Q Calculate pH of buffer soln contain 0.15 mole of NaOH & 0.25 Mole of NH_4Cl. K_b NH_4Cl = 1.98×10^{-5}

$$pOH = \log \frac{[Salt]}{[Base]} - \log K_b = \log \frac{0.25}{0.15} - \log 1.8 \times 10^{-5}$$

$$= \log 5 - \log 3 - \log (1.8 \times 10^{-5}) = 0.6989 - 0.4771 + 4.7448$$

$$= 4.966$$

$$pH = 14 - 4.966 = 9.034$$