

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm. – SEMESTER – VI • EXAMINATION – WINTER • 2015

Subject Code: 2260003

Date: 01-01-2016

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.**

Q.1	(a) Give advantage and limitation of HPTLC.	06
	(b) Explain in brief technique of GC-MS, LC-MS and LC-MS/MS.	05
	(c) Write in detail about any three validation parameters as per ICH guideline.	05
Q.2	(a) Write in detail on detectors of HPLC.	06
	(b) What is the basic difference between nephelometry and turbidimetry. Describe applications of nephelometry and turbidimetry.	05
	(c) Write in short about ISO 9001:2000.	05
Q.3	(a) Write a note on Size exclusion chromatography.	06
	(b) Write a note on radioactive decay.	05
	(c) Describe generation of X-rays and discuss application of X-ray diffraction.	05
Q.4	(a) Write short note on Good Laboratory Practice.	06
	(b) Explain the units for measurement of radio activity.	05
	(c) Write note on Flame Ionization Detector.	05
Q.5	(a) Discuss ion-exchange chromatography in detail.	06
	(b) Describe the principle, technique and application of radio immunoassay (RIA).	05
	(c) Differentiate the Raman spectra and infrared spectra. Discuss applications of Raman spectroscopy.	05
Q. 6	(a) Compare HPLC and gas chromatography. Describe principle and applications of HPLC.	06
	(b) Define patent. Discuss steps involved in patent filling.	05
	(c) What is ELISA? Describe ELISA in detail.	05
Q.7	(a) Discuss TRIPS and GATT in detail.	06
	(b) Explain the principle of affinity chromatography and Super critical fluid Chromatography.	05
	(c) Explain isotope dilution analysis in radiochemical methods.	05
