Total No. of Questions : 6]

SEAT No. :

P1990

[Total No. of Pages : 2

[5145]-502
T.Y.B.Pharmacy
3.5.2 : PHARMACEUTICAL ANALYSIS - III
(2013 Pattern) (Semester - V) (Theory)

Time : 3 Hours] *[Max. Marks : 70*

Instructions to the candidates:

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

SECTION - I

Q1) State Beer - Lamberts law and derive equation for it. Discuss in detail the limitations to Beer's law. **[10]**

OR

Draw a neat diagram of double beam UV-Visible Spectrophotometer. Describe various radiation sources and detectors used in UV-Visible spectroscopy.

Q2) Attempt Any five questions from the following: **[15]**

a) Explain the term chromophore, auxochrome and bathochromic shift.

b) Classify instrumental methods of analysis.

c) Explain principle involved in flame photometry.

d) Write a note on sampling plan.

e) Discuss different types of electronic transitions involved in UV-Spectroscopy.

f) Write a note on separating analytes from interferents.

g) Draw a neat diagram of burner used in flame photometry and explain its functioning.

P.T.O.

Q3) Write a note on Any Two: **[10]**

a) Derivative spectrophotometry.

b) Applications of flame photometry.

c) Liquid-liquid extraction.

d) Monochromators used in UV-Spectrophotometry.

SECTION - II

Q4) Discuss in detail about instrumentation of Atomic Emission Spectrophotometry. **[10]**

OR

Discuss different deactivation process involved in photoluminescence phenomenon.

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

a) Explain excitation and emission spectra.

b) Discuss about Nephelometer.

c) Write advantages of Atomic Absorption Spectrophotometry.

d) Give an account on source used in Atomic Emission Spectroscopy.

e) Explain factor affecting fluorescence and phosphorescence.

f) Explain Quenching of fluorescence.

g) Discuss source used in fluorimetric analysis.

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

a) Oxidants and fuels in Atomic Absorption Spectroscopy.

b) Spectrofluorimeter.

c) Theory of Atomic Emission Spectroscopy.

d) Applications of turbidometic analysis.

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