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

Semester Pattern: 2025-26

Instructions to submit First 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**).
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 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 : 01.11.2025
Last date with late fee of Rs.300 (three hundred only) : 15.11.2025

DIRECTOR
CDOE

CENTRE FOR DISTANCE AND ONLINE EDUCATION
S020 - M.Sc. CHEMISTRY
FIRST YEAR – I SEMESTER (2025-2026)
ASSIGNMENT QUESTION

020E1110: ORGANIC CHEMISTRY –I

1) Discuss the modern theory of Aromaticity and Huckel's rule.
2) Explain S_N1 organic reaction mechanism with examples.
3) How does the Bredt's rule applies to the stability of cyclic systems during elimination reactions.
4) Discuss the walden inversion reactions.
5) Summarize the application of photochemical reactions in organic synthesis.

020E1120: INORGANIC CHEMISTRY –I

1) Discuss briefly about nuclear fission and theory of nuclear fission.
2) Explain the extraction and separation methods of lanthanides.
3) Discuss the role of alkali and alkaline earth metals in biological system.
4) Elaborate on the anticancer activity of pt-complexes along with their mechanism.
5) Discuss the following
   (i) Synthesis of $MgAl_2O_4$ (a spinel)
   (ii) Synthesis of Zeolite.

020E1130: PHYSICAL CHEMISTRY –I

1) Discuss the third law of thermodynamics, and discuss the calculation of entropy for solid, liquid and gas.
2) How do you determine the fugacity of gas.
3) Explain in detail about the Maxwell – Boltzmann, and Fermi-dirac statistics.
4) Discuss the mechanism of semiconductor photocatalysis process.
5) What are carbon nano tubes? and explain the synthesis methods of this tubes.

020E1140 APPLIED CHEMISTRY

1) Discuss the various types of plastics with examples.
2) What is electroplating process? and explain the types of electroplating methods.
3) Elaborate the heavy metal pollution and its prevention methods.
4) Discuss the classification of coal by Rank.
5) Evaluate the effectiveness of different fertilizers for improving the soil quality.