Seat No.:	Enrolment No.

## GUJARAT TECHNOLOGICAL UNIVERSITY B. Pharm. – SEMESTER – VI • EXAMINATION – WINTER • 2016

Subject Code: 2260003 Date: 22-10-2016

**Subject Name: Pharmaceutical Analysis - IV** 

Time: 02.30 pm To 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.

Q.1	(a) (b) (c)	Derive Bragg's law. Give importance of X-ray diffraction. Give Principle of Gas Chromatography. What is Nuclear Chemistry? Write a note on Neutron Activation Analysis.	06 05 05
Q.2	(a) (b) (c)	Explain various Scattering Spectroscopy techniques with their applications. Describe generation and characteristic of X-rays. Give Principle and Applications of ion-exchange Chromatography.	06 05 05
Q.3	(a) (b) (c)	What is Intellectual Property Right (IPR)? Write a note on GATT and TRIPS. Write a note on ISO 9001:2000. Write a note on Basic issues of GLP.	06 05 05
Q.4	(a) (b) (c)	Give Instrumentation and applications of HPTLC. Write a note on detectors used in Gas Chromatography. Write a note on Isotope dilution analysis.	06 05 05
Q.5	(a) (b) (c)	Give instrumentation of HPLC with labeled diagram. Give brief introduction of LC-MS and LC-MS/MS. Give Pharmaceutical Applications of HPLC.	06 05 05
Q. 6	(a) (b) (c)	Enumerate Analytical Method Validation parameters as per ICH guidelines. Explain any two in detail. Write a note on Supercritical Fluid Chromatography. Write a note on Radio Immuno Assay (RIA).	06 05 05
Q.7	(a) (b) (c)	Explain. HETP, Peak asymmetry factor, Retention volume, Resolution. Write a note on Stationary Phase and Mobile Phase used in HPLC. Describe steps involved in filing of patent.	06 05 05

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