Seat No.: _____ Enrolment No._____

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 1. Volume of distribution 2. Partial agonist 3. Bioavailability 4. Drug Dependence 5. Potency	**05**
Q.3	(a)	Differentiate between 1. Tachyphylaxis and Tolerance 2. Graded response and Quantal response	**06**
	(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 H_1 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 1. Substance P 2. Neuromuscular blockers	**05**

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