Seat No.: _____ Enrolment No. _____

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.**

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 Nephlometry 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**

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