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

Subject code: 1921501 Date: 29/0 Subject Name: Modern Pharmaceutical Analysis			5/2017	
•		O AM to 01:30 PMTotal Marks: 80		
Instru	ctions:			
2.	Make s	pt any five questions. suitable assumptions wherever necessary. s 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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