

H.V
15.2.21

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HOME ASSIGNMENT

Q.1 Determine the concentration of a solution which carries 12 g of sugar being dissolved in 320 ml of water?

Ans - Mass. of solute = 12 g

Mass. of solvent = 320 ml
= 320 g

($\because 1 \text{ ml} = 1 \text{ g}$)

Mass. of solution = Mass. of solute + Mass. of solvent

$$\begin{aligned} &= (12 + 320) \text{ g} \\ &= \underline{332 \text{ g}} \end{aligned}$$

$$\left(\frac{m}{M}\right)\% = \frac{\text{Mass. of solute}}{\text{Mass. of solution}} \times 100$$

$$\begin{aligned} &\approx \frac{12}{332} \times 100 \\ &\approx \frac{16.6}{83} \end{aligned}$$

$$\approx \underline{3.61\%}$$

Q.2 Which factors affect the rate of solubility & how?

Ans- * Temperature

→ Solubility of solid in liquid usually increases or decreases in temperature.
E.g:- More salt can dissolve in warm water compared to cold water.

* Pressure

→ It is ineffective in dissolving solid in liquid rather more effective in dissolving gases in liquid directly.