

B.Pharm III Year II Semester (R13) Supplementary Examinations May/June 2018

**PHARMACEUTICAL ANALYSIS – II**

Time: 3 hours

Max. Marks: 70

**PART – A**

(Compulsory Question)

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- 1 Answer the following: (10 X 02 = 20 Marks)
- What are photochemical reactions?
  - Enlists types of bending vibrations in IR.
  - Give effects of environment on NMR spectra.
  - What do you know about isotope peaks?
  - What is maximum burning velocity in cm/sec of hydrogen and acetylene gas?
  - Define luminescence and phosphorescence.
  - Name the windows from which X-ray tube made.
  - Define ORD and CD.
  - Which type of solid supports used in GC? Explain.
  - Enlists the main types of pumps used in HPLC.

**PART – B**

(Answer all five units, 5 X 10 = 50 Marks)

**UNIT – I**

- 2 Discuss instrumentation and applications of double beam UV-spectrophotometer.

**OR**

- 3 Give principle and applications of FT-IR. Add a note on molecular vibrations in IR.

**UNIT – II**

- 4 Explain instrumentation of NMR spectroscopy along with the chemical shift.

**OR**

- 5 Describe fragmentation process and patterns in mass spectrometry.

**UNIT – III**

- 6 Illustrate the spectrofluorometer instrument. Give its advantages and disadvantages.

**OR**

- 7 Compare flame emission photometry and AAS. Discuss interference in detail.

**UNIT – IV**

- 8 How will you analyze powder samples? State and explain Bragg's equation with examples.

**OR**

- 9 Describe Radio Immune Assay (RIA) in detail.

**UNIT – V**

- 10 Discuss GC-MS with its applications in pharmaceutical analysis.

**OR**

- 11 Give principle, instrumentation and applications of HPLC in pharmaceutical analysis.

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