Name: Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End semester Examination, December 2022

Course: Pharmaceutical Analysis I   Semester: I
Program: B.Pharm   Time 03 hr
Course Code: BP102T   Max. Marks: 75
Instructions: Read the Question Paper Carefully.

		SECTION A	
S. No.	**CO**	**Multiple Choice Questions/objective/one line**	**Marks**
Q1			**20**

1	CO2	Which of the following are a protogenic solvent
		    a. Acetic acid
		    b. Pyridine
		    c. Benzene
		    d. Ethylene diamine
			1

2	CO1	pH Range of any indicator is usually equal to
		    a. pKa ±1
		    b. pKa
		    c. pKa ±3
		    d. pKa ±2
			1

3	CO3	Complexometric titration is done for the determination of metal ions. True/False	1
4	CO1	At what temperature diazotization titrations are performed.	1
5	CO1	What do you mean by asystemetic errors	1

6	CO1	Which of the following is not a primary standard
		    a. Sodium Chloride
		    b. Potassium Hydrogen Phthalate
		    c. Potassium permanganate
		    d. Oxalic acid
			1

7	CO1	In polarography, the graph is plotted between
		    a. Current and Voltage
		    b. Resistance and current
		    c. Conductance and voltage
		    d. Current and Conductance
			1

8	CO2	Protogenic solvents will show Differentiating effect for different strengths of _____ (acids/bases)	1
9	CO1	Define Accuracy	1

10	CO4	Which of the following is a type of co precipitation in gravimetry
		    a. Occlusion
		    b. Mixed crystal formation
		    c. Mechanical entrapment
		    d. All
			1

11	CO3	Name any indicator used in non aqueous titration	1

12	CO3	Which of the precipitation method is adsorption indicator method of analysis
		    a. Mohr's
		    b. Volhard's
		    c. Fajans
		    d. Gay Lussac
			1

13	CO1	Which of the following apparatuses are usually calibrated
		    a. Pipette
		    b. Volumetric flask
		    c. Burette
		    d. All
			1

14	CO2	What do you mean by deliquescent material?	1
15	CO4	Which titration is also known as sodium nitrite titrations	1
16	CO5	Name any Indicating electrode	1
17	CO4	_____is a self indicator	1
18	CO1	Color of Phenolphthalein in basic pH is _____	1
19	CO2	What is equivalence point in titrations	1
20	CO3	Which is the most common titrant used in complexometric titrations?	1
SECTION B				
Q2		**Answer any two**	**20**
1	CO1	Discuss the scope of Pharmaceutical Analysis	10

2	CO2	Define the following terms in (2 lines)
		    a. Assay
		    b. Precision
		    c. Primary Standard
		    d. Reference electrodes
			10

3	CO3	Write about principle of complexometric titrations and discuss masking and demasking agents.	10
		SECTION C **Answer any seven**	35
1	CO2	How will you prepare 1N Sodium hydroxide solution (1000ml)	5
2	CO1	Write different analytical techniques used in Pharmaceutical	5
3	CO1	Draw the neutralization curve for strong acid and strong base.	5
4	CO1	How will you prepare 100 ml of 2 ppm of paracetamol solution	5
5	CO4	Write the different steps of gravimetric analysis	5
6	CO3	Discuss Volhards method of precipitation titration	5
7	CO5	Discuss Ilkovics equation used in Polarography	5
8	CO5	What are the limitations of conductometric titrations	5
9	CO2	Explain Differentiating effect in non aqueous titrations with a relevant example.	5