

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM - SEMESTER- 8 EXAMINATION – SUMMER -2019

Subject Code: 2280008

Date: 18-05-2019

Subject Name: Bioavailability and Therapeutic Drug Monitoring

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) Explain Relative and absolute bioavailability.	06
	(b) What is bioequivalence? Describe first pass clearance.	05
	(c) Write Objectives of BA studies.	05
Q.2	(a) Describe physicochemical and formulation related Factors affecting bioavailability.	06
	(b) Discuss Pharmacodynamic and pharmacokinetic models.	05
	(c) Write note on Theories of dissolution.	05
Q.3	(a) Explain Study designs and analysis of BA-BE studies.	06
	(b) Write note on Invivo - invitro correlation studies.	05
	(c) Describe various Techniques for enhancing Bioavailability.	05
Q.4	(a) Explain recommendations and uses of TDM.	06
	(b) Describe Methods and parameters of assessing bioavailability.	05
	(c) Write criteria for selection of method for TDM.	05
Q.5	(a) Write techniques used for estimation of addictive drugs.	06
	(b) Explain Problems of interference of biological matrix.	05
	(c) Write note on Sample preparation.	05
Q. 6	(a) Discuss various Techniques used in TDM.	06
	(b) Write short note on RIA.	05
	(c) Describe Immunoassays. Explain ELISA in detail.	05
Q.7	(a) Discuss clinical monitoring and dosing parameter techniques for Gentamicin.	06
	(b) Write note on TDM of theophylline.	05
	(c) Explain Collection and storage of samples of body fluids.	05
