

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm. – SEMESTER – IV • EXAMINATION – WINTER • 2015

Subject Code: 2240005

Date: 11-01-2016

**Subject Name: Basic Concepts of Pharmacology and
Clinical Pharmacy Practice**

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) | Define drug and explain different sources of drugs. | 06 |
| | (b) | Write a short note on: (1) Bioequivalence (2) Plasma protein binding | 05 |
| | (c) | Classify various routes of administration and write merits and demerits of intravenous route. | 05 |
| Q.2 | (a) | Explain the factors affecting the absorption of drugs. | 06 |
| | (b) | Write a note on “Mixed function oxidases” involved in Biotransformation. | 05 |
| | (c) | Write a note on therapeutic drug monitoring. | 05 |
| Q.3 | (a) | Define apparent volume of distribution. Explain the factors which affect the drug distribution. | 06 |
| | (b) | Define bioavailability. Explain the term of biological half life and give its importance. | 05 |
| | (c) | Discuss area under curve for single and repeated dose. | 05 |
| Q.4 | (a) | Explain various factors modifying drug action. | 06 |
| | (b) | Explain dose response relationship. | 05 |
| | (c) | Discuss about dose adjustment required in children and elderly patients. | 05 |
| Q.5 | (a) | Explain signal transduction mechanism of G-protein coupled receptors. | 06 |
| | (b) | Differentiate competitive and non-competitive antagonism with suitable examples. | 05 |
| | (c) | Discuss about pharmacokinetic changes in drug therapy during pregnancy. | 05 |
| Q. 6 | (a) | Define drug interactions. Explain the pharmacokinetic drug interactions. | 06 |
| | (b) | Write a detailed note on medication errors. | 05 |
| | (c) | Define essential medicines. What are the criteria for selection of essential drugs? | 05 |
| Q.7 | (a) | Classify ADRs as per Rawlins-Thompson system with suitable example. | 06 |
| | (b) | Write a note on detection of adverse drug reactions. | 05 |
| | (c) | Describe various communication skills for effective patient counseling. | 05 |
