NTK/KW/15 – 6989

Fourth Semester Examination for the Degree of Bachelor of Pharmacy

PHARMACEUTICAL   ANALYSIS – II

Paper - 4 T 3

Time : Three Hours]   [Max. 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.

1. Solve   any **five** questions of the following :—

    (a) Describe the various factors effecting TG curve.

    (b) Define specific and molar refraction.

    (c) Write the methods for detecting end point in potentiometric titration.

    (d) Write about derivative and pulse polarography.

    (e) Give the applications of differential scanning calorimetry.

    (f) Write a note lon electrogravimetry.

    (g) Explain in brief about construction and working of Abbe's refractometer.   4x5=20

2. Discuss in brief about theory, applications and limitations of conductometric titrations.   15

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3. (a) Write the theory of polorography and give the significance of Ilkovic equation. 8

   (b) Write the principle and applications of amperometric titrations. 7

4. (a) Describe in detail reference and indicator electrodes used in potentiometry. 8

   (b) What is the theory of differential thermal analysis? Give its application. 7

5. Describe in detail instrumentation and applications of polarimetry. Give the factors affecting angle of rotation. 15

6. Define thermogravimetry. Explain various factors affecting TG curves with suitable example. Mention application of thermogravimetry. 15

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

   (a) Standard electrode potential.

   (b) Recent advantages in polarography.

   (c) Pharmaceutical applications of DTA and DSC.

   (d) Karl Fischer titration. 3x5=15