

Comprehensive 200 MCQ Challenge - Set 02

Subjects: Physics, Chemistry, Mathematics, Hindi, English, Reasoning, Current Affairs, HP GK, and Indian GK. **Level:** B.Sc. (Science) & Competitive General Studies.

Mixed MCQs (1-200)

1. The 'Spiti' river is a tributary of which major river in Himachal Pradesh? A) Beas B) Satluj C) Chenab D) Ravi
2. In a quantum mechanical system, if the operator \hat{A} and \hat{B} commute ($[\hat{A}, \hat{B}] = 0$), it implies: A) They have a simultaneous set of eigenfunctions B) The uncertainty in both is zero C) They are Hermitian D) The system is in a ground state
3. Choose the correct antonym for the word 'FRUGAL': A) Economical B) Miserly C) Extravagant D) Splendid
4. The value of the integral $\int_0^\infty e^{-x^2} dx$ is: A) $\sqrt{\pi}$ B) $\sqrt{\pi}/2$ C) π D) 1
5. Which of the following is a 'Greenhouse Gas' with the highest global warming potential per molecule? A) CO_2 B) CH_4 C) SF_6 D) N_2O
6. 'ऊँट के मुँह में जीरा' लोकोक्ति का सही अर्थ है: A) बहुत कम मात्रा में वस्तु मिलना B) ऊँट को जीरा खिलाना C) बीमारी का इलाज D) पेट की समस्या
7. If 'PRINTER' is coded as '1118181420518', how is 'SCAN' coded? A) 193114 B) 193115 C) 192114 D) 183114
8. Who was the first Chief Justice of the Himachal Pradesh High Court? A) Justice M.H. Beg B) Justice R.S. Pathak C) Justice P.D. Desai D) Justice V.K. Gupta
9. A Carnot engine operates between temperatures T_1 and T_2 ($T_1 > T_2$). If the efficiency is 40%, and $T_2 = 300\text{ K}$, what is T_1 ? A) 500 K B) 450 K C) 600 K D) 750 K
10. Which reagent is used in the 'Lucas Test' to distinguish between primary, secondary, and tertiary alcohols? A) $ZnCl_2 + \text{conc. } HCl$ B) $KMnO_4 + H_2SO_4$ C) $I_2 + NaOH$ D) $NaNO_2 + HCl$
11. The order and degree of the differential equation $\frac{d^2y}{dx^2} + \sqrt{1 + (\frac{dy}{dx})^3} = 0$ are: A) Order 2, Degree 1 B) Order 2, Degree 2 C) Order 1, Degree 3 D) Order 2, Degree 3
12. Which country recently officially joined the BRICS group in January 2024? A) Argentina B) Egypt C) Pakistan D) Japan
13. According to the Special Theory of Relativity, the length of a rod moving with velocity v appears to be: A) Longer B) Shorter C) Same D) Zero
14. 'आशीर्वाद' की शुद्ध वर्तनी क्या है? A) अशिर्वाद B) आशीर्वाद C) आशीर्वाद D) असीर्वाद
15. Find the missing number in the sequence: 1, 4, 9, 16, 25, ? A) 30 B) 35 C) 36 D) 49
16. The pH of a $10^{-8}\text{ M } HCl$ solution is: A) 8 B) 6 C) Slightly less than 7 D) 7
17. If $z = x + iy$, then $|e^z|$ is equal to: A) e^x B) e^y C) e^{x+y} D) 1

18. The 'Quit India Movement' was started in which year? A) 1920 B) 1930 C) 1942 D) 1945

19. In a semiconductor, the Fermi level for an n-type material lies: A) Near the valence band B) Exactly in the middle of the gap C) Near the conduction band D) Inside the conduction band

20. Which of the following is an intensive property? A) Volume B) Enthalpy C) Molar Heat Capacity D) Mass

21. 'पवन' का संधि विच्छेद है: A) प + वन B) पौ + अन C) पो + अन D) पा + वन

22. A is B's sister. C is B's mother. D is C's father. E is D's mother. Then, how is A related to D? A) Granddaughter B) Daughter C) Aunt D) Mother

23. Which district in Himachal Pradesh is known for its high production of ginger? A) Sirmaur B) Bilaspur C) Hamirpur D) Solan

24. The magnetic field inside a long solenoid carrying current I is: A) $\mu_0 n I$ B) $\mu_0 I / 2\pi r$ C) Zero D) $\mu_0 n I^2$

25. The Eigenvalues of a Hermitian matrix are always: A) Imaginary B) Real C) Zero D) Complex

26. Which functional group is detected using the 'Fehling's solution'? A) Ketone B) Aldehyde C) Carboxylic Acid D) Alcohol

27. Fill in the blank: 'The train had left before he _____ the station.' A) reaches B) reached C) had reached D) was reaching

28. Under which Article of the Indian Constitution can the President impose Financial Emergency? A) Article 352 B) Article 356 C) Article 360 D) Article 368

29. The rate constant for a zero-order reaction has the units: A) s^{-1} B) $mol L^{-1} s^{-1}$ C) $L mol^{-1} s^{-1}$ D) $mol^2 L^{-2} s^{-1}$

30. In which year was the 'Shimla Municipal Corporation' established? A) 1851 B) 1864 C) 1872 D) 1905

31. The Compton shift $\Delta\lambda$ depends on: A) Incident wavelength B) Scattering angle C) Material of the target D) Intensity of radiation

32. If \vec{a} and \vec{b} are unit vectors and the angle between them is 60° , then $|\vec{a} + \vec{b}|$ is: A) 1 B) $\sqrt{2}$ C) $\sqrt{3}$ D) 2

33. 'हाथ कंगन को आरसी क्या' का अर्थ है: A) प्रत्यक्ष को प्रमाण की आवश्यकता नहीं B) अमीर होना C) अहंकार करना D) सुंदर दिखना

34. Change the voice: 'Somebody has stolen my pen.' A) My pen was stolen. B) My pen has been stolen. C) My pen is stolen. D) My pen had been stolen.

35. The 'Battle of Buxar' took place in which year? A) 1757 B) 1761 C) 1764 D) 1772

36. Which element has the lowest ionization enthalpy? A) Helium B) Cesium C) Fluorine D) Francium

37. A man travels 30 km North, then 20 km East. What is his displacement from the starting point? A) 50 km B) $10\sqrt{13}$ km C) 10 km D) 36 km

38. The energy stored in an inductor of inductance L carrying current I is: A) $1/2LI^2$ B) LI^2 C) $1/2L^2I$ D) VI

39. The derivative of $\cos^{-1} x$ is: A) $1/\sqrt{1-x^2}$ B) $-1/\sqrt{1-x^2}$ C) $1/(1+x^2)$ D) $-1/(1+x^2)$

40. Which pass connects the Kinnaur district of HP with Tibet? A) Shipki La B) Rohtang Pass C) Baralacha La D) Jalori Pass

41. Which of the following is a 'Pseudo-first order' reaction? A) Decomposition of N_2O_5 B) Inversion of Cane Sugar C) Formation of NH_3 D) Radioactive decay

42. 'स्वागत' में कौन सा उपसर्ग है? A) स्व B) सु C) स्वा D) स

43. Who is the winner of the 2023 Dada Saheb Phalke Award? A) Waheeda Rehman B) Rekha C) Asha Parekh D) Amitabh Bachchan

44. The Laplacian operator ∇^2 in Cartesian coordinates is: A) $\frac{\partial}{\partial x} + \frac{\partial}{\partial y} + \frac{\partial}{\partial z}$ B) $\frac{\partial^2}{\partial x^2} + \frac{\partial^2}{\partial y^2} + \frac{\partial^2}{\partial z^2}$ C) $\frac{\partial^2}{\partial x \partial y}$ D) 0

45. The probability of drawing a King or a Queen from a standard deck of 52 cards is: A) $1/13$ B) $2/13$ C) $1/26$ D) $4/13$

46. Which lens is used to correct 'Myopia' (Short-sightedness)? A) Convex lens B) Concave lens C) Cylindrical lens D) Bifocal lens

47. The spin-only magnetic moment of Ni^{2+} ion ($Z = 28$) is: A) $1.73 BM$ B) $2.83 BM$ C) $3.87 BM$ D) $4.90 BM$

48. Choose the correct synonym for 'AMELIORATE': A) To worsen B) To improve C) To humiliate D) To forgive

49. 'अनल' किसका पर्यायवाची है? A) वायु B) जल C) अग्नि D) आकाश

50. The first Lokayukta of Himachal Pradesh was: A) Justice T.V.R. Tatachari B) Justice R.B. Misra C) Justice P.C. Balakrishna Menon D) Justice L.S. Panta

51. The work done in an isothermal expansion of an ideal gas is: A) $nRT \ln(V_2/V_1)$ B) $P\Delta V$ C) Zero D) $Cv\Delta T$

52. If the vectors $2\hat{i} - \hat{j} + \hat{k}$, $\hat{i} + 2\hat{j} - 3\hat{k}$ and $3\hat{i} + \lambda\hat{j} + 5\hat{k}$ are coplanar, then λ is: A) -4 B) -8 C) 4 D) 0

53. 'इत्यादि' का सही संधि विच्छेद है: A) इत + आदि B) इति + आदि C) इत्य + आदि D) ईति + आदि

54. The Great Himalayan National Park (GHNP) is located in which district of HP? A) Mandi B) Kullu C) Chamba D) Kangra

55. Which compound is used as an 'Antiseptic' in soaps? A) Bithional B) Chloramphenicol C) Aspirin D) Penicillin

56. If $3, 10, 101, \dots$ then the next term is: A) 10101 B) 10201 C) 10202 D) 11012

57. A person who hates women is called: A) Misogamist B) Misogynist C) Misanthrope D) Philanthropist

58. The 'Arya Samaj' was founded by: A) Raja Ram Mohan Roy B) Swami Dayanand Saraswati C) Swami Vivekananda D) Annie Besant

59. The wavelength of the first line of the Lyman series for Hydrogen is approximately: A) 121.6 nm B) 656.3 nm C) 486.1 nm D) 91.2 nm

60. The sum of the infinite geometric series $1 + 1/2 + 1/4 + 1/8 + \dots$ is: A) 2 B) 1 C) 1.5 D) ∞

61. Which of the following polymers contains Nitrogen? A) PVC B) Teflon C) Nylon-6 D) Polystyrene

62. 'सिर हथेली पर रखना' का अर्थ है: A) वीरता प्रदर्शित करना B) मरने के लिए तैयार रहना C) अहंकार करना D) डर जाना

63. Which color of light deviates the most when passing through a prism? A) Red B) Yellow C) Violet D) Green

64. The inverse of the matrix $\begin{pmatrix} 1 & 2 \\ 3 & 4 \end{pmatrix}$ has a determinant of: A) -2 B) -1/2 C) 1/2 D) 10

65. Which river of Himachal Pradesh is called the 'River of Sorrows'? A) Swan River B) Beas River C) Ravi River D) Yamuna River

66. The vitamin produced in the human body by exposure to sunlight is: A) Vitamin A B) Vitamin C C) Vitamin D D) Vitamin B12

67. Study of 'Fossils' is called: A) Paleontology B) Archaeology C) Geology D) Biology

68. The unit of magnetic flux density is: A) Weber B) Tesla C) Henry D) Farad

69. The value of $\int \frac{dx}{x \ln x}$ is: A) $\ln(\ln x) + C$ B) $1/\ln x + C$ C) $(\ln x)^2/2 + C$ D) $\ln x + C$

70. 'प्रत्येक' शब्द में कौन सी संधि है? A) गुण B) यण C) अयादि D) वृद्धि

71. Who was the first Indian woman to win an Olympic medal? A) P.T. Usha B) Karnam Malleswari C) Saina Nehwal D) Mary Kom

72. In the transition elements, the general electronic configuration is: A) $(n-1)d^{1-10}ns^{1-2}$ B) $nd^{10}ns^2$ C) $(n-1)d^5ns^1$ D) ns^2np^6

73. If $\tan \theta = 1$, then the value of $\sin \theta \cos \theta$ is: A) 1 B) $1/2$ C) $1/\sqrt{2}$ D) 0

74. The capacitance of a spherical conductor of radius R is: A) $4\pi\epsilon_0 R$ B) $R/4\pi\epsilon_0$ C) $2\pi\epsilon_0 R$ D) ϵ_0/R

75. The number of terms in the expansion of $(x + a)^{10}$ is: A) 10 B) 11 C) 9 D) 20

76. 'कौशल' का पर्यायवाची शब्द नहीं है: A) दक्षता B) कुशलता C) पटुता D) अभ्यागत

77. Which state in India has the highest forest cover by area? A) Madhya Pradesh B) Arunachal Pradesh C) Mizoram D) Chhattisgarh

78. Which of the following is an example of a 'Colloid'? A) Salt solution B) Milk C) Air D) Brass

79. The unit of 'Universal Gas Constant' R is: A) $J K^{-1} mol^{-1}$ B) $N m K^{-1}$ C) $W K^{-1}$ D) $Pa m^3$

80. Arrange the following words in a logical sequence: 1. Death 2. Marriage 3. Education 4. Birth 5. Funeral. A) 4, 3, 2, 1, 5 B) 4, 2, 3, 1, 5 C) 4, 3, 1, 2, 5 D) 1, 2, 3, 4, 5

81. Identification of the correct spelling: A) Millennium B) Millenium C) Milennium D) Millennium

82. In which year did the earthquake of Kangra occur, killing over 20,000 people? A) 1905 B) 1895 C) 1925 D) 1955

83. The internal energy of an ideal gas depends only on its: A) Pressure B) Volume C) Temperature D) Density

84. The value of $\lim_{x \rightarrow 0} \frac{1-\cos x}{x^2}$ is: A) 0 B) 1 C) 1/2 D) ∞

85. 'धी के दिए जलाना' मुहावरे का अर्थ है: A) उत्सव मनाना B) रोशनी करना C) पूजा करना D) धन खर्च करना

86. Which river is known as the 'Lifeline of Goa'? A) Mandovi B) Zuari C) Terekhol D) Sal

87. The velocity of an electromagnetic wave in a medium of refractive index n is: A) nc B) c/n C) c/\sqrt{n} D) cn^2

88. Which amino acid is optically inactive? A) Alanine B) Glycine C) Valine D) Leucine

89. The value of $\sin(15^\circ)$ is: A) $(\sqrt{3} - 1)/2\sqrt{2}$ B) $(\sqrt{3} + 1)/2\sqrt{2}$ C) 1/2 D) $1/\sqrt{2}$

90. The 'Gaddi' tribe of Himachal Pradesh primarily resides in which district? A) Chamba B) Kinnaur C) Lahaul-Spiti D) Una

91. Which island was recently renamed as 'Netaji Subhas Chandra Bose Dweep'? A) Ross Island B) Havelock Island C) Neil Island D) Wheeler Island

92. The resistance of a conductor is R . If its length is doubled and radius is halved, the new resistance will be: A) $2R$ B) $4R$ C) $8R$ D) $R/4$

93. 'चयन' का संधि विच्छेद है: A) चय + न B) चे + अन C) चै + अन D) च + यन

94. Fill in the blank: 'He is as brave as a ____.' A) Tiger B) Lion C) Wolf D) Bear

95. Choose the number which is different from others: 27, 64, 125, 144. A) 27 B) 64 C) 125 D) 144

96. Which is the smallest district of Himachal Pradesh by area? A) Hamirpur B) Bilaspur C) Una D) Solan

97. The reaction $R - X + 2Na + X - R \xrightarrow{\text{ether}} R - R + 2NaX$ is known as: A) Wurtz Reaction B) Fittig Reaction C) Friedel-Crafts Reaction D) Cannizzaro Reaction

98. The derivative of e^{x^2} is: A) $2xe^{x^2}$ B) e^{x^2} C) $2e^{x^2}$ D) $x^2e^{x^2-1}$

99. 'जिसके समान दूसरा न हो' वाक्यांश के लिए एक शब्द है: A) अद्वितीय B) सर्वश्रेष्ठ C) अनुपम D) अपार

100. Who is the current (2024) President of the World Bank? A) David Malpass B) Ajay Banga C) Kristalina Georgieva D) Jim Yong Kim

101. The Young's double slit experiment demonstrates the phenomenon of: A) Polarisation B) Interference C) Diffraction D) Photoelectric effect

102. Which hybridization is present in PCl_5 ? A) sp^3d B) sp^3d^2 C) sp^2 D) dsp^2

103. If the roots of $x^2 - px + q = 0$ are α and β , then $\alpha + \beta$ is: A) p B) $-p$ C) q D) $-q$

104. 'दो नावों पर पैर रखना' मुहावरे का अर्थ है: A) साहसी होना B) दो विपरीत पक्षों का सहारा लेना C) संकट में पड़ना D) यात्रा करना

105. In which month is the 'Renuka Ji' fair held in Sirmaur district? A) March B) November C) July D) January

106. Which is the highest waterfall in India? A) Jog Falls B) Kunchikal Falls C) Dudhsagar Falls D) Nohkalikai Falls

107. The threshold frequency is the minimum frequency required for: A) Diffraction B) Photoelectric emission C) Laser action D) Reflection

108. Which is the strongest base in aqueous solution? A) NH_3 B) CH_3NH_2 C) $(CH_3)_2NH$ D) $(CH_3)_3N$

109. The value of $\int_0^{\pi/2} \ln(\sin x)dx$ is: A) $\pi \ln 2$ B) $-\pi/2 \ln 2$ C) $\pi/2 \ln 2$ D) 0

110. 'शुद्ध शब्द' का चयन कीजिए: A) पूजनीय B) पुजनिय C) पूज्यनीय D) पुजनीये

111. If 'APPLE' is coded as 'ETTP1', how is 'MANGO' coded? A) QERKS B) QERKT C) RERKS D) QESKS

112. The first woman Speaker of Himachal Pradesh Vidhan Sabha was: A) Vidya Stokes B) Chandresh Kumari C) Viplov Thakur D) Sarojini Naidu

113. The displacement current flows in the region between the plates of a capacitor when: A) Charge on capacitor is constant B) Electric field is changing with time C) Potential difference is zero D) It is connected to a DC source

114. The bond angle in H_2O is approximately: A) 104.5° B) 109.5° C) 107° D) 120°

115. The slope of the normal to the curve $y = x^2$ at $x = 1$ is: A) 2 B) $-1/2$ C) -2 D) $1/2$

116. 'पावक' किसका पर्यायवाची है? A) जल B) अग्नि C) वायु D) पवन

117. Which city is known as the 'Diamond City' of India? A) Panna B) Surat C) Mumbai D) Jaipur

118. Which state has the highest population density in India according to 2011 Census? A) West Bengal B) Bihar C) Uttar Pradesh D) Kerala

119. The self-inductance of a long solenoid is proportional to: A) N B) N^2 C) $1/N$ D) \sqrt{N}

120. Which element is used in 'Vulcanization' of rubber? A) Phosphorus B) Sulfur C) Carbon D) Silicon

121. The value of $\log_2 32$ is: A) 4 B) 5 C) 6 D) 16

122. 'दाँत खट्टे करना' का अर्थ है: A) हरा देना B) परेशान करना C) बहुत खट्टा खाना D) दाँत साफ करना

123. Which one does not belong to the group? (Carrot, Potato, Ginger, Cabbage) A) Carrot B) Potato C) Ginger D) Cabbage

124. The 'Losar' festival is the New Year festival of which community? A) Tibetans/Buddhists B) Sikhs C) Hindus D) Muslims

125. Raoult's Law relates the vapor pressure of a solvent to its: A) Molality) Mole fraction C) Molarity D) Density

126. A function $f(x)$ is increasing in $[a, b]$ if: A) $f'(x) > 0$ B) $f'(x) < 0$ C) $f'(x) = 0$ D) $f''(x) > 0$

127. Complete the idiom: 'Barking dogs seldom ____.' A) bite B) eat C) sleep D) run

128. Who wrote the book 'Anandmath'? A) Rabindranath Tagore B) Bankim Chandra Chattopadhyay C) Sarojini Naidu D) Premchand

129. The unit of 'Radioactivity' is: A) Curie B) Becquerel C) Rutherford D) All of these

130. Which of the following is a 'Transition Element'? A) Aluminum B) Iron C) Sodium D) Magnesium

131. The focus of the parabola $x^2 = 4ay$ is: A) $(0, a)$ B) $(a, 0)$ C) $(0, -a)$ D) $(-a, 0)$

132. 'मुँह की खाना' का अर्थ है: A) भोजन करना B) हार जाना C) अपमानित होना D) बहुत बोलना

133. Which country is the world's largest producer of pulses? A) China B) India C) Brazil D) USA

134. Which valley in Himachal is known as the 'Valley of Gods'? A) Kullu Valley B) Sangla Valley C) Kangra Valley D) Chamba Valley

135. The escape velocity from the Earth depends on: A) Mass of the Earth B) Mass of the object C) Shape of the object D) Distance of the object from the Sun

136. The 'Heavy Water' (D_2O) is used in nuclear reactors as: A) Fuel B) Coolant C) Moderator D) Control rod

137. The derivative of $\ln(x^2 + 1)$ is: A) $2x/(x^2 + 1)$ B) $1/(x^2 + 1)$ C) $2/(x^2 + 1)$ D) $x/(x^2 + 1)$

138. Identify the correct sentence: A) He is senior than me. B) He is senior to me. C) He is more senior than me. D) He is senior from me.

139. If 'FRUIT' is coded as 'HTWKV', what is 'APPLE' coded as? A) CRRNM B) CRRNG C) BRRNG D) CRRMG

140. Which river in Himachal Pradesh flows through the city of Mandi? A) Ravi B) Beas C) Satluj D) Yamuna

141. The focal length of a convex lens is 20 cm. Its power is: A) $+5D$ B) $-5D$ C) $+2D$ D) $+20D$

142. Ethyne reacts with water in the presence of Hg^{2+}/H^+ to give: A) Ethanol B) Acetaldehyde C) Acetic acid D) Acetone

143. The value of $\tan(135^\circ)$ is: A) 1 B) -1 C) 0 D) ∞

144. 'अमृत' का विलोम शब्द है: A) जल B) विष C) पियूष D) सुधा

145. Who was the first Indian to win a Nobel Prize? A) C.V. Raman B) Rabindranath Tagore C) Mother Teresa D) Amartya Sen

146. For a spontaneous process, the change in Gibbs Free Energy (ΔG) must be: A) Positive B) Negative C) Zero D) One

147. Which polymer is used for making bullet-proof vests? A) Kevlar B) Lexan C) Nylon-6,6 D) Bakelite

148. If the area of a circle is 154 cm^2 , its circumference is: A) 22 cm B) 44 cm C) 66 cm D) 88 cm

149. 'गिरीश' का संधि विच्छेद है: A) गिर + ईश B) गिरी + ईश C) गिरी + ईस D) गिर + ईस

150. Where is the 'Indian Institute of Advanced Study' (IIAS) located? A) Shimla B) Dharamshala C) Mandi D) Solan

151. Which of the following is not a vector quantity? A) Velocity B) Force C) Mass D) Momentum

152. Which catalyst is used in 'Friedel-Crafts' alkylation? A) Anhydrous $AlCl_3$ B) V_2O_5 C) $Pd/BaSO_4$ D) Fe

153. The integral $\int e^x dx$ is: A) $e^x + C$ B) $xe^{x-1} + C$ C) $e^{x+1} + C$ D) $e^x/x + C$

154. 'कलेजा ठंडा होना' का अर्थ है: A) बहुत ठंड लगना B) संतोष होना C) बीमार होना D) डर जाना

155. In which state is the 'Kaziranga National Park' located? A) Assam B) Bengal C) Odisha D) Gujarat

156. The frequency of a wave with time period 0.02 s is: A) 50 Hz B) 20 Hz C) 100 Hz D) 5 Hz

157. Which is the most abundant element in the Sun? A) Helium B) Hydrogen C) Oxygen D) Carbon

158. If $x^2 + y^2 = 25$, find dy/dx at $(3, 4)$: A) $-3/4$ B) $-4/3$ C) $3/4$ D) $4/3$

159. 'गागर में सागर भरना' का अर्थ है: A) थोड़े में बहुत कहना B) गागर को सागर में डालना C) बहुत अधिक बोलना D) काम बिगाड़ देना

160. Which district of Himachal Pradesh has the highest area? A) Lahaul and Spiti B) Chamba C) Kangra D) Kinnaur

161. The unit of Electric Power is: A) Watt B) Joule C) Volt D) Ampere

162. Which vitamin is also known as 'Ascorbic Acid'? A) Vitamin A B) Vitamin B C) Vitamin C D) Vitamin D

163. The derivative of $\tan x$ is: A) $\sec^2 x$ B) $\sec x \tan x$ C) $-\csc^2 x$ D) $\cos^2 x$

164. 'स्वतंत्रता' का विलोम शब्द है: A) परतंत्रता B) गुलामी C) बंधन D) कैद

165. 'UNESCO' headquarters are located in: A) New York B) Paris C) Geneva D) London

166. A step-up transformer increases: A) Voltage B) Current C) Power D) Frequency

167. Which gas is used in fluorescent tubes? A) Argon + Mercury Vapor B) Neon C) Helium D) Nitrogen

168. The value of $\int_0^1 x^2 dx$ is: A) $1/2$ B) $1/3$ C) 1 D) 0

169. 'नाक का बाल होना' मुहावरे का अर्थ है: A) बहुत प्यारा होना B) नाक में बाल उगना C) कष्ट देना D) नाक साफ करना

170. 'Kishau Dam' is being built on which river? A) Tons B) Giri C) Yamuna D) Beas

171. The speed of light in vacuum is approximately: A) $3 \times 10^8 \text{ m/s}$ B) $3 \times 10^5 \text{ m/s}$ C) $3 \times 10^6 \text{ m/s}$ D) 300 m/s

172. The oxidation number of Mn in $KMnO_4$ is: A) +6 B) +7 C) +4 D) +2

173. The distance between points (1, 2) and (4, 6) is: A) 5 B) 7 C) 25 D) $\sqrt{7}$

174. 'पृथ्वी' का पर्यायवाची शब्द है: A) धरा B) वसुंधरा C) भूमि D) ये सभी

175. Which planet has the shortest day? A) Jupiter B) Earth C) Mercury D) Venus

176. The resistance of an ideal voltmeter should be: A) Zero B) Infinite C) 100Ω D) Very small

177. Which element is used in making pencil leads? A) Charcoal B) Graphite C) Coke D) Diamond

178. The value of $\cos(90^\circ)$ is: A) 1 B) 0 C) -1 D) ∞

179. 'उदय' का विलोम शब्द है: A) अस्ति B) सूर्य C) अंत D) पतन

180. The 'Shakti Devi' temple is located in which place of Chamba? A) Chhatri B) Bharmour C) Tissa D) Salooni

181. A body falls freely under gravity. Its acceleration is: A) Increasing B) Constant C) Decreasing D) Zero

182. Which isotope of Hydrogen is radioactive? A) Protium B) Deuterium C) Tritium D) None

183. If $P(A) = 0.4$, then $P(\text{not } A)$ is: A) 0.6 B) 0.4 C) 1 D) 0

184. 'मुँह फुलाना' का अर्थ है: A) गुस्सा होना B) मुँह की बीमारी C) बहुत खाना D) व्यायाम करना

185. The largest gland in the human body is: A) Pancreas B) Liver C) Thyroid D) Pituitary

186. The unit of Frequency is: A) Hertz B) Joule C) Newton D) Meter

187. Which component of blood carries oxygen? A) Plasma B) RBC C) WBC D) Platelets

188. If $\theta = 45^\circ$, then $\tan^2 \theta + \sec^2 \theta$ is: A) 1 B) 2 C) 3 D) 0

189. 'पंचवटी' में कौन सा समास है? A) द्विगु B) द्वन्द्व C) तत्पुरुष D) बहुवीहि

190. Which glacier is known as the 'Glacier of Himachal Pradesh'? A) Bara Shigri B) Rohtang C) Dudhon D) Pin

191. Sound waves cannot travel through: A) Water B) Air C) Vacuum D) Steel

192. Which gas is known as 'Dry Ice' in its solid state? A) N_2 B) CO_2 C) O_2 D) H_2

193. The integral $\int 2x dx$ is: A) $x^2 + C$ B) $2 + C$ C) $x + C$ D) $x^2/2 + C$

194. 'आँखें दिखाना' का अर्थ है: A) डराना B) बहुत प्यार करना C) आँख का इलाज D) इशारा करना

195. Which city is the headquarters of the 'United Nations'? A) Geneva B) New York C) Paris D) Rome

196. A mirror with a wide field of view used in vehicles is: A) Convex B) Concave C) Plane D) Cylindrical

197. Which bond is the strongest? A) Ionic B) Covalent C) Hydrogen D) van der Waals

198. The sum of the first 100 natural numbers is: A) 5050 B) 5000 C) 5100 D) 1000

199. 'आस्तिक' का विलोम शब्द है: A) नास्तिक B) अधर्मी C) पापी D) भक्त

200. Who founded the 'Nurpur' state in HP? A) Jhet Pal B) Sahil Varman C) Meru Varman D) Sansar Chand

Answer Key

1-B, 2-A, 3-C, 4-B, 5-C, 6-A, 7-A, 8-A, 9-A, 10-A, 11-B, 12-B, 13-B, 14-C, 15-C, 16-C, 17-A, 18-C, 19-C, 20-C, 21-C, 22-A, 23-A, 24-A, 25-B, 26-B, 27-B, 28-C, 29-B, 30-B, 31-B, 32-C, 33-A, 34-B, 35-C, 36-B, 37-B, 38-A, 39-B, 40-A, 41-B, 42-B, 43-A, 44-B, 45-B, 46-B, 47-B, 48-B, 49-C, 50-A, 51-A, 52-B, 53-B, 54-B, 55-A, 56-C, 57-B, 58-B, 59-A, 60-A, 61-C, 62-B, 63-C, 64-B, 65-A, 66-C, 67-A, 68-B, 69-A, 70-B, 71-B, 72-A, 73-B, 74-A, 75-B, 76-D, 77-A, 78-B, 79-A, 80-A, 81-A, 82-A, 83-C, 84-C, 85-A, 86-A, 87-B, 88-B, 89-A, 90-A, 91-A, 92-C, 93-B, 94-B, 95-D, 96-A, 97-A, 98-A, 99-A, 100-B, 101-B, 102-A, 103-A, 104-B, 105-B, 106-B, 107-B, 108-C, 109-B, 110-A, 111-B, 112-A, 113-B, 114-A, 115-B, 116-B, 117-B, 118-B, 119-B, 120-B, 121-B, 122-A, 123-D, 124-A, 125-B, 126-A, 127-A, 128-B, 129-D, 130-B, 131-A, 132-B, 133-B, 134-A, 135-A, 136-C, 137-A, 138-B, 139-B, 140-B, 141-A, 142-B, 143-B, 144-B, 145-B, 146-B, 147-A, 148-B, 149-B, 150-A, 151-C, 152-A, 153-A, 154-B,