

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. Pharm-Semester-VIII Summer-2012 Examination

Subject code: 280004

Subject Name: Pharmaceutical Analysis - IV

Time: 10:30am to 1:30pm

Date: 19-05-2012

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) Explain the principle, instrumentation and applications of super critical fluid chromatography. **06**
(b) Describe the principle, technique and applications of ELISA. **05**
(c) Discuss validation parameters as per ICH guidelines. **05**
- Q.2** (a) Detectors used in gas chromatography. **06**
(b) Explain in brief technique of GC-MS, LC-MS and LC-MS/MS. **05**
(c) How do gas-liquid and gas-solid chromatography differ? Write limitation and applications of gas chromatography. **05**
- Q.3** (a) Discuss ion-exchange chromatography in detail. **06**
(b) Write a note on steps involved in patent filling in India. **05**
(c) Write a note on radio-immuno assay (RIA). **05**
- Q.4** (a) Explain Bragg's law and write a note on applications of X-ray diffraction. **06**
(b) What is the basic difference between X-ray absorption, X-ray fluorescence and X-ray diffraction method? Describe instrumentation for X-ray diffraction. **05**
(c) Define nephelometry and turbidimetry. Describe applications of nephelometry and turbidimetry. **05**
- Q.5** (a) Compare HPLC and gas chromatography. Describe principle and applications of HPLC. **06**
(b) Write a brief note on affinity chromatography. **05**
(c) Explain isotope dilution analysis in radiochemical methods. **05**
- Q. 6** (a) Discuss TRIPS and GATT in detail **06**
(b) Write a note on Good Laboratory Practice (GLP). **05**
(c) Differentiate the raman spectra and infrared spectra. Discuss applications of raman spectroscopy. **05**
- Q.7** (a) Size exclusion chromatography. **06**
(b) Describe advantage, disadvantage and applications of HPTLC. **05**
(c) Describe liquid scintillation system for radionuclide. Write applications of radionuclides. **05**
