

Roll No.

Total No. of Pages : 01

Total No. of Questions : 06

M.Pharma (Pharmaceutical Chemistry) (Sem.-2)

ADVANCED SPECTRAL ANALYSIS

Subject Code : MPC-201T

M.Code : 74955

Date of Examination: 12-12-2022

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. Explain in brief :
 - a. Woodward fischer rule
 - b. COSY
 - c. Isotopic peaks
 - d. HPLC columns
 - e. Principle of ELISA
2.
 - a. Give the principle, instrumentation and application of TGA.
 - b. Define RIA and give assay of insulin.
3. Give the principle and discuss the various factors affecting separation of Ion Exchange chromatography. Discuss its application.
4.
 - a. Nitrogen rule and its application in mass spectrophotometry.
 - b. Explain interface of LC-MS.
5.
 - a. Name and define the law useful to determine the frequency of various types of IR bands. Discuss its applications.
 - b. Define and give applications of Beer lambert law. Elaborate various terms with suitable example chromophore, auxochrome, bathochromic and hypsochromic shifts.
6.
 - a. Name and explain 2D NMR techniques.
 - b. Briefly describe gas chromatography hyphenated techniques.

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.