NKT/KS/17/6549

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

PHARMACEUTICAL ANALYSIS—I

Paper—4

Time : Three Hours] [Maximum 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) Assume suitable data wherever necessary.

1. Solve any **five** of the following : 4×5=20
   (a) Define ligands. Classify them with examples.
   (b) Write about primary and secondary standards.
   (c) Why is magnesium added in calcium determination by complexometry ?
   (d) Give the preparation and standardization of 0.1 M perchloric acid.
   (e) Comment on the role of glycerin in the assay of boric acid.
   (f) Compare and contrast Iodimetry and Iodometry.
   (g) Define Normality and Molarity with suitable examples. Compare their merits and demerits.
2. (a) Classify non-aqueous solvents with suitable examples. 10
   (b) Explain levelling and differentiating effect of non-aqueous solvent. Write assay of Ephedrine hydrochloride by non-aqueous titration. 5
3. (a) What is gravimetric analysis ? Explain unit operations involved in gravimetric analysis. 10
   (b) Discuss in brief co-precipitation and post-precipitation. 5
4. (a) Write the theory of adsorption indicators. 7
   (b) Explain Volhard's method. Give the method for preparation and standardization of 0.1 M silver nitrate. 8
5. (a) Explain theories of neutralisation indicator. 7
   (b) Define accuracy, precision and error. Give the classification of errors and write in short methods to minimise them. 8
6. (a) Explain types of EDTA titration and write the factors affecting stability of complex formed. 10
   (b) Discuss the theory of metal ion indicator. 5
7. Write a note on Redox indicators with examples. Discuss about ceric ammonium sulphate titration. Give the method for preparation and standardization of 0.02 M potassium permanganate. 15

NXO—20304