

Reg. No.:



Y7515

Name:

University of Kerala

Fourth Semester FYUGP Degree Examination, May 2026

Skill Enhancement Courses

CHEMISTRY

UK4SECCHE200 - WATER QUALITY ANALYSIS

Academic Level: 200-299

2024 Admission

Time: 1 Hour

Max. Marks: 28

Part A. 4 Marks ,Time 5 Minutes (Cognitive Level :Remember(RE)/Understand(UN))Objective Type 1 mark each,
Answer all questions

Qn No.	Question	CL	CO
1	Define COD in water quality analysis.	RE	3
2	Define sampling.	RE	4
3	Give an example for a chemical contaminant in water which causes cancer.	UN	2
4	Compare the terms acidity and alkalinity in the context of water quality analysis.	UN	1

Part B. 8 Marks ,Time 15 Minutes (Cognitive Level :Understand(UN)/Apply(AP))Short Answer 2 marks each, Answer all questions

Qn No.	Question	CL	CO
5	Differentiate between temporary hardness and permanent hardness.	UN	2
6	Cite the significance of phosphate in aquatic ecosystems.	UN	3
7	Implement precautions to avoid contamination during water sampling for analysis.	AP	4
8	Explain the procedure for detecting dissolved carbon dioxide in a water sample.	AP	1

Part C. 16 Marks ,Time 40 Minutes (Cognitive Level :Apply(AP)/Analyse(AN)/Evaluate(EV))/Long Answer 4 marks each, Answer all questions choosing among options* within each question

Qn No.	Question	CL	CO
9	A) Demonstrate how alkalinity acts as a buffering agent in natural water systems. OR B) Explain how taste changes in water can be linked to dissolved minerals and gases.	AP	1, 1

Qn No.	Question	CL	CO
10	A) Examine the persistence of organic contaminants in water and infer their environmental impact. OR B) Differentiate the health effects of heavy metals and organic pollutants present in drinking water.	AN	2, 2
11	A) Describe the various methods used for hardness estimation and their industrial applications. OR B) Compare and evaluate the different physical and chemical parameters in determining drinking water safety.	EV	3, 3
12	A) As a project fellow in Pollution Control Board, prepare a preplan work chart you would adopt for the analysis of a water sample from nearby canal which have a high-end pollution index. OR B) Generate a workflow for preparation, sampling, labeling, and preservation of water samples collected from multiple sites.	CR	4, 4