- 5. Which of the following pairs, in equimolar amounts, would result in an acidic buffer solution?
 - (i) CH,COOH/CH,COO-
 - (ii) H₂CO₃/HCO₃-
 - (iii) NH₄/NH₄+
 - (iv) H₂SO₄/HSO₄
 - (v) CH₃NH₂/CH₃NH₃⁺
 - (a) i, ii and iv
 - (b) iii and v
 - (c) ii, iii and v
 - (d) i and ii

Questions 6 to 8 refer to the following reaction at equilibrium in a closed reaction vessel.

$$2 SO_2(g) + O_2(g) \Rightarrow 2 SO_3(g)$$
 $\Delta H = -196 \text{ kJ mol}^{-1}$