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.	A conjugated system consists of _____ double bonds.	**1**	CO1
Q2.	_____ is added to glacial acetic acid while performing non-aqueous titration.	**1**	CO1
Q3.	The ideal pH range to carry out titration using Mohr's method is ____.	**1**	CO1
Q4.	_____ is the ideal temperature required for diazotization titrations.	**1**	CO1
Q5.	Draw the structure of phenyl diazonium chloride.	**1**	CO1
Q6.	Write the product formed in the reaction between $AgNO_3$ + NaCl ⟶ _____	**1**	CO1
Q7.	Give examples of two internal oxidation-reduction indicators.	**1**	CO1
Q8.	Define the term back titration.	**1**	CO1
Q9.	Write two examples of adsorption indicators.	**1**	CO1
Q10.	At ____ pH range the phenolphthalein indicator shows pink colour.	**1**	CO1
Q11.	Define the term equivalent weight.	**1**	CO2
Q12.	_____ is used as an indicator in diazotization titrations.	**1**	CO2
Q13.	Give two examples of ions which can be analyzed by limit test.	**1**	CO2
Q14.	Define common ion effect.	**1**	CO2
Q15.	_____ metal is used in SHE.	**1**	CO2
Q16.	Draw the structure of DMF and ethylene glycol.	**1**	CO2
Q17.	Give two examples of indicators used in non-aqueous titrations.	**1**	CO2
Q18.	Write the full form for IUPAC.	**1**	CO2
Q19.	Define the term significant figures.	**1**	CO2
Q20.	Draw the structure of dioxan.	**1**	CO2

SECTION B (20 Marks)

(2Qx10M=20 Marks)

Attempt 2 Question out of 3

Q1.	Differentiate between random and systematic errors. Classify methods of minimizing errors.	**2+8**	**CO5**
Q2.	Write a note on: a) Ostwald theory. b) Quinonoid theory.	**5+5**	**CO5**
Q3.	a) Classify various solvents involved in non-aqueous titration.	**5+3+2**	**CO5**

	b) Discuss the importance of non-aqueous titrations. c) Give examples of four indicators used in non-aqueous titrations.		
SECTION-C (35 Marks) **(7Qx5M=35 Marks)** **Attempt 7 Question out of 9**			
Q1.	Write the reaction involved in diazotization reaction. Give applications of diazotization titrations.	**3+2**	**CO4**
Q2.	Differentiate between iodometry and iodimetry.	**5**	**CO4**
Q3.	Write the formulas and calculations involved in the preparation of a) 1M NaOH. **b)** 1M H_2SO_4 (98% w/w, 1.84g/ml).	**2.5+2.5**	**CO4**
Q4.	Define gravimetry. State various advantages offered by gravimetric analysis.	**1+4**	**CO4**
Q5.	Differentiate between accuracy and precision.	**5**	**CO3**
Q6.	Define non-aqueous titrations. Discuss preparation and standardization of perchloric acid.	**1+4**	**CO3**
Q7.	Discuss five important points to consider while performing titrations using Mohr's method.	**5**	**CO3**
Q8.	Write a note on bromatometry.	**5**	**CO3**
Q9.	Give 4 examples of chelating agents. Draw the structure of any 1 polydentate ligand.	**2.5+2.5**	**CO3**