

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.**

- 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) **06**
1. Tachyphylaxis 2. Inverse agonist 3. Spare receptors 4. Iatrogenic effects
- (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) **16**
1. Volume of distribution
2. Drug antagonism
3. Medication errors
4. Loading and Maintenance dose
5. Medication adherence
