

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B.Pharm- SEMESTER IV EXAMINATION – SUMMER - 2018**

**Subject Code:2240005****Date: 14/05/2018****Subject Name: Basic Concepts of Pharmacology and Clinical Pharmacy Practice****Time:10.30 am to 01.30 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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|------------|-----|--|-----------|
| <b>Q.1</b> | (a) | Classify various routes of administration. Write merits and demerits of intravenous route. | <b>06</b> |
|            | (b) | Explain dose response relationship.  | <b>05</b> |
|            | (c) | Define volume of distribution and explain factors affecting drug distribution.             | <b>05</b> |
| <b>Q.2</b> | (a) | Write in detail on G-protein coupled receptors.  | <b>06</b> |
|            | (b) | Explain various sources of drugs.  | <b>05</b> |
|            | (c) | Differentiate competitive and non-competitive antagonism.                                  | <b>05</b> |
| <b>Q.3</b> | (a) | Define pharmacokinetics and explain factors affecting drug absorption.                     | <b>06</b> |
|            | (b) | Write a note on Plasma protein binding.  | <b>05</b> |
|            | (c) | Explain following terms:   | <b>05</b> |
|            |     | (1) Bioavailability  |           |
|            |     | (2) Receptor   |           |
|            |     | (3) Agonist  |           |
|            |     | (4) Clinical Pharmacy  |           |
|            |     | (5) Pharmacoepidemiology   |           |
| <b>Q.4</b> | (a) | Write a note on Kinase linked receptors.   | <b>06</b> |
|            | (b) | Write a note on medication errors.   | <b>05</b> |
|            | (c) | Discuss pharmacokinetic drug interaction with suitable examples.                           | <b>05</b> |
| <b>Q.5</b> | (a) | Explain in details on transportation mechanisms of drug across biological membrane.        | <b>06</b> |
|            | (b) | Write a note on adverse drug reaction.   | <b>05</b> |
|            | (c) | Define the following:  | <b>05</b> |
|            |     | (1) Synergism  |           |
|            |     | (2) Potentiation   |           |
|            |     | (3) Drug tolerance   |           |
|            |     | (4) Half life  |           |
|            |     | (5) Pharmacogenetics   |           |
| <b>Q.6</b> | (a) | Define biotransformation. Explain mixed function oxidase system for drug metabolism.       | <b>06</b> |
|            | (b) | Discuss about pharmacokinetic changes in drug therapy in elderly patients.                 | <b>05</b> |
|            | (c) | Write a short note on Blood brain barrier.   | <b>05</b> |
| <b>Q.7</b> | (a) | Write a note on Therapeutic drug monitoring and its significance.                          | <b>06</b> |
|            | (b) | Describe communication skills for patient counseling.                                      | <b>05</b> |
|            | (c) | Explain in brief the rationale use of drug.  | <b>05</b> |