

FINAL YEAR B.PHARM. SEMESTER-VII (2011 COURSE) :  
WINTER - 2017

SUBJECT : PHARMACEUTICAL ANALYSIS – V

Day : Saturday  
Date : 11/11/2017



Time : 02.00 PM TO 05.00 PM  
Max. Marks : 80

W-2017-3844

N.B.:

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

SECTION - I

- Q.1 Attempt **ANY FIVE** of the following: [10]
- a) Define the terms 'Wave number and Frequency'
  - b) Why UV spectra are looking as continuous spectra?
  - c) Explain the term chromophore
  - d) Explain the term absorptivity
  - e) What do you mean by Bathochromic shift?
  - f) Which of the following compounds will have higher  $\lambda_{\max}$ ? Why?
- i)  ii) 
- Q.2 a) Write an exhaustive note on EMR and explain its interaction with matter [08]  
b) Write a note on Monochromators [07]
- Q.3 a) Discuss the Double beam spectrophotometer in detail [08]  
b) Write a note on theory behind UV spectroscopy [07]
- Q.4 Write short notes on **ANY THREE** of the following: [15]
- a) Effect of conjugation in UV absorbance
  - b) Woodward fieser's rule
  - c) Spectrophotometric titrations
  - d) Detectors in UV spectroscopy

SECTION - II

- Q.5 Attempt **ANY FIVE** of the following: [10]
- a) Difference between nephelometry and turbidimetry
  - b) Write any four applications of Fluorimetry
  - c) What do you mean by Fermi resonance
  - d) How will you differentiate primary, secondary and tertiary amine using IR spectra?
  - e) What do you mean by IR active compounds?
  - f) What do you mean by dipole moment
- Q.6 a) Write the theory behind the IR spectrometry [08]  
b) Write the principle and instrumentation of fluorimetry in detail. [07]
- Q.7 a) Discuss the instrumentation and working of turbidimetry in detail with suitable diagram [08]  
b) Discuss Raman spectroscopy [07]
- Q.8 Write short notes on **ANY THREE** of the following: [15]
- a) Principle behind phosphorescence
  - b) IR detectors
  - c) Sampling techniques in IR spectrometry
  - d) Turbidometric titrations

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