

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. Pharm. – SEMESTER – VIII • EXAMINATION – WINTER • 2014

Subject Code: 280004

Date: 02-12-2014

Subject Name: Pharmaceutical Analysis-IV

Time: 02:30 pm - 05:30 pm

Total Marks: 80

Instructions:

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

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|-------------|------------|--|-----------|
| Q.1 | (a) | Define analytical method validation. Tabulate validation requirements for various analytical categories as per ICH guideline. Explain: how precision of assay method are determined? | 06 |
| | (b) | What are the different instruments used for measurement of radioactivity? Give a brief account of them. | 05 |
| | (c) | What is the basic difference between nephelometry and turbidimetry? Describe applications of nephelometry and turbidimetry. | 05 |
| Q.2 | (a) | Explain the principle, instrumentation and applications of super critical fluid chromatography. | 06 |
| | (b) | Explain principle of X-Ray diffraction. | 05 |
| | (c) | Explain in brief technique of GC-MS. | 05 |
| Q.3 | (a) | Describe liquid scintillation system for radionuclide. Write applications of Radionuclides. | 06 |
| | (b) | Explain Bragg's law and write a note on applications of X-ray diffraction. | 05 |
| | (c) | Write a brief note Raman spectroscopy. | 05 |
| Q.4 | (a) | Describe instrumentation for gas chromatography. | 06 |
| | (b) | Give principle of ion-exchange chromatography. | 05 |
| | (c) | Describe advantages, disadvantages and applications of HPTLC. | 05 |
| Q.5 | (a) | Enumerate principles of chromatography. Discuss size exclusion chromatography. | 06 |
| | (b) | Enlist the detectors used in GC and discuss construction and working of any one. | 05 |
| | (c) | Explain requirement of ISO 9001-2000. | 05 |
| Q. 6 | (a) | Compare HPLC and gas chromatography. Describe principle and applications of HPLC. | 06 |
| | (b) | Write in detail on detectors of HPLC. | 05 |
| | (c) | Give a brief account on ELISA technique. | 05 |
| Q.7 | (a) | Describe the principle, technique and applications of affinity chromatography. | 06 |
| | (b) | Write a note on Good Laboratory Practice (GLP). | 05 |
| | (c) | Explain in brief GATT and TRIPS. | 05 |
