

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.

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|-------------|-----------------------------------------------------------------------------------------|-----------|
| 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 |
