

Reg. No.:



Name:

Y7516

University of Kerala

Fourth Semester FYUGP Degree Examination, May 2026

Skill Enhancement Courses

CHEMISTRY**UK4SECCHE201 - PRACTICAL SKILLS IN CHEMISTRY**

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 PPE.	RE	1
2	Define pH.	RE	3
3	Explain what is meant by decinormal solution.	UN	2
4	Differentiate the endpoint from the equivalence point in a titration.	UN	4

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	Explain the working principle of the universal indicator.	UN	3
6	Describe how the concentration of HCl can be determined using a standard Na ₂ CO ₃ solution.	UN	4
7	Illustrate how a 1 M solution can be converted to a 0.1 M solution.	AP	2
8	Cite an example of an incompatible pair of chemicals and explain how they are incompatible.	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) During a laboratory experiment, a student suffers an acid spill on the hand. Explain the first aid procedure and safety precautions to be followed immediately. OR B)	AP	1, 1

Qn No.	Question	CL	CO
	If acids and bases are stored together in the same cabinet, explain the various risk involved and how to reorganize to ensure safe storage.		
10	A) Analyze why hydrochloric acid cannot be used as a primary standard and must be standardised before use. OR B) Calculate the molarity and normality of a solution containing 5.3 g of sodium carbonate dissolved in 500 ml of the solution and analyze the relationship between the two values.	AN	2, 2
11	A) Evaluate whether a solution obtained by mixing 50 ml of 0.2 M HNO_3 and 50 ml of 0.1M NaOH, is acidic or basic, by calculating its pH. OR B) Evaluate the importance of calibrating a pH meter before use.	EV	3, 3
12	A) Create a qualitative analysis procedure to distinguish zinc nitrate and aluminium sulphate. OR B) Create an experiment to study the effect of adding a common ion on the solubility of a weak electrolyte.	CR	4, 4