

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B. Pharm. – SEMESTER – VII • EXAMINATION – WINTER 2013**

**Subject Code: 270003****Date: 30-11-2013****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.

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|------------|---|-----------|
| <b>Q.1</b> | (a) What are hormones? Discuss nomenclature and stereochemistry of steroids.                      | <b>06</b> |
|            | (b) Define and classify antifungal agents. Write a note on azole derivatives used as antifungals. | <b>05</b> |
|            | (c) Discuss the chemistry of macrolide antibiotics.   | <b>05</b> |
| <b>Q.2</b> | (a) Write a note on immunosuppressants  | <b>06</b> |
|            | (b) Write down SAR of quinolones as antibacterials  | <b>05</b> |
|            | (c) Write synthesis of chloramphenicol and ciprofloxacin  | <b>05</b> |
| <b>Q.3</b> | (a) Discuss degradation of penicillin in detail   | <b>06</b> |
|            | (b) Write down SAR of tetracyclines   | <b>05</b> |
|            | (c) Write a note on short acting sulfonamides   | <b>05</b> |
| <b>Q.4</b> | (a) Discuss insulin and its preparations  | <b>06</b> |
|            | (b) Write synthesis of chloroquine and mebendazole  | <b>05</b> |
|            | (c) Classify anti-HIV agents and write a note on reverse transcriptase inhibitors                 | <b>05</b> |
| <b>Q.5</b> | (a) Discuss about first line antitubercular agents  | <b>06</b> |
|            | (b) Discuss the chemistry and SAR of estrogens  | <b>05</b> |
|            | (c) Write synthesis of tolbutamide and isoniazid  | <b>05</b> |
| <b>Q.6</b> | (a) Classify antiamebic agents and discuss any one class in detail                                | <b>06</b> |
|            | (b) Write synthesis of sulphacetamide and clotrimazole  | <b>05</b> |
|            | (c) Write a note on antithyroid drugs   | <b>05</b> |
| <b>Q.7</b> | (a) Classify anticancer agents and write about any one class in detail                            | <b>06</b> |
|            | (b) Write synthesis of methotrexate and amantadine  | <b>05</b> |
|            | (c) Write a note on third and fourth generation cephalosporins                                    | <b>05</b> |

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