

# GUJARAT TECHNOLOGICAL UNIVERSITY

**B.PHARM. - SEMESTER- V • EXAMINATION – SUMMER-2016**

**Subject Code: 2250003**

**Date: 04/05/2016**

**Subject Name: Pharmaceutical Analysis - III**

**Time: 2:30 PM to 5:30 PM**

**Total Marks: 80**

**Instructions:**

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

<b>Q.1</b>	(a) Explain origin of UV spectroscopy.	<b>06</b>
	(b) Enlist radiation source used in UV spectroscopy and discuss any one in detail.	<b>05</b>
	(c) Write a note on photometric titration.	<b>05</b>
<b>Q.2</b>	(a) Explain auxochrome, molar absorptivity and quencher	<b>06</b>
	(b) Describe properties of EMR.	<b>05</b>
	(c) Explain calibration of UV –Vis spectrophotometer as per IP	<b>05</b>
<b>Q.3</b>	(a) Explain principle of mass spectroscopy.	<b>06</b>
	(b) Enlist different mass analyzers and discuss quadrupole mass analyzer.	<b>05</b>
	(c) Discuss fragmentation rule of mass spectroscopy.	<b>05</b>
<b>Q.4</b>	(a) Describe sample handling techniques used in IR spectroscopy.	<b>06</b>
	(b) Write a short note on FT-IR	<b>05</b>
	(c) Enlist detectors used in IR spectroscopy and explain any one in detail.	<b>05</b>
<b>Q.5</b>	(a) What is fluorescence? Discuss factors affecting fluorescence intensity.	<b>06</b>
	(b) Draw a labeled diagram of spectrofluorimeter.	<b>05</b>
	(c) Write a difference between UV and IR spectroscopy.	<b>05</b>
<b>Q.6</b>	(a) Write the difference between AAS and AES	<b>06</b>
	(b) Explain principle of flame photometer.	<b>05</b>
	(c) Write a note on Hollow cathode lamp.	<b>05</b>
<b>Q.7</b>	(a) Explain fundamental principle of NMR spectroscopy.	<b>06</b>
	(b) What is chemical shift? Why TMS is used as reference compound in NMR.	<b>05</b>
	(c) Write a short note on C13 NMR.	<b>05</b>

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