**P3162**

## [5245]-502

# Third Year B. Pharmacy (Semester - V) (Theory)
## 3.5.2 : PHARMACEUTICAL ANALYSIS - III
### (2013 Pattern)

*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)** What is EMR. Explain the wave and particle properties of EMR. Classify instrumental methods based on interaction or EMR with Matter. **[10]**

OR

Draw a neat diagram of double beam UV-Vis. Spectrophotometer. Explain the monochromators and detectors used in UV-Vis. Spectrophotometer.

**Q2)** Attempt Any five questions from the following: **[15]**
   a) What is photoelectric effect?
   b) Discuss principle involved in flame photometry.
   c) Define Beer-Lambert's law and derive equation for it.
   d) Explain apparent chemical deviation.
   e) Discuss Woodward-Fieser rule and its importance in analysis by UV-Spectrophotometry.
   f) Write a note on separating analytes from interferents.
   g) Classify instrumental methods of analysis.

**Q3)** Write a note on Any Two: **[10]**
   a) Derivative spectrophotometry
   b) Applications of flame photometry
   c) Liquid-liquid extraction
   d) Electronic transitions involved in UV-Spectrophotometry

*P.T.O.*

## SECTION - II

**Q4)** Discuss in detail about Instrumentation of Atomic Emision Spectrophotometry.

**[10]**

OR

Write in detail about instrumentation of phosphorimeter.

**Q5)** Attempt Any five questions from the following:  **[15]**

   a)   Write source of fluorimetric analysis

   b)   Applications of phosphorimetric analysis

   c)   Discuss about burners used in Atomic Absorption Spectroscopy

   d)   Applications of fluorimetric analysis

   e)   Discuss about theory of Turbidometry

   f)   Explain spectrofluorimeter

   g)   Explain Nephalometer

**Q6)** Write a note on Any Two:  **[10]**

   a)   Single beam fluorimeter

   b)   Applications of nephelo-turbidometric analysis

   c)   Source used in Atomic Absorption Spectroscopy

   d)   Theory of phosphorimetry

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