Yakeen NEET 2.0 2026

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Some Basic Concept of Chemistry

DPP: 8

Q1 If sea water is assumed to contain 40 g of salt per 200 g of sea water then percentage by mass of salt present is;
(A) 15% (B) 40%
(C) 20% (D) 10%

Q2 Calculate the mass of cane sugar required to prepare 250 g of 25% cane sugar solution with water.
(A) 6.25 g
(B) 187.5 g
(C) 18.75 g
(D) 62.5 g

Q3 What should be the mass by volume $\%$ of a solution which is 20% mass by mass? (density of the solution is $1.02\ \mathrm{g/ml}$)
(A) 13.2% (B) 10.2%
(C) 12.4% (D) 20.4%

Q4 What is the concentration in mass/volume if 67 g of solute is dissolved to make 1.2 litre of solution?
(A) 6% (B) 8%
(C) 24% (D) 12%

Q5 What amount of solute is dissolved in 0.5 L of solution to make it $20\%(\mathrm{w/v})$?
(A) 120 g
(B) 150 g
(C) 100 g
(D) 200 g

Q6 A room has oxygen and nitrogen in mass ratio of 8 :7. Find mole fraction of oxygen gas.
(A) 0.2 (B) 0.3
(C) 0.5 (D) 0.8

Q7 A liquid solution consists of three liquids A, B and C with mole fractions of $\mathrm{A} = 0.3$ and mole fraction of $\mathrm{B} = 0.2$. Find mole fraction of C.
(A) 0.5 (B) 0.2
(C) 0.3 (D) 0.7

Q8 A solution contains 50 g of $\mathrm{CaCO_3}$ dissolved in 3 liters of water. Find the molarity of the solution formed.
(A) $\frac{1}{2}$ (B) $\frac{1}{3}$
(C) $\frac{1}{6}$ (D) $\frac{1}{4}$

Q9 Find out the molarity of 93% (w/W) $\mathrm{H_2SO_4}$ (density $= 1.84\ \mathrm{g/ml}$).
(A) $174.6\mathrm{M}$
(B) $17.46\mathrm{M}$
(C) $1.746\mathrm{M}$
(D) All of these

Q10 How much the amount of benzoic acid (C_6H_5COOH) required for preparing $250mL$ of $0.15M$ solution in methanol?
(A) $45.75g$ (B) $4.575g$
(C) $0.2M$ (D) $9.15g$

Q11 Molarity of $4\%(w/v)$ solution of $NaOH$ is:
(A) 0.1 (B) 0.5
(C) 0.001 (D) 1.0

Q12 What is the molality of a solution containing 2 moles of a solute dissolved in 500 g of a solvent?
(A) 3 (B) 2
(C) 1 (D) 4

Answer Key

Q1	(C)
Q2	(D)
Q3	(D)
Q4	(A)
Q5	(C)
Q6	(C)
Q7	(A)
Q8	(C)
Q9	(B)
Q10	(B)
Q11	(D)
Q12	(D)