Class-XII
CHEMISTRY (043)
Chapter-4 (Chemical Kinetics)
ASSIGNMENT-6
(One mark)

Multiple choice questions:

1. Rate of reaction is defined as:
   (a) Decrease in the concentration of a reactant
   (b) Increase in the concentration of a product
   (c) Change in the concentration of any one of the reactants or products per unit time
   (d) All the above three are correct
2. The rate of reaction of spontaneous reaction is generally very slow. This is due to the fact that:
   (a) the equilibrium constant of the reaction is less than 1
   (b) the activation energy of the reaction is large
   (c) the reaction are exothermic
   (d) the reaction are endothermic
3. For the reaction A+B+C→ product, Rate=K$[A]^{1/2}[B]^{1/3}$[C].The order of reaction is:
   (a) 3 (b) 1
   (c) 5/6 (d) 11\6
4. The rate constant of a reaction changes when…..
   (a) Pressure is changed (b) concentration of reactant
   (c) Temperature is changed (d) a catalyst is added
5. A zero order reaction is one whose rate is independent of:
   (a) Volume of reaction vessel (b) Concentration of reactant
   (c) Temperature (d) pressure of light
6. A reaction involving two different reactants can never be a:
   (a) Bimolecular reaction (b) unimolecular reaction
   (c) First order reaction (d) second order reaction
7. The law of a reaction is rate=k $[A]^2[B]$.on doubling the concentration of both A and B the rate 'X' will become:
   (a) X^3 (b) 8X
   (c) $4X^2$ (d) 9X
8. The rate constant of a reaction has same units as the rate of reaction. What is the order of the Reaction?
   (a) Three (b) Two
   (c) One (d) Zero

(Two mark)

9. Define (a) Order of reaction (b) Activation energy
10. Write two differences between order of reaction and molecularity of reaction.
11. Define the following terms :(i) Pseudo first order reaction (ii) Half life period of Reaction ($t_{1/2}$)
12. A reaction is of second order with respect to a reactant. How is the rate of reaction affected if The concentration of the reactant is reduced to half? What is the unit of the rate constant for Such a reaction?
13. (i) Explain why H2 and O2 do not react at room temperature.
    (ii) Write the rate equation for the reaction $A_2 + 3B_2 \rightarrow 2C$, if the overall order of the reaction is zero.
14. What do you understand by the rate law and rate constant of a reaction? Identify the order of Reaction if the units of its rate constant are : (i)$L^{-1}mol\ s^{-1}$ (ii) $L\ mol^{-1}\ s^{-1}$
15. Differentiate between rate of reaction and reaction rate constant.

Books prescribed for class XII: NCERT TEXT BOOK, ncert.nic.in, i-dream app,e- Books are available on Diksapp (www.cbse.ac.in), I-dream app