Name:

Enrolment No:

UPES

End Semester Examination, December 2025

Course: Pharmaceutical Analysis-I Semester : I

Program: B. Pharmacy Duration : 03 Hours

Course Code: BP102 T Max. Marks: 75

Instructions: Read all the questions carefully.

SECTION A

(20Qx1M=20 Marks)

S. No.		Marks	COs
Q1.	Draw the structure of EDTA.	**1**	CO1
Q2.	Give two examples of acid-base indicators.	**1**	CO1
Q3.	The colour of methyl orange is _____ below pH 3.1.	**1**	CO1
Q4.	Define the term chelation.	**1**	CO1
Q5.	Acetic anhydride is added to glacial acetic acid _____.	**1**	CO1
Q6.	Classify instrumental methods of analysis.	**1**	CO1
Q7.	____is the ideal temperature required for diazotization.	**1**	CO1
Q8.	Define the term common ion effect.	**1**	CO1
Q9.	Write the reaction involved in limit test of chloride ion.	**1**	CO1
Q10.	Draw the structure of dioxan.	**1**	CO1
Q11.	Classify types of errors.	**1**	CO2
Q12.	Draw the structure of murexide.	**1**	CO2
Q13.	Write the reaction involved in diazotization titration.	**1**	CO2
Q14.	Classify non-aqueous solvents.	**1**	CO2
Q15.	Define random errors.	**1**	CO2
Q16.	Levelling effect can be defined as____.	**1**	CO2
Q17.	Find the amount of 0.5N HCl required (ml) to neutralize 20 ml of 0.3N NaOH solution.	**1**	CO2
Q18.	Define the term chemical analysis.	**1**	CO2
Q19.	Give two examples of adsorption indicators.	**1**	CO2
Q20.	Find the volume of 0.05 M H_2SO_4 required to completely neutralize 15 ml of 0.2 N Sodium hydroxide solution	**1**	CO2

SECTION B (20 Marks)

(2Qx10M=20 Marks)

Attempt 2 Question out of 3

Q1.	Classify determinate errors. Mention the methods of minimizing errors.	**3+7**	CO5
Q2.	Write a detailed note on the theory of indicator. Give relevant examples.	**5+5**	CO5
Q3.	Mention the different stages involved in chemical analysis. Classify spectroscopic methods of analysis.	**5+5**	CO5

SECTION-C (35 Marks)

(7Qx5M=35 Marks) Attempt 7 Question out of 9			
Q1.	Find the volume of H_2SO_4 required in ml to prepare a 10 ml, 3N solution. Weight percentage = 97% w/w, density = 1.84 g/ml.	**5**	CO4
Q2.	Discuss about masking and demasking reagents. Give two examples of each.	**3+2**	CO4
Q3.	Write a note on dichrometry.	**5**	CO4
Q4.	Discuss the steps involved in gravimetry.	**5**	CO4
Q5.	Enlist 5 important points to consider while performing titrations using Mohr's method.	**5**	CO3
Q6.	Differentiate between oxidizing and reducing agents. Give relevant examples.	**3+2**	CO3
Q7.	Explain the working of SHE with the help of diagram.	**5**	CO3
Q8.	Find the volume of 0.08 M Oxalic acid required to completely neutralize 23 ml of 0.6 N NaOH solution.	**5**	CO3
Q9.	Differentiate between primary and secondary standards. Give relevant examples.	**3+2**	CO3