trachea and bronchi, which then branch out into smaller airways called bronchioles.
- At the end of the bronchioles are the alveoli, which are tiny air sacs lined with a thin layer of cells that are in direct contact with the bloodstream.

S70. Ans.(b)

Sol. In 1897, J.J. Thomson discovered the electron as a constituent of the atom.

- He determined that an electron had a negative charge and very little mass compared to that of the atom.

S71. Ans.(c)

Sol. The discrepancy in the expected atomic masses suggested the presence of neutral particles with a mass comparable to that of protons in the atom.

- Sir James Chadwick discovered these particles, called neutrons, in 1932.

S72. Ans.(b)

Sol. According to Newton's Second Law, Kinetic Energy is directly proportional to the mass of an object and the square of its velocity.

S73. Ans.(a)

Sol. Acceleration and velocity are both concepts used to describe the motion of an object. Velocity refers to the rate at which an object changes its position with respect to time, while acceleration refers to the rate at which an object's velocity changes with respect to time.

- In other words, acceleration is the rate of change of velocity over time. If an object's velocity is changing, then it is said to be accelerating. The direction of the acceleration is determined by the direction of the change in velocity.
- Mathematically, acceleration is defined as the derivative of velocity with respect to time:

$$a = dv/dt$$

where "a" is acceleration, "v" is velocity, and "t" is time.

S74. Ans.(a)

Sol. Dmitri Mendeleev is known as the "Father of the Modern Periodic Table" for his work in developing the periodic table based on the atomic masses and properties of the elements.

- He is best known for formulating the Periodic Law and creating a version of the periodic table of elements.

S75. Ans.(c)

Sol. Beryllium (Be) does not belong to the alkali metal family, but it is a member of Group 2 (the alkaline earth metals).

- Alkali metals are a group of chemical elements that are highly reactive and belong to Group 1 of the periodic table. They include lithium (Li), sodium (Na), potassium (K), rubidium (Rb), cesium (Cs), and francium (Fr).
- Alkali metals have one electron in their outermost shell, which makes them highly reactive with non-metals, especially halogens. They are also highly reactive with water, releasing hydrogen gas and forming hydroxides.

S76. Ans.(b)

Sol. The Bihar Panchayati Raj Act came into effect in the year 2006.

- The Bihar Panchayati Raj Act was passed by the Bihar Legislative Assembly in 2006 and came into effect on 15th August 2006. The Act aimed to decentralize power and promote grassroots democracy by strengthening the system of panchayats in Bihar.
- Under the Bihar Panchayati Raj Act, three-tier panchayats were established at the village, block, and district levels. These panchayats were given powers and functions related to rural development, social justice, and local governance.

S77. Ans.(b)

Sol. The correct answer is (b) Uttar Pradesh.

- The third edition of the Khelo India University Games (KIUG) 2022 was held in Uttar Pradesh from May 25 to June 3, 2023.
- The games were hosted in four cities across the state: Lucknow, Varanasi, Gorakhpur, and Gautam Buddha Nagar.
- The shooting competitions were held in New Delhi.
- Panjabi University (Chandigarh) won the overall championship with 69 medals, including 26 gold, 17 silver, and 26 bronze.
- Khelo India University Games is a national-level multi-sport event held in India, where athletes from universities across the country compete in different sports disciplines.
- The first edition held in Odisha started on 22 February and concluded on 1 March 2020.

S78. Ans.(d)

Sol. The correct answer is (d) Delhi.

- The Hindustan Socialist Republican Association formed in 1928 at Ferozeshah Kotla in Delhi.
- It was established by a group of revolutionary leaders, prominently including Chandrasekhar Azad, Bhagat Singh, and others.
- The HSRA aimed to overthrow British colonial rule in India through revolutionary means.
- The HSRA attracted several prominent figures of the Indian independence movement, including revolutionaries like Ram Prasad Bismil, Ashfaqulla Khan, Rajendra Lahiri, and Sukhdev Thapar, among others.
- The HSRA gained significant attention for its involvement in various acts of resistance against the British, including the Kakori Train Robbery in 1925, the assassination of British police officer J.P. Saunders in 1928, and the Assembly Bomb Case in 1929.

S79. Ans.(c)

Sol. The correct answer is (c) Odisha.

- Shifting cultivation is known as Bringa in Odisha.
- Shifting cultivation, also known as "slash and burn" agriculture, is a traditional farming practice where land is cleared by cutting down vegetation and burning it.
- The cleared land is then cultivated for a few years until soil fertility declines, after which it is abandoned, and a new area is cleared for cultivation.

Different names of Slash and Burn farming in different states are:

Name	Regions
Jhumming	Assam, Meghalaya, Mizoram and Nagaland
Pamlou	Manipur
Dipa	Bastar (Chhattisgarh) and Andaman & Nicobar Islands
Podu or Penda	Andhra Pradesh
Pama Dabi or Koman or Bringa	Orissa
Kumara	Western Ghats
Kuruwa	Jharkhand
Valre or Waltre	South eastern Rajasthan

S80. Ans.(a)

Sol. The correct answer is (a) Automated Teller Machine.

- The acronym 'ATM' stands for Automated Teller Machine.
- ATM is a computerized machine used for most of the routine jobs of a bank.
- It is operated by a magnetic plastic card popularly known as an ATM card.
- The first modern ATM was introduced by Barclays Bank in London on June 27, 1967.
- It was invented by John Shepherd-Barron.
- The first ATM in India was set up by HSBC in Mumbai in 1987.
- The highest ATM in India is located in Nathu La Pass, Sikkim, at an altitude of approximately 14,300 feet above sea level.

S81. Ans.(a)

Sol. The correct answer is (a) Dhondo Keshav Karve.

- The first Women's University in India was founded by Dhondo Keshav Karve.
- It was named "Shreemati Nathibai Damodar Thackersey Women's University" (SNDT Women's University) and established in 1916 in Mumbai.
- Karve was a strong advocate for women's education and empowerment.
- Ashutosh Mukherjee was an Indian educator and lawyer who served as the Vice-Chancellor of the University of Calcutta.
- Sir Syed Ahmed Khan was a prominent Muslim reformer and educator who founded the Muhammadan Anglo-Oriental College, which later evolved into the Aligarh Muslim University.

S82. Ans.(b)

Sol. The correct answer is (b) Meiosis.

- Meiosis is the process that reduces the number of chromosomes in a parent cell by half, producing four gamete cells.
- This process is sometimes called "reduction division" because it ensures that when sperm and egg fuse, the resulting baby has the correct number of chromosomes.
- Meiosis is a unique cellular process that generates haploid daughter cells.
- The initial stage of nuclear division in gamete formation is termed meiosis I, often referred to as reduction division.
- The term "meiosis" originates from the Greek word "meioun," signifying "to make small."

S83. Ans.(b)

Sol. The second Buddhist council at Vaishali was convened during the reign of King Kalashoka.

S84. Ans.(a)

Sol. The correct answer is (a) Tropical Evergreen Forests.

- Mahogany, Rosewood, and Cinchona trees are found in Tropical Evergreen forests in India.
- These forests are also known as tropical rainforests and are located in regions with heavy rainfall and high temperatures.
- Tropical evergreen forests are dense and lush, with a multi-layered canopy.
- They contain a wide variety of tree species, including tall hardwoods and epiphytes.
- Found in regions with high rainfall and consistent temperatures, such as the Western Ghats, northeastern India, and parts of the Andaman and Nicobar Islands.

Facts to remember:

- On the basis of certain common features such as predominant vegetation type and climatic regions, Indian forests can be divided into the following groups:
- Tropical Evergreen and Semi-Evergreen forests
- Tropical Deciduous forests
- Tropical Thorn forests
- Montane forests
- Littoral and Swamp forests.

S85. Ans.(b)

Sol. The correct answer is (b) Tripura.

- The Lebang Boomani dance is the harvest dance of Tripura.
- The dance depicts how bamboo clappers are used to catch colorful insects called lebangs.
- Hojagiri is a traditional dance form performed by the Reang community of Tripura, a state in northeastern India.
- Bihu is a popular folk dance form of Assam, a state in northeastern India.
- Wangala is a harvest festival celebrated by the Garo tribe of Meghalaya, a state in northeastern India.

S86. Ans.(b)

Sol. The correct answer is (b) It helps in more accurate measurement of economic growth and productivity.

- Intermediate goods and services are used in the production process to create final goods and services.
- Including the value of intermediate goods/services in national income calculations would result in double counting, leading to an overestimation of economic output.
- By focusing on final goods and services, economists can provide a more accurate assessment of the value added at each stage of production, thus enabling better measurement of economic growth and productivity.
- Intermediate goods can increase production costs if manufacturers are unable to find reliable or low-cost suppliers.

S87. Ans.(b)

Sol. The correct answer is (b) Reside in any part of India.

- Article 19(1)(e) of the Constitution of India guarantees every citizen the right to reside and settle in any part of India.
- This right is considered a fundamental freedom.
- However, Article 19(5) of the Constitution allows for reasonable restrictions on this right in the interest of the public or for other reasons.
- Article 19(2) to 19(6) also contain some limitations and exceptions to these fundamental freedoms.

Facts to remember:

- The Directive Principles of state policy (DPSP):
- Articles 36-51 of Part-IV of the Indian Constitution deals with Directive Principles of State Policy (DPSP).
- They are borrowed from the Constitution of Ireland.
- DPSPs are non-justiciable i.e non-enforceable in the court of law.
- They act as directives to the government to create any law.
- There are mainly three categories of these principles – Socialist Directives, Gandhian Directives, and Liberal Intellectual Directives.
- Uniform Civil Code, Separation of judiciary from Executive, Agriculture, and Animal Husbandry are mention in D.P.S.P.

S88. Ans.(d)

Sol. The correct answer is (d) Madhya Pradesh.

- The Sanchi Stupa, located in the state of Madhya Pradesh, is one of the oldest and most well-preserved Buddhist monuments in India.
- The Sanchi Stupa was originally commissioned by the Mauryan emperor Ashoka in the 3rd century BCE.
- It is a religious place with historical and archaeological significance.
- Sanchi is famous in the world for stupas, monolithic Asokan pillar, temples, monasteries and sculptural wealth dating from 3rd century B.C. to 12th century A.D.
- During Sunga times, several edifices were raised at Sanchi and its surrounding hills.

S89. Ans.(c)

Sol. The correct answer is (c) President.

- The President of India is the nominal head of the executive branch of the government, while the Prime Minister is the real executive head.
- The President is also the first citizen of India and the supreme commander of the Indian Armed Forces.
- Droupadi Murmu is the 15th and current President of India, having taken office on July 25, 2022.
- Articles 52 to 78 in Part V of the Constitution deal with the Union executive.
- The Union executive consists of the President, the Vice- President, the Prime Minister, the council of ministers and the attorney general of India.
- **Article 76:** Establishes the office of the Attorney General for India.
- **Article 63:** Establishes the office of the Vice President of India.

S90. Ans.(b)

Sol. The correct answer is (b) Priyanka Chopra.

- The author of the book "Unfinished: A Memoir" is Priyanka Chopra.
- It was published in 2021.
- The book is a compilation of personal essays, stories, and observations, offering readers a glimpse into significant moments in Chopra's life and her extensive twenty-year-long career.
- Throughout the memoir, she shares her experiences as an actress-producer and her role as a UNICEF Goodwill Ambassador.
- Additionally, Chopra delves into her marriage to American singer and actor Nick Jonas, providing insights into their relationship.
- "Unfinished" presents a candid and introspective narrative, offering readers an opportunity to gain a deeper understanding of Priyanka Chopra's life journey.

S91. Ans.(b)

Sol. The correct answer is (b) Pacific Ocean.

- The South China Sea is part of the Pacific Ocean.
- It's one of the largest marginal seas in the West Pacific, with a surface area of 3.5 million square kilometers.
- The sea stretches from the Strait of Malacca and Singapore in the southwest to the Strait of Taiwan in the northeast, and borders the Southeast Asian mainland.
- It's bordered by the Indochinese Peninsula to the west, South China to the north, Taiwan and the Philippines to the east, and Borneo to the south.

Facts to remember:

- **The Arctic Ocean** is the smallest and shallowest of the world's five major oceans, located primarily in the Arctic region.
- **The Pacific Ocean** is the largest and deepest of the world's five major oceans, covering approximately one-third of the Earth's surface.
- **The Southern Ocean**, also known as the Antarctic Ocean, surrounds Antarctica and extends from the coast of Antarctica to the 60th parallel south.
- **The Indian Ocean** is the third-largest of the world's five major oceans, covering approximately 20% of the Earth's surface.

S92. Ans.(a)

Sol. The correct answer is (a) Maldives.

- Dhivehi is the official language of the Maldives, a neighboring country of India.
- Dhivehi is also known as Maldivian and is an Indo-Aryan language that is closely related to Sinhala, the language of Sri Lanka.
- It has 300,000 speakers, mostly in the Maldives, and in Lakshadweep, an Indian Union Territory.
- Dhivehi is written using a unique script, called Thaana, written from right to left, but was formerly written in Dhives Akuru which is written from left to right.

Facts to remember:

- **Mandarin Chinese**, also known as Putonghua, is the official language of China.
- **Dzongkha** is the official language of Bhutan. It is spoken by the Bhutanese people and serves as the national language of Bhutan.
- **Sinhala** and Tamil are the official languages of Sri Lanka.
- Sinhala is predominantly spoken by the Sinhalese ethnic group, while Tamil is spoken by the Tamil ethnic group.

S93. Ans.(a)

Sol. The correct answer is (a) AVSAR Scheme.

- The Jammu and Kashmir Lieutenant Governor inaugurated the UMEED Market Place at Srinagar International Airport under the AVSAR Scheme of Airport Authority of India.
- The "AVSAR" initiative was started by the Airport Authority of India (AAI).
- Its aim is to support and give chances to women, artisans, and craftspeople.
- "Airport as Venue for Skilled Artisans of the Region" is referred to as AVSAR.
- Each airport run by AAI has set aside a space of 100–200 square feet.

- For a period of 15 days, the self-help groups will each get their time in the area.
- At Srinagar International Airport, Jammu and Kashmir's Lieutenant Governor Manoj Sinha opened the "UMEED Market Square" as part of the AVSAR Initiative.
- A comparable marketplace has also been established at the Jammu Airport, and both locations will feature goods from all 20 districts.

S94. Ans.(b)

Sol. The correct answer is (b) Nadir Shah.

- In 1739, Nadir Shah, the Shah of Iran, invaded Northern India and attacked Delhi in March.
- His army defeated the Mughals at the Battle of Karnal and captured the Mughal capital, Shahjahanabad (Delhi).
- Nadir Shah then extracted a large tribute from the Mughal king Muhammad Shah and his nobles.
- The whole city of Delhi was destroyed, looted, plundered, and ruined by the army of Nadir Shah.
- Nadir Shah took with him the Peacock throne built by Shah Jahan. He also took the legendary Koh-i-Noor diamond.
- Besides this, he plundered gold worth 10 million rupees, 600 million rupees worth of jewellery, and coins worth 6 million rupees.

S95. Ans.(b)

Sol. The correct answer is (b) Kirana.

- Bhimsen Joshi belongs to the Kirana Gharana tradition of Hindustani Classical Music.
- Abdul Karim Khan was an extremely popular musician and was thus highly influential in popularizing the Gharana.
- He is known for the khayal form of singing, as well as for his popular renditions of devotional music.
- Besides Pandit Bhimsen Joshi, other notable exponents of the Kirana Gharana include Ustad Abdul Karim Khan, Ustad Amir Khan, and Gangubai Hangal.

Facts to remember:

- Notable exponents of the Banaras Gharana include Pt. Channulal Mishra, Pt. Rajan Mishra, and Pt. Gopal Mishra.
- Notable exponents of the Agra Gharana include Ustad Faiyaz Khan, Ustad Vilayat Hussain Khan, and Ustad Latafat Hussain Khan.
- The Dilli Gharana, also known as the Delhi Gharana, is one of the oldest classical music traditions in North India, known for its khayal gayaki, thumris, and dhrupad compositions.
- Notable exponents of the Dilli Gharana include Ustad Chand Khan, Ustad Chand Pasha Khan, and Ustad Nasir Aminuddin Dagar.

S96. Ans.(a)

Sol. The correct answer is (a) Odisha.

- Both Mahari Dance and Gotipua Dance are integral parts of Odisha's rich cultural heritage and temple traditions.
- Mahari Dance, also known as Devadasi Nritya, originated in the temples of Odisha.
- Historically, young girls known as Maharis were dedicated to serving deities in the temples and were trained in dance and music as part of their religious duties.
- The dance typically depicts stories from Hindu mythology, particularly episodes related to Lord Jagannath, the presiding deity of the Jagannath Temple in Puri.
- Gotipua Dance emerged as a form of dance practiced by young boys, known as Gotipuas, who were trained in acrobatics, dance, and music in the Odisha region.
- Similar to Mahari Dance, Gotipua performances often depict stories from Hindu mythology, with a focus on devotion and spiritual themes.

S97. Ans.(b)

Sol. The correct answer is (b) Kumkum Dhar - Kuchipudi.

- Prof. Dr. Sruti Bandopadhyay (born 8th October 1962) is an ideal combination of a performer-scholar in the dance field of India. A Sangeet Natak Akademi Puraskar for Contribution in Manipuri dance, she is one of the leading exponents of Manipuri Dance dedicated to propagate Manipuri dances outside the boundaries of Manipur.
- Meenakshi Chitharanjan, an Indian classical dancer, teacher and choreographer, is known as an exponent of the Pandanallur style of the classical dance form of Bharatanatyam.

- Trilochan Mohanta is a renowned sculptor and artist from Odisha. He has been awarded the Padma Shri and National Award for his contribution to the field of art.
- Kumkum Dhar is a renowned Kathak dancer who has made significant contributions to the art form. Sangeet Natak Akademi (The National Academy of Music, Dance, and Drama in English) is the national-level academy for performing arts set up by the Government of India.

S98. Ans.(d)

Sol. The correct answer is (d) RD Burman.

- RD Burman, whose full name was Rahul Dev Burman, was a legendary Indian music composer who revolutionized Bollywood music in the 1960s, 70s, and 80s.
- "Panchamda" is a term of endearment used for him, with "Pancham" meaning "five" in Bengali (his mother tongue) and "da" being a respectful suffix.
- He was considered the king of Bollywood music and with his wife, Asha Bhosle and his sister-in-law, Lata Mangeshkar, he composed over 300 songs.
- He composed music as an assistant in the films Kaagaz Ke Phool in 1959, Tere Ghar Ke Samne in 1963 and as a music director for the film Teesri Manzil in 1966.
- He won the Filmfare award for Best music director thrice in 1983 for Sanam Teri Kasam, in 1984 for Masoom and in 1995 for 1942: A Love Story.

S99. Ans.(b)

Sol. The correct answer is (b) Odisha.

- The Mukteshwar Dance Festival is held annually in the Mukteshwar Temple complex located in Bhubaneswar, Odisha.
- It celebrates the beauty and tradition of Odissi, a classical dance form from the state.
- The event features a variety of Odissi styles, ranging from the traditional solo performances (ekaharya) to group choreographies (dalacharya).
- The event was first held in 1984 and since 2004 has been held every year.
- Odisha state was a center of the powerful Kalinga Empire, which flourished from the 3rd century BCE to the 1st century CE.

S100. Ans.(b)

Sol. The correct answer is (b) The Race of My Life.

- The autobiography of Milkha Singh is "The Race of My Life."
- Milkha Singh, also known as the "Flying Sikh," was an Indian track and field sprinter who represented India in various international competitions.
- His autobiography, The Race of My Life (co-written with his daughter Sonia Sanwalka), was published in 2013.
- He is the only athlete to win a gold medal in the 400 meters race at the Commonwealth Games and the Asian Games.
- Milkha Singh set a national record in the 1960 Olympics by winning fourth place in the 400m race in 45.73 seconds.
- This record remained for almost 40 years.
- He was conferred India's fourth-highest civilian honour, Padma Shri for his sporting achievements.

Facts to remember:

- **A Shot at History** : This book is written by Abhinav Bindra, India's first individual Olympic gold medalist in shooting.
- It chronicles his journey to becoming an Olympic champion and provides insights into the world of sports and high-performance athletics.
- **The Test of My Life** : This book is written by cricketer Yuvraj Singh.
- It narrates his experiences as a cricketer, including his battle with cancer and his comeback to the sport.