



U7467



Reg. No.:

Name:.....

University of Kerala

First Semester Degree Examination, November 2024

Four Year Under Graduate Programme

Multi Disciplinary Course

CHEMISTRY

UK1MDCCHE100- FUNDAMENTAL ASPECTS OF ENVIRONMENTAL CHEMISTRY
Academic Level: 100-199

Time: 1½ Hours

Max. Marks: 42

Part A.

Answer All Questions, Objective Type. 1 Mark Each.
(Cognitive Level: Remember/Understand)
6 Marks. Time: 6 Minutes

Qn No.	Question	Cognitive Level	Course Outcome (CO)
1.	Give the percentage of the major components in the atmosphere.	Remember	CO-1
2.	What is the term used to describe harmful substances introduced into the environment?	Remember	CO-2
3.	What is electrodialysis?	Understand	CO-3,4
4.	What is the meaning of disaster?	Understand	CO-5,6
5.	Give example for quaternary consumers.	Understand	CO-1
6.	What is smog?	Understand	CO-2

Part B.

Answer All Questions, Short Answer. 2 Marks Each.
(Cognitive Level: Understand/Apply)
8 Marks. Time: 24 Minutes

Qn. No.	Question	Cognitive Level	Course Outcome (CO)
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7.	What is the role of atmosphere in maintaining heat balance of earth?	Understand	CO-1
8.	What is acid rain?	Understand	CO-2,6
9.	What is operation blossom spring?	Apply	CO-5
10.	What is dissolved oxygen (DO)? Describe its significance in water pollution.	Apply	CO-3

Part C.

Answer all 4 Questions, choosing among options within each question.

Long Answer. 7 marks each.

(Cognitive Level: Understand/Apply)

28 Marks. Time: 60 Minutes

Qn. No.	Question	Cognitive Level	Course Outcome (CO)
11.	<p>a) Describe the concept of ecological succession and explain how it impacts the formation and development of food chains within an ecosystem.</p> <p style="text-align: center;">OR</p> <p>b) Explain how temperature and atmospheric composition vary across different layers of atmosphere.</p>	Understand	CO-1
12.	<p>a) Discuss the role of carbon dioxide (CO₂) as a greenhouse gas in the context of global warming and climate change. Explain the relationship between CO₂ emissions from human activities and their impacts on air quality and ecosystem health</p> <p style="text-align: center;">OR</p> <p>b) Discuss the importance of the ozone layer. Explain the causes and consequences of ozone depletion. Mention two substances responsible for ozone depletion.</p>	Understand	CO-2,6
13.	<p>a) Investigate the impact of plastics as a non-biodegradable pollutant in marine environments. Suggest remedial measures.</p> <p style="text-align: center;">OR</p> <p>b) Apply your knowledge of agricultural practices to explain how the uncontrolled use of fertilizers affects soil fertility.</p>	Apply	CO-3,4

14	<p>a) Apply your knowledge of nuclear safety and disaster management to analyze and compare two major nuclear disasters.</p> <p style="text-align: center;">OR</p> <p>b) Define natural and man made disasters and analyze the key differences between the two. Provide examples of each type.</p>	Apply	CO-5
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