

C/100

04/10/22

Home Assessment

(1) (A) (2) (B) (3) (C)

$$(1) \text{ Concentration} = \frac{\text{mass of solute}}{\text{mass of solute} + \text{mass of solvent}} \times 100$$

Given, mass of salt is 2.5 gm and mass of water is 50 gm.

So, total mass of the solution = 50 gm + 2.5 gm = 52.5 gm

Hence, concentration

$$= \frac{2.5}{52.5} \times 100 = 4.7\%$$

$$(2) \text{ Concentration} = \frac{\text{mass of solute}}{\text{mass of solute} + \text{mass of solvent}} \times 100$$

Given mass of urea is 16 g and mass of solution is 120 g.

So, total mass of the solution = 120 g + 16 g = 136 g

$$= \frac{16}{136} \times 100 = 11.7\%$$

(3) volume of acetone = 25 mL

volume of solution = 150 mL

$$\text{Concentration} = \frac{\text{volume of solute}}{\text{volume of solute} + \text{volume of solvent}} \times 100$$

$$= \frac{25}{150} \times 100$$

$$= 16.667\%$$

(4) what happens when the temperature of a saturated sugar solution is increased?

Ans) when the temperature of a saturated sugar solution is increased, it would become unsaturated due to increase in solubility of the solute.

(5) choose one term from the following which includes the other three:-

aerosol, emulsion, colloid, sol.

Ans) colloid includes the other three. Aerosol, sol and emulsions are different types of colloids.

(6) Name the solvent you would use to separate a mixture of sulphur and carbon.

Ans) Carbon disulphide.

(7) Name the process you would use to separate a mixture of ammonium chloride and copper sulphate?

Ans) Sublimation.