

**Subject Code: PAQ12**

**M. Pharmacy-I Semester [R09] Regular/Supplementary Examinations, April-2013**

**CHROMATOGRAPHIC AND SPECIAL TECHNIQUES**

**(Pharmaceutical Analysis & Quality Assurance)**

**Time: 3 Hours**

**Max Marks: 60**

**Answer any FIVE questions**

**All questions carry EQUAL marks**

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1. a. Define chromatography. Write the basic principles of chromatography and classify various techniques available based on the concepts.  
b. Write a note on ion-exchange chromatography.
2. Discuss on the functioning of TLC, adsorbants used and its applications in the study of organic compounds citing examples.
3. Explain with a schematic diagram the working of an HPLC system, the solvents used, elution techniques and its applications in Pharmaceutical Analysis.
4. Describe with a flow diagram the functioning of a GCMS. Write the important applications of GCMS in the Analysis of organic molecules.
5. Write a detailed note on Supercritical Fluid chromatography and its pharmaceutical applications.
6. Write notes on
  - a) LCMS
  - b) HPTLC
7. Write notes on
  - a) Radio Immuno Assays
  - b) ELISA
8. a). Write the applications of Paper chromatography in the analysis of drugs  
b) Write a note on Electrophoresis.

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