

SCHOOL OF APPLIED SCIENCES DEPARTMENT OF CHEMISTRY KALINGA INSTITUTE OF INDUSTRIAL TECHNOLOGY, DEEMED TO BE UNIVERSITY, BHUBANESWAR - 751024

CHEMISTRY ASSIGNMENT – 2

CHEMICAL KINETICS

Answer all the questions

- 1. State and explain collision theory of chemical reaction with the rate expression of biomolecular gaseous reaction.
- 2. Explain Lindemann theory of unimolecular reactions with the rate expression.
- 3. Derive the rate expression for consecutive reactions.
- 4. Explain Type-I and Type-III complex reactions with examples.
- 5. What do you mean by homogenous and heterogenous catalysis? Explain the Langmuir-Hinshelwood mechanism for heterogenous catalysis.
- 6. Briefly explain enzyme catalysis and derive Michaelis-Menten equation for enzyme catalysis.

N.B.

- 1. The last date for submission of this assignment is on or before June 1, 2023 by 6 pm. There will be mark deduction because of late submission.
- 2. The assignment should be handwritten, and hard copies should be submitted.
- 3. All the answers should be in written in details.
- 4. The whole assignment needs to be done in A4 paper with a proper cover stating the assignment name and number, your roll number, name of the student, section, semester and year, and date of submission. (A sample copy is attached below)



SCHOOL OF APPLIED SCIENCES DEPARTMENT OF CHEMISTRY KALINGA INSTITUTE OF INDUSTRIAL TECHNOLOGY, DEEMED TO BE UNIVERSITY, BHUBANESWAR - 751024

Chemistry Assignment -2

CHEMICAL KINETICS

Roll Number

Name of the Student

Section

Semester and Year

Date of Submission