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: 2023-24

[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.**
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, Center 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 : **15.04.2024**
Last date with late fee of Rs.300 (three hundred only) : **30.04.2024**

Dr. T. SRINIVASAN
Director

M.Sc Chemistry (I Semester) – First year

Assignments Topics (**January session**)

(AY - 2023-2024)

Organic Chemistry –I (Course Code: 020E1110)

1. Describe the modern theory of aromaticity.
2. Discuss briefly about carbanions and carbenes.
3. Explain the elimination reactions with mechanism.
4. Briefly discuss asymmetric transformation and asymmetric synthesis.
5. Summarize the Norrish type – I and type – II photochemical reactions of ketones.

Inorganic Chemistry –I (Course Code: 020E1120)

1. Discuss briefly about neutron activation analysis and isotropic dilution method.

2. Describe the compounds of Lanthanides.

3. Summarize the biological importance of alkali and alkaline earth metals.

4. Explain the different types of nitrogen fixation.

5. Discuss the following
   a) Synthesis of $MgAl_2O_4$ (a spinel)
   b) Synthesis of Zeolite.

Physical Chemistry –I - (Course Code: 020E1130)

1. Discuss the third law of thermodynamics.
2. Summarize the entropy production in chemical reactions.
3. Explain Maxwell – Boltzmann distribution law.
4. Elaborate the types of photophysical pathways.
5. Discuss about the structure, properties, types and uses of Fullerene.

Applied Chemistry –I - (Course Code: 020E1140)

1. Discuss the preparation, properties and uses of Nylon – 66 polymer.
2. Summarize the process involved in electroplating technique.
3. Write the different techniques used in heavy metal analysis.
4. What are the classification of fuels and discuss their calorific values.
5. Explain the manufacturing process of urea.