

BACHELOR OF PHARMACY (B. PHARM.) (CBCS - 2015 COURSE)
Final Year B. Pharm. Sem-VII : WINTER : 2021
SUBJECT: PHARMACEUTICAL ANALYSIS-V

Day : Wednesday
Date : 19-01-2022

W-13724-2021

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

N.B.:

- 1) **Q.No.1** and **Q.No.5** are **COMPULSORY**. Out of the remaining answer attempt **ANY TWO** questions from each section.
- 2) Answers to both the sections should be written in the **SEPARATE** answer book.
- 3) Figures to the right indicate **FULL** marks.

SECTION – I

- Q.1** Answer **ANY FIVE** of the following: [10]
- a) Define wavelength and amplitude.
 - b) What do you mean by Hypsochromic shift?
 - c) Explain sample holders in spectrophotometers.
 - d) Write limitations of Beer's Law.
 - e) What do you mean by Gratings? Explain.
 - f) Discuss types of electrons involved in electronic transition.
- Q.2** Discuss in detail the general components of a spectroscopic instrument. [10]
- Q.3** a) Discuss any three quantitative applications of UV-Vis spectroscopy. [06]
b) Explain the process of absorption of energy. [04]
- Q.4** Write notes on **ANY TWO** of the following: [10]
- a) Woodward Fieser rule for diene and enone
 - b) Choice of solvents in UV Vis spectroscopy
 - c) Spectrophotometric Titration

SECTION – II

- Q.5** Answer **ANY FIVE** of the following: [10]
- a) Define Fermi resonance.
 - 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** Write the principle, instrumentation and applications of Nepheloturbidimetry. [10]
- Q.7** a) Write the important spectral regions of IR spectrum and explain. [07]
b) Compare IR and Raman Techniques. [03]
- Q.8** Write notes on **ANY TWO** of the following: [10]
- a) Instrumentation of Fluorometry
 - b) Excitation and emission spectra
 - c) Advantages and disadvantages of Fluorometry.

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