

∴ (57) : By molarity equation : $M_1V_1 + M_2V_2 = M_3V_3$

$$\text{or, } 2 \times 20 + 0.5 \times 400 = M_3 \times 420$$

$$\text{or } 40 + 200 = M_3 \times 420$$

$$\text{or } M_3 = \frac{240}{420} = 57 \times 10^{-2} \text{ M}$$