Seat No.: _____ Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. Pharm. - SEMESTER–6 • EXAMINATION – SUMMER -2018

Subject Code: 2260003 Date: 03/05/2018

Subject Name: Pharmaceutical Analysis IV

Time: 10:30 AM TO 01:30 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)**	Discuss the instrumentation of Gas chromatography. Add a special note on detectors used in gas chromatography.	**06**
	(b)	What is the application of radio nuclides.	**05**
	(c)	Write a note on ion exchange and size exclusion Chromatography.	**05**
Q.2	**(a)**	Write principle and instrumentation of HPTLC.	**06**
	(b)	Describe advantages and limitations of HPTLC.	**05**
	(c)	Compare HPLC with HPTLC.	**05**
Q.3	**(a)**	Explain principal of gas chromatography in detail.	**06**
	(b)	Describe application of GC in Pharmacy in detail.	**05**
	(c)	Describe different steps of filling patent in detail.	**05**
Q.4	**(a)**	Explain Classification and Principle of HPLC and Mobile phase, Stationary phases used in HPLC.	**06**
	(b)	What is Radio Immuno Assay? Write a brief note on ELISA.	**05**
	(c)	Write a brief note on LC-MS.	**05**
Q.5	**(a)**	Write basic principle and theory of affinity Chromatography and adsorption Chromatography.	**06**
	(b)	Comparison of HPLC with GC	**05**
	(c)	Explain super critical fluid Chromatography	**05**
Q. 6	**(a)**	Write detail not on Radio chemical techniques	**06**
	(b)	What is GLP? Explain it in detail.	**05**
	(c)	Write a note on Raman spectroscopy.	**05**
Q.7	**(a)**	What is analytical method validation? Describe different validation parameters according to ICH guideline.	**06**
	(b)	What are the elements, requirements and interpretation of ISO 9001;2000	**05**
	(c)	Describe application of X-ray crystallography in detail.	**05**

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