

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm. – SEMESTER – I • EXAMINATION – SUMMER • 2014

Subject Code: 2240005

Date: 29-05-2014

**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 Pharmacology. Discuss the scope of pharmacology and clinical pharmacy. | 06 |
| | (b) Discuss the disadvantages of oral and local route of drug administration. | 05 |
| | (c) Define following terms: 1. Pharmacokinetics 2. Tachyphylaxis
3. Chemotherapy 4. Plasma half-life 5. Drug tolerance | 05 |
| Q.2 | (a) Write a short note on
1. Plasma protein binding
2. Significance of Phase I and Phase II metabolism. | 06 |
| | (b) What do you understand by apparent volume of distribution? Explain the factors which affect the drug distribution. | 05 |
| | (c) Give the advantages and disadvantages of intravenous route of drug administration. | 05 |
| Q.3 | (a) Define bioavailability. Explain the term biological half-life and give its importance. | 06 |
| | (b) Define antagonist. Differentiate competitive and non-competitive antagonism. | 05 |
| | (c) Write in brief the gating and signal transduction mechanisms of G-protein coupled receptors. | 05 |
| Q.4 | (a) Explain in brief adverse drug reactions. Classify ADRs as per Rawlins-Thompson system with suitable example. | 06 |
| | (b) Write a note on Essential drugs. | 05 |
| | (c) Discuss the importance of Drug and Poison information center. | 05 |
| Q.5 | (a) Discuss in detail about the method and importance of effective Patient counselling. | 06 |
| | (b) Discuss about various pharmacokinetic interactions with example. | 05 |
| | (c) Describe the role of Standard treatment guideline in promoting the rational use of drug. | 05 |
| Q. 6 | (a) Discuss the following terms with example:
1. Mutagenicity 2. Teratogenicity 3. carcinogenicity | 06 |
| | (b) Discuss the importance of pharmacovigilance in preventing the drug interactions and adverse drug reactions. | 05 |
| | (c) Write a note on medication non-adherence. | 05 |
| Q.7 | (a) Write in brief how pharmacokinetic factors affect the dose selection in pediatric or geriatric patients. | 06 |
| | (b) What are the various considerations for drug prescribing during pregnancy? | 05 |
| | (c) Describe the following terminologies using dose response curve.
(i) Drug selectivity (ii) Risk-benefit ratio (iii) Drug potency (iv) Drug efficacy | 05 |
