

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

Subject Code: 2280008**Date: 27-11-2019****Subject Name: Bioavailability and Therapeutic Drug Monitoring****Time: 02:30 PM TO 05:30 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) What is Invitro-Invivo correlation studies? Explain it in detail. | 06 |
| | (b) Explain factors affecting bioavailability. | 05 |
| | (c) Discuss the role of clinical pharmacist in TDM. | 05 |
| Q.2 | (a) Enumerate Immunoassay methods used in TDM. Explain RIA in detail. | 06 |
| | (b) Explain collection & storage of body fluid samples. | 05 |
| | (c) Write down criteria for selection of methods of TDM. | 05 |
| Q.3 | (a) Define Bioavailability and Bioequivalence. Discuss objectives of BA studies. | 06 |
| | (b) Explain methods and parameters of assessing bioavailability. | 05 |
| | (c) Explain HPTLC techniques used in TDM. | 05 |
| Q.4 | (a) Explain study designs and analysis of BA-BE studies. | 06 |
| | (b) Write down TDM for Gentamycin. | 05 |
| | (c) Write adverse drug reaction & drug interaction of Theophylline. | 05 |
| Q.5 | (a) Write down TDM for Phenobarbitone. | 06 |
| | (b) Write various problems of interference of biological matrix. | 05 |
| | (c) Write a note on determination of AUC. | 05 |
| Q. 6 | (a) Write techniques used for estimation of lidocain & phenobarbitone. | 06 |
| | (b) Explain theories of dissolution. | 05 |
| | (c) Write a note on ELISA. | 05 |
| Q.7 | (a) Write down TDM for Digoxin. | 06 |
| | (b) Explain algorithm for interpretation of TDM result for drug used as prophylactic therapy. | 05 |
| | (c) Write a note on first pass clearance. | 05 |
