SRI CHAITANYA EDUCATIONAL INSTITUTIONS,INDIA.

A.P,TELANGANA,KARNATAKA,TAMILNADU,MAHARASHTRA,DELHI,RANCHI,CHANDIGARH

SEC : JR BIPC (INCOMING) **NEET UNIT TEST - 2 KEY** **DATE : 14-07-2021**

BOTANY

1) 1	2) 4	3) 4	4) 3	5) 2	6) 2	7) 1	8) 3	9) 4	10) 4
11) 3	12) 4	13) 4	14) 1	15) 4	16) 3	17) 3	18) 3	19) 2	20) 4
21) 3	22) 2	23) 2	24) 3	25) 4	26) 1	27) 2	28) 2	29) 3	30) 1
31) 3	32) 4	33) 2	34) 4	35) 1	36) 4	37) 4	38) 4	39) 2	40) 3
41) 3	42) 3	43) 2	44) 3	45) 1					

ZOOLOGY

46) 3	47) 2	48) 1	49) 3	50) 3	51) 2	52) 2	53) 3	54) 3	55) 4
56) 2	57) 3	58) 3	59) 4	60) 3	61) 2	62) 4	63) 4	64) 1	65) 2
66) 3	67) 2	68) 2	69) 3	70) 3	71) 4	72) 2	73) 4	74) 2	75) 3
76) 4	77) 1	78) 2	79) 3	80) 4	81) 2	82) 1	83) 4	84) 4	85) 3
86) 4	87) 3	88) 4	89) 3	90) 1					

PHYSICS

91) 2	92) 3	93) 2	94) 3	95) 4	96) 2	97) 4	98) 1	99) 4	100) 4
101) 4	102) 2	103) 4	104) 2	105) 4	106) 3	107) 4	108) 1	109) 2	110) 2
111) 3	112) 3	113) 1	114) 1	115) 1	116) 2	117) 1	118) 2	119) 3	120) 3
121) 3	122) 1	123) 3	124) 3	125) 2	126) 3	127) 4	128) 4	129) 3	130) 4
131) 1	132) 2	133) 2	134) 1	135) 2					

CHEMISTRY

136) 1	137) 4	138) 4	139) 2	140) 3	141) 1	142) 3	143) 4	144) 2	145) 2
146) 2	147) 1	148) 3	149) 1	150) 2	151) 1	152) 2	153) 4	154) 3	155) 3
156) 4	157) 4	158) 1	159) 4	160) 4	161) 3	162) 1	163) 2	164) 3	165) 4
166) 4	167) 2	168) 3	169) 2	170) 2	171) 3	172) 2	173) 3	174) 3	175) 2
176) 1	177) 2	178) 4	179) 4	180) 2					

SOLUTIONS
BOTANY

1. From NCERT XI Biology
2. Carboxy peptidase in proteolytic enzymes
3. From NCERT XI Biology
4. Anaphase involves split of centromere
5. Isomerases cause intra molecular shift called inter conversions From NCERT XI Biology
6. NAD is a coenzyme, which is transiently (loosely) bound
7. Malonate is competitive inhibitor of succinate dehydrogenase because it is similar to succinic acid
8. When substrate looses energy, it is exergonic / exothermic
9. From NCERT XI Biology
10. Carbonic anhydrase can form 6,00,000 product molecules/second.
11. From NCERT XI Biology
12. It is the adaptation in those organism
13. From NCERT XI Biology
14. Beyond optimum, the reaction rate decreases
15. From NCERT XI Biology
16. Active site in nothing but crevice/pocket on enzyme
17. Tertiary structure
18. From NCERT XI Biology
19. From NCERT XI Biology
20. From NCERT XI Biology
21. Among animal haploid cells of social insects only undergo mitocis
22. It is one of cignificances of mitosis
23. From NCERT XI Biology
24. G_0 cells are cell division wise inactive
25. IN all these stages centromere is attached by spindle fibres
26. From NCERT XI Biology
27. RNA and protein synthesis occurs in $G_1$and G_2stages
28. From NCERT XI Biology
29. G_0 is also called quiescent stage
30. From NCERT XI Biology
31. Yeast cell cycle duration is 90 minutes, while for human cell 24 hours
32. G_1 is between mitosis and 'S' phase
33. IN animals (with exception of Bees) cells show only mitosis are diploid

34. 'S' phase of interphase involves DNA and centrosome duplication
35. Mitotic apparatus is nothing but spindle apparatus
36. Prophase and metaphasic chromosomes have 2 chromatids each
37. DNA is not doubled in daughter cells
38. RNA and protecus synthesis occurs in G_1 and G_2
39. Nuclear reappearance is seen in Telophase
40. Change by 10^0C can double the rate (or) reduce by half
41. During anaphase centromere takes leading edge
42. Heart cells, Nerve cells and muscle walls can't undergo mitosis
43. Telophase involves dispersson of chromosomes
44. One nuclear disappearance and two nuclear reapparances
45. Interphase lasts for >95% of duration of cell cycle

ZOOLOGY

46. Albumins are abundant in blood plasma
47. Conceptual
48. Conceptual
49. Conceptual
50. Mucous connective tissues have jellylike intercellular matrix where as blood has fluid matrix
51. RBC are about 5 million / mm^3 of blood
52. Conceptual
53. Conceptual
54. Cardiac muscles are involuntary striated muscles.
55. Conceptual
56. Platelets are absent in lymph.
57. Decrease in platelets or thrombocyte count is known as thrombopenia.
58. Cardiac muscles possess intercalated discs.
59. Voluntary muscles are skeletal muscles which undergo quick contractions.
60. Conceptual
61. Conceptual
62. Conceptual
63. Conceptual
64. Pharyngeal wall is made of voluntary muscles.
65. Basophils release vasodilators like histamine.
66. Conceptual
67. Tight junctions help in sealing of adjacent cell membranes.

68. Dermis of skin is made of irregular type of dense fibrous connective tissue.
69. Trachea and bronchi do not have elastic cartilage.
70. Diaphysis is made of hard bone.
71. Epiphyseal plate is made of hyaline cartilage.
72. Conceptual
73. Peritoneum is made of simple squamous epithelium.
74. Conceptual
75. Conceptual
76. Conceptual
77. Most of the neurons in brain and spinal cord are multipolar.
78. Conceptual
79. Astrocytes are not phagocytes.
80. Autonomic nervous system has non medullated nerve fibres.
81. Oligodendrocytes secrete myelin sheath around axons in CNS.
82. In multicellular animals, tissues form organs and organs form organ systems, thus displaying the path of evolution.
83. Erythroclasia occurs in red bone marrow, liver & spleen.
84. Aggregations of nerve cell bodies in CNS are nuclei.
85. Conceptual
86. Left lymphatic duct is known as the thoracic duct.
87. Macrophages are called internal scanvengers because they remove dead cells from the site of injury.
88. Goblet cells are single celled and glandular secreting mucus.
89. Motor neurons carry impulses to effector organs like muscles and glands.
90. Conceptual

PHYSICS

91. $C = \sqrt{A^2 + B^2 + 2AB\cos\theta}$
92. $\alpha < \beta \ if \ A > B$
93. $\vec{V} = V.\frac{\vec{A}}{|\vec{A}|}$
94. $C = \sqrt{A^2 + B^2 + 2AB\cos\theta}$
95. $\bar{V} = \bar{u} + \bar{a}t$
96. Conceptual
97. Change in velocity $= |\bar{V}_2 - \bar{V}_1|$

98. Conceptual

99. Minimum no.of un equal forces to add up to zero are 3.

100. $C = \sqrt{A^2 + B^2 + 2AB\cos\theta}$

101. $\cos\gamma = \frac{A_z}{A}$

102. Net force is in Y-Z plane

103. $\vec{C} = \left|\vec{b}\right|.\frac{\vec{a}}{\left|\vec{a}\right|}$

104. $R = 2PCOS(\theta/2), R = P$

105. The component of acceleration in the direction of motion or opposite to the direction of motion is zero, which results in neither speeding up nor slowing down

106. The maximum possible magnitude of resultant value is $a + b$

107. Except the 4th option, other vectors sums do not give the required $\bar{A}$

108. Conceptual

109. 60^0

110. $v = \frac{dx}{dt}, a = \frac{dv}{dt}$

111. $P - Q \le R \le P + Q$

112. Think of three vectors of equal-length arranged along the three consecutive sides of an equilateral triangle.The angle between any two will be 120°.

113. conceptual

114. $R = 2F\cos(\theta/2)$

115. conceptual

116. $\vec{a} = 2\hat{i} - \vec{b}$

117. $P - Q \le R \le P + Q$

118. Conceptual

119. magnitude of a vector cant be negative.

120. magnitude ≥ 0

121. $OA + OB + OC$

122. THE vectors lie in perpendicular planes.

123. $\vec{A} = k\vec{B}$

124. CONCEPTUAL

125. $\vec{V}_{AB} = \vec{V}_A - \vec{V}_B$

126. $\theta = (2\pi / N + 1), R = F$

127. $5\hat{I}$

128. $R = 2F\cos(\theta / 2)$

129. $R^2 + S^2 = 2(P^2 + Q^2)$

130. $\vec{a} = \dfrac{\vec{V} - \vec{u}}{t}$

131. $\vec{V}_{WC} = \vec{V}_W - \vec{V}_C$

132. R = P+Q, S= P-Q

133. $F = MgTan(\theta)$

134. Use lamis thm.

135. $V = 2v\sin(\theta / 2)$

CHEMISTRY

136. un=1

Nil=0

Enn 9

$\therefore$ unnilennium = 109

137. For S(l=0)

$\therefore m = 0$, According to convention

m=0 for pure 'Z'

138. 119, ununenium (uue)

139. Og has Z= 118 it belongs to noble gas. Therefore Z=119 will be alkali metal and Z=120 will be alkaline earth metal

140. $5s^2 5p^4, ns^2 np^4$ corresponds to 16^{th} (VI-A) group

$n = 5$

$\therefore$ period number = 5

141. Conceptual

142. 6^{th} period contains 32 elements and 1^{st} period contains only 2 elements

143. Hydrogen is also called as Rouge element of periodic table

144. $Z = 56$ is Ba (s-block)

$Z = 53$ is I(p-block)

$Z = 80$ is Hg (d-block)

$Z = 64$ is Gd (f-block)

145. Zn, Cd and Hg are not transition elements

146. p-block consists of III-A to VII-A and zero group. Therefore electronic configuration ranges from ns^2np^{1-6}

147. Atomic number is 90(86+2+2), i.e Thorium. It belongs to f-block

148. Non-metals are present only in p-block as s,d and f block contains metals only. Except hydrogen in IA.

149. ψ_{321} Corresponds to 3d orbital. For 3d orbital, orbital Angular momentum

$= \sqrt{2(2+1)}\frac{h}{2\pi} = \sqrt{6}\frac{h}{2\pi}$

Spherical nodes = 0(zero)

Angular node = 2

$= \sqrt{6}\frac{h}{2\pi} + 0 + 2 = \frac{\sqrt{6}h + 4\pi}{2\pi}$

150. Z=30, i.e Zn and it belongs to d-block

151. He has two electrons in valence shell while other elements from same group has 8 e's in valence shell

152. 4d transition series contains elements from yttrium (39) to cadmium (48)

153. In fourth period Bromine is liquid, Krypton is gas and rest other elements solid at room temperature

154. Long form of periodic is graphical representation of Aufbau's principle as elements are arranged in increasing order of orbitals energy

155. Elements is silicon (Si) Z=14, outer most electronic configuration is $3s^2 3p^2$

156. Z= 34, selenium (Se) it belongs to VI-A group and 4^{th} period

157. 6^{th} period is the largest, consist of 32 elements and includes all types and blocks in the periodic table

158. Z=106 is Sea borgium (Sg) it belongs to d-block

159. Conceptual

160. 4f series is present in 6^{th} period

161. In La differentiating electron enters in 5d ($5d^1$). Hence it is d-block element

162. Z=82, Pb (p-block)

Z=90, Th (f-block)

Z=64, Gd (f-block)

Z=71, Lu (f-block)

163. III-B consists of 32 elements . They are Sc, Y, La, Ac + 14(4f) +14(5f)

164. Z= 24 is chromium it belongs to d-block

165. Lanthanides are also called Rare earths

166. In the sixth period electrons are filled in as

$6s < 4f < 5d < 6p$ (Energy order)

167. C,N and Flourine are not Dobereiner's triad

168. Eka aluminium is Gallium

169. Eelements with Z=3 and Z=11 are Li and Na, both belongs to I-A group with similar electronic configuration

170. n+l = 6, corresponds to 5p, 4d and 6s.

$\therefore$ no. of orbitals = 3+5+1=9

171. If l=0, 'm' is always '0' (zero)

172. 8^{th} element from carbon is silicon

173. Schrodinger wave equation supports de-Broglie's dual behaviour of electron.

174. Conceptual

175. Fifth period starts with Z=37, Rubidium

176. Te-128 and I-127 are anomalous pairs

177. Conceptual

178. Hg is liquid metal

179. Palladium has 18 electrons in the outer most shell, i.e $4s^2\ 4p^6 4d^{10}$

180. No. of orbitals = 4

Each orbital consists of three electrons

According to give condition. Therefore

4x3 = 12 electrons $\equiv$ 12 elements