Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. Pharm. – SEMESTER – I • EXAMINATION – SUMMER • 2014

Subject Code: 2240005 Date: 29-05-2014

Subject Name: Basic Concepts of Pharmacology and Clinical Pharmacy Practice

Time: 02:30 pm - 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)**	Define Pharmacology. Discuss the scope of pharmacology and clinical pharmacy.	**06**
	(b)	Discuss the disadvantages of oral and local route of drug administration.	**05**
	(c)	Define following terms: 1. Pharmacokinetics 2. Tachyphylaxis 3. Chemotherapy 4. Plasma half-life 5. Drug tolerance	**05**
Q.2	**(a)**	Write a short note on **1.** Plasma protein binding **2.** Significance of Phase I and Phase II metabolism.	**06**
	(b)	What do you understand by apparent volume of distribution? Explain the factors which affect the drug distribution.	**05**
	(c)	Give the advantages and disadvantages of intravenous route of drug administration.	**05**
Q.3	**(a)**	Define bioavailability. Explain the term biological half-life and give its importance.	**06**
	(b)	Define antagonist. Differentiate competitive and non-competitive antagonism.	**05**
	(c)	Write in brief the gating and signal transduction mechanisms of G-protein coupled receptors.	**05**
Q.4	**(a)**	Explain in brief adverse drug reactions. Classify ADRs as per Rawlins-Thompson system with suitable example.	**06**
	(b)	Write a note on Essential drugs.	**05**
	(c)	Discuss the importance of Drug and Poison information center.	**05**
Q.5	**(a)**	Discuss in detail about the method and importance of effective Patient counselling.	**06**
	(b)	Discuss about various pharmacokinetic interactions with example.	**05**
	(c)	Describe the role of Standard treatment guideline in promoting the rational use of drug.	**05**
Q. 6	**(a)**	Discuss the following terms with example: 1. Mutagenicity 2. Teratogenicity 3. carcinogenicity	**06**
	(b)	Discuss the importance of pharmacovigilance in preventing the drug interactions and adverse drug reactions.	**05**
	(c)	Write a note on medication non-adherence.	**05**
Q.7	**(a)**	Write in brief how pharmacokinetic factors affect the dose selection in pediatric or geriatric patients.	**06**
	(b)	What are the various considerations for drug prescribing during pregnancy?	**05**
	(c)	Describe the following terminologies using dose response curve. (i) Drug selectivity (ii) Risk-benefit ratio (iii) Drug potency (iv) Drug efficacy	**05**

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