Total No. of Questions :5] *[Total No. of Printed Pages :2*

Roll No .....

PY-602

B.Pharm. VI Semester

Examination, December 2016

Pharmaceutical Analysis-II

Time : Three Hours

Maximum Marks : 70

Note: i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.
ii) All parts of each question are to be attempted at one place.
iii) All questions carry equal marks, out of which part A and B (Max. 50 words) carry 2 marks, part C (Max. 100 words) carry 3 marks, part D (Max. 400 words) carry 7 marks.
iv) Except Numericals, Derivation, Design and Drawing etc.

1. a) What is Chromatogram?
   b) Write any two adsorbent for stationary phase in normal phase HPLC.
   c) How would you choose activate the adsorbent in TLC?
   d) Describe the principle and instrumentation of HPTLC.

   OR

   Describe the principal and instrumentation of HPLC.

2. a) What are Auxochromes?
   b) What is Bathochromic shift?
   c) Write a short note on electromagnetic spectrum.

420

   d) Describe the instrumentation and working of UV-Spectrophotometer. Discuss its application in Pharmaceutical analysis.

   OR

   Give an account on Fluorimetry.

3. a) What is fingerprint region in IR-spectrum?
   b) What is Fermi Resonance in IR-spectroscopy?
   c) Describe the Molecular Vibrations.
   d) Discuss the instrumentation and working of IR-Spectrometer. Discuss the application of IR-spectroscopy in analysis of pharmaceutical substance and pharmaceutical dosage forms.

   OR

   Describe the theory and application of X-Ray diffraction.

4. a) What is metastable ion or peak in Mass Spectroscopy?
   b) What is molecular ion peak in Mass Spectroscopy?
   c) What is McLafferty rearrangement in Mass Spectroscopy?
   d) Write a note on ionization techniques and mass analyzers in Mass Spectroscopy.

   OR

   Give an account on Radioimmunoassay.

5. a) What is precessional frequency in NMR-Spectroscopy?
   b) What is Chemical Shift in NMR-Spectroscopy?
   c) Write the basic principle of atomic absorption spectroscopy.
   d) Explain the instrumentation and working of NMR-Spectrometer.

   OR

   Write a note on Flame photometry.

******

421