Reversible and Irreversible reaction

1. A reversible reaction is one which
   (a) Proceeds in one direction
   (b) Proceeds in both directions
   (c) Proceeds spontaneously
   (d) All the statements are wrong

2. Which of the following is a characteristic of a reversible reaction
   (a) Number of moles of reactants and products are equal
   (b) It can be influenced by a catalyst
   (c) It can never proceed to completion
   (d) None of the above

3. The reaction $CaCO_3 \rightleftharpoons CaO + CO_2(g)$ goes to completion in lime kiln because
   (a) Of the high temperature
   (b) CaO is more stable than $CaCO_3$
   (c) CaO is not dissociated
   (d) CO_2 escapes continuously

4. In the given reaction $N_2 + O_2 \rightleftharpoons 2NO$, equilibrium means that
   (a) Concentration of reactants is changing where as concentration of products is constant
   (b) Concentration of all substances is constant
   (c) Concentration of reactants is constant where as concentration of products is changing
   (d) Concentration of all substances is changing

5. Which of the following reactions is reversible
   (a) $H_2 + I_2 \longrightarrow 2HI$
   (b) $H_2SO_4 + Ba(OH)_2 \longrightarrow BaSO_4 + 2H_2O$
   (c) $NaCl + AgNO_3 \longrightarrow NaNO_3 + AgCl$
   (d) $Fe + S \longrightarrow FeS$

6. All reactions which have chemical disintegration
   (a) Is reversible
   (b) Is reversible and endothermic
   (c) Is exothermic
   (d) Is reversible or irreversible and endothermic or exothermic

7. Amongst the following chemical reactions the irreversible reaction is
   (a) $H_2 + I_2 \rightleftharpoons HI$
   (b) $AgNO_3 + NaCl \rightleftharpoons AgCl + NaNO_3$
   (c) $CaCO_3 \rightleftharpoons CaO + CO_2$
   (d) $O_2 + 2SO_2 \rightleftharpoons 2SO_3$