Textbook Page 436 #1, 5ab, 6abc
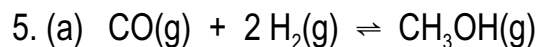ANSWERS

1. (a) $K = \dfrac{[SiCl_4(g)]\,[H_2(g)]}{[SiH_2(g)]\,[Cl_2(g)]^2}$

   (b) $K = \dfrac{[PCl_3(g)]^2\,[Br_2(g)]^3}{[PBr_3(g)]^2\,[Cl_2(g)]^3}$

   (c) $K = [H_2O(g)]$

   (d) $K = [CO_2(g)]\,[H_2O(g)]$

5. (a) $CO(g) + 2\,H_2(g) \rightleftharpoons CH_3OH(g)$

   (b) Because $K \ll 1$, the equilibrium concentration of methanol (the product) will be relatively low (i.e., the equilibrium favours the reactants).

6. (a) $C(s) + CO_2(g) \rightleftharpoons 2\,CO(g)$

   (b) $K = \dfrac{[CO(g)]^2}{[CO_2(g)]}$

   (c) More carbon monoxide is produced at $1000\,^\circ$C. The larger K-value at $1000\,^\circ$C means that the products are more favoured.