

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm. – SEMESTER – VII • EXAMINATION – SUMMER • 2015

Subject Code: 270003**Date: 13-05-2015****Subject Name: Pharmaceutical Chemistry-IX (Medicinal Chemistry)****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) Give IUPAC name, uses and synthesis of any two of the following compounds : **06**
 (i) Sulphasalazine
 (ii) Ciprofloacin
 (iii) Trimethoprim
- (b) Write mechanism of action and adverse effects of sulphonamides. **05**
- (c) What are Quinolones? Write structure activity relationship of Quinolones. **05**
- Q.2** (a) What are cephalosporins ? How they differ from penicillins? Give SAR of cephalosporins. **06**
- (b) Classify Penicillins with examples on the basis of mechanism of action. Why penicillin is not active against penicillinase secreting microorganisms? **05**
- (c) Give IUPAC name and chemical synthesis of chloramphenicol. **05**
- Q.3** (a) Give synthesis of the following compounds : **06**
 (i) Isoniazid
 (ii) Ethambutol
 (iii) Clofazimine
- (b) Write SAR of Tetracyclines. **05**
- (c) What are antifungal agents? How they act? Give synthesis of Ketoconazole. **05**
- Q.4** (a) Give life cycle of malarial parasite. Classify antimalarials with examples. Give synthesis of Primaquine. **06**
- (b) What is amoebiasis? How antiamebics act? Give synthesis of Metronidazole. **05**
- (c) Write short note on Anthelmintics. **05**
- Q.5** (a) What is neoplasm? Give mechanism of action of anticancer drugs. **06**
- (b) Give IUPAC name and synthesis of the following drugs : **05**
 (i) Fluorouracil
 (ii) Cyclophosphamide
- (c) Write a note on anti-HIV agents. **05**
- Q. 6** (a) Discuss Diabetes mellitus. Classify antidiabetics with examples. Give synthesis of Metformin. **06**
- (b) What are different adrenocorticoid hormones? Give their structure and functions. **05**
- (c) What is Hyper and hypothyroidism? What diseases takes place by hypothyroidism? **05**
- Q. 7** (a) What is progesterone? Explain its functions. **06**
- (b) What are anabolic agents? Give SAR of testosterone. **05**
- (c) What are steroids? Why steroid therapy is not recommended for longer time. **05**
