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

Total No. of Questions : 06

M.Pharmacy(Pharmaceutical Quality Assurance) (2017 & Onwards)
(Sem.–1)

MODERN PHARMACEUTICAL ANALYTICAL TECHNIQUES

Subject Code : MQA-101T

Paper ID : [74699]

Time : 3 Hrs. Max. Marks: 75

INSTRUCTIONS TO CANDIDATES :

1. Attempt any FIVE questions out of SIX questions.
2. Each question carries FIFTEEN marks.

I a. What is solvent effect in UV? Describe two important requirements of solvent suitable for UV spectroscopy.

b. How many fundamental vibrational frequency would you expect to observe in IR spectrum of CH_3CHO?

c. Compare fluorimeter with UV visible spectrophotometer.

II a. What are the advantages of ^{13}C NMR over ^{1}H NMR?

b. Explain shielding-deshielding effect with one example of each.

c. What is the coupling constant? How will you use this for the interpretation of NMRspectrum?

III a. Compare FAB and MALDI mode of ionization in mass spectrometry.

b. Describe the fragmentation pattern of benzaldehyde in mass spectrum.

c. Discuss nitrogen rule and its applications in mass spectrometry.

IV a. Discuss factors affecting the resolution in GLC.

b. Give the critical account of ion exchange resin in ion exchange chromatography.

c. Discuss ideal properties of gases used in GLC.

V a. What is the principle of isoelectric focusing? Describe its advantage over the other electrophoresis techniques.

b. Explain Bragg's law and describe its application in X-ray crystallography.

VI a. Briefly describe the influence of various experimental parameters in DSC analysis.

b. What is the principle of DTA? Describe its advantages and disadvantages over other thermal analysis techniques.