Seat No.: _____ Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.PHARM. - SEMESTER– VII • EXAMINATION – SUMMER-2016

Subject Code: 2270003 **Date: 07/05/2016**

Subject Name: Pharmaceutical Chemistry – IX
(Medicinal Chemistry - III)

Time: 2:30 PM to 5:30 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)**	Discuss the various parameters used in drug design with explanation.	**06**
	(b)	What is important of QSAR in drug design?	**05**
	(c)	Explain Hensch Linear Free Energy Relationship model in drug design.	**05**
Q.2	**(a)**	Give detail classification & SAR of cephalosporin groups of antibiotics.	**06**
	(b)	Give the method of synthesis and mechanism of action of Chloramphenicol.	**05**
	(c)	Define and classify Antifungal agent with suitable examples.	**05**
Q.3	**(a)**	What do you understand regarding combinatorial chemistry? Discuss its importance in synthetic chemistry.	**06**
	(b)	Write an informative note on " Computer Aided Drug Design"	**05**
	(c)	Write short note on "Free Wilson Mathematical model of QSAR"	**05**
Q.4	**(a)**	Give the method of synthesis & uses of i) Sulphacetamide ii) Ofloxacin	**06**
	(b)	Explain the mechanism of action and SAR of Sulphonamides.	**05**
	(c)	Define and classify Anti-malarial drugs with suitable examples.	**05**
Q.5	**(a)**	Define and classify Anti-neoplastic agents. Give the method of synthesis of Chlorambucil.	**06**
	(b)	Write an informative note on anti-amoebic drugs.	**05**
	(c)	Give the method of synthesis of i) Metronidazole ii) Albendazole	**05**
Q. 6	**(a)**	Give the mechanism of action and SAR of Tetracycline groups of antibiotics.	**06**
	(b)	Define β-lactam antibiotic. Classify the penicillin groups of antibiotics. Give the structural formula of Amoxicillin.	**05**
	(c)	Write short note on "Anthelmintics"	**05**
Q.7	**(a)**	Define and classify anti-tubercular agents. Give the structural formula of Isoniazide and Pyrazinamide.	**06**
	(b)	Give the method of synthesis of i) Ethambutol ii) Ketoconazole	**05**
	(c)	Define and classify Antiviral agent with suitable examples. Give the method synthesis of Amantadine.	**05**

****