

R07

Code No: R7601

JAWAHARLAL NEHRU TECHNOLOGY UNIVERSITY, HYDERABAD

B. Pharmacy IV Year I Semester Examinations, May-2012

PHARMACEUTICAL ANALYSIS-II

Time: 3 hours

Max. Marks: 80

**Answer any five questions
All questions carry equal marks**

- 1.a) Write about various energy levels in molecule and its interaction with UV, Visible and IR radiation.
- b) Factors related to Deviations of Beer –Lambert’s Law.
- c) Effect of LUMO and HOMO in Electronic transitions. [16]

2. Write a note on:
 - a) Chemical shifts in NMR
 - b) N+1 Rule
 - c) Various peaks in Mass spectrum. [16]

- 3.a) Types of Instrument in DSC and its application to pharmaceuticals.
- b) Various columns in Gas Chromatography.
- c) Detectors in HPLC. [16]

- 4.a) Circular Dichroism.
- b) Indirect ELISA.
- c) Two Dimensional TLC and Paper and its Application. [16]

5. Give Reason and justify the following
 - a) Meta stable peak in Mass spectrum
 - b) Conjugated alkene absorbs higher wavelength than isolated alkene
 - c) IR absorption bands are inverted
 - d) Molecule absorption spectrum is broad where as Atomic absorption spectrum is line a spectrum. [16]

6. Write in detail about:
 - a) Hooke’s Law
 - b) Column efficiency
 - c) Bonded stationary phases in HPLC. [16]

- 7.a) Write about the various parameters in chromatogram of HPLC.
- b) Types of injectors in GC. [16]

8. Write note on:
 - a) Adsorption isotherm in chromatography.
 - b) Application of HPTLC in Herbal drug analysis.
 - c) Electro osmotic flow in electrophoresis. [16]

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