

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. Pharm-Semester-VII May-2012 Examination

Subject code: 270003

Subject Name: Pharmaceutical Chemistry IX (Medicinal chemistry)

Time: 02:30pm to 5:30pm

Date: 25-05-2012

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 Define and classify antibiotics. Discuss SAR of penicillin. 06
b Discuss chemistry, SAR and mechanism of action of sulfonamide. 05
c Give synthesis of penicillin G and sulphamethoxazole. 05
- Q-2 a What are hormones? Discuss nomenclature and stereochemistry of steroids. 06
b What are hypoglycemic agents? Give detailed account of oral hypoglycemic agents. 05
c Give synthesis of tolbutamide, thyroxine and carbimazole. 05
- Q-3 a What are cephalosporins? Discuss the acid and basic instability of betalactam antibiotics. 06
b Write a note on antifungal agents. 05
c Give synthesis of mebendazole, metronidazole and isonidazid. 05
- Q-4 a What are antineoplastic agents? Classify them with examples. Discuss the mechanism of action alkylating agents. 06
b Give brief account of natural drugs used in cancer therapy. 05
c Give the synthesis of chloramphenicol and methotrexate. 05
- Q-5 a What are antiprotozoal agents? Discuss the chemistry and SAR of 4-aminoquinolines. 06
b Define and classify amoebiasis. Write a note on imidazole derivatives used as antiamoebic agents. 05
c Write a note on macrolide antibiotics. 05
- Q-6 a What are aminoglycoside antibiotics? Give chemistry and SAR of aminoglycoside. 06
b Discuss chemistry and SAR of glucocorticoids. 05
c Discuss SAR of tetracycline. 05
- Q-7 a What are anti-TB agents? Give first line and second line drugs used in TB. 06
b Why viral therapy is difficult? Classify antiviral agents with examples. Write a note on reverse transcriptase inhibitors. 05
c Write a note on fluoroquinolones. 05
