

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.

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| Q.1 | <p>(a) Give IUPAC name, uses and synthesis of any two of the following compounds :
(i) Sulphasalazine
(ii) Ciprofloacin
(iii) Trimethoprim</p> <p>(b) Write mechanism of action and adverse effects of sulphonamides.</p> <p>(c) What are Quinolones? Write structure activity relationship of Quinolones.</p> | <p>06</p> <p>05</p> <p>05</p> |
| Q.2 | <p>(a) What are cephalosporins ? How they differ from penicillins? Give SAR of cephalosporins.</p> <p>(b) Classify Penicillins with examples on the basis of mechanism of action. Why penicillin is not active against penicillinase secreting microorganisms?</p> <p>(c) Give IUPAC name and chemical synthesis of chloramphenicol.</p> | <p>06</p> <p>05</p> <p>05</p> |
| Q.3 | <p>(a) Give synthesis of the following compounds :
(i) Isoniazid
(ii) Ethambutol
(iii) Clofazimine</p> <p>(b) Write SAR of Tetracyclines.</p> <p>(c) What are antifungal agents? How they act? Give synthesis of Ketoconazole.</p> | <p>06</p> <p>05</p> <p>05</p> |
| Q.4 | <p>(a) Give life cycle of malarial parasite. Classify antimalarials with examples. Give synthesis of Primaquine.</p> <p>(b) What is amoebiasis? How antiamoebics act? Give synthesis of Metronidazole.</p> <p>(c) Write short note on Anthelmintics.</p> | <p>06</p> <p>05</p> <p>05</p> |
| Q.5 | <p>(a) What is neoplasm? Give mechanism of action of anticancer drugs.</p> <p>(b) Give IUPAC name and synthesis of the following drugs :
(i) Fluorouracil
(ii) Cyclophosphamide</p> <p>(c) Write a note on anti-HIV agents.</p> | <p>06</p> <p>05</p> <p>05</p> |
| Q. 6 | <p>(a) Discuss Diabetes mellitus. Classify antidiabetics with examples. Give synthesis of Metformin.</p> <p>(b) What are different adrenocorticoid hormones? Give their structure and functions.</p> <p>(c) What is Hyper and hypothyroidism? What diseases takes place by hypothyroidism?</p> | <p>06</p> <p>05</p> <p>05</p> |
| Q. 7 | <p>(a) What is progesterone? Explain its functions.</p> <p>(b) What are anabolic agents? Give SAR of testosterone.</p> <p>(c) What are steroids? Why steroid therapy is not recommended for longer time.</p> | <p>06</p> <p>05</p> <p>05</p> |
