## **Concepts and Formulas**

- 1. Some chemical reactions can be thermodynamically unstable but kinetically stable such as conversion of diamond into graphite.
- 2. As the chemical reaction progress in forward direction, concentration of reactants decreases and concentration of products increases.
- 3. Catalyst does not chemically participate in a chemical reaction.
- 4. Catalyst does not effect the enthalpy of overall reaction since it alters the activation energy of reactants and products by same amount.
- 5. Catalyst provides an alternative pathway to a chemical reaction.
- 6. Catalyst does not alters Gibbs Free Energy of a chemical reaction.