Printed Pages:01 **Sub Code:BP102T**

Paper Id: 150102 **Roll No.** | | | | | | | | | | |

B. PHARM.
(SEM I) THEORY EXAMINATION 2018-19
PHARMACEUTICAL ANALYSIS-I

Time: 3 Hours ***Total Marks: 75***

Note: Attempt all Sections.

SECTION A

1. Attempt *all* questions in brief. 10 x 2 = 20

a. Define normality and how will you prepare 0.1 N NaOH solution for 100 ml?

b. Differentiate between primary and secondary standard.

c. How phenolphthalein does behave in acidic and basic medium?

d. Write a principle of Mohr's method.

e. Differentiate between leveling and differentiating effect of solvent.

f. Describe mechanism starch-KI paste as external indicator.

g. Write the formula of EDTA.

h. Define Kohlrausch law.

i. Explain the different types of current used in polarography.

j. Define digestion and Ostwald ripening.

SECTION B

2. Attempt any *two*parts of the following: 2 x 10 = 20

a. What are the different methods to express the concentration of solution?

b. Discuss the basic principle, methods and application of diazotization titration.

c. What is redox titration? Write a short note on redox curve.

SECTION C

3. Attempt any *seven* parts of the following: 7 x 5 = 35

a. Describe a preparation and standardization of 0.1 N oxalic acid solution.

b. Define limit test and describe the limit test of chloride in detail.

c. What is non aqueous titration? Discuss the advantages and disadvantages of non aqueous titration.

d. What is pM indicator? Discuss the theory of pM indicator.

e. Discuss the preparation and standardization of 0.1 N ceric sulphate solution.

f. Explain iodimetry and iodometry.

g. What are the various steps involved in gravimetric analysis?

i. What are errors? Describe the method of minimizing error.

j. Discuss the mohr's method of precipitation titration in detail.

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B PHARM
(SEM-I) THEORY EXAMINATION 2019-20
PHARMACEUTICAL ANALYSIS-I

Time: 3 Hours *Total Marks: 75*

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. 10 x 2 = 20

a. What do you mean by normality?

b. Define the following terms standard solution and its types.

c. Describe the fundamental of volumetric analysis.

d. Write a note on significant figure.

e. What is pH?

f. What is photogenic and protophllic.

g. Explain the leveling and differentiating effect.

h. What is masking and demasking agent.

i. Write about acid base indicator.

j. What are electrochemical methods of analysis**?**

SECTION B

2. Attempt any *two* parts of the following: 2 x 10 = 20

a. Explain the standardization of $KMnO_4$ using sodium oxalate.

b. Give construction and working of reference electrochemical cell as Standard hydrogen, silver chloride electrode and calomel electrode.

c. Discuss fajan's method of precipitation titration. Explain about co precipitation and post perception.

SECTION C

3. Attempt any *five* parts of the following: 7 x 5 = 35

a. What are mixed indicators? Give examples of at least two mixed indicators and their advantage

b. Classify errors? Suggest the ways of minimizing them.

c. State modern concept of acid & bases.

d. Derive the Henderson hasselbach equation for weak acid & its salt.

e. Write the theory of acid and base titrations.

f. Write a note on estimation of boric acid.

g. Write a note on fajan's method.

PAPER ID-310961

Roll No: | | | | | | | | | | | | | |

B PHARM
(SEM I) THEORY EXAMINATION 2020-21
PHARMACEUTICAL ANALYSIS-I

Time: 3 Hours ***Total Marks: 75***

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. **10 x 2 = 20**

a.	Define mole and molarity.
b.	Calculate Normality for 100 gm per 500 ml NaOH solution.
c.	Differentiate between acid and base.
d.	What is universal indicator? Give example.
e.	What is Non aqueous titration?
f.	Give principle of Mohr method.
g.	What is modified Volhard method? Give example.
h.	Give one example of oxidizing and reducing agents.
i.	Define Iodimetry and Iodometry.
j.	Give Ilkovic action.

SECTION B

2. Attempt any *two* parts of the following: **2 x 10 = 20**

a.	Discuss the method of expressing concentration in detail.
b.	What is acid base indicator? Explain the theory of indicator.
c.	Write a note on Mohr and Volhard method in detail.

SECTION C

3. Attempt any *five* parts of the following: **7 x 5 = 35**

a.	Describe the concept of oxidation and reduction.
b.	Write a note on alkalimetry and acidimetry.
c.	Describe the types of Non aqueous solvent.
d.	Explain the types of conductometric titration in detail.
e.	How co-precipitation different from post precipitation?
f.	What is error? Discuss its types.
g.	Explain the mechanism of dropping mercury electrode (DME).

Subject Code: BP102T

PAPER ID-411405

Roll No: | | | | | | | | | | | | | |

BPHARM
(SEM I) THEORY EXAMINATION 2021-22
PHARMACEUTICAL ANALYSIS I – THEORY

Time: 3 Hours ***Total Marks: 75***

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. **10 x 2 = 20**

a.	Describe the term normality.
b.	Differentiate between Accuracy and Precision.
c.	Discuss the role of indicators in titrations.
d.	Explain acid and base as per Arrhenius theory.
e.	Define limit test.
f.	Define principle of gravimetry analysis.
g.	Explore the term Dichrometry.
h.	Write principle of Polarography.
i.	What do you mean by electrochemical methods of analysis?
j.	Define metal ion indicator with suitable example.

SECTION B

2. Attempt any *two* parts of the following: **2 x 10 = 20**

a.	Describe various types of errors and methods for minimizing them.
b.	Explain the significance of non-aqueous titrations. Differentiate between "Levelling solvents" and "Differentiating solvents" with suitable example.
c.	Discuss the detailed account of Mohr's method and Volhard's method.

SECTION C

3. Attempt any *five* parts of the following: **7 x 5 = 35**

a.	Outline the various techniques of analysis used in pharmaceuticals.
b.	Discuss various neutralization curve of acid base titrations.
c.	Differentiate co-precipitation and post precipitation with suitable example.
d.	Explain Iodometry and Iodimetry.
e.	Discuss estimation of Barium sulphate.
f.	Illustrate the principle, instrumentation and applications of conductometry.
g.	Draw the construction of electrochemical cell. Describe the working of standard hydrogen electrode and standard calomel electrode.

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Paper Id: 233159 **Roll No.** | | | | | | | | | | |

B. PHARM
(SEM 1) THEORY EXAMINATION 2022-23
PHARMACEUTICAL ANALYSIS-I

Time: 3 Hours ***Total Marks: 75***

Note: Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. **10 x 2 = 20**

(a) Describe the term Molarity.

(b) Differentiate between primary and secondary standard.

(c) Explain the levelling and differentiating effect.

(d) Describe aqueous and non-aqueous titration.

(e) Illustrate the significance of modified Volhard's method.

(f) $KCl + AgNO_3$ $AgCl + KNO_3$, Predict the given example of reaction is related to which titration.

(g) Define the term Indicator.

(h) Define the terms oxidation and reduction.

(i) Explain about standard and indicator electrode.

(j) Discuss electrochemical methods of analysis.

SECTION B

2. Attempt any *two* parts of the following: **2 x 10 = 20**

(a) Explain the various methods of expressing concentration in detail.

(b) Classify acid base indicators. Explain the theory of indicators with suitable examples.

(c) Discuss the detailed account of various steps involved in gravimetric analysis.

SECTION C

3. Attempt any *five* parts of the following: **7 x 5 = 35**

(a) Outline the various techniques of analysis used in pharmaceuticals.

(b) Explain various neutralization curve of acid base titrations.

(c) Describe a brief note on Mohr's method of precipitation titration.

(d) Differentiate between Iodimetric and Iodometric titrations with suitable examples.

(e) Classify different types of redox titrations. Discuss the principle of Dichrometry.

(f) Discuss the principle, instrumentation, and applications of conductometry.

(g) Illustrate the working of Dropping Mercury Electrode (DME).

PAPER ID-311195

Subject Code: BP102T

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BPHARM

(SEM I) THEORY EXAMINATION 2023-24

PHARMACEUTICAL ANALYSISI – THEORY

TIME: 3HRS **M.MARKS: 75**

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. 10 x 2 = 20

a.	Define mole fraction.
b.	How can you prepare 1molar oxalic acid solution?
c.	Give the principle behind limit test of chloride.
d.	Write various solvents used in non-aqueous titration.
e.	Define diazotization.
f.	Define iodometry.
g.	Write the principle of polarography.
h.	Give the principle of volhard's method.
i.	How will you estimate calcium gluconate?
j.	What do you understand from neutralization curves?

SECTION B

2. Attempt any *two* parts of the following: 2 x 10 = 20

a.	Give the principle and steps involved in gravimetric analysis.
b.	Classify acid base titrations. Give example of strong acid and strong base titration.
c.	Write various sources of errors.

SECTION C

3. Attempt any *five* parts of the following: 7 x 5 = 35

a.	Write the methods of minimizing errors.
b.	Describe the source of impurities in medicinal agents.
c.	Describe Mohr's method.
d.	Describe masking and damasking reagents in complexometric titration.
e.	Write the principle and example of redox titration.
f.	Write the methods to determine end point of potentiometric titration.
g.	Write the construction and working of reference (Standard hydrogen) electrode.

PAPER ID-311360

Roll No: | | | | | | | | | | | | | |

BPHARM
(SEM I) THEORY EXAMINATION 2024-25
PHARMACEUTICAL ANALYSISI – THEORY

TIME: 3 HRS **M.MARKS: 75**

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. **10 x 2 = 20**

a.	Define secondary standard with example.
b.	Enlist the various sources of errors.
c.	What do you mean by acid according to Bronsted Lowry theory
d.	Recall the name of weak acid.
e.	What is masking agents and demasking agents?
f.	Define the Ilkovic equation
g.	What do you mean by co-precipitation?
h.	Define reducing agents with example.
i.	How EDTA work in complexometric titration?
j.	Classify the electrodes in potentiometric titration.

SECTION B

2. Attempt any *two* parts of the following: **2 x 10 = 20**

a.	Discuss the preparation and standardization method of sodium hydroxide and potassium permanganate.
b.	Explain Mohr's method in precipitation titration. Explain about post precipitation.
c.	Demonstrate the Iodimetry and Iodometry.

SECTION C

3. Attempt any *five* parts of the following: **7 x 5 = 35**

a.	Discuss the various sources of impurities in medicinal agents
b.	Explain the theories of acid base indicators.
c.	Describe the Modified Volhard'sin precipitation titration.
d.	Explain the standardization of $KMnO_4$.
e.	Discuss the estimation of Sodium benzoate in Non-aqueous titration.
f.	Demonstrate construction and working of standard hydrogen and glass electrode.
g.	Illustrate the principles, methods and application of diazotization titration.

Paper ID : 250429

Roll No: | | | | | | | | | | | | | |

BPHARM
(SEM I) THEORY EXAMINATION 2024-25
PHARMACEUTICAL ANALYSIS-I

TIME: 3 HRS **M.MARKS: 75**

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. **10 x 2 = 20**

a.	Define molarity and normality.
b.	Define acid base titration with example.
c.	Enlist types of errors in pharmaceutical analysis.
d.	Recall the name of solvent used in nonaqueous titration.
e.	What do you by metal ion indicators.
f.	Enlist application of redox titrations titration in pharmaceutical analysis.
g.	What do you mean by demasking reagents?
h.	Define reducing agents with example.
i.	How EDTA work in complexometric titration?
j.	Classify the electrodes in potentiometric titration.?

SECTION B

2. Attempt any *two* parts of the following: **2 x 10 = 20**

a.	Discuss the sources of errors, types of errors and methods of minimizing errors.
b.	Explain Volhard's, and Modified Volhard's method in precipitation titration.
c.	Demonstrate construction and working of reference electrode.

SECTION C

3. Attempt any *five* parts of the following: **7 x 5 = 35**

a.	Explain sources of impurities in medicinal agents.
b.	Describe the preparation and standardization of potassium permanganate
c.	Define indicator with example. Discuss the theories of acid base indicators.
d.	Illustrate theprinciple and steps involved in gravimetric analysis.
e.	Explain the principle and differences between Iodimetry and Iodometry.
f.	Discuss the estimation of Sodium benzoate in Non-aqueous titration.
g.	Explain the principle of Polarography. Derive and explain the Ilkovic Equation.