


Name:			
Enrolment No:			
UPES End Semester Examination, December 2024			
Course: Pharmaceutical Analysis-I		Semester : I	
Program: B. Pharmacy		Duration : 03 Hours	
Course Code: BP102 T		Max. Marks: 75	
Instructions:			
SECTION A (20Qx1M=20 Marks)			
S. No.		Marks	COs
Q1.	Draw the structure of trion.	1	CO1
Q2.	Give two examples of internal oxidation-reduction indicators.	1	CO1
Q3.	The colour of methyl orange is _____ below pH 3.1.	1	CO1
Q4.	Give two examples of adsorption indicators.	1	CO1
Q5.	Write the reaction involved in diazotization titration.	1	CO1
Q6.	Write the product formed in the reaction between $\text{Fe}^{3+} + \text{SCN}^- \longrightarrow$ _____.	1	CO1
Q7.	_____ indicators are used to carry out titrations using Fazan's method.	1	CO1
Q8.	Define the term keto-enol tautomerism.	1	CO1
Q9.	The ideal temperature required for diazotization titrations is _____.	1	CO1
Q10.	Draw the structure of murexide.	1	CO1
Q11.	Define the term chromatography.	1	CO2
Q12.	Ammonium fluoride is an example of _____ agent.	1	CO2
Q13.	Write the reaction involved in limit test of sulfate ion.	1	CO2
Q14.	Define the term titrimetric analysis.	1	CO2
Q15.	Define the term common ion effect.	1	CO2
Q16.	Draw the structure of ethylene glycol and ACN.	1	CO2
Q17.	Define the term levelling effect.	1	CO2
Q18.	Classify non-aqueous solvents.	1	CO2
Q19.	Acetic anhydride is added to glacial acetic acid _____.	1	CO2
Q20.	Draw structure of DMF.	1	CO2
SECTION B (20 Marks) (2Qx10M=20 Marks)			
Attempt 2 Question out of 3			
Q1.	Write a detailed note on the theory of indicator. Give relevant examples.	5+5	CO5
Q2.	Define gravimetry. Discuss the steps involved in gravimetry. Enlist various advantages of gravimetry.	2+6+2	CO5
Q3.	i) Find the volume of 0.08 M Oxalic acid required to completely neutralize 23 ml of 0.6 N NaOH solution	5+5	CO5

	ii) Find the amount of H ₂ SO ₄ required in ml to prepare a 10 ml, 3N solution. Weight percentage = 97% w/w, density = 1.84 g/ml.		
SECTION-C (35 Marks) (7Qx5M=35 Marks)			
Attempt 7 Question out of 9			
Q1.	Differentiate between oxidizing and reducing agents. Give relevant examples.	3+2	CO4
Q2.	Define chelation. Give examples of. Draw the structure of any 1 chelating agent.	1+2+2	CO4
Q3.	Enlist 5 important points to consider while performing titrations using Mohr's method.	5	CO4
Q4.	Classify different types of errors.	5	CO4
Q5.	Explain the working of SHE with the help of diagram.	5	CO3
Q6.	Define chemical analysis. Discuss the different stages involved in chemical analysis.	1+4	CO3
Q7.	Write a note on dichrometry.	5	CO3
Q8.	Discuss about masking and demasking reagents. Give two examples of each.	3+2	CO3
Q9.	Differentiate between primary and secondary standards. Give relevant examples.	3+2	CO3