


Name:	 UPES UNIVERSITY WITH A PURPOSE
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2019

Course: Pharmaceutical Analysis
Program: B. Pharm.
Course Code: BP102T
Instructions:

Semester: I
Time 03 hrs.
Max. Marks: 75

SECTION A

S. No.	CO	Multiple Choice Questions (20x1) or Objective type Questions (10x2)	Marks
Q1	CO3	Name one protic and aprotic solvent	2
	CO3	Perchloric acid is standardized by _____ (Benzoic acid, Tartaric acid, Potassium Hydrogen Pthalate, Oxalic acid)	1
	CO4	Write the role of nitrobenzene in Volhard's titration	1
	CO4	Which type of precipitation titration involve adsorption of indicator as a secondary layer around the precipitate	1
	CO4	Metal indicator complex should be stronger than metal EDTA complex (True/False)	1
	CO4	Give primary standard for Silver Nitrate (Zinc, NaCl, oxalic acid, Potassium Hydrogen Pthalate)	1
	CO5	Define indicator electrodes. Give any example of indicator electrodes	2
	CO1	Name the apparatus used in the limit test of Arsenic and also write the reaction involved in producing the yellow color	2
	CO4	Mixed crystal, Occlusion and surface adsorption are terms related to _____ (Co-precipitates/ Post Precipitates)	1
	CO4	Give the reaction involved in Diazotization titration (with temperature conditions)	2
	CO2	Which color does phenolphthalein produce at alkaline pH	1
	CO1	What do you mean by determinate errors	1
	CO1	Which is not a primary standard a. Oxalic acid b. Zinc c. HCl d. Potassium hydrogen pthalate	1
	CO5	Write Ilkovic's equation	1
	CO3	Give two examples of pM indicators	1
	CO1	How much amount of oxalic acid (in g) is required to make 1L of 0.1N Oxalic acid	1

SECTION B

Long Answers (Answer two out of 3) 2x10

			20
Q2	CO5	Define Nernst equation. Write about indicating and reference electrodes	10

	CO4	Give principle of complexometric titrations. Write about significance of masking agents and demasking agents with examples	10
	CO1	Define errors. Write about different types and sources of errors. Also, write ways to reduce errors.	10
SECTION C			
Short Answers (Answer 7 out of 9) 7X5			35
Q3	CO1	Write about different analytical techniques used in analysis	5
	CO2	Write about non aqueous titration of weak base by giving a suitable example	5
	CO4	Describe briefly the steps involved in gravimetric analysis	5
	CO4	Explain Diazotization titration	5
	CO5	Draw and explain polarographic curve.	5
	CO5	Explain potassium chromate titrations.	5
	CO4	Write about Volhard's method of precipitation titrations	5
	CO5	Write about different types of currents produced in Polarography.	5
	CO1	Define accuracy and Precision. Write about different types of errors by giving examples	5
		Total	75