

GUJARAT TECHNOLOGICAL UNIVERSITY**B. Pharm. SEM- IV - EXAMINATION – SUMMER 2017****Subject code: 240005****Date: 06/05/2017****Subject Name: Pharmacology-I****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) Write advantages and disadvantages of oral route of drug administration. What is first pass effect? **06**
- (b) Describe factors modifying drug action. **05**
- (c) Write a note on Phases of Clinical Trials. **05**
- Q.2** (a) What is receptor? Explain Receptor Occupation Theory. **06**
- (b) What is Glaucoma? Discuss mechanism of actions, pharmacological effects and side effects of pilocarpine. **05**
- (c) Define **05**
1. Volume of distribution
 2. Partial agonist
 3. Bioavailability
 4. Drug Dependence
 5. Potency
- Q.3** (a) Differentiate between **06**
1. Tachyphylaxis and Tolerance
 2. Graded response and Quantal response
- (b) What is Myasthenia gravis? Discuss indications, pharmacological actions and toxic effects of Neostigmine. **05**
- (c) Classify adrenoceptor antagonists. Explain pharmacological actions and uses of propranolol. **05**
- Q.4** (a) Write a note on “Enzyme induction” and “Enzyme inhibition”. **06**
- (b) Classify local anaesthetics. Explain mechanism of action, uses and toxicity of lidocaine. **05**
- (c) Explain various types of hypersensitivity reactions. **05**
- Q.5** (a) Classify and discuss Adverse Drug Reactions. **06**
- (b) Enlist mechanisms involved in drug absorption. Describe Fick’s law of passive diffusion in detail. **05**
- (c) Classify H₁ receptor antagonist. Write pharmacological characteristics, therapeutic uses and adverse effects of second generation antihistaminics. **05**

- Q. 6** (a) Explain biosynthesis and pharmacological actions of Prostaglandins. **06**
(b) Explain phases of Biotransformation with suitable examples. **05**
(c) Classify 5-HT receptors. Discuss pharmacological actions of serotonin. **05**
- Q. 7** (a) Explain biosynthesis and pharmacological actions of angiotensin. **06**
(b) Define therapeutic index (TI). How to calculate TI? Explain limitations of TI. **05**
(c) Write a note on **05**
1. Substance P
2. Neuromuscular blockers
