

PY - 602**B.Pharm. VI Semester**

Examination, June 2015

Pharmaceutical Analysis-II

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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) State the important characteristics of solid support in GLC.
- b) What are the advantages of TLC over paper chromatography? rgpvonline.com
- c) Explain Hypsochromic and bathochromic shift.
- d) Draw schematic diagram of double beam UV spectrophotometer and discuss Four main type of transitions in it.

OR

Write advantages of FT-IR over dispersive IR. Explain working of Michelson interferometer.

2. a) Give approximate position of characteristic infrared bands in the following compounds :
 i) $\text{CH}_3-\text{CO}-\text{CH}_3$
 ii) $\text{CH}_3-\text{CH}_2-\text{OH}$.
 b) Why water is not used as a solvent in IR spectroscopy?
 c) What is shielding and deshielding effect?
 d) What is PNMR? Explain its principle in brief.

OR

What are different ionisation techniques in Mass spectrometry? Discuss chemical ionisation.

3. a) What is base peak and metastable peak in Mass spectrometry?
- b) Write important features of Mass Spectrum of alkanes.
- c) Write in brief basic principle of atomic absorption spectroscopy.
- d) Explain principle of X-ray diffraction analysis.

OR

Explain principle of fluorometric analysis.

4. a) What is spin-spin coupling? Explain. rgpvonline.com
- b) Write applications of X-ray analysis.
- c) Explain Fluorescence and phosphorescence.
- d) What are Radio-immuno assay? Explain their principle.

OR

What are different type of detectors used in HPLC? Explain UV detector.

5. a) What is reverse phase HPLC?
- b) Explain Beer's and Lambert's law.
- c) How IR helps in structure elucidation of a compound?
- d) What is HPTLC? Compare HPLC and HPTLC analysis.

OR

What is flame photometry? Write the working of a flame photometer.