Reg. No.: .....

Name: .....

University of Kerala

W6560

Third Semester FYUGP Degree Examination, November 2025

Value Addition Courses

CHEMISTRY

UK3VACCHE200 - LABORATORY SAFETY

Academic Level: 200-299

2024 Admission

Time: 1 Hour 30 Minutes(90 Mins.) **Max. Marks: 42**

Part A. 6 Marks.Time:6 Minutes.(Cognitive Level:Remember(RE)/Understand(UN)) Objective Type. 1 Mark Each.Answer all questions

Qn No.	Question	CL	CO
1	What does the acronym MSDS stands for?	RE	2
2	What is meant by chemical waste disposal?	RE	4
3	Mention one method used for safe disposal of broken glass.	UN	4
4	Describe how improper clothing can increase the risk of injury in the lab	UN	1
5	Compare TLV and STEL.	UN	2
6	Outline the health hazards involved in using UV lamps.	UN	3

Part B.8 Marks.Time:24 Minutes.(Cognitive Level:Understand(UN)/Apply(AP))Short Answer. 2 marks each.Answer all questions

Qn No.	Question	CL	CO
7	Describe the basic ideas behind the HAZCHEM code classification and its significance in emergency response planning.	UN	2
8	What is laboratory protocol and explain its significance?	UN	1
9	What are the precautions for using electric equipments?	AP	3
10	A fire breaks out in a laboratory due to a chemical spill.Descibe the steps you take to respond to the emergency ,including the use of safety equipment?	AP	4

Part C. 28 Marks.Time:60 Minutes (Cognitive Level:Apply(AP)/Analyse(AN)/Evaluate(EV)/Create(CR)) Long Answer.7 marks each.Answer all 4 Questions choosing among options * within each question

Qn No.	Question	CL	CO
11	A) Explain a) comportment in the laboratory b) Personal protective equipment OR B) Employ the methods for distillations and extractions in laboratories?	AP	1, 1

Qn No.	Question	CL	CO
12	A) Examine the usefulness of Material Safety Data Sheets (MSDS) in learning chemistry of solvents, citing specific examples. OR B) Examine the role of hazard symbols in communicating physical and environmental risks, and justify their necessity for laboratory workers.	AN	2, 2
13	A) Critically evaluate the benefits and risks of using steam sterilization versus chemical sterilization methods in the lab. OR B) Explain the importance of laboratory hoods in ensuring chemical safety.	EV	3, 3
14	A) Prepare an emergency response strategy for a chemical accident involving both fire and toxic gas release in a research lab. OR B) Compare the response procedures for a chemical burn on skin versus a chemical splash in the eye	CR	4, 4