

Ref. No.: Ex/BP102T/2024

B. PHARMACY FIRST YEAR FIRST SEMESTER EXAM 2024

SUBJECT: PHARMACEUTICAL ANALYSIS I, Full Marks 75

Answer any five by taking at least one from each Group

Group A

1. Discuss the principle with an example in case of cerimetry and chromimetry. Why the titrations involving KMNO_4 are done in acidic medium? Write a short note on bromatometry. [7+3+5]
2. Write an introduction on redox titrations involving iodine. What are the measures to be taken to remove the possible sources of errors in case of titrations involving iodine? How can the iodometric titrations be used to determine (a) copper in crystallized copper sulphate and (b) dissolved oxygen in water? [4+5+6]

Group B

3. A. Define the following terms (**any four**) [4x2=8]
a) Titration b) Titrant c) Equivalence point d) Titrand e) End point
B) How you will titrate a strong acid with a strong base? [7]
4. What is the principle of precipitation titration? Write details about Volhard or Mohr's Method of precipitation titration. Discuss two theories of acid-base indicators. [3+7+5]
5. a) Write short notes on levelling effect and differentiating effect. [7]
b) How you will prepare and standardize 0.1 N perchloric acid. [8]

Group C

6. Discuss the principle and advantages of polarography. Discuss different types of current in polarography. What are the factors affecting diffusion current? [5+5+5]
7. Discuss the applications of conductivity measurements. Write in detail about conductivity measurements. Write in detail about the advantages of conductometric titrations. [5+5+5]
8. Discuss the Nernst equation in detail. Discuss the principle of potentiometric titrations. Write in detail about Gran's plot. [5+5+5]

[Turn over

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B. Pharm 1st year 1st semester Examination 2023-24

Subject: Pharmaceutical Analysis I (BP102T)

Group D

9. a) Define Normality and Molarity. [4+4+7=15]
b) Write about Primary and secondary standard with suitable example.
c) How will you minimizing errors in Pharmaceutical Preparations? Explain.
10. a) How will you prepare and standardize Potassium permanganate, Sodium hydroxide, Sodium thiosulphate, Ceric ammonium sulphate? (Any three)
b) Write a short note on different type of analysis. [4×3+3=15]