ANNAMALAI UNIVERSITY

(Accredited with 'A⁺' Grade by NAAC) CENTRE FOR DISTANCE AND ONLINE EDUCATION Annamalainagar – 608 002

Semester Pattern: 2024-25 [January Session] Instructions to submit First Semester Assignments

- 1. Following the introduction of semester pattern, it becomes **mandatory for** candidates to submit assignment for each course.
- Assignment topics for each course will be displayed in the A.U, CDOE website (www.audde.in).
- Each assignment contains 5 questions and the candidate should answer all the 5 questions. Candidates should submit assignments for each course separately. (5 Questions x 5 Marks =25 marks).
- Answer for each assignment question should not exceed 4 pages. Use only A4 sheets and write on one side only. Write your Enrollment number on the top right corner of all the pages.
- 5. Add a template / content page and provide details regarding your Name, Enrollment number, Programme name, Code and Assignment topic. Assignments without template / content page will not be accepted.
- 6. Assignments should be handwritten only. Typed or printed or photocopied assignments will not be accepted.
- Send all First semester assignments in one envelope. Send your assignments by Registered Post to The Director, Centre for Distance and Online Education, Annamalai University, Annamalai Nagar – 608002.
- 8. Write in bold letters, "ASSIGNMENTS FIRST SEMESTER" along with PROGRAMME NAME on the top of the envelope.
- 9. Assignments received after the **last date with late fee** will not be evaluated.

Date to Remember

Last date to submit First semester assignments : **30.04.2025** Last date with late fee of Rs.300 (three hundred only) : **15.05.2025**

> Dr. T.SRINIVASAN Director

CENTRE FOR DISTANCE AND ONLINE EDUCATION S 020 - M .Sc CHEMISTRY FIRST YEAR - I SEMESTER ASSIGNEMENT TOPIC (JANUARY SESSION 2025)

020E1110: ORGANIC CHEMISTRY-I

- 1. Discuss the organic spiro compounds with examples.
- 2. What are carbocations? And explain the stability order of carbocations with using various factors.
- 3. Explain the E_2 elimination mechanism involved in organic reactions.
- 4. Describe walden inversion by using an example.
- 5. Write a note on Norrish type I and type II photochemical reactions.

020E1120: INORGANIC CHEMISTRY-I

- 1. Discuss the following with suitable examples (i) Fissile and Fertile materials (ii) Electron capture reactions
- 2. Write a note on colour, absorption spectra and magnetic properties of actinide ions.
- 3. What are ionophores? Discuss their types with an example.
- 4. Explain the structure and activities of the following enzymes.
 - (i) Carbonic anhydrase
 - (ii) Carboxy peptidase
- 5. Describe about synthesis and salient features of zeolites.

020E1130: PHYSICAL CHEMISTRY-I

- 1. Derive any four Maxwell Relationships.
- 2. Explain the determination of activity co-efficient of electrolytes.
- 3. Discuss the salient features of Debye theory of heat capacity of solids.
- 4. Explain briefly the following
 - (i) Photosensitizer
 - (ii) Chemiluminescence
- 5. How can you explain the lithographic technique?

020E1140: APPLIED CHEMISTRY

- 1. Discuss the various types of polymerisation with suitable example.
- 2. What is corrosion? Explain how to control it?
- 3. Write elaborately the physical and chemical quality measurements of water and discuss their importance.
- 4. (i) Explain the fractional distillation method of crude oil.

(ii) Give the composition of Blue gas and its preparation.

5. Discuss the preparation methods, advantages and disadvantages of ammonium chloride fertilizer.