Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

B.Pharm – SEMESTER V • EXAMINATION – Summer 2017

_		Code:2250003 Date: 06/06/2017	•
Subject Name: Pharmaceutical Analysis III Time: 10.30 AM to 01.30 PM		·)
2.	Atte Mal	s: empt any five questions. ke suitable assumptions wherever necessary. ures to the right indicate full marks.	
Q.1	(a) (b) (c)	Define chemical shift. Explain factors affecting chemical shift. Describe instrumentation of PMR. Write a brief overview of C13 NMR spectroscopy.	06 05 05
Q.2	(a) (b) (c)	Explain: base peak, metastable ion peak and isotopic ion peak. Discuss principle of Mass Spectroscopy. Explain Mc-Lafferty rearrangement.	06 05 05
Q.3	(a) (b) (c)	Write a note on FT-IR. Discuss radiation sources used in IR spectroscopy. Describe sample handling techniques used in IR spectroscopy.	06 05 05
Q.4	(a) (b) (c)	Write the difference between AAS and AES. Describe the principle of flame photometer. Write a note on hollow cathode lamp.	06 05 05
Q.5	(a) (b) (c)	Explain Auxochrome, molar absorptivity and isosbetic point. What is EMR? Explain wave properties of EMR Describe principle of UV spectroscopy.	06 05 05
Q. 6	(a) (b) (c)	Write the difference between fluorescence and phosphorescence. Draw a well-labeled diagram of spectrofluorimeter. Write a brief over view of application of UV-visible spectroscopy.	06 05 05
Q.7	(a) (b)	Describe calibration of UV-visible spectrophotometer as per IP. Give the fragmentation pattern of the following compounds (i) Benzyl alcohol (ii) Benzamide	06 05
	(c)	How will you differentiate between the following pairs of compounds using IR Spectroscopy (i) CH ₃ CH ₂ NH ₂ and CH ₃ CH ₂ OH (ii) CH ₃ COOH and CH ₃ CHO	05
