

CHEMISTRY CHAPTER 11

(Reaction Kinetics)

Short Questions:

1. Define rate of chemical reaction and give its units.
2. Define specific rate constant. Give equation to support your answer.
3. What happens to the rate of chemical reaction with the passage of time?
4. Define order of reaction with the help of an example.
5. The radioactive decay is always a first order reaction. Give reason.
6. Define with example 2nd order reaction?
7. What is specific rate constant or velocity constant?
8. What is half life period? Give example.
9. How surface area affects the rate of reaction? Give one example.
10. Define activation energy and activated complex.
11. What do you mean by activation energy of a reaction?
12. How does a catalyst affect a reversible reaction?
13. How enthalpy change of a reaction and energy of activation are distinguished?
14. Define and give an example of the process of activation of a catalyst.
15. Define homogeneous catalysis. Give two examples.
16. What is catalytic poisoning? Give two examples.
17. What are enzymes? How they act as catalysts?
18. Write down any two characteristics of enzyme catalysis.
19. Enzymes are specific in action. Justify.
20. What is auto catalyst? Give an example.
21. What is auto catalysis? Give example to support answer.

Long Questions:

1. How does Arrhenius equation help us to calculate the energy of activation of a reaction?
2. How rate of reaction depends on the following factors?
 - a. Nature of reactants
 - b. Surface area
3. Explain effect of temperature on rate of reaction.
4. What is order of reaction? Describe two methods (half life method and large excess method) for finding the order of reaction.
5. Describe half life method for the determination of order of reaction.
6. Define order of reaction and explain 2nd order and zero order reactions.
7. Write a brief note on the following:
 - a. Homogeneous catalysis
 - b. Heterogeneous catalysis
8. What are enzymes? Write any four characteristics of enzyme catalysis.
9. Explain any four characteristics of catalysts.
10. What is catalytic poisoning? Give two examples.
11. What are enzymes? Give examples in which they act as catalyst. Mention the characteristics of enzymes.