B. Pharm 1st Year 1st Semester Examination-2022
BP-102T
Pharmaceutical Analysis -I

FM-100   Time-3hrs

Group - A

Answer **any one** of the following questions.

1. a) Define following terms   (any four)   [4x2.5=10]
(i) Titration (ii) Titrant (iii) Titrand (iv) Equivalence point (v) End point
b) How will you titrate a weak acid with strong base?   [10]
c) Levelling effect   [5]

2. a) What is the principle of Diazotization titration? Write about detail mechanism of Diazotization titration.   [5+7=12]
b) What are the principles of non-aqueous titration and precipitation titration? Write details about Volhard method of precipitation titration.   [3+3+7=13]

Group-B

Answer **any one** of the following questions.

3. Write short notes   [5x5 = 25]
(a) Redox titration (b)   advantages of cerium (IV) sulphate as oxidizing agents (c)   Theory of Bromatometry (d)   The advantages and disadvantages of permanganometry (KMnO4 as oxidizing agent) (e)   Redox indicator

4. What are iodimetry and iodometry? Discuss in short the procedure and different sources of error in titrations involving iodine as well as its applications.   [4+10+11]

Group-C

Answer **any two** of the following questions

5. (a) Discuss briefly about the measurement of conductivity.   (b) What are the applications of conductivity measurements?   (c) Discuss briefly the advantages of conductometric titrations.   [4+4.5+4]

6. (a) Discuss about different types of current in polarography. (b) Discuss the factors affecting diffusion current in polarography (c) Write an account on the advantages and applications of polarography.   [4.5+4+4]

7. (a) Discuss in details about Nernst equation in potentiometry (b) Write in details about the principle of potentiometric titration. (c) Write a short note on Gran's plot.   [4.5+5+3]

Group-D

Answer **any one** of the following questions

8. (a) Define molarity and molality, (b) Explain primary and secondary standard with suitable examples (c) Describe Pharmacopeia. (d) Define limit test.   [6+8+6+5]

9. a) Prepare and standardize one molar of following (any two) (i) Oxalic acid (ii) Sodium hydroxide (iii) Hydrochloric acid (iv) Sulphuric acid   [6 x 2 = 12]

b) Write about errors. How you can minimize it?   [13]