

## Comprehensive 200 MCQ Challenge - Set 03

**Subjects:** Physics, Chemistry, Mathematics, Hindi, English, Reasoning, Current Affairs, HP GK, and Indian GK. **Level:** Competitive Entrance / Medium Difficulty.

### Mixed MCQs (1-200)

- Who was the founder of the princely state of Chamba? A) Meru Varman B) Sahil Varman C) Ajay Varman D) Aditya Varman
- A thin convex lens of focal length  $f$  is cut into two equal halves along the principal axis. The focal length of each half will be: A)  $f$  B)  $2f$  C)  $f/2$  D) Infinite
- 'परोपकार' शब्द में कौन सी संधि है? A) गुण संधि B) वृद्धि संधि C) यण संधि D) अयादि संधि
- The value of  $\int \tan x \, dx$  is: A)  $\sec^2 x + C$  B)  $\ln |\sec x| + C$  C)  $\ln |\sin x| + C$  D)  $-\sec x + C$
- Which of the following shows the 'Linkage Isomerism'? A)  $[Co(NH_3)_5(SCN)]Cl_2$  B)  $[Co(NH_3)_6]Cl_3$  C)  $[Cu(NH_3)_4]SO_4$  D)  $[Pt(NH_3)_2Cl_2]$
- Choose the word correctly meaning 'A person who looks at the bright side of things': A) Pessimist B) Optimist C) Atheist D) Altruist
- If  $5 + 3 = 28$  and  $9 + 1 = 810$ , then  $2 + 1 = ?$  A) 13 B) 31 C) 12 D) 21
- Which article of the Indian Constitution is related to the 'Abolition of Untouchability'? A) Article 14 B) Article 15 C) Article 17 D) Article 18
- The magnetic field at a distance  $r$  from a long straight wire carrying current  $I$  is proportional to: A)  $r$  B)  $1/r$  C)  $1/r^2$  D)  $r^2$
- Oxidation of a primary alcohol with PCC (Pyridinium Chlorochromate) yields: A) Aldehyde B) Ketone C) Carboxylic Acid D) Ester
- If  $y = \sin(x^2)$ , then  $dy/dx$  is: A)  $\cos(x^2)$  B)  $2x \cos(x^2)$  C)  $x^2 \cos x$  D)  $-2x \cos(x^2)$
- In which district is the 'Chamera Lake' located in Himachal Pradesh? A) Chamba B) Mandi C) Bilaspur D) Kangra
- The working of an optical fiber is based on: A) Total Internal Reflection B) Scattering C) Interference D) Diffraction
- 'अंगूठा दिखाना' मुहावरे का सही अर्थ है: A) मदद करना B) चिढ़ाना C) वक्त पर मना कर देना D) अंगूठे की बीमारी
- Find the missing number in the series: 3, 7, 15, 31, 63, ? A) 95 B) 111 C) 127 D) 128
- The units of the rate constant for a first-order reaction are: A)  $\text{mol L}^{-1} \text{s}^{-1}$  B)  $\text{L mol}^{-1} \text{s}^{-1}$  C)  $\text{s}^{-1}$  D)  $\text{mol L}^{-1}$
- The value of  $\cos(180^\circ)$  is: A) 0 B) 1 C) -1 D)  $1/2$
- Who is the first woman to be appointed as the Director General of the Council of Scientific and Industrial Research (CSIR)? A) Nallathamby Kalaiselvi B) Madhabi Puri Buch C) Shanti

19. Resistance of an ideal ammeter and an ideal voltmeter are respectively: A) Zero, Infinite B) Infinite, Zero C) Zero, Zero D) Infinite, Infinite
20. Which element has the highest electronegativity? A) Oxygen B) Nitrogen C) Fluorine D) Chlorine
21. 'यद्यपि' का संधि विच्छेद है: A) यद् + अपि B) यदि + अपि C) यद्य + पि D) य + द्यपि
22. Pointing to a man, a woman said, "His mother is the only daughter of my mother." How is the woman related to the man? A) Sister B) Grandmother C) Mother D) Daughter
23. Which river is known as the 'Kalindi' in Himachal Pradesh? A) Beas B) Yamuna C) Ravi D) Chenab
24. A particle is moving in a circle of radius  $r$ . The displacement after half a circle would be: A) 0 B)  $\pi r$  C)  $2r$  D)  $2\pi r$
25. The probability of getting a doublet when rolling two dice is: A)  $1/6$  B)  $1/12$  C)  $5/36$  D)  $1/36$
26. Which of the following is an 'Electrophile'? A)  $NH_3$  B)  $H_2O$  C)  $BF_3$  D)  $CN^-$
27. Choose the correctly spelled word: A) Committee B) Comittee C) Commitee D) Comite
28. Who was the first Mughal Emperor to visit the Kangra Fort? A) Akbar B) Jahangir C) Shah Jahan D) Aurangzeb
29. The unit of capacitance is: A) Henry B) Farad C) Tesla D) Ohm
30. The formula of 'Bleaching Powder' is: A)  $CaCl_2$  B)  $CaOCl_2$  C)  $Ca(OH)_2$  D)  $CaCO_3$
31. If  $A$  is a square matrix of order  $n$ , then  $|adj(A)|$  is: A)  $|A|^n$  B)  $|A|^{n-1}$  C)  $|A|$  D)  $n|A|$
32. 'निरोग' में कौन सी संधि है? A) स्वर संधि B) व्यंजन संधि C) विसर्ग संधि D) इनमें से कोई नहीं
33. Fill in the blank: 'I prefer tea \_\_\_\_\_ coffee.' A) than B) to C) for D) over
34. 'The Battle of Panipat (Third)' took place in: A) 1526 B) 1556 C) 1761 D) 1739
35. The specific resistance of a wire depends on: A) Length B) Area of cross-section C) Nature of material D) Mass
36. Which functional group is present in Propanone? A)  $-CHO$  B)  $-OH$  C)  $>C=O$  D)  $-COOH$
37. The slope of the line  $2x + 3y = 6$  is: A) 2 B) 3 C)  $-2/3$  D)  $2/3$
38. Which fair of Himachal Pradesh is associated with the 'Trident' of Lord Shiva? A) Lavi Fair B) Minjar Fair C) Shivratri (Mandi) D) Mani Mahesh Yatra
39. The force of attraction between two masses  $m_1$  and  $m_2$  separated by distance  $r$  is: A)  $Gm_1m_2/r$  B)  $Gm_1m_2/r^2$  C)  $G(m_1 + m_2)/r^2$  D)  $m_1m_2/Gr^2$
40. Which amino acid is the building block of proteins? A)  $\alpha$ -amino acid B)  $\beta$ -amino acid C)  $\gamma$ -amino acid D)  $\delta$ -amino acid
41. The value of  $\lim_{x \rightarrow 0} \frac{\tan x}{x}$  is: A) 0 B) 1 C)  $\infty$  D) -1
42. 'पवन' का पर्यायवाची शब्द है: A) समीर B) अनल C) वारि D) व्योम

43. Which Indian city is known as the 'Silicon Valley of India'? A) Hyderabad B) Pune C) Bengaluru D) Chennai
44. The kinetic energy of an object of mass  $m$  moving with velocity  $v$  is: A)  $mv^2$  B)  $1/2mv^2$  C)  $mgh$  D)  $1/2m^2v$
45. The pH of human blood is approximately: A) 6.4 B) 7.0 C) 7.4 D) 8.2
46. What is the derivative of  $\ln x$ ? A)  $x$  B)  $1/x$  C)  $e^x$  D) 1
47. In which year was the 'Shimla Pact' signed? A) 1971 B) 1972 C) 1966 D) 1948
48. A mirror used by dentists to see large images of teeth is: A) Convex mirror B) Concave mirror C) Plane mirror D) Cylindrical mirror
49. Which of the following is a 'Lewis Acid'? A)  $NH_3$  B)  $H_2O$  C)  $AlCl_3$  D)  $F^-$
50. If  $2^x = 32$ , then  $x$  is: A) 4 B) 5 C) 6 D) 10
51. 'सूर्योदय' का सही विलोम है: A) सूर्यास्त B) दिन C) उजाला D) प्रकाश
52. Synonym of 'FRAGILE': A) Strong B) Delicate C) Tough D) Hard
53. 'Pin Valley National Park' is situated in which district? A) Lahaul and Spiti B) Kullu C) Kinnaur D) Mandi
54. The unit of magnetic field strength is: A) Weber B) Tesla C) Henry D) Watt
55. Which gas is known as 'Dry Ice'? A) Solid  $O_2$  B) Solid  $CO_2$  C) Solid  $N_2$  D) Solid  $CH_4$
56. The range of the function  $f(x) = \sin x$  is: A)  $[0, 1]$  B)  $[-1, 1]$  C)  $(-\infty, \infty)$  D)  $[0, \pi]$
57. 'दाल-भात' में कौन सा समास है? A) तत्पुरुष B) द्वंद्व C) द्विगु D) कर्मधारय
58. Identify the tense: 'I have been studying for two hours.' A) Present Continuous B) Present Perfect Continuous C) Past Perfect Continuous D) Future Continuous
59. Who was the first Chief Minister of Himachal Pradesh? A) Dr. Y.S. Parmar B) Thakur Ram Lal C) Shanta Kumar D) Virbhadra Singh
60. The speed of sound in air is approximately: A)  $3 \times 10^8 \text{ m/s}$  B)  $332 \text{ m/s}$  C)  $1500 \text{ m/s}$  D)  $5000 \text{ m/s}$
61. Which of the following is an example of an addition polymer? A) Nylon-6,6 B) Bakelite C) Polythene D) Terylene
62. The value of  $\int e^x dx$  is: A)  $e^x + C$  B)  $xe^{x-1} + C$  C)  $1/x + C$  D)  $x + C$
63. 'अंधा क्या चाहे दो आँखें' का अर्थ है: A) बहुत मेहनत करना B) इच्छा पूर्ति होना C) आँखों का इलाज D) अंधे की मदद
64. Which vitamin is chemically known as 'Retinol'? A) Vitamin A B) Vitamin B C) Vitamin C D) Vitamin D
65. The 'Ghadar Party' was founded in which year? A) 1913 B) 1915 C) 1920 D) 1905
66. The resistance of a conductor increases with: A) Increase in temperature B) Increase in length C) Decrease in area of cross-section D) All of the above
67. Which of the following is a coordinate covalent bond? A)  $H_2$  B)  $NH_4^+$  C)  $NaCl$  D)  $Cl_2$

68. The sum of the angles of a triangle is: A)  $90^\circ$  B)  $180^\circ$  C)  $360^\circ$  D)  $270^\circ$
69. 'हिमालय' का संधि विच्छेद है: A) हिम + आलय B) हिमा + लय C) हि + मालय D) हिमाल + य
70. Change the voice: 'She killed a snake.' A) A snake is killed by her. B) A snake was killed by her. C) A snake has been killed by her. D) A snake kills her.
71. Which district of Himachal Pradesh has the highest population according to 2011 Census? A) Shimla B) Kangra C) Mandi D) Solan
72. Light year is a unit of: A) Time B) Distance C) Light intensity D) Velocity
73. The oxidation number of  $S$  in  $H_2SO_4$  is: A) +2 B) +4 C) +6 D) +8
74. If  $\sin \theta = 1/2$ , find  $\theta$ : A)  $30^\circ$  B)  $45^\circ$  C)  $60^\circ$  D)  $90^\circ$
75. 'जंगल' का विलोम शब्द है: A) वन B) अरण्य C) स्थावर D) मरु
76. Who wrote the national anthem 'Jana Gana Mana'? A) Bankim Chandra Chattopadhyay B) Rabindranath Tagore C) Sarojini Naidu D) Subhas Chandra Bose
77. The 'Bhakra Dam' is situated on which river? A) Satluj B) Beas C) Ravi D) Yamuna
78. Which law states that 'Pressure is inversely proportional to volume at constant temperature'? A) Charles's Law B) Boyle's Law C) Gay-Lussac's Law D) Avogadro's Law
79. The derivative of  $x^2 + 5x$  is: A)  $x + 5$  B)  $2x + 5$  C)  $2x$  D)  $5x$
80. 'अमृत' का पर्यायवाची है: A) पियूष B) विष C) जल D) पवन
81. Which element is used as a lubricant in heavy machines? A) Graphite B) Sulfur C) Phosphorus D) Coal
82. Who won the ICC Men's Cricket World Cup 2023? A) India B) Australia C) South Africa D) England
83. The power of a lens is measured in: A) Watt B) Dioptre C) Candela D) Lumen
84. Zinc reacts with  $HCl$  to produce which gas? A)  $O_2$  B)  $H_2$  C)  $Cl_2$  D)  $CO_2$
85. The value of  $\int_0^1 x^2 dx$  is: A)  $1/2$  B)  $1/3$  C) 1 D) 0
86. 'कमल' का पर्यायवाची शब्द है: A) जलद B) जलज C) वारिद D) अंबर
87. Which state of India has the longest coastline? A) Gujarat B) Andhra Pradesh C) Tamil Nadu D) Maharashtra
88. The 'Kyoto Protocol' is related to: A) Climate change B) Ozone depletion C) Biodiversity D) Water pollution
89. Escape velocity from Earth is: A)  $9.8 \text{ km/s}$  B)  $11.2 \text{ km/s}$  C)  $8.0 \text{ km/s}$  D)  $42 \text{ km/s}$
90. Which acid is present in Tamarind? A) Citric Acid B) Tartaric Acid C) Lactic Acid D) Oxalic Acid
91. The roots of  $x^2 - 5x + 6 = 0$  are: A) 2, 3 B) -2, -3 C) 1, 6 D) 5, 1
92. 'हाथ मलना' मुहावरे का अर्थ है: A) पछताना B) हाथ धोना C) मेहनत करना D) ठंड लगना
93. Choose the synonym of 'HUGE': A) Tiny B) Enormous C) Weak D) Small

94. Which is the largest district of HP by area? A) Lahaul and Spiti B) Chamba C) Kangra D) Kinnaur
95. In an isothermal process, which variable remains constant? A) Pressure B) Volume C) Temperature D) Entropy
96. The hybridization of Carbon in Methane is: A)  $sp$  B)  $sp^2$  C)  $sp^3$  D)  $dsp^2$
97. The slope of the line  $y = mx + c$  is: A)  $c$  B)  $m$  C)  $x$  D)  $y$
98. 'उत्थान' का विलोम शब्द है: A) पतन B) उन्नति C) ऊपर D) नीचा
99. Which component of blood helps in clotting? A) RBC B) WBC C) Platelets D) Plasma
100. Who is the current President of India (2024)? A) Ram Nath Kovind B) Droupadi Murmu C) Jagdeep Dhankhar D) Narendra Modi
101. The unit of force is: A) Joule B) Newton C) Pascal D) Watt
102. Which catalyst is used in the manufacture of  $NH_3$  by Haber's process? A)  $Fe$  B)  $Pt$  C)  $Ni$  D)  $V_2O_5$
103. If  $f(x) = x^3$ , find  $f''(x)$ : A)  $3x^2$  B)  $6x$  C)  $6$  D)  $0$
104. 'जिसकी लाठी उसकी भैंस' का अर्थ है: A) भैंस पालना B) शक्तिशाली की विजय होती है C) लाठी से मारना D) पशुपालन
105. In which year was the 'Shimla Municipal Corporation' established? A) 1851 B) 1864 C) 1872 D) 1905
106. Which planet is known as the 'Morning Star'? A) Mars B) Venus C) Jupiter D) Saturn
107. The image formed by a plane mirror is always: A) Real and inverted B) Virtual and erect C) Real and erect D) Virtual and inverted
108. Which group of the periodic table contains 'Noble Gases'? A) Group 1 B) Group 17 C) Group 18 D) Group 2
109. The probability of an event happening is 0.3. What is the probability of it not happening? A) 0.3 B) 0.7 C) 1.0 D) 0.5
110. 'इति' का विलोम शब्द है: A) अथ B) अंत C) समाप्त D) पूर्ण
111. Fill in the blank: 'He died \_\_\_\_\_ a heart attack.' A) from B) of C) by D) with
112. The first Governor of HP was: A) S. Chakravarti B) Y.S. Parmar C) Bajrang Bahadur D) N.C. Mehta
113. An electric bulb filament is made of: A) Copper B) Tungsten C) Aluminum D) Iron
114. The empirical formula of Benzene is: A)  $C_6H_6$  B)  $CH$  C)  $C_2H_2$  D)  $C_3H_3$
115. If  $\tan \theta = 1$ , then  $\theta$  is: A)  $30^\circ$  B)  $45^\circ$  C)  $60^\circ$  D)  $90^\circ$
116. 'अनुज' का विलोम शब्द है: A) अग्रज B) छोटा C) भाई D) बहन
117. Who is known as the 'Iron Man of India'? A) Sardar Patel B) J.L. Nehru C) M.K. Gandhi D) B.R. Ambedkar
118. Which river flows through the 'Kullu Valley'? A) Beas B) Satluj C) Ravi D) Chenab

119. The potential energy of a spring is  $\frac{1}{2}kx^2$ , where  $k$  is: A) Mass B) Velocity C) Spring constant D) Time
120. Which of the following is a neutral oxide? A)  $MgO$  B)  $CO_2$  C)  $N_2O$  D)  $SO_2$
121. The value of  $\log 10$  is: A) 0 B) 1 C) 10 D)  $e$
122. 'घोड़े बेचकर सोना' का अर्थ है: A) निश्चित होना B) व्यापार करना C) आलस करना D) बहुत सोना
123. Identify the odd one: 2, 3, 5, 7, 9, 11 A) 2 B) 9 C) 7 D) 11
124. The 'Lavi Fair' is held in: A) Shimla B) Rampur C) Mandi D) Solan
125. The speed of light in vacuum is: A)  $3 \times 10^8 \text{ m/s}$  B)  $3 \times 10^5 \text{ m/s}$  C)  $332 \text{ m/s}$  D)  $300 \text{ m/s}$
126. The electronic configuration of Carbon is: A)  $1s^2 2s^2 2p^2$  B)  $1s^2 2s^2 2p^6$  C)  $1s^2 2s^2 2p^4$  D)  $1s^2 2s^1$
127. The volume of a cube with side  $a$  is: A)  $a^2$  B)  $a^3$  C)  $6a^2$  D)  $4a$
128. 'आँख का तारा' का अर्थ है: A) बहुत प्यारा B) दुश्मन C) आँखों की बीमारी D) तारा
129. Choose the correct antonym for 'ANCIENT': A) Old B) Modern C) Antique D) Historical
130. Who founded the city of 'Manali'? A) Manu B) Sahil Varman C) Akbar D) Meru Varman
131. The unit of work is: A) Newton B) Joule C) Watt D) Pascal
132. Which non-metal is a good conductor of electricity? A) Diamond B) Graphite C) Sulfur D) Iodine
133. If  $x + 2 = 5$ , then  $x$  is: A) 2 B) 3 C) 7 D) 5
134. 'अमृत' का विलोम शब्द है: A) जल B) विष C) पवन D) आकाश
135. The 'Nathpa Jhakri' project is on which river? A) Beas B) Satluj C) Ravi D) Chenab
136. The frequency of a wave is measured in: A) Second B) Hertz C) Meter D) Joule
137. Which gas is used in the 'Lead Storage Battery'? A)  $H_2SO_4$  (Electrolyte) B)  $HCl$  C)  $HNO_3$  D)  $H_2O$
138. The value of  $\sin^2 \theta + \cos^2 \theta$  is: A) 0 B) 1 C) 2 D)  $\tan \theta$
139. 'पहाड़ी गांधी' के नाम से किसे जाना जाता है? A) बाबा कांशी राम B) यशपाल C) लाला हरदयाल D) सोहन सिंह भकना
140. Which country won the FIFA World Cup 2022? A) France B) Argentina C) Brazil D) Croatia
141. The power of a lens with focal length  $0.5 \text{ m}$  is: A)  $2D$  B)  $0.5D$  C)  $5D$  D)  $1D$
142. Methane is also known as: A) Tear gas B) Marsh gas C) Laughing gas D) Noble gas
143. If  $\sin \theta = \cos \theta$ , then  $\theta$  is: A)  $0^\circ$  B)  $45^\circ$  C)  $90^\circ$  D)  $60^\circ$
144. 'उन्नति' का विलोम शब्द है: A) अवनति B) प्रगति C) ऊपर D) पतन
145. Who was the first Indian to travel to space? A) Rakesh Sharma B) Kalpana Chawla C) Sunita Williams D) Vikram Sarabhai
146. A vector quantity has: A) Only magnitude B) Only direction C) Both magnitude and direction D) Neither

147. Which substance is used in the manufacturing of glass? A) Silica B) Coal C) Iron D) Aluminum
148. The area of a triangle with base  $b$  and height  $h$  is: A)  $bh$  B)  $1/2bh$  C)  $2bh$  D)  $b^2h$
149. 'गिरीश' में कौन सी संधि है? A) दीर्घ B) गुण C) यण D) वृद्धि
150. Which district of HP is known as the 'Peach Bowl of Asia'? A) Solan B) Sirmaur C) Mandi D) Kullu
151. Pascal is the unit of: A) Force B) Energy C) Pressure D) Power
152. Which process is used to purify drinking water? A) Chlorination B) Oxidation C) Reduction D) Crystallization
153. What is the derivative of  $\sin x$ ? A)  $\cos x$  B)  $-\cos x$  C)  $\tan x$  D)  $\sin x$
154. 'नाकों चने चबाना' मुहावरे का अर्थ है: A) चने खाना B) बहुत परेशान करना C) बहुत खुश होना D) डर जाना
155. Which mountain range separates HP from Tibet? A) Pir Panjal B) Zaskar C) Dhauladhar D) Shivalik
156. The unit of electrical resistance is: A) Ohm B) Volt C) Ampere D) Watt
157. Which element is the main constituent of natural gas? A) Methane B) Ethane C) Propane D) Butane
158. The derivative of  $e^x$  is: A)  $e^x$  B)  $xe^{x-1}$  C)  $e$  D) 1
159. 'गणेश' का संधि विच्छेद है: A) गण + ईश B) गणे + श C) ग + णेश D) गण + ईस
160. Who wrote the book 'Arthashastra'? A) Megasthenes B) Chanakya (Kautilya) C) Ashoka D) Kalidasa
161. A transformer works on the principle of: A) Self-induction B) Mutual induction C) Magnetic resonance D) Electrostatics
162. Which gas is filled in balloons for flying? A) Nitrogen B) Helium C) Oxygen D) Hydrogen
163. The integral of  $x^n$  is: A)  $nx^{n-1}$  B)  $x^{n+1}/(n+1)$  C)  $nx^n$  D)  $x^{n+1}$
164. 'स्वतंत्रता' का विलोम है: A) परतंत्रता B) गुलामी C) आजाद D) बंधन
165. Which river flows through the 'Silent Valley' in India? A) Periyar B) Kunthipuzha C) Pamba D) Krishna
166. Sound waves in air are: A) Transverse B) Longitudinal C) Electromagnetic D) Stationary
167. Which metal is stored in kerosene? A) Sodium B) Iron C) Silver D) Gold
168. If  $y = x^2$ , find  $dy/dx$  at  $x = 3$ : A) 3 B) 6 C) 9 D) 0
169. 'दाँत खट्टे करना' मुहावरे का अर्थ है: A) खट्टा खाना B) बुरी तरह हराना C) दाँत साफ करना D) परेशान होना
170. Which is the highest mountain peak in HP? A) Shilla B) Reo Purgyl C) Shipki D) Manimahesh
171. The speed of sound is maximum in: A) Air B) Water C) Steel D) Vacuum
172. Which of the following is a physical change? A) Burning of wood B) Rusting of iron C) Melting of ice D) Souring of milk
173. The integral  $\int 1dx$  is: A)  $x + C$  B)  $1 + C$  C)  $0 + C$  D)  $x^2/2 + C$

174. 'आकाश' का पर्यायवाची है: A) गगन B) धरती C) पाताल D) मरु
175. Who was the first Indian woman to win an Olympic medal? A) P.T. Usha B) Karnam Malleswari C) Mary Kom D) Saina Nehwal
176. Which part of the eye controls the light entering? A) Retina B) Iris C) Pupil D) Lens
177. The chemical name of 'Baking Soda' is: A) Sodium Carbonate B) Sodium Bicarbonate C) Sodium Hydroxide D) Sodium Chloride
178. The distance between points  $(0, 0)$  and  $(3, 4)$  is: A) 5 B) 7 C) 12 D) 25
179. 'ईश्वर' का विलोम शब्द है: A) अनिश्चर B) जीव C) भगवान D) देव
180. Where is the 'High Court' of HP located? A) Dharamshala B) Shimla C) Mandi D) Solan
181. Which instrument is used to measure electric current? A) Voltmeter B) Ammeter C) Galvanometer D) Wattmeter
182. Which non-metal is liquid at room temperature? A) Mercury B) Bromine C) Iodine D) Phosphorus
183. The sum of the roots of  $ax^2 + bx + c = 0$  is: A)  $c/a$  B)  $-b/a$  C)  $b/a$  D)  $\sqrt{D}/2a$
184. 'अंधे की लाठी' मुहावरे का अर्थ है: A) एकमात्र सहारा B) रास्ता दिखाना C) अंधे की मदद करना D) लाठी से मारना
185. Who invented the 'Steam Engine'? A) James Watt B) Newton C) Edison D) Graham Bell
186. Convex lens is used to correct which eye defect? A) Myopia B) Hypermetropia C) Astigmatism D) Presbyopia
187. Which gas is used in the 'Haber's Process'? A)  $N_2$  and  $H_2$  B)  $O_2$  and  $H_2$  C)  $N_2$  and  $O_2$  D)  $H_2$  and  $Cl_2$
188. The value of  $\tan(45^\circ)$  is: A) 0 B) 1 C)  $1/\sqrt{3}$  D)  $\infty$
189. 'चौराहा' में कौन सा समास है? A) द्विगु B) द्वंद्व C) तत्पुरुष D) बहुव्रीहि
190. Which is the state animal of Himachal Pradesh? A) Tiger B) Snow Leopard C) Musk Deer D) Lion
191. Centripetal force acts towards: A) Outside the circle B) Center of the circle C) Tangent to the circle D) None
192. Which gas is liberated when an acid reacts with a metal? A)  $O_2$  B)  $H_2$  C)  $CO_2$  D)  $N_2$
193. What is the value of  $5!$  (Factorial 5)? A) 60 B) 120 C) 20 D) 100
194. 'आँखें दिखाना' मुहावरे का अर्थ है: A) डराना B) प्यार करना C) इलाज करना D) इशारा करना
195. Who is known as the 'Nightingale of India'? A) Sarojini Naidu B) Lata Mangeshkar C) Indira Gandhi D) Mother Teresa
196. The color of light with the longest wavelength is: A) Violet B) Red C) Blue D) Green
197. Which bond is formed by complete transfer of electrons? A) Covalent B) Ionic C) Hydrogen D) Metallic
198. The perimeter of a circle with radius  $r$  is: A)  $\pi r^2$  B)  $2\pi r$  C)  $\pi d$  D)  $2\pi d$



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

200. In which district of HP is the 'Rohtang Pass' located? A) Kullu B) Mandi C) Chamba D) Kangra

### Answer Key

1-A, 2-A, 3-A, 4-B, 5-A, 6-B, 7-A, 8-C, 9-B, 10-A, 11-B, 12-A, 13-A, 14-C, 15-C, 16-C, 17-C, 18-A, 19-A, 20-C, 21-B, 22-C, 23-B, 24-C, 25-A, 26-C, 27-A, 28-B, 29-B, 30-B, 31-B, 32-C, 33-B, 34-C, 35-C, 36-C, 37-C, 38-D, 39-B, 40-A, 41-B, 42-A, 43-C, 44-B, 45-C, 46-B, 47-B, 48-B, 49-C, 50-B, 51-A, 52-B, 53-A, 54-B, 55-B, 56-B, 57-B, 58-B, 59-A, 60-B, 61-C, 62-A, 63-B, 64-A, 65-A, 66-D, 67-B, 68-B, 69-A, 70-B, 71-B, 72-B, 73-C, 74-A, 75-C, 76-B, 77-A, 78-B, 79-B, 80-A, 81-A, 82-B, 83-B, 84-B, 85-B, 86-B, 87-A, 88-A, 89-B, 90-B, 91-A, 92-A, 93-B, 94-A, 95-C, 96-C, 97-B, 98-A, 99-C, 100-B, 101-B, 102-A, 103-B, 104-B, 105-A, 106-B, 107-B, 108-C, 109-B, 110-A, 111-B, 112-A, 113-B, 114-B, 115-B, 116-A, 117-A, 118-A, 119-C, 120-C, 121-B, 122-A, 123-B, 124-B, 125-A, 126-A, 127-B, 128-A, 129-B, 130-A, 131-B, 132-B, 133-B, 134-B, 135-B, 136-B, 137-A, 138-B, 139-A, 140-B, 141-A, 142-B, 143-B, 144-A, 145-A, 146-C, 147-A, 148-B, 149-A, 150-B, 151-C, 152-A, 153-A, 154-B, 155-B, 156-A, 157-A, 158-A, 159-A, 160-B, 161-B, 162-B, 163-B, 164-A, 165-B, 166-B, 167-A, 168-B, 169-B, 170-A, 171-C, 172-C, 173-A, 174-A, 175-B, 176-B, 177-B, 178-A, 179-A, 180-B, 181-B, 182-B, 183-B, 184-A, 185-A, 186-B, 187-A, 188-B, 189-A, 190-B, 191-B, 192-B, 193-B, 194-A, 195-A