

GUJARAT TECHNOLOGICAL UNIVERSITY**B. Pharm. - SEMESTER– VIII • EXAMINATION – Summer-2016****Subject Code: 280004****Date: 04/05/2016****Subject Name: Pharmaceutical Analysis IV****Time: 10:30 AM to 1:30 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) What is Analytical Method Validation? Write in detail about any three validation parameters as per ICH guideline. | 06 |
| | (b) Explain isotope dilution analysis in radiochemical methods. | 05 |
| | (c) Write a note on principle, technique and applications of ELISA. | 05 |
| Q.2 | (a) Explain Bragg's law and Give applications of X-ray diffraction | 06 |
| | (b) Write a note on detectors used in gas chromatography | 05 |
| | (c) Write in short about ISO 9001:2000. | 05 |
| Q.3 | (a) Write advantages, disadvantages and applications of gas chromatography. | 06 |
| | (b) Write a brief note on Nephelometry and Turbidimetry with its applications. | 05 |
| | (c) Write a note on radio-immuno assay (RIA) | 05 |
| Q.4 | (a) Explain in brief Hyphenated technique of chromatography. | 06 |
| | (b) Describe generation and characteristic of X-rays. | 05 |
| | (c) Write a short note on Good Laboratory Practice (GLP). | 05 |
| Q.5 | (a) Explain the principle, instrumentation and applications of super critical fluid Chromatography. | 06 |
| | (b) Give details of ion-exchange chromatography. | 05 |
| | (c) Define the following terms in HPLC : Resolution, Capacity factor, Theoretical Plates and peak asymmetry factor? | 05 |
| Q. 6 | (a) Describe advantage, disadvantage and applications of HPTLC. | 06 |
| | (b) What is patent? Write a note on steps involved in patent filling in India. | 05 |
| | (c) How Raman spectra recorded? Discuss applications of raman spectroscopy | 05 |
| Q.7 | (a) Give brief account on GATT and TRIPS | 06 |
| | (b) Write a short note on affinity chromatography. | 05 |
| | (c) Give units of radioactivity. Write a note on applications of radionuclides? | 05 |
