



RJ VISION PVT. LTD.
(MOST STABLE & INNOVATIVE INSTITUTE)

PT - 2
NEET
CBSE, GSEB

PCB
SOLUTION

COURSE NAME: 11TH

DATE : 24th July 2017

Physics :

1. (1)
2. (4)
3. (4)
4. (2)
5. (1)
6. (1)
7. (2)
8. (4)
9. (1)
10. (3)
11. (2)
12. (3)
13. (4)
14. (4)
15. (1)
16. (1)
17. (3)
18. (2)
19. (2)
20. (4)
21. (4)
22. (4)
23. (2)
24. (2)
25. (3)
26. (3)
27. (1)
28. (1)
29. (1)
30. (4)

Chemistry :**31. Sol. (3)**

$$M_1 V_1 + M_2 V_2 = MV$$

32. Sol. (1)

$$M_1 V_1 = M_2 V_2$$

$$0.01 \times 19.85 = M_2 \times 20$$

$$M_2 = 0.00925 ; M = 0.0099$$

33. Sol. (1)

$$\text{Molecular weight of } C_2H_5OH = 24 + 5 + 16 + 1 = 46$$

$$\text{Molecular mass of } H_2O = 18$$

$$414g \text{ of } C_2H_5OH \text{ has } \frac{414}{46} = 9 \text{ mole}$$

$$18g \text{ of } H_2O \text{ has } = \frac{18}{18} = 1 \text{ mole}$$

$$\text{Mole fraction of water} = \frac{n_1}{n_1 + n_2} = \frac{1}{1 + 9} = \frac{1}{10} = 0.1$$

34. Sol. (3)**35. Sol. (2)****36. Sol. (2)****37. Sol. (4)**

$$NV = N_1 V_1 + N_2 V_2 + N_3 V_3$$

$$\text{or, } 1000 N = 1 \times 5 + \frac{1}{2} \times 20 + \frac{1}{3} \times 30 \text{ or } N = \frac{1}{40}$$

38. Sol. (4)

$$W = \frac{N \times \text{eq. wt.} \times V(\text{ml})}{1000} = \frac{0.05 \times 49.04 \times 100}{1000} = 0.2452$$

39. Sol. (3)**40. Sol. (1)****41. Sol. (4)****42. Sol. (2)****43. Sol. (3)**

$$\text{M. eq. of } HCl = \text{M. eq. of } CaCO_3$$

$$N \times 50 = \frac{1}{50} \times 1000 ; N = \frac{1 \times 1000}{50 \times 50} = 0.4 N$$

44. Sol. (3)

$$\text{The density of solution} = 1.8 \text{ gm / ml}$$

$$\text{Weight of one litre of solution} = 1800 \text{ gm}$$

∴ Weight of H_2SO_4 in the

$$\text{solution} = \frac{1800 \times 90}{100} = 162 \text{ gm}$$

$$\therefore \text{Weight of solvent} = 1800 - 1620 = 180 \text{ gm}$$

$$\therefore \text{Molality} = \frac{1620}{98} \times \frac{100}{180} = 9.18$$

45. Sol. (2)

$$\text{Mole of urea} = \frac{6.02 \times 10^{20}}{6.02 \times 10^{23}} = 10^{-3} \text{ moles}$$

Conc. of solution (in molarity)

46. Sol. (4)

$$1000 \text{ ml of } 1 N \text{ oxalic solution} = 63 \text{ g}$$

$$500 \text{ ml of } 0.2 N \text{ oxalic acid solution}$$

$$= \frac{63}{1000} \times 500 \times 0.2 = 6.3 \text{ g.}$$

47. Sol. (1)**48. Sol. (3)**

$$\text{Mole fraction of } CO_2 = \frac{n_{CO_2}}{n_{CO_2} + n_{N_2}} = \frac{\frac{44}{44}}{\frac{44}{44} + \frac{14}{28}} = \frac{2}{3}$$

49. Sol. (1)**50. Sol. (2)****51. Sol. (3)**

$$\text{wt. of metallic chloride} = 74.5$$

$$\text{wt. of chlorine} = 35.5$$

$$\therefore \text{wt. of metal} = 74.5 - 35.5 = 39$$

Equivalent weight of metal

$$= \frac{\text{weight of metal}}{\text{weight of chlorine}} \times 35.5 = \frac{39}{35.5} \times 35.5 = 39$$

52. Sol. (4)

$$\therefore 17 \text{ gm } NH_3 \text{ contains } 6 \times 10^{23} \text{ molecules of } NH_3$$

$$\therefore 4.25 \text{ gm } NH_3 \text{ contains} = \frac{6 \times 10^{23}}{17} \times 4.25$$

$$\therefore \text{No. of atoms} = \frac{6 \times 10^{23} \times 4.25}{17} \times 4 = 6 \times 10^{23}$$

53. Sol. (4)**54. Sol. (1)**

$$6 \times 10^{23} \text{ molecules has mass} = 18 \text{ gm}$$

$$1 \text{ molecules has mass} = \frac{18}{6 \times 10^{23}} = 3 \times 10^{-23} \text{ gm}$$

$$= 3 \times 10^{-26} \text{ kg.}$$

55. Sol. (1)

$$14 \text{ gm } N^{3-} \text{ ions have} = 8 N_A \text{ valence electrons}$$

$$4.2\text{gm of } N^{3-} \text{ ions have } = \frac{8N_A \times 4.2}{14} = 2.4N_A$$

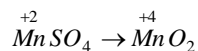
56. Sol. (2)

The acid is dibasic.

Molecular weight of $H_3PO_3 = 3 + 31 + 48 = 82$

$$\therefore \text{Equivalent weight} = \frac{\text{Molecular weight}}{\text{Basicity}} = \frac{82}{2} = 41.$$

57. Sol. (2)



Change of valency = $4 - 2 = 2$

$$\therefore \text{Equivalent weight} = \frac{M}{2}.$$

58. Sol. (1)

$\therefore 2.24\text{L of gas has mass} = 4.4\text{gm}$

$$\therefore 22.4\text{L of gas has mass} = \frac{4.4}{2.24} \times 22.4 = 44$$

So given gas is CO_2 because CO_2 has molecular mass=44.

59. Sol. (2)

$$N = \frac{10 \times \text{sp. gr. of the solution} \times \text{wt. \% of solute} \times \text{Mol. wt.}}{\text{Molecular wt. of solute} \times \text{Eq. wt.}}$$

$$N = \frac{10 \times 1.71 \times 80 \times 98}{98 \times 49} = 27.9$$

60. Sol. (1)

$$200\text{mg of } CO_2 = 200 \times 10^{-3} = 0.2\text{gm}$$

$$44\text{gm of } CO_2 = 6 \times 10^{23} \text{ molecules}$$

$$0.2\text{gm of } CO_2 = \frac{6 \times 10^{23}}{44} \times 0.2 = 0.0272 \times 10^{23}$$

$$= 2.72 \times 10^{21} \text{ molecule}$$

Now 10^{21} molecule are removed.

So remaining molecules

$$= 2.72 \times 10^{21} - 10^{21} = 10^{21}(2.72 - 1)$$

$$= 1.72 \times 10^{21} \text{ molecules}$$

Now, 6.023×10^{23} molecules = 1mole

$$1.72 \times 10^{21} \text{ molecules} = \frac{1 \times 1.72 \times 10^{21}}{6.023 \times 10^{23}} = 0.285 \times 10^{-2}$$

$$= 2.85 \times 10^{-3}.$$

Biology :

61. (4)
62. (2)
63. (2)
64. (3)
65. (4)
66. (2)
67. (1)
68. (1)
69. (4)
70. (2)
71. (3)
72. (2)
73. (3)
74. (2)
75. (4)
76. (4)
77. (3)
78. (4)
79. (4)
80. (4)
81. (3)
82. (4)
83. (4)
84. (4)
85. (1)
86. (3)
87. (1)
88. (3)
89. (1)
90. (2)
91. (2)
92. (3)
93. (3)
94. (4)
95. (3)
96. (1)
97. (1)
98. (2)
99. (3)
100. (4)
101. (1)
102. (3)
103. (1)
104. (3)
105. (1)
106. (1)
107. (4)
108. (4)

109. (1)
110. (2)
111. (2)
112. (4)
113. (4)
114. (2)
115. (4)
116. (3)
117. (1)
118. (2)
119. (2)
120. (1)