

**GUJARAT TECHNOLOGICAL UNIVERSITY****B. Pharm. - SEMESTER-IV • EXAMINATION – SUMMER-2016****Subject Code:2240005****Date: 03/06/2016****Subject Name: Basic Concepts of Pharmacology and Clinical Pharmacy Practice****Time: 10:30 AM to 1:30 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) Classify the route of drug administration and describe in detail sublingual route of drug administration. **06**
- (b) Define following term **05**
- i) Pharmacodynamic
  - ii) Pharmacogenomics
  - iii) Pharmacokinetics
  - iv) Drug tolerance
  - v) Pharmacology
- (c) Write a short note on scope of pharmacology and clinical pharmacy. **05**
- Q.2** (a) Classify various type of drug transport mechanism across the cell membrane and describe in detail active transport mechanism. **06**
- (b) Write a short note on plasma protein binding. **05**
- (c) Which are the various factors affecting drug dose selection during pediatric and geriatric patients. **05**
- Q.3** (a) Write a short note on therapeutic drug monitoring and its significance. **06**
- (b) Write short note on bioavailability. **05**
- (c) Write a short note BBB **05**
- Q.4** (a) Classify various type of receptor and describe in detail GPCR. **06**
- (b) Define following terms with example **05**
- i) Potentiation
  - ii) Addition
  - iii) Synergism
  - iv) Agonist
  - v) Partial antagonist
- (c) Differentiate: Competitive antagonism and Non competitive antagonism. **05**
- Q.5** (a) Classify the various types of Drug interaction and describe in detail pharmacokinetic interaction. **06**
- (b) Write a short on rational use of drug. **05**
- (c) Write a short note on microsomal enzyme induction. **05**
- Q. 6** (a) Write a short note on pharmacokinetic type of ADR. **06**
- (b) Write a short note on drug nomenclature **05**
- (c) Write a short note on volume of distribution. **05**
- Q.7** (a) Write a short note on biotransformation. **06**
- (b) Write a short note on essential drugs. **05**
- (c) Write a short note on teratogenicity. **05**