

Code No: B134101

**R13****SET - 1****IV B. Pharmacy I Semester Advanced Supplementary Examinations, February - 2020**  
**PHARMACEUTICAL ANALYSIS-II**

Time: 3 hours

Max. Marks: 70

- Note: 1. Question paper consists of two parts (**Part-A** and **Part-B**)  
2. Answering the question in **Part-A** is Compulsory  
3. Answer any **THREE** Questions from **Part-B**
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**PART -A**

1. a) What is molar extinction coefficient? Write its significance. (4M)
- b) Write a note on sample preparation for NMR analysis. (4M)
- c) What is the significance of Glass transition point in DTA graph? (4M)
- d) What is isocratic elution technique? Write its advantages and disadvantages. (4M)
- e) Write ideal characters of a GC detector. (3M)
- f) Write applications of gel electrophoresis. (3M)

**PART -B**

2. a) With a neat sketch explain the construction of IR spectrometer. (8M)
- b) Discuss the role of solvents on UV absorbance of a chemical compound. (8M)
3. Write in detail on principle and working of (8M)  
(a) Magnetic sector analyzer (b) MALD ionization (8M)
4. a) Write a note on heat-flux DSC and their applications. (8M)
- b) Write principle, working and applications of XRD. (8M)
5. a) Explain the principle and procedure involved in ELISA. (10M)
- b) Differentiate gel chromatography and column chromatography. (6M)
6. Write in detail on (8M)  
(a) Van Deemeter equation (b) Paper electrophoresis (8M)
7. Give reasons for the following:
  - a. Development Chamber needs to be saturated with solvent vapor before placing the TLC plate for elution. (16M)
  - b. Finer particle size enhances resolution capacity of a stationary phase.
  - c. EIMS cannot be used for peptide analysis.
  - d. LCMS is used for drug metabolism studies.