KNT/KW/16/6549

B.Pharm (Second Semester) (C.B.S.) Examination

PHARMACEUTICAL ANALYSIS—I

Paper—4 (2 T 4)

Time : Three Hours] [Full Marks : 80

N.B. :— (1) Question No. **1** is compulsory.
(2) Solve any **FOUR** questions from the remaining.
(3) Draw neat labeled diagram wherever necessary.
(4) Use of electronic calculator is permitted.
(5) Assume suitable data wherever necessary.

1. Solve any **FIVE** of the following :
   (a) What is difference between idometric and idemetric titrations ?
   (b) Write about various types of non-aqueous solvents.
   (c) Explain ligand, chelates and complexes.
   (d) Why freshly prepared solutions of potassium permanganate is heated prior to its use in titrations ?
   (e) Write a note on preparation and standardization of 0.1 M Perchloric acid.
   (f) Write a note on theory of Indicators. 5×4=20
2. (a) Describe Neutralization theory and neutralization curves of different acid-base titrations. 8
   (b) Define errors and classify them. How errors can be minimised ? 7
3. (a) What are adsorption indicators ? 5
   (b) Describe Mohr's Method for halide determination. 10
4. (a) Describe Redox titration curves. How end points are detected in redox titration ? 8
   (b) Explain standard reduction potential and formal potential. Give their significance in redox reaction. 7
5. Explain practical aspect in Gravimetric Analysis. Explain steps involved in it. Discuss in detail co-precipitation and post-precipitation. 15

6. Discuss principle and procedure involved in the assay of any **THREE** :

   (a) Asprin

   (b) Hydrogen peroxide

   (c) Calcium gluconate

   (d) Iodine solution

   (e) Phenol. 3×5=15

7. Write short notes on any **THREE** of the following :

   (a) Primary and Secondary standards

   (b) Methods of expressing concentration

   (c) Masking and Demasking

   (d) Thermogravimetry

   (e) Henderson-Hasselbach equation. 3×5=15