









62. The process of separation and purification of expressed protein before marketing is called:

Ans. (4) **Downstream processing**

63. Flowers which have single ovule in the .....pollinate by:

Ans. (4) **Bee**

64. Functional megaspore in an angiosperm developed into:

Ans. (1) **Embryo sac**

65. Which one from those given .....hybridization experiments?

Ans. (3) **1856 - 1863**

66. An example of colonial alga is:

Ans. (4) **Volvox**

67. Transplantation of tissues/.....rejections?

Ans. (4) **Cell-mediated immune response**

68. In case of a couple where the .....for fertilization?

Ans. (1) **artificial insemination**

69. Attractants and rewards are required for:

Ans. (4) **Entomophily**

70. Select the mismatch:

Ans. (3) **Pinus - Dioecious**

71. GnRH, a hypothalamic hormone, needed in reproduction, acts on:

Ans. (4) **Anterior pituitary gland and stimulates secretion of LH and FSH**

72. Which cells of 'Crypts of Lieberkuhn' secrete antibacterial lysozyme?

Ans. (3) **Argentaffin cells**

73. Myelin sheath is produced by:

Ans. (3) **Schwann Cells and Oligodendrocytes**

74. Which of the following components provides sticky character to the bacterial cell?

Ans. (2) **Glycocalyx**

75. A gene whose expression helps to identify transformed cell is known as:

Ans. (3) **Selectable marker**

76. Root hairs develop from the region of:

Ans. (3) **Maturation**

77. Life cycle of Ectocarpus and Fucus respectively are:

Ans. (1) **Haplodiplontic, Diplontic**

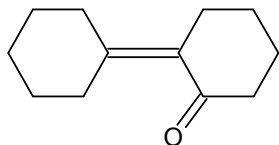


78. Which of the following options gives .....during mitosis?  
Ans. (4) **Condensation → nuclear membrane disassembly → arrangement at equator → centromere division → segregation → telophase**
79. The pivot joint between atlas and axis is a type of:  
Ans. (1) **Synovial joint**
80. Phosphoenol pyruvate (PEP) is the primary CO<sub>2</sub> acceptor in :  
Ans. (4) **C<sub>4</sub> plants**
81. Hypersecretion of Growth .....in height, because:  
Ans. (4) **Epiphyseal plates close after adolescence.**
82. Which of the following is correctly matched for the product produced by them?  
Ans. (2) **Sacchromyces cerevisiae : Ethanol**
83. A decrease in blood pressure/volume will not cause the release of:  
Ans. (4) **Atrial Natriuretic Factor**
84. Which of the following options best represents the enzyme composition of pancreatic juice?  
Ans. (2) **Lipase, Amylase, trypsinogen, procarboxypeptidase**
85. A dioecious flowering plant prevents both:  
Ans. (4) **Autogamy and geitonogamy**
86. Which of the following facilitates opening of stomatal aperture?  
Ans. (1) **Radial orientation of cellulose microfibrils in the cell wall of guard cells**
87. The DNA fragments separated on an .....after staining with :  
Ans. (2) **Ethidium bromide**
88. In Bougainvillea thorns are the modifications of  
Ans. (1) **Stem**
89. Anaphase Promoting Complex (APC) .....expected to occur?  
Ans. (1) **Chromosomes will not segregate**
90. Which of the following in sewage treatment removed suspended solids?  
Ans. (1) **Primary treatment**



## CHEMISTRY

91. Of the following, which is ..... followed by heating?



Ans. (4)

92. The most suitable method of separation of 1 : 1 mixture of ortho and para-nitrophenols is:

Ans. (2) **Steam distillation**

93. The species, having bond angles of  $120^\circ$  is:

Ans. (2)  $BCl_3$

94. The equilibrium constants of ..... will be :

Ans. (4)  $\frac{K_2 K_3}{K_1}$

95. Which one is the wrong statement?

Ans. (2) **The energy of 2s orbital is less than the energy of 2p orbital in case of Hydrogen like .....**

96.  $HgCl_2$  and  $I_2$  both when dissolved ..... species formed is:

Ans. (1)  $HgI_4^{2-}, I_3^-$

97. An example of a sigma bonded organometal compound is:

Ans. (4) **Grignard's reagent**

98. The correct statement regarding electrophile is:

Ans. (2) **Electrophile can be either neutral or positive charged species and can form a bond accepting a pair of electrons from nucleophile**

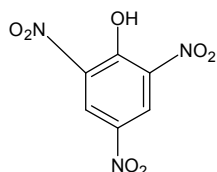
99. Name the gas that can readily decolourise acidified  $KMnO_4$  solution:

Ans. (4)  $SO_2$

100. The heating of phenyl-methyl ethers with HI produces.

Ans. (1) **phenol**

101. Which one is the most acidic compound?



Ans. (2)



102. For a given reaction, .....vary with temperature?

Ans. (4)  $T > 425K$

103. The correct order of the stoichiometries .....respectively is:

Ans. (1)  $3AgCl, 2AgCl, AgCl$

104. In the electrochemical cell : .....  $E_1$  and  $E_2$  ?

Ans. (1)  $E_1 > E_2$

105. Ionic mobility of which of the following .....electric field?

Ans. (2) **Li**

106. Correct increasing order for the .....complete  $Co^{3+}$  is:

Ans. (3)  $[Co(en)_3]^{3+}, [Co(NH_3)_6]^{3+}, [Co(H_2O)]$

107. Mixture of chloroxylenol and terpineol acts as

Ans. (4) **Antiseptic**

108. Predict the correct intermediate and product in following reaction:

Ans. (2)

109. It is because of inability .....in bonding that:

Ans. (3)  **$Sn^{2+}$  in reducing while  $Pb^{4+}$  is oxidising**

110. With respect to the conformers of ethane, which of the following statements is true?

Ans. (2) **Both bond angles and bond length remains same**

111. Which of the following pairs of compounds is isoelectronic and isostructural?

Ans. (Bonus)

112. The reason for greater range of oxidation states in actinoids is attributed to:

Ans. (1) **5f, 6d and 7s levels having comparable energies**

113. Which of the following statements is not correct?

Ans. (2) **Denaturation makes the proteins more active**

114. Mechanism of a hypothetical react  $X_2 + Y_2 \rightarrow 2XY$  is given below:

Ans. (2) **1.5**

115. Which one of the following statements is correct?

Ans. (4) **The value of ..... reaction equilibrium.**

116. Concentration of the  $Ag^+$  ions in a .....of  $Ag_2C_2O_4$  is:

Ans. (2)  $5.3 \times 10^{-12}$





117. Which of the following is dependent temperature?

Ans. (4) **Molarity**

118. If molality of the dilute solution is doubled, .....will be:

Ans. (2) **Unchanged**

119. A gas is allowed to .....in joules will be:

Ans. (1) **- 505 J**

120. A first order reaction has a specific .....reduce to 5g?

Ans. (4) **138.6 sec**

121. Pick out the correct statement with respect to  $[Mn(CN)_6]^{3-}$ :

Ans. (1) **It is  $d^2sp^3$**

122. Match the interhalogen compounds of .....the correct code.

Ans. (4) **(iii) (i) (iv) (ii)**

123. The correct increasing order of basic strength for the following compounds is:

Ans. (2) **II < I < III**

124. Which of the following is a sink for CO?

Ans. (4) **Micro organisms present in the soil**

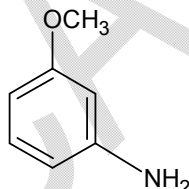
125. The element Z=114 has been discovered .....electronic configuration?

Ans. (4) **Carbon family,  $[Rn]5f^{14}6d^{10}7s^27p^2$**

126. Which of the following reactions is .....to methanamine?

Ans. (4) **Hoffmann hypobromamide reaction**

127. Identify A and predict the type of reaction



Ans. (3) and substitution reaction

128. A 20 litre container at 400 K contains .....value, will be:

Ans. (3) **5 litre**

129. Consider the reactions: .....Identify A, X, Y and Z.

Ans. (1) **A- Ethanal, X – Ethanol, Y- But-2-enal, Z-Semicarbazone**

130. Which one of the following pairs of species have same bond order?

Ans. (1)  **$CN^-$ ,  $CO$**



131. In which pair of ions both the species contain S-S bond?

Ans. (4)  $S_4O_6^{2-}, S_2O_3^{2-}$

132. Extraction of gold and silver involves leaching .....recovered by:

Ans. (2) **Displacement with Zn**

133. Which one is the correct order of acidity?

Ans. (4)  $CH \equiv CH > CH_3 - C \equiv CH > CH_2 = CH_2 : CH_3 - CH_3$

134. Which is the incorrect statement?

Ans. (2 or 3)

135. The IUPAC name of the compound

Ans. (3) **3-Keto-2methylhex-4-enal**

## PHYSICS

136. The two nearest harmonics of a .....of the system?

Ans. (2) **40 Hz**

137. Two Polaroids  $P_1$  and  $P_2$  .....through  $P_2$  is:

Ans. (1)  $\frac{I_0}{4}$

138. An arrangement of three parallel ..... 'B' is given by:

Ans. (2)  $\frac{\mu_0 i^2}{\sqrt{2}\pi d}$

139. A gas mixture consists of 2 moles .....of the system is:

Ans. (2) **11 RT**

140. Two astronauts are floating in gravitational free space after having lost contact with their spaceship. The two will:

Ans. (4) **move towards each other.**

141. If  $\theta_1$  and  $\theta_2$  be the .....  $\theta$  is given by:

Ans. (3)  $\cot^2 \theta = \cot^2 \theta_1 + \cot^2 \theta_2$

142. A 250 - Turn rectangular coil of length .....the torque is:

Ans. (3)  $9.1\mu J$



143. Radioactive material 'A' has decay ..... 'A' will be  $\frac{1}{e}$ ?
- Ans. (4)  $\frac{1}{7\lambda}$
144. In an electromagnetic wave in ..... magnetic field is:
- Ans. (4)  $2.83 \times 10^{-8} T$
145. The acceleration due to gravity ..... of earth. Then:
- Ans. (2)  $d = 2 \text{ km}$
146. The given electrical network is equivalent to:
- Ans. (1) **NOR gate**
147. The bulk modulus of ..... in radius is:
- Ans. (2)  $\frac{p}{3B}$
148. Suppose the charge of a proton and ..... of the order of
- Ans. (1)  $10^{-37} C$
149. A spring of force constant k is cut into ..... Then  $k' : k''$  is :
- Ans. (1) **1 : 11**
150. The x and y coordinates of ..... at  $t = 2s$  is:
- Ans. (1)  $-4m / s^2$
151. Consider a drop of rain water having ..... force of air is:
- Ans. (2) **(i) 10 J (ii) -8.75 J**
152. Two blocks A and B of masses ..... , are respectively:
- Ans. (4)  $\frac{g}{3}, g$
153. A particle executes liner ..... in second is:
- Ans. (1)  $\frac{4\pi}{\sqrt{5}}$
154. Two discs of same moment of ..... during this process is:
- Ans. (4)  $\frac{1}{4} I (\omega_1 - \omega_2)^2$
155. The resistance of a wire is 'R' ..... resistance will be:
- Ans. (1)  $n^2 R$
156. A spherical black body with a ..... in watt would be:
- Ans. (2) **1800**



157. The photoelectric threshold .....  $2536 \times 10^{-10} m$  is:  
 Ans. (3 or 4) (iii)  $\approx 6 \times 10^5 ms^{-1}$  or (iv)  $\approx 0.6 \times 10^6 ms^{-1}$
158. A beam of light from a source L is .....  $\theta$  is given by:  
 Ans. (3)  $\frac{y}{2x}$
159. A rope is wound around a hollow ..... a force of 30 N?  
 Ans. (1)  $25 rad / s^2$
160. One end of string of length l is ..... tension in the string)  
 Ans. (3) T
161. Thermodynamic processes ..... Isothermal  
 Ans. (4) P-c, Q - a, R - d, S - b
162. A physical quantity of the ..... gravitation at e is charge]:  
 Ans. (3)  $\frac{1}{c^2} \left[ G \frac{e^2}{4\pi \epsilon_0} \right]^{\frac{1}{2}}$
163. Young's double slit experiment is first ..... medium is nearly:  
 Ans. (2) 1.78
164. A potentiometer is an accurate and ..... the method involves:  
 Ans. (1) a condition of no current flow through the galvanometer
165. The ratio of wavelengths of the last line of Balmer series and the last line of Lyman series is:  
 Ans. (1) 4
166. The diagrams below show regions of equipotentials.  
 Ans. (4) In all the four cases the work done is the same.
167. Which of the following statements are correct?  
 Ans. (3) (b) and (d)
168. The ratio of resolving powers of an optical .....  $\lambda_2 = 6000 \text{ \AA}$  is :  
 Ans. (1) 3 : 2
169. A capacitor is charged by ..... of resulting system:  
 Ans. (4) decreases by a factor of 2
170. A U tube with both ends open to ..... the oil is:  
 Ans. (2)  $928 kgm^{-3}$



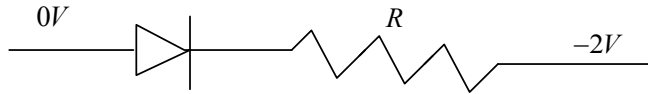
171. Figure shows a circuit that .....the switch closed is,...

Ans. (1) 2 A

172. The de-Broglie wavelength .....and mass m, is:

Ans. (4)  $\frac{h}{\sqrt{3mkT}}$

173. Which one of the following represents forward bias diode?



Ans. (3)

174. Two rods A and B of different .....composite rod will be:

Ans. (3)  $\frac{K_1 + K_2}{2}$

175. A carnot engine having .....at lower temperature is:

Ans. (4) 90 J

176. In a common emitter transistor .....the amplifier is:

Ans. (1) 150 and 15000

177. Preeti reached the metro station .....escalator will be:

Ans. (1)  $\frac{t_1 t_2}{t_2 + t_1}$

178. A thin prism having refracting .....prism should be:

Ans. (4) 6°

179. A long solenoid of diameter .....this time is:

Ans. (1)  $32\pi\mu C$

180. Two cars moving in opposite directions .....sound of 340 m/s] :

Ans. (2) 448Hz

**END OF NEET PAPER**





Though **medical** team at CatalyseR has taken utmost care in drafting the answers.

But due to early documentation & printing, an error of  $\pm 5\%$  may occur.

Answer should be taken in that respect.



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