Question 8

Calculate density of NH_3 at 30°C and 5 atm pressure.

TIPS/Formulae :

$$PV = \frac{m}{M} RT \implies P = \frac{m}{V} \times \frac{RT}{M} = d\frac{RT}{M} \therefore d = \frac{MP}{RT}$$

Substituting the value, we get

$$d = \frac{17 \times 5}{0.082 \times 303} = \textbf{3.42 g/litre}$$