SRI CHAITANYA EDUCATIONAL INSTITUTIONS,INDIA.

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Sec : INCOMING JUNIORS **Date : 20-06-2021**

NEET WEEKEND TEST – 5 KEY

BOTANY

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

ZOOLOGY

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

PHYSICS

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

CHEMISTRY

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

SOLUTIONS

1. Solution: NCERT Pg No. 143
2. Solution: NCERT Pg No. 143
3. Solution: NCERT Pg No. 147
4. Solution: NCERT Pg No. 144
5. Solution: NCERT Pg No. 144
6. Solution: NCERT Pg No. 144, 146
7. Solution: Sucrose is a disaccharide
8. Solution: NCERT Pg No. 144
9. Solution: Cellulose is a structural polysaccharide
10. Solution: NCERT Pg No. 148
11. Solution: NCERT Pg No. 145
12. Solution: NCERT Pg No. 144
13. Solution: NCERT Pg No. 144
14. Solution: NCERT Pg No. 144
15 Solution: NCERT Pg No. 147
16. Solution: NCERT Pg No. 147
17. Solution: NCERT Pg No. 146
18 Solution: Conceptual
19. Solution: NCERT Pg No. 145
20. Solution: NCERT Pg No. 147
21. Solution: NCERT Pg No. 148
22. Solution: NCERT Pg No. 148
23. Solution: NCERT Pg No. 144
24. Solution: NCERT Pg No. 144
25. Solution: NCERT Pg No. 147
26. Solution: Conceptual
27. Solution: NCERT Pg No. 147
28. Solution: NCERT Pg No. 144
29. Solution: NCERT Pg No. 145
30. Solution: NCERT Pg No. 144
31. Solution: Arginine and lysine are basic amino acids
32. Solution: ATP is a nucleotide
33. Solution: NCERT Pg No. 146
34. Solution: NCERT Pg No. 145
35. Solution: NCERT Pg No. 147
36. Solution: Conceptual
37. Solution: NCERT Pg No. 144
38. Solution: NCERT Pg No. 147
39. Solution: NCERT Pg No. 149
40. Solution: NCERT Pg No. 147
41. Solution: NCERT Pg No. 146
42. Solution: NCERT Pg No. 145
43. Solution: NCERT Pg No. 145
44. Solution: Conceptual
45. Solution: NCERT Pg No. 146

46. NCERT
47. NCERT
48. NCERT
49. Hepatic portal vein present in all adult vertebrates
50. NCERT
51. NCERT
52. NCERT
53. Body of the urochordate is enclosed in a Test or tunic
54. In cephalochordates all the fundamental chordate characters are retained through out life
55. NCERT
56. NCERT
57. NCERT
58 NCERT
59. NCERT
60. Agnatha members do not have bony skeletons
61. The larva of petromyzon is known as ammocoete larva
62. Lamprey is anadromous (marine-freshwater)
63. Catadromous fish migrates from river to sea
64. Teeth in chondrichthyes are modified placoid scales
65. NCERT
66. NCERT
67. Bony fishes are marine, freshwater, brackish water
68. NCERT
69. NCERT
70. NCERT
71 Ichthyology
72. All statements are correct
73. The fish which shows parental care in Hippocompus
74. NCERT
75. NCERT
76. NCERT
77. Batrachology
78. Sphenodon is living fossile reptile
79. NCERT
80. Alligator has four chambered heart
81. Crocodile has moderately long & pointed snout and is very aggressive & dangerous for man
82. NCERT
83. NCERT
84. NCERT

85. Beak does not possesses homodont teeth

86. Tail vertebrae of birds are fused to form Pygostyle

87. NCERT

88. NCERT

89. NCERT

90. NCERT

91. $v^2 - u^2 = 2gh$

$(80)^2 - (20)^2 = 2(10)h$

$\therefore$ h=300m

92. $V = \sqrt{2gh} = \sqrt{2 \times 10 \times 20} = 20ms^{-1}$

93. $t = \sqrt{\frac{2h}{g}}$

$\frac{t_1}{t_2} = \sqrt{\frac{h_1}{h_2}} = \sqrt{\frac{16}{25}} = \frac{4}{5}$

94. $H = \frac{u^2}{2g} \Rightarrow u^2 = 2gH$

$(10)^2 - u^2 = 2g\left(\frac{H}{2}\right)$

$(10)^2 - 2gH = 2(-g)\left(\frac{H}{2}\right)$

$100 = gH \Rightarrow H = 10m$

95. First body : $v_1^2 - o^2 = 2gh$

$\Rightarrow h = \frac{v_1^2}{2g} = \frac{9}{20}m$

Second body : $v_2 = \sqrt{u^2 + 2gh}$

$v_2 = \sqrt{u^2 + 2(10)\left(\frac{9}{20}\right)} = 5ms^{-1}$

96. $s_1 = \frac{1}{2}gn^2$

$s_2 = \frac{1}{2}g(n-2)^2$

$s_1 - s_2 = 40$

$\Rightarrow n = 3s$

$\therefore \ s_1 = \frac{1}{2}(10)(3)^2 = 45m$

97. $v_s t = 1000 + v_B t$

$100v_s = 1000 + (10)(100)$

$v_s = 20ms^{-1}$

98. Conceptual.

99. Straight line

100. Exactly equal

101. Conceptual.

102. $\vec{V}_{mc} = \vec{V}_m - \vec{V}_c$

$\therefore \ V_{mc} = 80kmph - 65kmph = 15kmph$

103. $h \propto u^2$

$\frac{h_1}{h_2} = \frac{u_1^2}{u_2^2} \Rightarrow \frac{h}{3h} = \frac{V_0^2}{u_2^2} \Rightarrow u_2 = \sqrt{3}v_0$

104. $s_n = \frac{g}{2}(2n-1)$

$24.5 = \frac{9.8}{2}(2n-1)$

$n = 3s$

$h = \frac{1}{2}gn^2 = 44.1m$

105. For X : $h = -ut_x + \frac{1}{2}gt_x^2$

For Y : $h = ut_y + \frac{1}{2}gt_y^2$

$\therefore \ u = \frac{1}{2}g(t_x - t_y)$

$= \frac{1}{2} \times 10 \times (6-2) = 20ms^{-1}$

106. $t_d = \sqrt{\frac{2H}{g}} = \sqrt{\frac{2 \times 80}{10}} = 4s$

107. Conceptual.

108. $(2V)^2 - V^2 = 2gH$

$H = \frac{3V^2}{2g}$

109. $h = -ut + \frac{1}{2}gt^2$

$= (-3)(2) + \frac{1}{2}(10)(2)^2 = 14m$

110. $s_n = u - \frac{g}{2}(2n-1)$

Here $n = \frac{u}{g}$

$s_n = 29.4 - \frac{9.8}{2}(5) = 4.9m$

111. Conceptual.

112. Average velocity = $\frac{h}{t_d} = \frac{h}{\sqrt{\frac{2h}{g}}} = \sqrt{\frac{gh}{2}}$

113. Average velocity = 0

Average speed = $\frac{2H}{T} = \frac{2v^2}{2g} \times \frac{g}{2v} = \frac{v}{2}$

114. Velocity of projection at height h is $v = \sqrt{2(g/8)(h)} = \frac{\sqrt{gh}}{2}$

$h = -vt + \frac{1}{2}gt^2$

$h = -\frac{\sqrt{gh}}{2}t + \frac{1}{2}gt^2$

$t = 2\sqrt{\frac{h}{g}}$

115. $\frac{s_n}{s} = \frac{36}{100} = \frac{2n-1}{n^2}$

$\therefore$ n=5

$s_n = \frac{1}{2}gn^2 = 125m$

116. $h+\frac{u^2}{2g}=\frac{1}{2}gt^2$

$\therefore\ t=\frac{\sqrt{u^2+2gh}}{g}$

117. $\vec{a}_{AB}=\vec{a}_A-\vec{a}_B=-g-(-g)=0$

118. $\frac{h_1}{h_2}=\frac{u_1^2}{u_2^2}$

$\Rightarrow\frac{h}{h_2}=\frac{u^2}{4u^2}$

$\therefore\ h_2=4h$

119. $t_a=t_d=10s$

120. For first stone, $t_1=\sqrt{\frac{2h}{g}}=\sqrt{\frac{2}{10}\times 20}=2s$

For second stone, time of fall = t = 2s-1s=1s

$h=ut+\frac{1}{2}gt^2$

$\Rightarrow 20=v(1)+\frac{1}{2}(10)(1)^2$

$\therefore\ v=15ms^{-1}$

121. $y=\frac{1}{2}g(3)^2=44.1$

$122.5-44.1=\frac{1}{2}gt^2$

$t=4\sec$

122. $t_1+t_2=\frac{2u}{g}$

123. Conceptual.

124. $s_n=u-\frac{g}{2}(2n-1)$

$=u-\frac{g}{2}\left[\frac{2u}{g}-1\right]$

$=\frac{g}{2}=4.9m$

125. Conceptual.

126. $v = at = 2 \times 1 = 2ms^{-1}$

$h = \frac{1}{2}at^2 = \frac{1}{2}(2)(1)^2 = 1m$

$h = -uT + \frac{1}{2}gT^2$

$1 = -2T + 4.9T^2$

$4.9T^2 - 2T - 1 = 0$

$\therefore$ T=0.7s

127. Conceptual.

128. $x_{rel} = (60 - 40) \times 5 = 100m$

129. If y is the height from the ground at any instant, then distance of free fall is (h – y)

$v^2 - o^2 = 2g(h - y)$

$v = \sqrt{2g(h - y)}$

130. $V_{rel} = \frac{L}{t}$

$10 - (-5) = \frac{150}{t}$

$\therefore$ t=10s

131. $V_{rel} = \frac{L_1 + L_2}{t}$

$(72 - (-36))\frac{5}{18} = \frac{200}{t}$

$30 = \frac{200}{t}$

$t = \frac{20}{3} = 6.67s$

132. Conceptual.

133. $v^2 - u^2 = 2gH$

$(20)^2 - (10)^2 = 2(10)(H)$

$H = 15m$

134. $5 \propto t^2$

$$\frac{h_1}{h_2} = \frac{t_1^2}{t_2^2}$$

$$\frac{(h/2)}{h} = \frac{(10)^2}{t_2^2}$$

$$t_2 = 14.14s$$

135. $u^2 = 2gH$

$$v^2 - u^2 = 2(-g)\left(\frac{H}{3}\right)$$

$$\left(10\sqrt{2}\right)^2 - 2gH = -\frac{2gH}{3}$$

$$200 = \frac{4gH}{3}$$

$$\therefore \text{ H} = \frac{600}{4 \times 10} = 15m$$

136. Conceptual

137. $5 \to 4$ Transition has lowest energy and highest 'λ'

138. Conceptual

139. $\overline{\gamma} = R_H Z^2 \left[\frac{1}{n_1^2} - \frac{1}{n_2^2}\right]$

$$\frac{15200}{x} = \frac{\frac{1}{3^2}\left[\frac{1}{4} - \frac{1}{9}\right]}{\left[\frac{1}{4} - \frac{1}{9}\right]}$$

1st line of Bolur $n_1 = 2 \quad n_2 = 3$

$$\frac{15200}{x} = \frac{1}{9}$$

$$x = 136800cm^{-1}$$

140. $\Delta x = \Delta P$

$$\Delta x = m\Delta V$$

$$\Delta x.m\Delta V = \frac{h}{4\pi}$$

$$m\Delta V.m\Delta V = \frac{h}{4\pi}$$

$$\Delta V = \frac{1}{2m}\sqrt{\frac{h}{\pi}}$$

141. $\frac{1}{\lambda} = R_H Z^2\left[\frac{1}{n_1^2} - \frac{1}{n_2^2}\right]$

142. $\lambda = \frac{h}{mv}$

$$\lambda = \frac{6.625\times10^{-34}}{60\times10^{-3}\times10}$$

$$= 10^{-33} m$$

143. For Bracket series $n_1 = 5$

$\therefore$ longest wave length line in bracket series is $8 \to 5$ transition

144. $\Delta x.\Delta p = \frac{h}{4\pi}$ $\Delta p = \frac{h}{4\pi} = \infty$

$\Delta p = \infty$

145. $\Delta x = \frac{h}{4\pi m \Delta v}$

$$= \frac{6.625\times10^{-27}}{4\times314\times9.1\times10^{-28}\times3\times10^{4}\times0.011}$$

$$= 0.175 cm$$

146. No of waves in Bohr's orbit = n

147. Conceptual

148. No.of spectral lines $= \frac{(n_2 - n_1)(n_2 - n_1 + 1)}{2}$

149. $\lambda = \frac{h}{mv}$

150. Conceptual

151. $\frac{1}{\lambda} = R_H Z^2\left[\frac{1}{n_1^2} - \frac{1}{n_2^2}\right]$

Lyman series limiting line $n_1 = 1$ $n_2 = \infty$ (Shortest λ)

Balmer series 1st line $n_1 = 2$ $n_2 = 3$ (Longest λ)

152. $\lambda = \frac{h}{mv} = \frac{6.625\times10^{-34}}{0.5\times100} = 1.32\times10^{-35} m$

153. Definition

154. $\Delta V_x = 0.03$ $\Delta V_y = 0.01$

$m_x = 2m_y$

$\Delta x = \dfrac{h}{4\pi m \Delta v}$

$\dfrac{\Delta x_x}{\Delta x_y} = \dfrac{m_y \Delta v_y}{m_x \Delta v_x}$

$= \dfrac{m_y}{2m_x} \times \dfrac{0.01}{0.03}$

$= \dfrac{1}{6}$

155. node has $\Psi^2 = 0$

156. $\lambda = \dfrac{h}{mv}$

$m_p = 1.67 \times 10^{-27} kg$

$\lambda = \dfrac{h}{mv} = \dfrac{6.62 \times 10^{-34} kgm^2 s^{-1}}{\left(1.67 \times 10^{-27} kg\right)\left(10^3 ms^{-1}\right)}$

$= 3.96 \times 10^{-10} m = 0.40 nm$

157. $\lambda = \dfrac{12.28}{\sqrt{\mathrm{V}}} = \dfrac{12.28}{\sqrt{100}} = \dfrac{12.28}{10} = 1.228 \mathrm{A}^0$

$\lambda = 1.228 \times 10^{-10} \mathrm{m}$

158. $n \propto \lambda$

$\dfrac{n_1}{n_5} = \dfrac{\lambda_1}{\lambda_5}$

$\dfrac{1}{5} = \dfrac{x}{\lambda_5};\ \lambda_5 = 5x$

Circumference $(2\pi r) = n\lambda_5$

$= 5(5x)$

$= 25x$

159. $\lambda = \dfrac{h}{p}$

160. $2\pi \mathrm{r} = \mathrm{n}\lambda, \quad 2\pi \mathrm{x} = 1.\lambda, \quad \lambda = 2\pi \mathrm{x}$

$\therefore 4\lambda = 4 \times 2\pi x = 8\pi x$

161. $m_p(\text{mass of proton}) = 1836 m_e(\text{mass of electron})$

162. $\lambda = \frac{h}{\sqrt{2(KE)m}}$

$\lambda \propto \frac{h}{\sqrt{KE}}$

163. $6 \rightarrow 2$

$5 \rightarrow 2$

$4 \rightarrow 2$

$3 \rightarrow 2$

164. Conceptual

165. $\mathrm{m} = \frac{\mathrm{h}}{4\pi.\Delta \mathrm{x}.\Delta \mathrm{v}} = \frac{6.625 \times 10^{-34}}{4 \times 3.14 \times 10^{-10} \times 5.27 \times 10^{-24}}$

$\mathrm{m} = 0.1\ \mathrm{kg}$

166. $\Delta x = \frac{h}{4\pi m \Delta \mathrm{v}}$

$= \frac{6.62 \times 10^{-34}}{4 \times 3.14 \times 9.1 \times 10^{-31} \times 200 \times 1}$

$= 0.28 \mu m$

167. Heinsenberg's uncertainity principle

168. $\lambda = v$

$\lambda = \frac{h}{mv}$

$\lambda = \frac{h}{m\lambda}; \lambda^2 = \frac{h}{m}$

$\lambda = \sqrt{\frac{h}{m}}$

169. $\frac{\lambda_1}{\lambda_2} = \sqrt{\frac{KE_2}{KE_1}}$

170. Conceptual

171. Spin quantum number

172. Conceptual

173. Difference in energy levels decrease as 'n' value increase.

174. 5.8×10^5

According to uncertainty principle

$$\Rightarrow \delta x \times \delta p = \frac{h}{4\pi}$$

$$\Rightarrow \delta p = \frac{h}{4\pi \times \delta x}$$

$$\Rightarrow m\delta p = \frac{h}{4\pi\delta x}$$

$$\delta v = \frac{h}{4\pi m\delta x}$$

$$= \frac{6.625\times10^{-34}}{9.1\times10^{-31}\times10^{-10}\times4\times3.14} = 5.8\times10^{5}$$

175. no. of waves = orbit .no = 3

$$= 3\times3.33 = 9.99 = 10\text{A}^0$$

176. Conceptual

177. Conceptual

178. 1st line of Balmer series $n_1 = 2 \quad n_2 = 3$

$$\bar{\gamma} = \text{R}_H Z^2\left[\frac{1}{n_1^{\ 2}} - \frac{1}{n_2^{\ 2}}\right]$$

179. $\lambda \propto \frac{1}{m}$

180. Conceptual