

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm. – SEMESTER – VIII • EXAMINATION – WINTER • 2016

Subject Code: 2280008**Date: 02-12-2016****Subject Name: Bioavailability and Therapeutic Drug Monitoring****Time: 02:30 pm - 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) Write different methods and parameters of assessing bioavailability. | 06 |
| | (b) Enumerate various techniques used for enhancing Bioavailability. Explain any one in detail. | 05 |
| | (c) Write note on Pharmacokinetic and Pharmacodynamic models. | 05 |
| Q.2 | (a) Explain detail HPTLC technique used in TDM. | 06 |
| | (b) Define Bioavailability and give its objectives. | 05 |
| | (c) Write short note on Theories of Dissolution. | 05 |
| Q.3 | (a) Describe the term Immunoassays. Explain RIA in details. | 06 |
| | (b) Write detail note on HPLC technique. | 05 |
| | (c) Explain recommendations and uses of TDM. | 05 |
| Q.4 | (a) Explain factor affecting Bioavailability related to physicochemical and formulation. | 06 |
| | (b) Write criteria for selection of method for TDM. | 05 |
| | (c) Write short note on Immunosuppressants. | 05 |
| Q.5 | (a) Explain study designs and analysis of BA-BE studies. | 06 |
| | (b) Write adverse drug reaction and drug interaction of Phenytoin. | 05 |
| | (c) Write note on in vivo-in vitro correlation studies. | 05 |
| Q.6 | (a) Explain clinical monitoring parameters, usual dosing parameters and common toxicities of carbamazepine. | 06 |
| | (b) Write various problems of interference of biological matrix. | 05 |
| | (c) Write note on TDM of Digoxin. | 05 |
| Q.7 | (a) Write techniques used for estimation of lidocaine and phenobarbitone. | 06 |
| | (b) Explain theories of Dissolution. | 05 |
| | (c) Write short note on ELISA. | 05 |
