

Total No. of Questions: 3

Total No. of Printed Pages: 2

Enrollment No.....



Faculty of Pharmacy  
End Sem Examination Dec-2023  
PY3CO02 Pharmaceutical Analysis- I

Programme: B. Pharm.

Branch/Specialisation: Pharmacy

Duration: 3 Hrs.

Maximum Marks: 75

Note: All questions are compulsory. Internal choices, if any, are indicated. Assume suitable data if necessary. Notations and symbols have their usual meaning.

- Q.1
- Define Molarity and Normality. 2
  - What are Primary and Secondary Standards? 2
  - Define Acidimetry and Alkalimetry. 2
  - Name any two Indicators with their Indicator range for acid Base titration. 2
  - Write Names of four methods of Precipitation titration. 2
  - Define masking and demasking agents in complexometric titrations. 2
  - Define oxidation and reduction. 2
  - Write any four types of redox titration. 2
  - What is current and conductance? 2
  - Name any four types of electrodes used in potentiometric titration. 2
- Q.2
- Attempt any two:
- What are different types of errors in Pharmaceutical Analysis? Give Its Classification and methods to minimize errors. 10
  - Write a detail note on types of acid base titration with suitable examples. 10
  - Write a note on preparation and standardization of 0.1 N NaOH. 5
    - Define Non- aqueous titration. Write about different solvents used in non-aqueous titration. 5

[2]

- Q.3 Attempt any seven: Two questions from each section is compulsory.

Section - A

- Write a note on Mohr's and Volhard's Method. 5
- What are metal ion indicators? Write about different types of complexometric titration. 5
- Describe different steps of Gravimetric titration. 5

Section - B

- What is principle and applications of Redox titration? 5
- Write a note on Iodimetry and Iodometry. 5
- Write about procedure and application of Cerimetry and Bromatometry. 5

Section - C

- Write a note on different types of Conductometric titration. 5
- What are different types of electrodes? Explain construction and working of Standard Hydrogen Electrode (SHE). 5
- Write principle of polarography. Write a note on construction and working of dropping mercury electrode. 5

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## Marking Scheme

### PY3CO02 - Pharmaceutical Analysis- I

Q.1	i)	Molarity and Normality -	One mark Each	2
	ii)	Primary and Secondary Standards –	One mark each	2
	iii)	Acidimetry and Alkalimetry –	One mark Each	2
	iv)	Each Indicator-	1 Mark	2
	v)	Each Method-	0.5 Marks	2
	vi)	masking And demasking Agents-	1 Mark each	2
	vii)	Define oxidation and reduction-	1 Mark each	2
	viii)	Each type –	0.5 Marks	2
	ix)	What is current and Conductance -	1 Mark each	2
	x)	Each type-	0.5 Marks	2
Q.2	Attempt any two:			
	i.	Definition with examples-	2 Marks	10
		Types with prevention -	2 Marks each ( 4 types)	
	ii.	Write a detail note on types of acid base titration.		10
		Four types names –	2 Marks	
		In each type- Graph,		
		Equation and description-	2Marks for each type.	
	iii.	Preparation –	2.5 Marks	5
		Standardization –	2.5 Marks	
		Definition-	1 Mark	5
Q.3	Attempt any seven: Two questions from each section is compulsory.			
	Section – A			
	i.	Mohr's and Volhard's Method -	2.5 Marks each	5
	ii.	What are metal ion indicators –	2 Marks	5
		Write about different types of complexometric titration-	3 Marks	
	iii.	Description of Each step	0.5 Marks	5
	Section – B			
	iv.	Principal-	3 Marks	5
		Application-	2 Marks	
	v.	Iodimetry, Iodometry –	Each 2.5 Marks	5
	vi.	Cerimetry Bromatometry-	Each 2.5 Marks	5

#### Section – C

vii.	Write a note on different types of Conductometric titration-	Each Type 1 Mark	5
viii.	What are different types of electrodes –	1 Mark	5
	Explain construction –	2 Mark	
	working of Standard Hydrogen Electrode (SHE)-	2 Mark	
ix.	Write principle of polarography-	2 Mark	5
	Write a note on construction and working of dropping mercury electrode –	3 Mark	

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