

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm. – SEMESTER – VIII • EXAMINATION – SUMMER • 2014

Subject Code: 280004

Date: 27-05-2014

Subject Name: Pharmaceutical Analysis-IV

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) Discuss in detail theory of Raman scattering. Enlist applications of Raman spectroscopy. **06**
- (b) Give Bragg's law. Enlist the X-ray diffraction Techniques and discuss in detail Bragg X - ray spectrometer method. **05**
- (c) Write a note on ISO9001:2000 **05**
- Q.2** (a) Explain the following terms in light of Gas Chromatography: **06**
- (i) Retention Volume (ii) Corrected Retention Volume
- (iii) Adjusted Retention Volume (iv) Specific Retention Volume
- (b) Describe sample injectors used in GC **05**
- (c) Write a note on interaction of X - rays with matter **05**
- Q.3** (a) Enlist the detectors used in GC and discuss construction and working of any one. **06**
- (b) Give principle of ion-exchange chromatography. **05**
- (c) What are the different instruments used for measurement of radioactivity? Give a brief account of them. **05**
- Q.4** (a) Draw a labelled diagram of HPLC instrument. Explain any one detector used in HPLC. **06**
- (b) Write an explanatory note on size exclusion chromatography. **05**
- (c) Explain in brief GATT and TRIPS. **05**
- Q.5** (a) Discuss the principle of HPTLC. Give a detailed comparison of HPTLC with HPLC. **06**
- (b) Give an account of applications of HPLC. **05**
- (c) What are different types of immunoassays? Write a note on Radio Immuno assay. **05**
- Q.6** (a) What is Good Laboratory Practices? Enlist responsibilities of Management and Responsibilities of Personnel. **06**
- (b) Describe steps involved in filing patents. **05**
- (c) Write an explanatory note on Analytical Method Validation. **05**
- Q.7** (a) Describe columns and column packing materials used in GC. How is GC column conditioning done? **06**
- (b) Give principle and applications of Supercritical Fluid Chromatography. **05**
- (c) Write a short note on Nephelometry and Turbidimetry. **05**
