

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B.Ph SEM-VII Examination-Nov/Dec.-2011

Subject code: 270003

Date: 24/11/2011

Subject Name: Pharmaceutical Chemistry-IX (Medicinal Chemistry)

Time: 10.30 am-01.30 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) Write the Stereochemistry and SAR of Penicillins. 06
 - (b) Write short notes on Tetracyclines. 05
 - (c) Write IUPAC name, Synthesis and Stereochemistry of Chloramphenicol. Enlist any five drugs in the class of Macrolide antibiotics. 05
- Q-2
- (a) What are Fluoroquinolones? Classify them. Give the mechanism of action of Fluoroquinolone. Give the synthesis of Norfloxacin. 06
 - (b) How sulfonamide and trimethoprim acts? Write IUPAC name and synthesis of Sulfasalazine. 05
 - (c) Give the structures and mechanism of action of different antifungal agents. Give the synthesis of Clotrimazole. 05
- Q-3
- (a) Write short notes on antiviral and anti-HIV agents. 06
 - (b) Give the chemical classification of antimalarials agents. Give the synthesis of Chloroquine. 05
 - (c) Write structures, mechanism of action and uses of anti-amoebic agents. 05
- Q-4
- (a) Write details short notes on Antitubercular agents. 06
 - (b) Write SAR of Cephalosporins. 05
 - (c) Give structures, mechanism of action and uses of different anthelmintics agents. 05
- Q-5
- (a) Write details classification and short mechanism of action of anticancer agents. 06
 - (b) Write IUPAC name and Synthesis of Thiotepa and Cyclophosphamide. 05
 - (c) Write the structures, mechanism of action and uses of antimetabolite anticancer agents. 05
- Q-6
- (a) Write structures, mechanism of action and uses of drugs used in Type-2 diabetes. 06
 - (b) Write informative notes on different insulin preparations. Give the synthesis of Metformin. 05
 - (c) Write in details structures, mechanism of action, uses and side effect of different immunosuppressive agents. 05
- Q-7
- (a) Discuss nomenclature and mechanism of action of steroids. Enlist the drugs used as Selective Estrogen Receptors Modulators (SERMs) and Aromatase Inhibitors. 06
 - (b) Discuss in details the structural requirements of glucocorticoids for their pharmacological activity. 05
 - (c) Classify thyroid and antithyroid drugs. Give short notes on antithyroid drugs. 05
