

ANALYSIS

UNIT - I

- ① What are the different methods of expressing concentration (V)
- ② Write about various sources, types and methods of minimizing errors in pharmaceutical analysis. (V)
- ③ Differentiate between Primary and Secondary Standards. (V)
- ④ Write about different techniques of analysis
- ⑤ Write about Preparation and standardization of :
 - Oxalic Acid
 - Potassium Permanganate (KMnO_4)
 - Sodium Hydroxide (NaOH)

UNIT - II

- ① Write about theories of Acid-Base Indicators. (V)
- ② Define various Neutralization Curve for Acid-Base titrations. (V)
- ③ Write about theory of Acid-Base Titration.
- ④ Define Handerson - Hasselbalch Equation (V)
- ⑤ What is Non-Aqueous Titration Also define its advantages and disadvantages
- ⑥ Discuss the various types of solvents used in Non-Aqueous Titration (Protogenic, Protophilic, Amphoteric, Aprotic) (V)
- ⑦ Estimation of Sodium Benzoate

UNIT III

- ① Write a detail note on Mohr's Method / Volhard's Method / Fajan's Method. (V)
- ② Describe in detail about Masking and Demasking Agents. (V)
- ③ Define pM indicators (Metal Ion Indicators).
- ④ Define principle and steps involved in gravimetric analysis (V)
- ⑤ Differentiate between Co-Precipitation and Post Precipitation (V)
- ⑥ Define basic principle, methods and application of Diazotisation Titration (V)
- ⑦ Estimation of Barium Sulphate

UNIT-IV

- ① What is Redox Titration, define the concept of oxidation & reduction (V)
- ② Write a short note on Iodimetry and Iodometry. (V)
- ③ Types of indicators used in redox titration
- ④ Define Bromatometry.

UNIT-V

- ① Describe in detail about conductometric titration (V)
- ② Give the construction and working of reference electrochemical cell (Standard hydrogen, Silver chloride, Calomel electrode)
- ③ Define Polarography and explain the mechanism of Dropping Mercury Electrode (DME)