Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
M. Pharm – SEMESTER – II • EXAMINATION SUMMER 2017

Subject code: 1921501 **Date: 29/05/2017**
Subject Name: Modern Pharmaceutical Analysis
Time: 10:30 AM to 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)	Define cosmetic. Discuss evaluation of cosmetic products in detail.	**08**
	(b)	Write note on automated analysis.	**08**
Q.2	(a)	State the importance of solid-state analysis. Explain solid state analysis at particulate level with suitable examples.	**08**
	(b)	Explain IPQC test for solid oral dosage form.	**08**
Q.3	(a)	Briefly explain Isoelectric focusing technique.	**06**
	(b)	Explain Tryptic mapping technique in detail.	**05**
	(c)	Explain in detail Amino Acid Sequence Analysis.	**05**
Q.4	(a)	What is the importance of regulatory guidelines in pharmaceutical analysis? Explain US-FDA guidelines in brief.	**08**
	(b)	Enlist the quality control tests for medicinal plant material as per WHO. Describe any four in brief.	**08**
Q.5	(a)	Enlist different analytical tests for finished parenteral products. Write note on sterility testing.	**08**
	(b)	What is pre-formulation study ? Explain the importance of pre-formulation studies . Describe the analytical techniques for pre-formulation studies.	**08**
Q. 6	(a)	Describe in detail solid state analysis of pharmaceuticals at molecular level.	**06**
	(b)	What is polymorphism? Explain its significance in formulation development.	**05**
	(c)	What is impurity? Classify the impurities encountered in pharmaceuticals. Discuss organic impurities obtained from synthetic process.	**05**
Q. 7	(a)	Explain compendial testing of active pharmaceutical ingredient with example.	**06**
	(b)	Discuss ICH guidelines laid down for stability studies of pharmaceuticals	**05**
	(c)	Discuss quality control of radiopharmaceuticals.	**05**

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