Roll No. ☐☐☐☐☐☐☐☐☐☐☐☐☐   Total No. of Pages : 01

Total No. of Questions : 06

M.Pharmacy (Pharmaceutical Analysis)   (Sem.–1)
MODERN PHARMACEUTICAL ANALYTICAL TECHNIQUES
Subject Code : MPA-101T
M.Code : 74693

Time : 3 Hrs.   Max. Marks: 75

INSTRUCTIONS TO CANDIDATES :
1. **Attempt any FIVE questions out of SIX questions.**
2. **Each question carries FIFTEEN marks.**

1. **Write briefly :**

   a. Define Beer lamber's law   (2×7+1=15)

   b. Coupling constant

   c. What are hysochromic and hyperchromic shifts?

   d. Types of pumps in HPLC

   e. Define retention time and column efficiency

   f. Nernest equation

   g. What is the Full form of FAB?

2. Discuss in brief the various thermal method of analysis giving their advantages and disadvantages of each   (15)

3. Give the principle of Ion Exchange chromatography and briefly describe the exchangers used for it.   (10)

   Give a brief outlines of principle of Flourimetry   (5)

4. Write short notes on :

   a. Ultra high performance liquid chromatography   (5)

   b. Capillary electrophoresis   (5)

   c. Metastable ions and isotopic peaks   (5)

5. Comment on analytical and guard columns in HPLC   (10)

   Explain Index of hydrogen deficiency   (5)

6. Discuss the theory of flourimetry. Discuss the factors effecting fluorescence of a compound. Mention advantages of flourimetry over UV.   (15)

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.