

GUJARAT TECHNOLOGICAL UNIVERSITY
B.Pharm. – SEMESTER VI- • EXAMINATION – SUMMER -2021

Subject Code: 2260003**Date: 05/08/2021****Subject Name: Pharmaceutical Analysis IV****Time: 02:30pm to 05:30pm****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 are X-rays? Explain the origin of X-rays and discuss the Bragg's law.	06
	(b) Write a note on Application of X-Ray Diffraction.	05
	(c) Give the overview on LC-MS/MS	05
Q.2	(a) Write a brief note Raman spectroscopy	06
	(b) Explain the principle and applications of super critical fluid Chromatography	05
	(c) Discuss the Instrumentation of HPTLC. Give its advantages and limitation.	05
Q.3	(a) Discuss the Principle and Working of Electron Capture Detectors.	06
	(b) Discuss the principle of GC and give the overview on GC-MS.	05
	(c) Write a note on Column used in GC.	05
Q.4	(a) Explain Principle and applications of HPLC	06
	(b) Write a short note on Good Laboratory Practice.	05
	(c) Explain HETP. Discuss Rate theory of chromatography.	05
Q.5	(a) Write a note on different pumps used in HPLC	06
	(b) Discuss the principle and applications of Size Exclusion Chromatography.	05
	(c) Explain isotope dilution analysis in radiochemical methods	05
Q. 6	(a) Discuss the Nephelometry and Turbidimetry with its applications.	06
	(b) Write a short note on ISO 9001:2000	05
	(c) Write a note on Radio Immuno assay	05
Q.7	(a) Write a note on GATT and TRIPS	06
	(b) Discuss validation parameters as per ICH guidelines	05
	(c) Write a note on radioactive decay	05
