

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm. - SEMESTER-7 • EXAMINATION – SUMMER -2018

Subject Code: 2270003**Date: 24/5/2018****Subject Name: Pharmaceutical Chemistry – IX (Medicinal Chemistry - III)****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) What are Cephalosporins? Give the SAR of Cephalosporins.	06
	(b) Give the IUPAC name and synthesis of chloramphenicol.	05
	(c) Give the SAR of Tetracyclines.	05
Q.2	(a) Give the synthesis of sulfacetamide and ciprofloxacin.	06
	(b) What are β -lactam antibiotics? Why penicillin is not active against penicillinase secreting microbes? Give some examples of penicillinase resistant penicillins.	05
	(c) Give the SAR of fluoroquinolones, as an antibacterial agent.	05
Q.3	(a) i. What is MDR TB and XDR TB?	06
	ii. Give the classification of anti-tubercular drugs.	
	iii. Give the synthesis of pyrazinamide.	
	(b) Give the chemical classification of antimalarial drugs with examples and give mechanism of chloroquine.	05
	(c) Give the IUPAC name, synthesis and mechanism of Albendazole, an anthelmintic agent.	05
Q.4	(a) Give the IUPAC name and synthesis of following drugs.	06
	i. Chloroquine	
	ii. Pyrimethamine	
	(b) Write in detail about drugs used in HIV infection.	05
	(c) Give the classification of anticancer drugs and outline the synthesis of 5-fluorouracil.	05
Q.5	(a) Explain in brief about azoles as antifungal agents. Give the synthesis of ketoconazole.	06
	(b) Explain the different molecular targets for antiviral agents.	05
	(c) Give the mechanism and synthesis of Chlorambucil.	05
Q.6	(a) What is QSAR? Give a detailed note on Hansch model.	06
	(b) What is lead? Enlist the steps to identify the leads.	05
	(c) Write in brief about CADD	05
Q.7	(a) Write a detailed note on combinatorial chemistry.	06
	(b) Explain the following terms.	05
	i. Bioisoster	iv. Chemotherapeutic agents
	ii. Schizonticide	v. Grey baby syndrome
	iii. Sarcoma	
	(c) Write a note on molecular modelling.	05
