

Total No. of Questions : 6]

SEAT No. :

**P1451**

**[5049]-502**

[Total No. of Pages : 2

**T.Y.B.Pharmacy**

**PHARMACEUTICAL ANALYSIS - III  
(2013 Pattern) (Theory) (Semester - V)**

*Time : 3 Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) *All questions are compulsory.*
- 2) *Answers to the two sections should be written in separate answer books.*
- 3) *Figures to the right indicate full marks.*

**SECTION - I**

**Q1)** Discuss about principle and theory of UV - visible spectrophotometric analysis.[10]

OR

Explain about instrumentation of spectrofluorimeter. [10]

**Q2)** Attempt any five of the following: [15]

- a) Write about cuvettes used in UV Visible spectroscopy.
- b) Classify different instrumental methods of analysis.
- c) Explain atomic spectroscopy and molecular spectroscopy.
- d) Explain about source used in flame photometry.
- e) Explain properties of electromagnetic radiation.
- f) Discuss about intersystem crossing.
- g) Write about filters used in fluorimetric analysis.

**Q3)** Write a note on any two of the following: [10]

- a) Instrumentation of Nephelometer.
- b) Deviation from Beer's law.
- c) Fuels and oxidants used in Atomic Absorption Spectroscopy.
- d) A conventional diffraction grating.

*P.T.O.*

**SECTION - II**

**Q4)** Explain about instrumentation of Atomic Absorption Spectroscopy. [10]

OR

Discuss about instrumentation of flame photometry. [10]

**Q5)** Attempt any five of the following: [15]

- a) Explain absorption of energy by molecule.
- b) Explain the term fluorescence and phosphorescence.
- c) Give an account on source used in Atomic Emission Spectroscopy.
- d) Discuss about quenching of fluorescence.
- e) Write advantages of Atomic Absorption spectrophotometry.
- f) Explain excitation and emission spectra.
- g) Discuss about filters used in UV Visible spectroscopy.

**Q6)** Write a note on any two of the following: [10]

- a) Applications of fluorimetric analysis.
- b) Types of transitions involved in organic molecule.
- c) Theory of Atomic Emission Spectroscopy.
- d) Factor affecting fluorescence and phosphorescence.

