

GUJARAT TECHNOLOGICAL UNIVERSITY**M.PHARM- SEM-II-EXAMINATION – JULY 2012****Subject code: 2920104****Date: 06/07/2012****Subject Name: Modern Pharmaceutical Analysis****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.

Q.1	(a)	Enlist the analytical tests for parenteral preparations. Discuss sterility testing and particulate matter test	06
	(b)	Explain how ion exchange chromatography aid in amino acid analysis.	05
	(c)	Describe properties associated with particulate level in pharmaceuticals	05
Q.2	(a)	Enlist and discuss in brief ICH guideline in pharmaceutical analysis	06
	(b)	Describe role of Near Infred Analysis in solid dosage form analysis.	05
	(c)	What are the analytical methods used for biotechnological derived products.	05
Q.3	(a)	Explain the term solid state analysis of drug substances. Properties associated with molecular level.	06
	(b)	Enlist various compendia parameters of standardization of herbal drugs and formulations and discuss any two of them in detail.	05
	(c)	What is tryptic mapping. Discuss it uses and limitations.	05
Q.4	(a)	What are preformulation studies? Describe analytical techniques for preformulation analysis.	06
	(b)	Define the term cosmetic. Explain in brief various methods of analysis of cosmetic formulations.	05
	(c)	Quality control of radiopharmaceuticals.	05
Q.5	(a)	Explain in detail various physicochemical characterization techniques for the analysis of solid oral dosage form.	06
	(b)	Describe properties associated with molecular level in pharmaceuticals.	05
	(c)	Discuss isoelectric focusing techniques.	05
Q. 6	(a)	Why impurities analysis is required? Discuss drug substance degradation studies.	06
	(b)	Explain compendia testing. Describe various compendial test for testing API and its dosage form with suitable example.	05
	(c)	Quality control methods for medicinal plant materials as per WHO	05
Q.7	(a)	Outline of preformultion report.	06
	(b)	Discuss bacterial endotoxin testing	05
	(c)	Automated analysis	05
