

**GUJARAT TECHNOLOGICAL UNIVERSITY****M.PHARM- SEM-II-EXAMINATION – JULY 2012****Subject code: 2920107****Date: 06/07/2012****Subject Name: Pharmaceutical Analysis II****Time: 10:30 am – 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.

<b>Q.1</b>	(a)	Discuss the principle, instrumentation and application of the GC-MS method used in pharmaceutical analysis.	<b>06</b>
	(b)	Describe and discuss: counter current chromatography	<b>05</b>
	(c)	Describe and discuss: Size exclusion chromatography	<b>05</b>
<b>Q.2</b>	(a)	Discuss principle and application of supercritical fluid chromatographic technique for analysis and isolation.	<b>06</b>
	(b)	Discuss the principle and applications of electrophoretic techniques	<b>05</b>
	(c)	Write a short note on the methods of automated analysis.	<b>05</b>
<b>Q.3</b>	(a)	Describe and discuss with respect to analysis of analysis of protein: isoelectric focusing and tryptic mapping.	<b>06</b>
	(b)	Write a short note on amino acid sequence analysis.	<b>05</b>
	(c)	Discuss methods of assay for anti hypertensive drugs and drugs acting on CV system.	<b>05</b>
<b>Q.4</b>	(a)	Discuss methods of solid state analysis of drugs.	<b>06</b>
	(b)	Discuss principles and procedures involved in the analysis of sedatives and tranquilizers.	<b>05</b>
	(c)	Discuss principle and applications of electrophoretic techniques.	<b>05</b>
<b>Q.5</b>	(a)	Discuss importance of Reporting threshold, Identification threshold and qualification threshold as discussed in the ICH Q3 guidelines.	<b>06</b>
	(b)	Discuss methods of determination of total solids in asava/aristha.	<b>05</b>
	(c)	Describe methods for the determination of iodine value in herbal formulations.	<b>05</b>
<b>Q. 6</b>	(a)	Discuss specific sample preparation techniques from biological matrices.	<b>06</b>
	(b)	Discuss UV and fluorescent analysis of powdered crude drugs and their applications	<b>05</b>
	(c)	Write a note on proximate analysis of crude drugs	<b>05</b>
<b>Q.7</b>	(a)	Enlist and discuss different techniques and methods applied in the extraction and identification of phytochemicals.	<b>06</b>
	(b)	Write a short note on pharmaceutical sample preparation.	<b>05</b>
	(c)	Discuss WHO guideline about coarseness of powder material and the sieves to be used.	<b>05</b>