

BACHELOR OF PHARMACY (B. PHARM.) (CBCS - 2015 COURSE)
Final Year B. Pharm. Sem-VII :SUMMER- 2022
SUBJECT : PHARMACEUTICAL ANALYSIS-V

Day : Thursday
Date : 21-07-2022

S-13724-2022

Time : 02:00 PM-05:00 PM
Max. Marks : 60

N.B.:

- 1) **Q. No 1 and Q. No.5 are COMPULSORY.**
- 2) Attempt any two questions from each section.
- 3) Answers to both the sections should be written in **SEPARATE** answer books.
- 4) Figures to the right indicate **FULL** marks.

SECTION-I

- Q.1** Answer **ANY FIVE** questions form the following (10)
- a) Write the beer's lamberts law.
 - b) What do you mean by Auxochrome?
 - c) What do you mean by Red shift?
 - d) What do you mean by ground state and exited state?
 - e) Why 1, 3 butadiene has lower absorbance maxima than 1, 3, 5 hexatriene?
 - f) List out the various regions in the EMR.
- Q.2** Write the electronic transition involved in UV-Vis spectroscopy and discuss (10)
criteria for choice of solvents for UV spectroscopic experiment.
- Q.3** Discuss the properties of EMR and its interaction with matter. (10)
- Q.4** Write short note on **ANY TWO** (10)
- a) Spectrophotometric titrations
 - b) Gratings
 - c) Woodward Fieser rule for dienes

SECTION-II

- Q5** Answer **ANY FIVE** questions form the following (10)
- a) Clarify the term single bond IR region.
 - b) Explain your concept of fundamental IR band
 - c) Define spectrofluorometry and chemiluminescence
 - d) Enlist any four factors affecting fluorescence intensity
 - e) What do you mean by fluorescence quenching?
 - f) What is principle of RAMAN spectroscopy?
- Q.6** Describe principle, instrumentation, applications and advantages of (10)
Nephelometry.
- Q.7** Describe principle, instrumentation, and applications of Fluorimetry. (10)
- Q.8** Write short note on **ANY THREE** (10)
- a) Comparative aspects of fluorometry and phosphorimetry
 - b) Types of vibrations in molecule
 - c) Applications of Raman spectroscopy.