

ALLAMA IQBAL OPEN UNIVERSITY ISLAMABAD
(Department of Science Education)
Faculty of Education

WARNING

- 1. PLAGIARISM OR HIRING OF GHOST WRITER(S) FOR SOLVING THE ASSIGNMENT(S) WILL DEBAR THE STUDENT FROM AWARD OF DEGREE/CERTIFICATE IF FOUND AT ANY STAGE.**
- 2. SUBMITTING ASSIGNMENT(S) BORROWED OR STOLEN FROM OTHER (S) AS ONE'S OWN WILL BE PENALIZED AS DEFINED IN "AIU PLAGIARISM POLICY".**

Course: Chemistry-IV (6459)

Semester: Spring, 2025

Level: B. Ed (2.5/4 Years)

Please read the following instructions for writing your assignments. (AD, BS, BEd, MA/MSc, MEd) (ODL Mode).

1. All questions are compulsory and carry equal marks but within a question the marks are distributed according to its requirements.
2. Read the question carefully and then answer it according to the requirements of the questions.
3. Avoid irrelevant discussion/information and reproducing from books, study guides, or allied material.
4. Handwritten scanned assignments are not acceptable.
5. Upload your typed (in Word or PDF format) assignments on or before the due date.
6. Your own analysis and synthesis will be appreciated.
7. Late assignments can't be uploaded at LMS.
8. The students who attempt their assignments in Urdu/Arabic may upload a scanned copy of their handwritten assignments (in PDF format) on University LMS. The size of the file should not exceed 5MP.

ALL QUESTIONS ARE COMPULSORY AND CARRY EQUAL MARKS

Note:

- Response to each question should not be less than 1200 words failing which marks will be deducted accordingly.
- Please write in your own words after reading the study guides and the related material. Also, avoid irrelevant information and reproduction from any text and critically analyze the questions asked for.
- Frequently visit the website for the latest developments and sources. Provide the source while quoting any material. Use APA style. Also, develop a reference list for each question separately.
- No marks will be given for reproduction from the text or from elsewhere.
- Please write your assignment in legible handwriting.
- Please submit the assignment on or before the specified date.
- Late assignments will not be accepted in any case.

Total Marks: 100

Pass Marks: 40

Assignment No.1
(Unit No.1-5)

- Q.1** Define the photoelectric effect and explain its discovery. Illustrate your answer with relevant examples. (20)
- Q.2** Discuss the various factors that influence the position of equilibrium in a chemical reaction. (20)
- Q.3** Define errors in the context of chemical analysis. Explain how errors can be identified and minimized during a chemical analysis process. (20)
- Q.4** What is infrared spectroscopy? Describe the different types of molecular vibrations observed in infrared spectroscopy. (20)
- Q.5** Discuss the various methods used to prepare carboxylic acids, highlighting their respective reactions and mechanisms. (20)

Total Marks: 100

Pass Marks: 40

Assignment No.2
(Unit 6-9)

- Q.1** Discuss monosaccharides with suitable examples. Outline their key reactions and provide relevant details. (20)
- Q.2** Define polymerization and elaborate on the process of free radical chain polymerization, explaining its mechanisms and applications. (20)
- Q.3** Define ceramics and explain their preparation methods, along with their various uses in different industries. (20)
- Q.4** Describe the different types of semiconductors, highlighting their properties and applications. (20)
- Q.5** Define the environment and explain the role and responsibilities of humans in preserving and improving the environment. (20)