

**Class-12**  
**CHEMISTRY (043)**  
**Chapter-4 (Chemical Kinetics)**  
**ASSIGNMENT-7**  
**(One mark)**

Fill in the blanks:

1. The rate of reaction at a particular instant of time is called-----rate.
2. The experimentally observed dependence of the reaction rate on the concentration of the Reactant is expressed in the form of-----
3. The rate constant of a reaction is equal to rate of reaction when the concentration of each Reactant is expressed in the form of-----
4. The rate of a reaction.....with increase in concentration of reactant.
5. Order of a reaction can be.....or.....
6. The plot of log R vs S is straight line for.....order reaction.
7. The.....step is the rate determining step of reaction.
8. The reaction which occurs in two or more steps are called.....reaction.
9. Molecularity is a..... concept
10. Molecularity is a.....number and cannot be.....
11. The half-life of a.....order reaction is directly proportional to initial concentration of Reactant.
12. The decomposition of ammonia on hot platinum surface at high pressure is an example of.....order reaction
13. The first order reaction having molecularity.....than one are called pseudo first order Reactions.
14. The minimum energy required for molecules to enter into chemical reaction is called.....
15. A reaction involving covalent reactant involves.....of bond.

**(Two mark)**

16. Define half-life of a reaction. Write the expression of half –life for:  
(a) Zero order reaction    (b) first order reaction
17. A first order reaction is 50% complete in 25 minute. Calculate the time 80% completion of The reaction.
18. The rate constant of a first order reaction increases from  $2 \times 10^{-2}$  to  $4 \times 10^{-2}$  when the Temperature changes from 300K to 310K. Calculate the energy of activation (Ea).  
(log 2=0.301, log 3=0.4771, log 4=0.6021)
19. For a reaction, the energy of activation is zero. What is the value of rate constant at 300K, if  $K=1.6 \times 10^6 \text{ s}^{-1}$  at 280K? [ $R=8.31 \text{ J K}^{-1} \text{ mol}^{-1}$ ]

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

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