MHTS - 8 - Physics (2017 Aspirants) - Solution

1. (2)

$v = G^{\alpha}M^{b}R^{c}$

$LT^{-1} = \left[M^{-1}L^{3}T^{-2}\right]^{\alpha}\left[M\right]^{b}\left[L\right]^{c}$

$M^{0}L^{1}T^{-1} = M^{-\alpha+b}L^{3\alpha+c}T^{-2\alpha}$

Comparing powers of M, L and T

$-\alpha + b = 0$

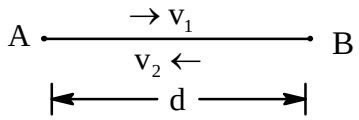
$3\alpha + c = 1$

$-2\alpha = -1 \Rightarrow \alpha \frac{1}{2}, b = \frac{1}{2}, c = -\frac{1}{2}$ OR

Orbital velocity $v = \sqrt{\frac{GM}{R}}, v = G^{\alpha}M^{b}R^{c}$

If we know the formula, we can compare it directly, there is no need to calculate.

2. (4)



Average speed $= \frac{d+d}{d/v_1 + d/v_2} = \frac{2v_1v_2}{v_1+v_2}$

3. (4)

$v = u - gt = u - 10t$

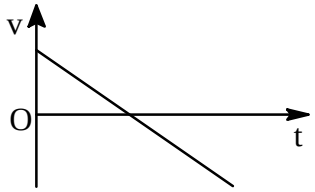
$v - t$ graph

$y = u - 10x$ (straight line)

$y = c + m\,x$

Slop: m – 10, i.e., –ve

C = u, i.e., +ve



4. (2)

Let θ be the angle between $\vec{A}$ and $\vec{B}$

$$|\vec{A}+\vec{B}| = n|\vec{A}-\vec{B}| \Rightarrow \sqrt{A^2+B^2+2AB\cos\theta}$$

$$= n\sqrt{A^2+B^2+2AB\cos(180-\theta)}$$

$$|\vec{A}| = |\vec{B}| = A = B = x$$

$$2x^2(1+\cos\theta) = n^2 \cdot 2x^2(1-\cos\theta)$$

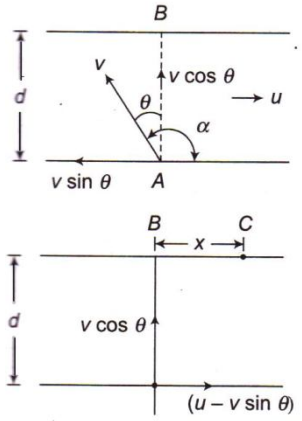
$$1+\cos\theta = n^2 - n^2\cos\theta$$

$$(1+n^2)\cos\theta = n^2 - 1$$

$$\cos\theta = \frac{n^2-1}{n^2+1}$$

$$\theta = \cos^{-1}\left(\frac{n^2-1}{n^2+1}\right)$$

5. (3)



$$y: d = v\cos\theta\, t \Rightarrow t = \frac{d}{v\cos\theta}$$

$$x: x = (u - v\sin\theta)t = (u - v\sin\theta)\frac{d}{v\cos\theta}$$

$$= \left(\frac{u}{v}\sec\theta - \tan\theta\right)d$$

For x to be minimum

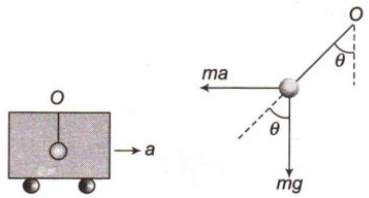
$$\frac{dx}{d\theta} = d\left(\frac{u}{v}\sec\theta\tan\theta - \sec^2\theta\right) = 0$$

$$\frac{u}{v}\tan\theta = \sec\theta$$

$$\sin\theta = \frac{v}{u}$$

$$\alpha = 90° + \theta = \frac{\pi}{2} + \sin^{-1}\left(\frac{v}{u}\right)$$

6. (1)



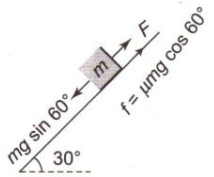
$$\tan\theta = \frac{ma}{mg} = \frac{a}{g}$$

$$\theta = \tan^{-1}(a/g)$$

7. (2)

$$mg\sin 30° = \mu mg\cos 30°$$

$$\Rightarrow \quad \mu = \tan 30° = \frac{1}{\sqrt{3}}$$

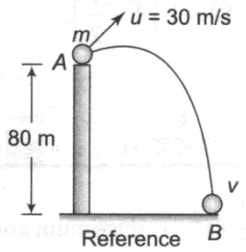


$$mg\sin 60 = F + \mu mg\cos 60°$$

$$3\times 10\times\frac{\sqrt{3}}{2} = F + \frac{1}{\sqrt{3}}\times 3\times 10\times\frac{1}{2}$$

$$F = 15\sqrt{3} - 5\sqrt{3} = 10\sqrt{3}\ \text{N}$$

8. (1)



$$K_A + U_A = K_B + U_B$$

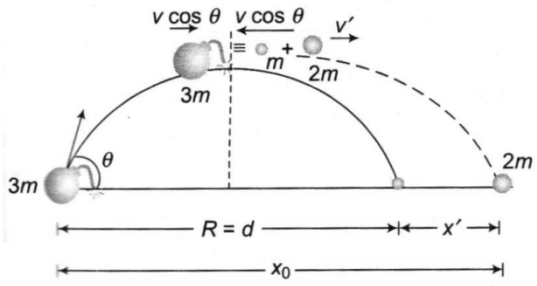
$$\frac{1}{2}m(30)^2 + mg(80) = \frac{1}{2}mv^2 + 0$$

$$v = [(30)^2 + 2g(80)]^{1/2}$$

$$= 50\ \text{m/s}$$

9. (2) When the velocity (either magnitude or direction or direction or both) changes, acceleration is produced.

10. (3)



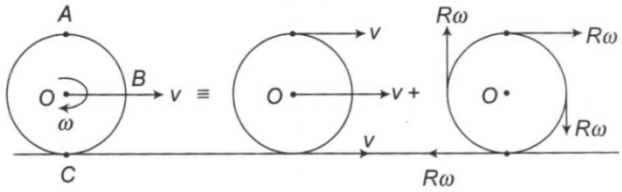
$$3m\,d = m \times 0 + 2m\,x_0 \Rightarrow x_0 = \frac{3d}{2}$$

$$x' = x_0 - d = \frac{3d}{2} - d = \frac{d}{2}$$

11. (2) $\Delta\omega = 600\,\text{rev/min} = \dfrac{2\pi \times 600}{60} = 20\pi\,\text{rad/s}$

12. (2)

When a body rolls without slipping, the velocity of any point of the body is resultant of two velocities; one due to pure translational motion and another due to pure rotational motion. Also, $v = r\omega$



$v_A = v + R\omega = v + v = 2v$

$v_B = \sqrt{v^2 + (r\omega)^2} = \sqrt{2}\,v$

$v_C = v - v = 0$

13. (3)

r : distance from centre of earth

R_e : radius of earth

$r \le R_e, g' = \dfrac{gr}{R_e} \Rightarrow g' \propto r$ (straight line)

$r \ge R_e, g' = \dfrac{gR_e^2}{r^2} \Rightarrow g' \propto \dfrac{1}{r^2}$ (rectangular hyperbola type)

14. (3)

Tension $\propto$ length in length

Let L_0 : natural length

$T_1 \propto (L_1 - L_0)$

$T_2 \propto (L_2 - L_0)$

$\dfrac{T_1}{T_2} = \dfrac{L_1 - L_0}{L_2 - L_0}$

$T_1L_2 - T_1L_0 = T_2T_1 - T_2L_0$

$(T_1 - T_2)L_0 = T_1L_2 - T_2L_1$

$L_0 = \dfrac{T_1L_2 - T_2L_1}{T_1 - T_2} = \dfrac{L_1T_2 - L_2T_1}{T_2 - T_1}$

15. (3)

16. (3)

$f_B = 512\,Hz, f_A = 512 \pm 5 = 517 \text{ or } 507\ Hz$

If arms of A is filed , f_A :↑ neat frequency ↑ ,

$f_A = 517\,Hz$

17. (3) Theory

18. (1)

$$\frac{1}{2}mv^2 \times \frac{1}{2} = ms\Delta\theta$$

$$\frac{(200)^2}{4} = 125\Delta\theta$$

$$\Delta\theta = 80^oC$$

19. (4)

$$220s(70-\theta) = (110+10)s(\theta-10)$$

$$11(70-\theta) = 6(\theta-10)$$

$$770 - 110 = 60 - 60$$

$$170 = 830$$

$$\theta = 50^oC$$

20. (3) Theory

21. (3)

22. (2)

$$\lambda_m T_1 = \lambda'_m T_2$$

$$\lambda_m \times 2000 = \lambda'_m \times 3000$$

$$\lambda'_m = \frac{2}{3}\lambda_m$$

23. (3)

24. (4)

25. (1)

26. (3)

27. (2)

We know that , $r = \frac{(l_1 - l_2)}{l_2} \times R = \frac{50-40}{40} \times 2$

$= 0.50\Omega$

28. (4)

The two resistances are connected in series and the resultant is connected in parallel with the third resistance.

$\therefore R = 4\Omega + 4\Omega = 8 \text{ and } \frac{1}{R''} = \frac{1}{8} + \frac{1}{4} = \frac{3}{8} \text{ or } R'' = \frac{8}{3}\Omega$

29. (3)

30. (4)

Power P = 60 W and voltage V = 220 volts. Resistance of the filament

$$R = \frac{V^2}{P} = \frac{(220)^2}{60} = 807\,\Omega$$

31. (4)

$\vec{F} = -e\vec{E}$ here electric field is directed along + y-axis, then force on the electron is directed along –y-axis.

32. (2)

$$B_1 = \frac{\mu_o i}{4\pi R}(\sin\alpha + \sin\beta)$$

Here $R = a/2; \alpha = \beta = 45°$

$$\therefore B_1 = \frac{\mu_o i}{2\pi a}(\sin 45° + \sin 45°)$$

$$B_1 = \frac{\mu_o i}{\sqrt{2}\,\pi a}$$

(directed perpendicular to the paper and into it)

Since, the centre of the square is equidistant from all the sides of the square current loop, each side produces same magnetic field at *O* in the same direction.

Therefore, resultant magnetic field at *O*

$$B = 4B_1 = \frac{4\mu_o i}{\sqrt{2}\,\pi a} = \frac{2\sqrt{2}\,\mu_o i}{\pi a}$$

33. (4)

Magnetic field on the axis of a circular conductor carrying some current is directed along the axis. If an electron is projected along the magnetic field direction, it will experience no force

$$F = eBv\sin 0^o = 0$$

34. (4)

$$e = 200\sin 100\pi t$$

$$\therefore e_o = 200, \omega = 100\pi$$

$$BAN\omega = e_o$$

$$\therefore B = \frac{e_o}{AN\omega} = \frac{200}{(0.25\times 0.25)\times 1000\times 100\pi} \text{ or } B = 0.01T$$

35. (1)

36. (2)

37. (2)

When the light is incident at the polarizing angle on the transparent medium, the reflected light is completely polarized.

38. (3)

$$\frac{f_a}{f_e} = \frac{\left(\frac{\mu_s}{\mu_1} - 1\right)}{(\mu_g - 1)} = \frac{\left(\frac{1.5}{1.25} - 1\right)}{1.5 - 1} = \frac{\frac{1}{5}}{\frac{1}{2}} = \frac{2}{5}$$

$$f_e = \frac{5}{2}f_a = \frac{5}{2}\times 2 = 5\,cm$$

39. (1)

Focal length of convex lens $f_1 = 25\,cm$

Focal length of concave lens $f_2 = -25\,cm$

Power of combination in dioptres,

$$p = p_1 + p_2 = \frac{100}{f_1} + \frac{100}{f_2} = \frac{100}{25} - \frac{100}{25} = 0$$

40. (1)

$$W_o = \frac{hc}{\lambda_o} = \frac{6.63\times10^{-34}\times3\times10^{8}}{5000\times10^{-10}}$$

$4\times10^{-19}\,J$

41. (1)

42. (1) Photoelectric current is directly proportional to the intensity of incident light.

43. (4)

44. (3)

For NAND gate,

$\overline{0.1} = \overline{0} = 1$

45. (2)

46. (1)

$$\frac{-d[N_2O_5]}{dt}=\frac{1}{2}\frac{d[NO_2]}{dt}=\frac{2d[O_2]}{dt}$$

$$\therefore k_1[N_2O_5]=\frac{k_2}{2}[N_2O_5]=2k_3[N_2O_5]$$

47. (3)

According to Werner's theory, only those ions are precipitated which are attached to the metal atoms with ionic bonds and are present outside the coordination sphere.

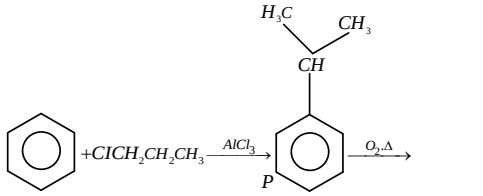
48. (2)

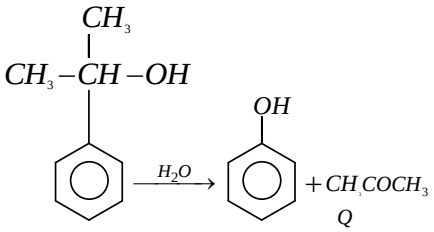
49. (3)

$$K_c=\frac{[NO_2]^2}{[N_2O_4]}=\frac{\left[2\times10^{-3}/2\right]^2}{\left[\frac{0.2}{2}\right]}=1\times10^{-5}$$

50. (3) PbS is black and S^{2-} reacts with $K_2Cr_2O_7$ to give $Cr_2(SO_4)_3$ solution which is green.

51. (3)





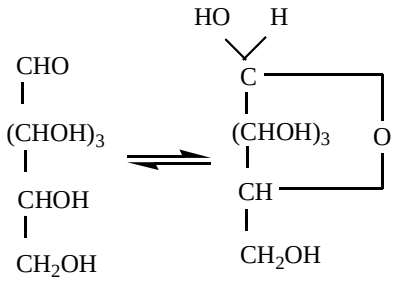
52. (2)

53. (2)

$$E_{cell}=\frac{0.059}{2}\log\frac{\left[H^+\right]^2_{RHS}\times p_{H_2(LHS)}}{p_{H_2(RHS)}\times\left[H^+\right]^2_{LHS}}$$

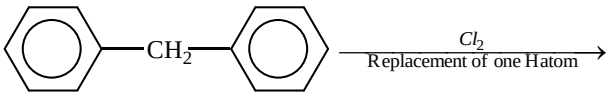
Thus, for positive E_{cell}, $P_{H_2(LHS)}>P_{H_2(RHS)}$

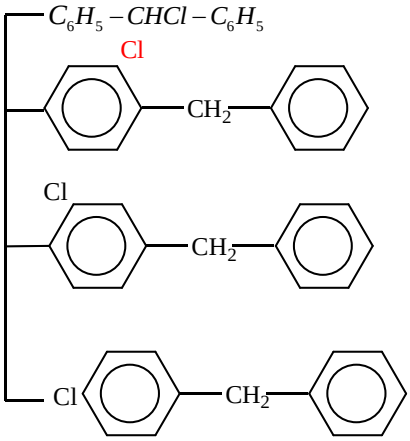
54. (4)



55. (3) Conceptual

56. (2)





57. (2) DNA has deoxyribose sugar; RNA has ribose sugar with three bases common as adenine, guanine and cytosine, DNA has fourth base thymine; RNA has uracil

58. (3) This gives rise to higher e nuclear charge in Na^+ and the size of Na^+ becomes smaller due to more effective pull of valence shells towards nucleus.

59. (3) In D-(+)-tartaric acid, the (+) is due to positive optical rotation and is derived from $D-(+)-$ glyceraldehyde.

60. (1) Bakelite is a step-growth polymer i.e., the condensation involving the reaction of functional group e.g., terylene, Bakelite etc.

61. (1)

$$\underset{(A)}{P_4} + N_2O \rightarrow \underset{(B)}{P_4O_{10}} + \underset{(C)}{N_2}$$

62. (1)

63. (1)

$28\,g\ N_2 = 1$ mol of N_2

Applying, $pV = nRT$

$2.46 \times 10 = 1 \times 0.0821 \times T$

$T = 299.6K$

64. (4)

the electronic configuration of the given ion is as

$Ca^{2+} = 1s^2 2s^2 2p^6 3s^2 3p^6$ $Mn^{2+} = 1s^2 2s^2 2p^6 3s^2 3p^6 3d^5$ $Zn^{2+} = 1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10}$

Thus the size of Zn^{2+} ion is smallest and of Ca^{2+} is largest among the three due to increase in effective nuclear charge with increase in atomic number.Smaller the size of ion ,lighter is the hydration enthalpy.Thus ,the order of hydration enthalpy is $\underset{(2047 kJ\ mol^{-1})}{Zn^{2+}} > \underset{(1841 kJ\ mol^{-1})}{Mn^{2+}} > \underset{(1577 kJ\ mol^{-1})}{Ca^{2+}}$.

65. (3)

66. (2)

67. (4)

$$K_2Cr_2O_7 + 4NaCl + 6H_2SO_4 \rightarrow \underset{red\ vapor\ 'p'}{2CrO_2Cl_2} + 2KHSO_4 + 4NaHSO_4 + 3H_2O$$

$$CrO_2Cl_2 + 2NaOH \rightarrow \underset{yellow\ solution}{Na_2CrO_4} + HCl$$

$$Na_2CrO_4 + 2Pb(OOCCH_3)_2 \rightarrow PbCrO_4 + CH_3COONa$$

68. (2)

69. (1)

$$\text{Molality (m)} = \frac{\text{mass of solute (in g)} \times 1000}{\text{molecular weight of solute} \times \text{massof solven (in g)}}$$

$$= \frac{200 \times 10^{-3} \times 1000}{60 \times 40} = 0.0833$$

70. (1) Conceptual

71. (1)

72. (2)

Rate = $k[A][B] = r_1$

when, [B]=[2B], then,

new rate = $k[A][2B] = r_2$

Divide Eq. (ii) by (i) to get,

$$\frac{r_2}{r_1} = \frac{k[A][2B]}{k[A][B]} \Rightarrow \frac{r_2}{r_1} = 2$$

$$r_2 = 2r_1$$

Hence, the rate doubles on doubling the concentration of B, thus we can say the value of rate constant is also doubled

[as rate constant depends upon the rate of the reaction].

73. (1) BI_3 is strong Lewis acid among Borontrihalides as backbonding between B and I is weak.

74. (4)

75. (3)

$N_2 + 2O_2 \rightleftharpoons 2NO_2$,

K_C for the reaction,

$$K_C = \frac{[NO_2]^2}{[N_2][O_2]^2}$$

For the reaction, $NO_2 \rightleftharpoons \frac{1}{2}N_2 + O_2$

$$K_{C_1} = \frac{[N_2]^{1/2}[O_2]}{[NO_2]}$$

Hence, $K_{C_1} = \frac{1}{\sqrt{K_C}}$ (given, $K_C = 100$)

So, $K_{C_1} = \frac{1}{\sqrt{100}} = 0.1$

76. (1) Due to lanthanide contraction, left to right atomic size decreases

77. (1)

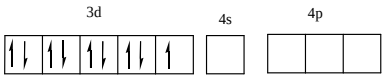
78. (3)
0.1 F Liberates 0.1 equivalents of O_2 at anode and 0.1 equivalents of Ag at Cathode
$\therefore$ Total loss = (0.1)8 + (0.1) 108 = 11.6g
$\therefore$ Wt. of final solution = $108 - 11.6 = 96.4$g

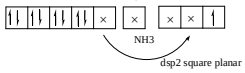
79. (2)
X is borazine.it is also called as inorganic benzene or borazole. It is isostructural and isoelectronic with benzene.

80. (1)

81. (4)
$\Delta T_f = K_f.m$
$\Rightarrow 0.93 = 1.86 x \frac{36}{M} x \frac{1}{1.2}$
$\Rightarrow M = 60$
$\therefore n = \frac{60}{30} = 2$
$\therefore$ m.f $= (CH_2O)_2$

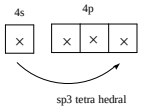
82. (1)
$[Cu(NH_3)_4]^{2+}$ contains Cu^{2+} ion

$Cu^{2+} = [Ar]3d^9$ 

$[Cu(NH_3)_4]^{2+} = [Ar]$ 

NH_3 being a strong field ligand transfer the unpaired electron to 4d orbital.

In $[Cu(NH_3)_4]^+$,Cu is present as Cu^+ ion.

$[Cu(NH_3)_4]^+ = [Ar]3d^{10}$ 

Completely filled orbitals are highly stable, so NH_3 ligand occupy 4s and 4p orbitals.

83. (3)

84. (1)

1 mole of CO_2 molecule $= 6.023\times10^{23}$ molecule of CO_2

$= 44$ g of CO_2

$\therefore \quad 10^{21}$ molecules of $CO_2 = \dfrac{44}{6.023\times10^{23}}\times10^{21}$ g CO_2

$= 7.31\times10^{-2}$ g $= 73.1$ mg

$\therefore \quad CO_2$ left $= 200 - 73.1 = 126.9$ mg

Hence, moles of CO_2 left $= \dfrac{\text{given mass}}{\text{molar mass}}$

$= \dfrac{126.9\times10^{-3}}{44} = 2.88\times10^{-3}$ mol

85. (3) Conceptual

86. (1)

87. (3)

Equal masses of H_2 O_2 and CH_4 are taken in volume V of container,

Volume of gas $\propto$ number of moles (Avogadro's law)

Volume of H_2 : Volume of O_2 : Volume of CH_4

$= \dfrac{w}{2} : \dfrac{w}{32} : \dfrac{w}{16} (M_{H_2} = 2, M_{O_2} = 32, M_{CH_4} = 16)$

$= 16 : 1 : 2$

88. (2)

89. (1) HCOOH is the strongest among the given acids, as $HCOO^-$ ion is more stable as it has two equivalent resonance structures.

90. (1)

$N_2 + O_2 \rightleftharpoons 2NO + \text{Heat}$

$\Delta n_g = n_p - n_R$ or $2 - 2 = 0$

When the number of moles of gaseous reactants and products is same, then equilibrium is not affected by pressure and hence, the equilibrium constant is unaffected.

MHTS - 8- Botany (2017 Aspirants) - Solution

91 (2) NCERT (XI pg.no.249)
Spraying juvenile conifers with GA hastens the maturity period leading to early seed production

92 (4) NCERT XI (pg. no. 166)

93 (3) NCERT (XIIpg.no. 74)

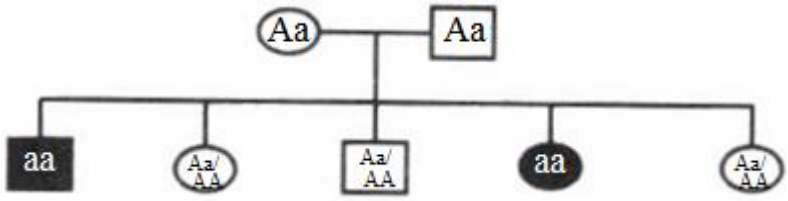
94 (1) NCERT XII (pg.no.242)

95 (1)

96 (3) NCERT XIIpg.no.176
Atlas 66 variety of wheat has high protein content.

97 (4) Majority of Pteridophytes are homosporus except a few like *Sellaginella* and *Salvinia* which produce two types of spores. All spermatophytes like gymnosperms and angiosperms always are hetrosporus. (not mentioned in NCERT)

98 (4)



Attached ear lobe is a recessive character. It is not seen in any of the parents but is shown by 2 of 5 progeny.

99 (3) NCERT XI (pg no. 27)

100 (2) NCERT (XI pg.no.220)

101 (2) (Not given in NCERT) Tapetum is responsible for formation of callase enzyme.

102 (3) *Streptomyces erythreus* and *streptomyces venezuelae* are involved in production of erythromycin and chloramphenicol, respectively.

103 (2) NCERT XII Pg.no. 263

104 (2) NCERT (XIIpg.no.99)

105 (2) NCERT (XI pg.no.231)

106 (4) NCERT XI (Pg. no.5)

107 (2) Sap vacuoles are responsible for the osmotic regulation

108 (3) NCERT (XIIpg.no. 6)

109 (3)

C_3 plants-*Triticum*
C_4 Plants-Maize
CAM plants-*Kalanchoe*

110 (1) NCERT (XI pg.no. 97)

111 (3)

$$\text{Recombination frequency} = \frac{\text{No. of recombinants}}{\text{Total no. of offsprings}} \times 100 = \frac{d^+ + c^+}{\left(d^+ + c^+\right) + \left(cd^{++}\right)}$$

$$= \frac{115 + 105}{(115 + 105) + (900 + 800)} \times 100$$

$$= 11.4$$

112 (3) Streptococcus is a prokaryote (cocci) while all others are eukaryotes

113 (3) NCERT (XIIpg.no. 108)
The strand that has polarity from 3'to5' acts as template strand and is also referred to as template strand. The mRNA formed is complementary to template strand while same as that of coding strand

114 (3) NCERT (XI pg. no. 219)

115 (4) NCERT XII (pg.no.235)

116 (1) NCERT XI Pg.no.136
Centrioles : forms the basal body of cilia and flagella, Ribosomes: Both chloroplast and mitochondria have 70S type of ribosome while Lysosomes are optically active at acidic pH

117 (1) NCERT XI (Pg. no. 21)

118 (3) NCERT (XIIpg.no.31

119 (4) NCERT (XI pg. no. 86, 87, 88)

120 (1) NCERT (XI pg. no. 35)

121 (1) NCERT (XII pg.no. 117) - Regulation of lac operon by repressor is referred to as negative regulation
NCERT (XII pg.no. 118) - The human genome has approximately 20,000 to 25,000 genes

122 (2) NCERT XI (pg.no.233)

123 (1) NCERT (XI pg.no74) - (i) *Cassia*-Imbricate aestivation
NCERT (XI pg.no.74) - (ii) Lady finger- Twisted aestivation
NCERT (XI pg.no.74) - (iii) *Calotropis*- Valvate aestivation
NCERT (XI pgno.75) - (iv) Lily- Epiphyllous stamens
NCERT (XI pg.no.71) - (vi) Silk cotton- Palmately compound leaf

124 (2) NCERT (XI pg.no. 197)

125 (1) NCERT (XIIpg. no. 39)

126 (1) NCERT XI (pg. no. 168)

127 (3) NCERT XII (pg.no. 232)

128 (1) NCERT (XI pg.no.243)

129 (1) NCERT (XI pg.no. 67,68)

130 (3) NCERT (XIIpg.no.85)

131 (4) NCERT (XI pg.no.232)

132 (4) NCERT XII (pg.no.247)

133 (2) (i) *Usnea* - q. Fruticose lichen
(ii) *Ustilago* - r. Basidiomycetes
(iii) *Aspergillus* - s. Ascomycetes
(iv) *Colletotrichum* - p. Deuteromycetes

134 (2) The nutrient medium is barley malt for beer, potato for vodka, fermented cereals for whiskey and molasses for rum.

135 (2) NCERT (XI pg.no.81)

136. (4) NCERT XII pg.no.265

137. (3) NCERT XI pg.no. 203

138. (2) NCERT XII (pg.no.35)

139. (1) NCERT XII (pg.no.271)

140. (1) For cell A: DPD=OP-TP = 10-6=4
For cell B: DPD=OP-TP=10-4=6
As cell B has the lowest value of DPD, therefore water will move from cell A to cell B.

MHTS - 8 - Zoology (2017 Aspirants) - Solution

141. (4) Ctenophore exhibit only sexual reproduction.
142. (3) NCERT XII pg 48
143. (4) NCERT XI pg 52
144. (2) NCERT XII pg 43
145. (2) NCERT XII pg 53
146. (1) Mitosis
147. (3) NCERT XI pg 57
148. (2)
149. (2) NCERT XI pg 103
150. (3) NCERT XII pg 64
ICSI stands for Intra cytoplasmic sperm injection
151. (3) Metathoracic wings are used in flying
152. (4) NCERT XII pg 54
Oxytocin initiates uterine contraction
153. (3) NCERT XI pg 150
154. (4) NCERT XI pg 130
Brain of vertebrates are homologous
155. (4) NCERT XI pg 153
156. (1) Presence of tail in newly born human baby is ATAVISM
Reppearance of tail in human child is an exampled of atavism
157. (3)
158. (2) NCERT XII pg 136 - 137
159. (3) Nuclease is a part of pancreatic juice.
160. (3) NCERT XII pg 150
Gambusia is larvicidal fish and used to control malaria.
161. (4)
162. (2) NCERT XII pg 152
163. (4) NCERT XI pg 269
164. (3) NCERT XII pg 157
165. (1) NCERT XI pg 275
166. (4) NCERT XI pg 158, 159
167. (2) First heart sound “lubb” produced due to the closure of AV valves.
168. (2)
169. (1) NCERT XI pg 288
170. (1) NCERT XII pg 204
171. (2) NCERT XI pg 293
172. (2)
173. (2) NCERT XI pg 298
174. (3)
175. (4) Excessive uric acid causes gout
176. (1) δ – cells of pancreas secrete somatostatin.
177. (4)
178. (2) Hypothalamic hormones are stored in herring bodies
179. (3)
180. (2)