

Model Question paper
Chemical Kinetics - I 3

11th Standard

Chemistry

Reg.No. :

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I. Answer all the questions.

II. Use blue pen only.

Time : 00:50:00 Hrs

Total Marks : 36

Part - A

3 x 1 = 3

- 1) $\text{mol.dm}^{-3}\text{sec}^{-1}$ is the unit of
(a) rate (b) rate constant (c) order (d) active mass
- 2) The elementary step with slow rate represents
(a) rate determining step (b) maximum rate step (c) third order rate (d) overall order
- 3) Molecularity is determined for
(a) an elementary reaction (b) an overall reaction (c) an over all stoichiometric reaction (d) a fraction order reaction

Part - B

3 x 2 = 6

- 4) Define half life period.
- 5) Name the factors that affect the rate of reaction.
- 6) What is molecularity?

Part - C

4 x 3 = 12

- 7) What is a rate determining step?
- 8) List the factors on which an order of the reaction depend.
- 9) Define the rate of a reaction.
- 10) Write the rate law of $pA + qB \rightarrow lC + mD$ reaction.

Part - D

3 x 5 = 15

- 11) Describe the factors on which the rate of a reaction depends.
- 12) The time for half life of a first order reaction is 1 hr. what is the time taken for 87.5% completion of the reaction?
- 13) The following results were obtained for the saponification of ethyl acetate using equal concentrations of ester and alkali.

Time	0	4.89	10.07	23.66	∞
Acid in ml	47.65	38.92	32.62	22.58	11.84
