Nov. 21

Roll Number ---------- **(Total Number of Questions 13)** **(Total number of Printed Pages 01)**

Programme	B. Pharmacy
Semester	1st
Subject	Pharmaceutical Analysis-I
Subject Code	BP102T
Paper ID	74645
Time	3Hours
Maximum Marks	75
Link to upload answer sheet	https://forms.gle/H18RZsKVHwK6f2iq6

Instructions to Candidates: *No supplementary/continuation sheet will be issued to the candidates. Answer the questions precisely.*
Section A consists of Ten parts of 2 marks each (Objective Type); Attempt **ALL.*
***Section B consists of Three questions carrying 10 marks each (Long Answer); attempt any **TWO**.*
****Section C consists of Nine questions carrying 5 marks each (Short Answer); attempt any **SEVEN**.*

Section A **(10 X2 = 20)**

1. Give very short answers to the followings (2 marks each):

i.	Define Accuracy and Precision.
ii.	What is a significant figure?
iii.	What is the pH of 0.01M solution of HCl?
iv.	Name four different end point determination methods for precipitation titration.
v.	Define WCN.
vi.	Define masking agents.
vii.	What is common ion effect?
viii.	Define specific conductance.
ix.	Differentiate between Iodometry and Iodimetry.
x.	Equivalent weight of Potassium permanganate on acid and alkaline medium.

Section B **(2 X 10 = 20)**

2.	Enumerate different sources and types of Error. How do we minimize systematic errors?
3.	What is Gravimetric analysis? Discuss principle and steps involved in Gravimetric analysis.
4.	Define Polarography. Explain construction and working of DME.

Section C **(7 X 5 = 35)**

5.	Discuss various sources of impurities in medicinal agents.
6.	What are Neutralization curves? Explain giving examples of each type.
7.	Discuss in detail construction and working of indicator electrodes in Potentiometry.
8.	Explain Volhard's method in detail.
9.	Discuss co-precipitation versus post precipitation.
10.	Classify Complexometric titrations and explain factors affecting stability of complexes.
11.	Discuss basic principle and methods of diazotization titration.
12.	Explain the concept of oxidation and reduction. Write a note on Cerimetry.
13.	What is the principle of Conductometric titrations? Explain their applications.

*****

Note: Disclosure of identity by writing mobile number or making request for passing on any page of answerssheet will lead to UMC against the candidate.

8/7/22 M

Roll Number ---------- (Total Number of Questions 13) (Total number of Printed Pages 01)

Programme	B. Pharmacy
Semester	1st
Subject	Pharmaceutical Analysis-I
Subject Code	BP102T
Paper ID	74645
Time	3Hours
Maximum Marks	75

Instructions to Candidates: *No supplementary/continuation sheet will be issued to the candidates. Answer the questions precisely.*
Section A consists of Ten parts of 2 marks each (Objective Type); Attempt **ALL.*
***Section B consists of Three questions carrying 10 marks each (Long Answer); attempt any **TWO**.*
**** Section C consists of Nine questions carrying 5 marks each (Short Answer); attempt any **SEVEN**.*

Section A (10 X2 = 20)

1. Give very short answers to the followings (2 marks each):

i.	Define Relative Error.
ii.	What is Precision and Accuracy in assay?
iii.	What is Levelling Effect?
iv.	What are Adsorption Indicators? Give examples.
v.	How will you prepare 0.2 M HCl? Give calculations.
vi.	Define Peptization.
vii.	What is Ohm's Law?
viii.	What is Redox Potential?
ix.	What is the difference between Iodometry and Iodimetry?
x.	Define Lewis acid and Lewis base.

Section B (2 X 10 = 20)

2.	Define Limit Test? Explain the procedure and principle involved in Limit test for Chloride.
3.	What is Gravimetric Analysis? Discuss Principle and steps involved in gravimetric analysis.
4.	What is Polarography? Describe working, constructions and applications of Dropping Mercury Electrode (DME).

Section C (7 X 5 = 35)

5.	Explain Ostwald's theory of indicator.
6.	Write Preparation and Standardization of 0.1 N Perchloric acid.
7.	Explain the Principle and Theory of Diazotisation titration.
8.	Write a note on different types of current.
9.	Write a note on dichromate titration.
10.	What are the sources of impurities in medicinal agents?
11.	Write the Principle and Procedure of Sodium Chloride by Mohr's Method.
12.	Give standardization procedure for 0.05 EDTA solution.
13.	What are the factors affecting the conductivity measurements?

*****

Note: Disclosure of identity by writing mobile number or making request for passing on any page of answer-sheet will lead to UMC against the candidate.

180123

Roll Number ---------- (Total Number of Questions 13) (Total number of Printed Pages 01)

Programme	B. Pharmacy
Semester	1st
Subject	Pharmaceutical Analysis-I
Subject Code	BP102T
Paper ID	74645
Time	3Hours
Maximum Marks	75

Instructions to Candidates: *No supplementary/continuation sheet will be issued to the candidates. Answer the questions precisely.*

Section A consists of Ten parts of 2 marks each (Objective Type); Attempt **ALL.*

***Section B consists of Three questions carrying 10 marks each (Long Answer); attempt any **TWO**.*

**** Section C consists of Nine questions carrying 5 marks each (Short Answer); attempt any **SEVEN**.*

Section- A **(10X2=20)**

1.	Give very short answers to the followings
i.	What is co-precipitation?
ii.	Define Buffer.
iii.	How will you prepare 0.5N HCl? Give calculations.
iv.	What is the difference between iodometry and Iodimetry?
v.	What is the purpose of limit test?
vi.	Name two Redox Indicators.
vii.	What do you mean by the term digestion?
viii.	Define leveling effect.
ix.	State ohm's law.
x.	Give Ikoniv equation.

Section- B **(2X10=20)**

2.	What is Mohar's method? Discuss the titration conditions, chemical equations and applications of this method.
3.	What is gravimetric analysis? Discuss principle and steps involved in gravimetric analysis.
4.	Give a detailed account of sources and type of errors and enumerate the errors minimizing methods.

Section- C **(7X5=35)**

5.	Discuss basic principle and methods of diazotization titration.
6.	Discuss in detail construction and working of indicator electrodes in potentiometry.
7.	Define polarography. Explain construction and working of dropping mercury electrodes.
8.	Write principle, procedure and reaction involved in assay of sodium hydroxide.
9.	Explain the types of solvents used in non-aqueous titration.
10.	Explain the different types of conductometeric titration.
11.	Write the applications of potentiometry.
12.	Write the factors affect the limiting current.
13.	Write a note on dichromate titration.

*****

Note: Disclosure of identity by writing mobile number or making request for passing on any page of answer-sheet will lead to UMC against the candidate.

301123 (Morning)

Roll Number ---------- (Total Number of Questions 13) (Total number of Printed Pages 01)

Programme	B. Pharmacy
Semester	1st
Subject	Pharmaceutical Analysis-I
Subject Code	BP102T
Paper ID	74645
Time	3Hours
Maximum Marks	75

Instructions to Candidates: *No supplementary/continuation sheet will be issued to the candidates. Answer the questions precisely.*
Section A consists of ten parts of 2 marks each (Objective Type); Attempt **ALL.*
***Section B consists of three questions carrying 10 marks each (Long Answer); attempt any **TWO**.*
**** Section C consists of nine questions carrying 5 marks each (Short Answer); attempt any **SEVEN**.*

Section A (10 X2 = 20)

1.	Give very short answers to the following:
i.	What is the Redox indicator?
ii.	Define the Leveling effect.
iii.	What are the types of Diazotisation titration?
iv.	Define complexometry.
v.	Define Lewis acid and Lewis Base.
vi.	What are Protogenic solvents?
vii.	Define NAT.
viii.	Define Oxidizing and Reducing agents.
ix.	What do you mean by Gravimetric titration?
x.	What is post-precipitation?

Section B (2 X 10 = 20)

2.	What is Potentiometry? Write a detailed note on different types of instruments used in potentiometry.
3.	What is Error? Explain the types of Errors.
4.	What are Electrodes? Explain the working principle of the Saturated Calomel electrode.

Section C (7 X 5 = 35)

5.	Write a note on Dichromate titration.
6.	What is the role of masking and demasking agents in complexometry?
7.	Explain the theories of the indicator.
8.	Write the Principle and Procedure of cerimetry titration.
9.	What is the procedure and principle involved in the Limit test for Chloride?
10.	Explain Volhard's method in detail.
11.	What is the difference between iodometry and iodimetry titration?
12.	What are the sources of impurity?
13.	How will you prepare and standardize 0.1N Perchloric acid?

*****

Note: Disclosure of identity by writing mobile number or making request for passing on any page of answer-sheet will lead to UMC against the candidate.

(Morning)
270524

Roll Number ----------(Total Number of Questions 13) (Total number of Printed Pages 01)

Programme	B. Pharmacy
Semester	1st
Subject	Pharmaceutical Analysis-I
Subject Code	BP102T
Paper ID	74645
Time	3Hours
Maximum Marks	75

Instructions to Candidates:*No supplementary/continuation sheet will be issued to the candidates. Answer the questions precisely.*
Section A consists of Ten parts of 2 marks each (Objective Type); Attempt **ALL.*
***Section B consists of Three questions carrying 10 marks each (Long Answer); attempt any **TWO**.*
****Section C consists of Nine questions carrying 5 marks each (Short Answer); attempt any **SEVEN**.*

Section- A **(10 X2 = 20)**

1.	Give a very short answers to the followings:
i.	Define errors.
ii.	What is oxidation and reduction?
iii.	Differentiate between post-precipitation and co-precipitation.
iv.	Give the applications of cerimetry.
v.	Write Ilkovic equation.
vi.	What is acidimetry?
vii.	How do you prepare 0.1 M HCl?
viii.	Define masking and demasking agent with examples.
ix.	Name the methods to determine the endpoint in potentiometric titration.
x.	What is non-aqueous titration?

Section- B **(2 X 10 = 20)**

2.	What is Gravimetry? Discuss in detail different steps involved in gravimetric analysis.
3.	Write a note on non-aqueous titration.
4.	What are errors? Classify them and describe the steps to minimize errors.

Section- C **(7 X 5 = 35)**

5.	Give the construction and working of dropping mercury electrode
6.	Define indicators. Explain the theories of indicator used in acid base titration.
7.	What is diazotisation titration? Give different methods to detect the endpoint.
8.	What are limit tests? Explain the limit test for chlorides
9.	Give the construction and working of calomel electrode.
10.	Explain the conductometric titration curves for strong acid with a weak base.
11.	Explain the basic principles involved in redox titrations. Give the applications of titration with potassium iodate.
12.	Write a note on Mohr's method.
13.	Differentiate between iodometry and iodimetry.

*****

Note: Disclosure of identity by writing mobile number or making request for passing on any page of answer-sheet will lead to UMC against the candidate.

(M) 111224

Roll Number ----------(Total Number of Questions 13) (Total number of Printed Pages 01)

Programme	B. Pharmacy
Semester	1st
Subject	Pharmaceutical Analysis-I
Subject Code	BP102T
Paper ID	74645
Time	3Hours
Maximum Marks	75

Instructions to Candidates:*No supplementary/continuation sheet will be issued to the candidates. Answer the questions precisely.*
Section A consists of Ten parts of 2 marks each (Very Short Answers); Attempt **ALL.*
***Section B consists of Three questions carrying 10 marks each (Long Answer); attempt any **TWO**.*
****Section C consists of Nine questions carrying 5 marks each (Short Answer); attempt any **SEVEN**.*

Section- A (10X2=20)

1.	Give very short answers to the followings:
i.	What is meant by PPM.
ii.	Give the standardization procedure for 1N sodium thiosulphate.
iii.	How ligands are classified?
iv.	Mention the factors affecting the conductivity measurements.
v.	List out the steps involved in gravimetric titrations.
vi.	Give Nernst equation.
vii.	Define law of mass action.
viii.	Classify precipitation titration according to determine the end point detection.
ix.	Define oxidizing agent and reducing agent.
x.	Write the advantage of NAT.

Section- B (2X10=20)

2.	Define polarography. Describe working, construction and applications of dropping mercury electrode.
3.	What is impurity? Explain in detail the source of impurity.
4.	Give an account of various types of conductometric titrations with their titrations curves. What is volume correction factor in conductometry? Why is it applied?

Section- C (7X5=35)

5.	Classify complexometric titrations. Write a note on estimation of magnesium sulphate.
6.	Discuss in detail construction and working of indicator electrodes in potentiometry.
7.	Explain the concept of masking and demasking with examples and one application.
8.	What are neutralization curves? Explain giving examples of each type.
9.	Explain the types of errors.
10.	What are the different methods of conductivity measurements?
11.	Describe the theories of indicator.
12.	What are the principle and application of redox titrations?
13.	Explain the preparation and standardization of potassium permanganate.

*****

Note: Disclosure of identity by writing mobile number or making request for passing on any page of answer-sheet will lead to UMC against the candidate.

(Morning)

090625

Roll Number ----------(Total Number of Questions 13) (Total number of Printed Pages 01)

Programme	B. Pharmacy
Semester	1st
Subject	Pharmaceutical Analysis- I
Subject Code	BP102T
Paper ID	74645
Time	3Hours
Maximum Marks	75

Instructions to Candidates: *No supplementary/continuation sheet will be issued to the candidates. Answer the questions precisely.*
Section- A consists of **ten questions, each carrying **2 marks** (Very Short Answer Type); **Attempt all.***
Section- B consists of **three questions**, each carrying **10 marks** (Long Answer Type); **Attempt any two.
****Section- C consists of **nine questions**, each carrying **5 marks** (Short Answer Type); **Attempt any seven.***

Section- A **(10X2=20)**

1.	Give very short answers to the followings:
i.	What are primary and secondary standards?
ii.	Define normality.
iii.	How will you prepare a 0.1 N hydrochloric acid solution?
iv.	State the principle of the limit test for sulphates.
v.	What is post-precipitation?
vi.	State the principle of diazotisation titrations.
vii.	Define oxidation and reduction.
viii.	What is the Nernst equation?
ix.	Draw the structure of an electrochemical cell.
x.	What are metal ion indicators? Give an example.

Section- B **(2X10=20)**

2.	Write a detailed note on the various steps involved in the titration of a strong acid versus a strong base.
3.	State the principle, procedure, and applications of Mohr's method.
4.	What are potentiometric titrations? Explain the principle, apparatus, and applications of potentiometric titrations.

Section- C **(7X5=35)**

5.	What are the various types of errors? How can they be minimized?
6.	Explain the principle and procedure for performing the limit test of iron.
7.	What are non-aqueous titrations? Describe the procedure for the estimation of weakly basic drugs using this method.
8.	State and explain the different theories of acid-base indicators.
9.	What are masking and demasking agents? Write briefly various methods used for masking.
10.	What is co-precipitation? How does it occur, and what methods to minimize it?
11.	Write a short note on iodometric titrations.
12.	Write a note on the dropping mercury electrode and the rotating platinum electrode.
13.	What are conductometric titrations? Explain working of a conductivity cell.

*****

Note: Disclosure of identity by writing mobile number or making request for passing on any page of answer-sheet will lead to UMC against the candidate.

(Morning)

05 1225

Roll Number ---------- (Total Number of Questions 13) (Total number of Printed Pages 01)

Programme	B. Pharmacy
Semester	1st
Subject	Pharmaceutical Analysis-I
Subject Code	BP102T
Paper ID	74645
Time	3Hours
Maximum Marks	75

Instructions to Candidates: *No supplementary/continuation sheet will be issued to the candidates. Answer the questions precisely.*

**Section -A consists of Ten parts of 2 marks each (Very Short Answer); Attempt ALL.*

***Section- B consists of Three questions carrying 10 marks each (Long Answer); attempt any TWO.*

**** Section -C consists of Nine questions carrying 5 marks each (Short Answer); attempt any SEVEN.*

Section- A (10X2=20)

1.	Give very short answers to the followings:
i.	Define the terms accuracy and precision.
ii.	Name the theories of acid base titration.
iii.	Define co-precipitation.
iv.	Give Ilkovic equation.
v.	What is potentiometry?
vi.	Define cerimetry.
vii.	What are neutralization curves?
viii.	What is diazotisation titration?
ix.	Define ohm's law.
x.	What are oxidizing and reducing agents?

Section- B (2X10=20)

2.	What is impurity? Explain the sources of impurities. How can we minimize sources of impurities?
3.	What is polarography? Explain the working and principle of dropping mercury electrode.
4.	Explain briefly the steps involved in gravimetric titration.

Section- C (7X5=35)

5.	What are the different types of current?
6.	What are masking and demasking agents?
7.	Write a note on dichromate titration.
8.	What are the different types of conductometric titration?
9.	Give briefly preparation and standardization procedure involved in the following: (a) 1N HCl (b) 1N NaOH
10.	Explain the types of solvent used in non-aqueous titration?
11.	Explain the procedure and principle involved in the limit test for chloride.
12.	Give briefly about the Mohr's method in precipitation titration.
13.	Write a note on pM indicators.

*****

Note: Disclosure of identity by writing mobile number or making request for passing on any page of answer-sheet will lead to UMC against the candidate.