Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. Pharm. – SEMESTER – II • EXAMINATION – SUMMER • 2015

Subject Code: 1921501 **Date: 14-05-2015**

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)**	Write a note on Tryptic mapping technique.	**06**
	(b)	Give a brief note on Isoelectric focusing technique.	**05**
	(c)	Explain any one analytical method for analysis of product obtained through Genetic engineering.	**05**
Q.2	**(a)**	Describe in detail properties associated with particulate level of pharmaceuticals.	**06**
	(b)	Explain the effect of Impurities on drug stability.	**05**
	(c)	Discuss in detail bioburden analysis of parenteral dosage form.	**05**
Q.3	**(a)**	Enlist and discuss in detail ICH guidelines.	**06**
	(b)	Discuss in detail sterility testing of Parenteral dosage form.	**05**
	(c)	Explain various methods for analysis of cosmetic formulations.	**05**
Q.4	**(a)**	Write a note on physicochemical Properties for analysis of solid oral dosage form.	**06**
	(b)	Explain the role of Ion exchange chromatography in amino acid analysis.	**05**
	(c)	Describe in detail solid state analysis of pharmaceuticals at molecular level.	**05**
Q.5	**(a)**	What is Preformulation? Elaborate various analytical techniques used in preformulation study.	**06**
	(b)	Define crude drug. Enlist various test used for evaluation of herbal drugs. Explain any three in detail.	**05**
	(c)	Explain Compendial testing of formulated product with example.	**05**
Q. 6	**(a)**	Explain the importance of preformulation study and describe various stages of preformulation.	**06**
	(b)	Explain Compendial testing of active pharmaceutical ingredient with example.	**05**
	(c)	Explain IPQC test for solid oral dosage form.	**05**
Q.7		Write a note on any two. 1) USFDA 2) Automated Analysis 3) Quality control of radiopharmaceuticals	**16**

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