Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.PHARM – SEMESTER – VII • EXAMINATION – WINTER – 2015

Subject Code: 270003 **Date: 09/12/2015**

Subject Name: Pharmaceutical Chemistry - IX (Medicinal Chemistry)

Time: 10.30 AM to 1.30 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)	Classify Quinolones with relevant examples. Discuss its mode of action.	**06**
	(b)	Discuss the synergism of sulfonamides and folate reductase inhibitors.	**05**
	(c)	Give the synthesis of ciprofloxacin.	**05**
Q.2	(a)	Classify sulphonamides with relevant examples. Discuss the mode of action.	**06**
	(b)	Discuss the chemistry and SAR of sulphonamides.	**05**
	(c)	Give the scheme of synthesis of sulphamethoxazole and sulphaceamide.	**05**
Q.3	(a)	Discuss the structural features & different classes of β lactam antibiotics with relevant examples.	**06**
	(b)	Discuss the SAR of Penicillins.	**05**
	(c)	Discuss the synergism of ampicillin with other drugs.	
Q.4	(a)	Discuss SAR of aminoglycosides antibiotics with relevant examples.	**06**
	(b)	Why tetracyclines are called so? Discuss their SAR.	**05**
	(c)	What are anthelmintics? Give the synthesis of albendazole.	**05**
Q.5	(a)	Give the classification of anticancer drugs. Give mechanism of action of vinca alkaloids and give synthesis of Tamoxifen.	**06**
	(b)	Give the classification of anti TB drugs with relevant examples.	**05**
	(c)	Discuss the synthesis of clotrimazole and fluconazole.	**05**
Q. 6	(a)	Discuss the steroid ring nomenclature, stereochemistry and structure.	**06**
	(b)	What are progestins? Give their SAR.	**05**
	(c)	Write a short note on antiviral therapy with examples of drugs used in antiretroviral therapy.	**05**
Q.7	(a)	Classify drugs used in type 2 diabetes and give synthesis of Tolbutamide.	**06**
	(b)	Write a short note on Immunomodulators.	**05**
	(c)	Give classification of antithyroid drugs. Write synthesis of Carbimazole and Thyroxine.	**05**

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