A N N A M A L A I U N I V E R S I T Y

(Accredited with 'A^{+}' Grade by NAAC)

CENTRE FOR DISTANCE AND ONLINE EDUCATION

Annamalainagar – 608 002

Assignment Submission Instructions for Second Semester Students of the Academic Year 2026-27 (July Session)

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**).
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, Centre 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 : 15.10.2026
Last date with late fee of Rs.300 (three hundred only) : 30.10.2026

Dr. S.ARULSELVI
Director

CDOE (chemistry wing)-Assignments

IIstsemester

Course code :020E1210 - S210(Organic chemistry) - II

1. Draw the orbital correlation diagram for con-and dis- rotator ring closures of 1,3,5-hexatriene and explain which is thermally allowed and which is photo chemically allowed
2. Exemplify the confirmational analysis of disubstituted ethanes in detail.
3. Write the method for the synthesis of each of the following dyes: malachite green, crystal violet fluorescein, alizarin and indigo.
4. Explain the synthesis and significant reactions of benzofuran and benzothiophene
5. Discuss the structure of chloroamphenicol

Course code : 020E1220 - S220 (Inorganic chemistry) - II

1. Elaborate on the nomenclature of coordination compounds and the factors influencing their stability.
2. What are the factors affecting CFSC values.
3. Explain the mechanism of base hydrolysis of CO (III) complexes.
4. Write short note on inner and outer sphere mechanism.
5. Elucidate the excited states of metal complexes and their role in photo inorganic chemistry

Course code : 020E1230- S230 (physical chemistry) - II

1. Discuss acid base catalysis using Bronsted relationships and explain how catalytic coefficients are determined
2. Elaborate on the Rice-Ramsperger-Kassel (RRK) theory and discuss its significance in chemical dynamics
3. Set up and solve the Schrödinger equation for a particle in one dimensional box .
4. Explore in depth the linear combination of atomic orbital- molecular orbital (LCAOMO) treatment of the hydrogen molecule
5. Using perturbation theory, explain how energy corrections are made for the helium atom.