

**Semester Pattern: 2024-25**

**Instructions to submit Second Semester Assignments**

1. Following the introduction of semester pattern, it becomes **mandatory for candidates to submit assignment for each course.**
2. Assignment topics for each course will be displayed in the A.U, CDOE website (**[www.audde.in](http://www.audde.in)**).
3. 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).
4. 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.
7. **Send all Second semester assignments in one envelope.** Send your assignments by Registered Post to The Director, Center for Distance and Online Education, Annamalai University, Annamalai Nagar – 608002.
8. Write in bold letters, “**ASSIGNMENTS – SECOND 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 Second semester assignments : **15.04.2025**

Last date with late fee of Rs.300 (three hundred only) : **30.04.2025**

**Dr. T. SRINIVASAN**  
Director

# **CENTRE FOR DISTANCE AND ONLINE EDUCATION**

## **S020 – M.Sc. CHEMISTRY**

### **FIRST YEAR – II SEMESTER**

#### **ASSIGNMENT TOPICS**

#### **020E1210: ORGANIC CHEMISTRY-II**

1. Explain the mechanism of Beckmann and Bayer-Villiger rearrangement reaction.
2. Discuss the conformation and stereochemistry of cis and trans-decalin and methyl decalin.
3. Discuss the structure of RNA and DNA.
4. Give a brief note on synthesis and applications of azepines.
5. Explain the structure and synthesis of papaverine.

#### **020E1220: INORGANIC CHEMISTRY-II**

1. Explain the stereoisomerism of co-ordination complexes.
2. Write a note on Molecular orbital concepts of octahedral and tetrahedral complexes.
3. Discuss the twist mechanism for racemisation.
4. Give a brief account on “Electron transfer reaction”.
5. Explain the photochemical reactions involving Ruthenium (II) bipyridal complex.

#### **020E1230: PHYSICAL CHEMISTRY-II**

1. Explain briefly about the primary and secondary salt effects.
2. How the fast chemical reactions are studied by flash photolysis method? Discuss it.
3. Write briefly about schrodinger’s time-independent wave equation and its application to particle in a one-dimensional box.
4. Discuss the slater determinantal wave function.
5. What is self-consistent field theory? And explain it.