Ref. No.: Ex/BP102/T/2023

B. Pharm. 1st Yr. 1st Sem. Exam. 2023

Sub: Pharmaceutical Analysis (BP102T)

Time : 3 hours **Full Marks : 100**

Answer five questions taking *at least one* from each group

GROUP A

1. A. Define the following terms (any four) [4x1.5=6]

a) Titration b) Titrant c) Equivalence point d) Acidimetry e) End point

B. How you will titrate a weak acid with a strong base? [9]

or

Discuss two theories of acid base indicators. [9]

2. Write details about Volhard **or**Mohr'sMethod of precipitation titration. What are the basic differences of Volhard Method and modified Volhard Method? Write short notes on mixed indicator. [7+3+5]

3. a) Write short notes on levelling effect and differentiating effect. [8]

b) How you will prepare and standardize 0.1 N perchloric acid. [7]

GROUP B

4. Write short notes (any three) [5 x 3 =15]

(a) Permanganometry

(b) Cerimetry

(c) Bromatometry

(d) Redox indicator

5. What is redox titration? Write with example. Discuss the methods and different sources of error in redox titrations involving iodine. [5+5+5=15]

GROUP C

6. a) Define Normality and Molality. [5+5+5=15]

b) Write about Primary and secondary standard with suitable example.

c) Write about errors.

7. a) How will you prepare and standardize Oxalic acid, Sodium thiosulphate, Potassium permanganate, Ceric ammonium sulphate, Sodium hydroxide (Any three)

b) Write a short note on Pharmacopeia. [4×3+3=15]

GROUP D

8. a) Write in detail about the measurement of conductivity with proper diagram. [7]

b) What are the applications and advantages of conductometric titrations? [8]

9. a) Write in detail about the principle of potentiometric titrations and the measurements by potentiometer with proper diagram. [7]

b) Write an account on standard hydrogen electrode and silver-silver chloride electrode. [8]