

NEET SOME BASIC CONCEPTS OF CHEMISTRY — CONCENTRATION TERMS — PYQS

Max. Marks: 32
Questions: 8

Section A (MCQ) — 8 questions

Q.1 The amount of glucose required to prepare 250 mL of $\frac{M}{20}$ aqueous solution is :

(Molar mass of glucose : 180 g mol^{-1})

[RE-NEET (UG) 2024]

- (1) 2.25 g (2) 4.5 g (3) 0.44 g (4) 1.125 g

Scan or tap for the full solution



Q.2 In one molal solution that contains 0.5 mole of a solute, there is

[NEET (UG) 2022]

- (1) 500 mL of solvent (2) 500 g of solvent
(3) 100 mL of solvent (4) 1000 g of solvent

Scan or tap for the full solution



Q.3 6.02×10^{20} molecules of urea are present in 100 mL of its solution. The concentration of solution is

[NEET 2013]

- (1) 0.001 M (2) 0.1 M (3) 0.02 M (4) 0.01 M

Scan or tap for the full solution



Q.4 How many grams of concentrated nitric acid solution should be used to prepare 250 mL of 2.0 M HNO_3 ? The concentrated acid is 70% HNO_3 .

[NEET 2013]

- (1) 70.0 g conc. HNO_3 (2) 54.0 g conc. HNO_3
(3) 45.0 g conc. HNO_3 (4) 90.0 g conc. HNO_3

Scan or tap for the full solution



Q.5 25.3 g of sodium carbonate, Na_2CO_3 is dissolved in enough water to make 250 mL of solution. If sodium carbonate dissociates completely, molar concentration of sodium ion, Na^+ and carbonate ions, CO_3^{2-} are respectively (Molar mass of $\text{Na}_2\text{CO}_3 = 106 \text{ g mol}^{-1}$)

[AIPMT 2010 (Prelims)]

- (1) 0.955 M and 1.910 M
(2) 1.910 M and 0.955 M
(3) 1.90 M and 1.910 M
(4) 0.477 M and 0.477 M

Scan or tap for the full solution



Q.6 Concentrated aqueous sulphuric acid is 98% H_2SO_4 by mass and has a density of 1.80 g mL^{-1} . Volume of acid required to make one litre of 0.1 M H_2SO_4 solution is

[AIPMT 2007]

- (1) 16.65 mL (2) 22.20 mL
(3) 5.55 mL (4) 11.10 mL

Scan or tap for the full solution



Q.7 2.5 litre of 1 M NaOH solution is mixed with another 3 litre of 0.5 M NaOH solution. Then find out molarity of resultant solution.

[AIPMT 2002]

- (1) 0.80 M (2) 1.0 M (3) 0.73 M (4) 0.50 M

Scan or tap for the full solution



Q.8 Molarity of liquid HCl, if density of solution is 1.17 g/cc , is

[AIPMT 2001]

- (1) 36.5 (2) 18.25 (3) 32.05 (4) 42.10

Scan or tap for the full solution



ANSWER KEY

Ques.	1	2	3	4	5	6	7	8			
Ans.	1	2	4	3	2	3	3	3			