

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY**

**M. Pharm. – SEMESTER – II • EXAMINATION – WINTER • 2014**

**Subject Code: 2920107**

**Date: 24-12-2014**

**Subject Name: Pharmaceutical Analysis - II**

**Time: 10:30 am - 01:30 pm**

**Total Marks: 80**

**Instructions:**

- 1. Attempt any five questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**

- Q.1** (a) Write a note on Super critical Fluid Chromatography. **06**  
(b) Describe About Size Exclusion chromatography. **05**  
(c) Write note on counter current chromatography. **05**
- Q.2** (a) Write principle, instrumentation and application of GCMS in pharmaceutical analysis. **06**  
(b) Discuss ICH guidelines for impurity and related substances determination in drugs. **05**  
(c) Write a note on methods of automated analysis. **05**
- Q.3** (a) Describe methods of solid state analysis of drugs. **06**  
(b) Write note on amino acid sequence analysis. **05**  
(c) Describe and discuss analysis of protein, isoelectric focusing and trypting mapping. **05**
- Q.4** (a) Describe standardization parameters used for evaluation of herbal drugs. **06**  
(b) Describe extraction methods for phytochemical analysis. **05**  
(c) Write note on estimation of pesticide residue in plants. **05**
- Q.5** (a) Discuss the fundamental theories controlling sample preparation techniques. **06**  
(b) Describe theoretical consideration of flow injection analysis. **05**  
(c) Discuss methods of assay for antihypertensive drugs. **05**
- Q. 6** (a) Discuss principles and procedures involved in the analysis of sedatives and tranquillizers. **06**  
(b) Write note on pharmaceutical sample preparation. **05**  
(c) Discuss role of mass spectrometry in identification of impurities. **05**
- Q.7** (a) Discuss application of LCMS in drug analysis with references to drug metabolism, toxicologic and forensic studies. **06**  
(b) Write WHO guidelines for quality control of raw materials used in herbal formulations. **05**  
(c) Discuss UV and fluorescent analysis of powdered crude drugs and their applications. **05**

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