

**BACHELOR OF PHARMACY (B. PHARM.) (CBCS-2019 COURSE)**  
**B. Pharm. Sem-I :SUMMER- 2022**  
**SUBJECT : PHARMACEUTICAL ANALYSIS (THEORY)**

Day : Wednesday  
Date : 13-07-2022

**S-20654-2022**

Time : 10:00 AM-01:00 PM  
Max. Marks : 75

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**N.B.:**

- 1) All questions are **COMPULSORY**.
  - 2) Figures to the right indicate **FULL** marks.
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**Q.1** Answer all questions: **(20)**

- a) Give criteria for selection of Primary standards.
- b) Define Ligand and Chelate.
- c) What is Specific and Molecular conductance?
- d) Define Molarity and Normality along with its equation.
- e) Define Reference and Indicator electrode.
- f) What are the different types of indicators used in Redox titration? Give example of each.
- g) Differentiate between Iodimetry and Iodometry.
- h) Write applications of Polarography.
- i) Give the preparation and standardization of 0.1 M Perchloric acid.
- j) Define the terms Accuracy and Precision with suitable example.

**Q.2** Attempt any **TWO** of the following: **(20)**

- a) What are Errors? Classify them with suitable examples. Explain in detail various methods to minimize errors.
- b) What are precipitation titrations? Discuss the methods to determine the end point for precipitation titrations.
- c) Describe in detail the various steps involved in Gravimetric analysis.

**Q.3** Attempt any **SEVEN** of the following: **(35)**

- a) Give the various sources of impurities in medicinal agents and how to minimize them.
- b) Write a note on theories of indicators in Acid- base titrations.
- c) Discuss the classification of non-aqueous solvents in Non- aqueous titration.
- d) Give the procedure, chemical reaction and principle in the assay of Sodium chloride.
- e) Explain in brief Masking agents and Demasking agents.
- f) Give the applications of Diazotisation titrations.
- g) Explain in detail Cerimetric titrations.
- h) Discuss the Conductometric titration in detail.
- i) What is Potentiometry? Discuss in brief construction and working of Glass electrode.

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