

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM – SEMESTER – 4- EXAMINATION –WINTER - 2018

Subject Code: 2240005 **Date: 30/11/2018**
Subject Name: Basic Concepts of Pharmacology and Clinical Pharmacy Practice
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) Enlist different types of G-proteins. Explain signal transduction mechanism in G-protein coupled receptors. | 06 |
| | (b) Enumerate different reactions involved in Biotransformation of drugs. Discuss phase II in detail. | 05 |
| | (c) Discuss the factors modifying drug action. | 05 |
| Q.2 | (a) Classify drug interactions. Discuss pharmacokinetic drug interactions with suitable examples. | 06 |
| | (b) List out the mechanisms involved in transport of drugs across biological membranes. Discuss the ABC transporters. | 05 |
| | (c) Enlist different types of ion channels with examples. Discuss gating mechanisms in brief. | 05 |
| Q.3 | (a) Explain the following with suitable examples wherever necessary (any three)
1. Tachyphylaxis 2. Inverse agonist 3. Spare receptors 4. Iatrogenic effects | 06 |
| | (b) Write a note on tolerance. | 05 |
| | (c) Highlight the physiological differences that necessitate changes in drug therapy in children and elderly. | 05 |
| Q.4 | (a) Classify the routes of drug administration. Write a note on transcutaneous route. | 06 |
| | (b) Explain bioavailability and bioequivalence. Write a note on biological half life. | 05 |
| | (c) Write a note on Pharmacovigilance. | 05 |
| Q.5 | (a) Describe the steps in a typical patient counseling session. List the communication skills required for effective counseling. | 06 |
| | (b) Discuss the criteria for TDM and its significance. | 05 |
| | (c) What are the causes for irrational drug use. Highlight the dangers of irrational use of antibiotics. | 05 |
| Q. 6 | (a) Discuss the various communication skills for effective patient counseling. | 06 |
| | (b) Classify ADRs as per Rawlins-Thompson system with suitable example. | 05 |
| | (c) What is essential drug list? Give the salient features of essential drugs? | 05 |
| Q.7 | (a) Write a note on (any four)
1. Volume of distribution
2. Drug antagonism
3. Medication errors
4. Loading and Maintenance dose
5. Medication adherence | 16 |
