

Parishram (2025)

Chemistry
Solutions

DPP: 1

- Q1** Calculate the mass percentage of benzene (C_6H_6) and carbon tetrachloride (CCl_4) if 22 g of benzene is dissolved in 122 g of carbon tetrachloride.
- Q2** Calculate the mole fraction of benzene in solution containing 30% by mass in carbon tetrachloride.
- Q3** Calculate the molarity of each of the following solutions: (a) 30 g of $Co(NO_3)_2 \cdot 6H_2O$ in 4.3 L of solution (b) 30 mL of 0.5 M H_2SO_4 diluted to 500 mL.
- Q4** Which of the following terms are unitless?
(A) Molality (B) Molarity
(C) Mole fraction (D) None of these
- Q5** What will be the molality of the solution containing 18.25 g of HCl gas in 500 g of water?
(A) 0.1 (B) 1 M
(C) 0.5 m (D) 1 m
- Q6** If the concentration of glucose ($C_6H_{12}O_6$) in blood is 0.9 g L^{-1} , what will be the molarity of glucose in blood?
(A) 5 M (B) 50 M
(C) 0.005 M (D) 0.5 M



Answer Key

Q1 **15.2 to 15.3**

Q2 **0.45 to 0.46**

Q3 **(a) 0.023 to 0.024**
(b) 0.03

Q4 (C)

Q5 (D)

Q6 (C)

