Neet chem 12

# Question 1

of urea is present in 1 litre of solution and of sucrose is separately dissolved in 1 litre of another sample of solution. The lowering of vapour pressure of first solution is:

1. Equal to that of second solution
2. Greater than that of second solution
3. Less than that of second solution
4. Double that of seconds solution

# Question 2

At a particular temperature, the vapour pressures of two liquids A and B are 120 mm and 180 mm of mercury respectively. If 2 moles of A and 3 moles of B are mixed to form an ideal solution, the vapour pressure of the solution at the same temperature will be: (in mm of mercury)

1. 156
2. 145
3. 150
4. 108

# Question 3

Which of the following 0.10m aqueous solution will have the lowest freezing point?

# Question 4

During osmosis, flow of water through a semi-permeable membrane is:

1. From a solution having higher concentration only.
2. From both sides of a semi-permeable membrane with equal flow rates.
3. From both sides of a semi-permeable membrane with unequal flow rates.
4. From a solution having lower concentration only.

# Question 5

If benzene in solution containing 30

1. 0.412
2. 0.326
3. 0.529
4. 0.458

# Question 6

Calculate the amount of benzoic acid required for preparing 250 of solution in methanol.

1. 4.680 g
2. 4.790 g
3. 4.875 g
4. 4.575 g

# Question 7

Which of the following pair will form an ideal solution?

1. Chlorobenzen, chloro ethane
2. Benzene, Toluene
3. Acetone, chloroform
4. Water,

# Question 8

Exactly of urea dissolved in of water gives a solution that boils at at 760 torr. The molecular weight of urea is . The boiling point elevation constant for water is:

1. 1.02
2. 0.51
3. 3.06
4. 1.51

# Question 9

Calculate the molarity and molality of aqueous ethanol ) solution by volume. (Density of solution

1. Molarity , Molality
2. Molarity , Molality
3. Molarity , Molality
4. None of the above

# Question 10

Calculate van’t Hoff factor for 0.2 m aqueous solution of KCl which freezes at −0.680C.(K=1.86 K kg mol)

# Question 11

Solubility of a gas in liquid increases with:

1. Increase of pressure and increase of temperature
2. Decrease of pressure and increase of temperature
3. Increase of pressure and decrease of temperature
4. Decrease of pressure and decrease of temperature

# Question 12

Value of Henry’s constant ?

1. Increases with increase in temperature
2. Decreases with increase in temperature
3. Remains constant
4. First increases then decreases

# Question 13

The colligative properties of a solution depend on:

1. The number of solute particles present in it
2. The chemical nature of the solute particles present in it
3. The nature of the solvent used
4. None of these

# Question 14

Van’t Hoff factor, when benzoic acid is dissolved in benzene, will be: