

GUJARAT TECHNOLOGICAL UNIVERSITY

B.PHARM – SEMESTER – VII • EXAMINATION – WINTER – 2015

Subject Code: 270003

Date: 09/12/2015

Subject Name: Pharmaceutical Chemistry - IX (Medicinal Chemistry)

Time: 10.30 AM to 1.30 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 | (a) | Classify Quinolones with relevant examples. Discuss its mode of action. | 06 |
| | (b) | Discuss the synergism of sulfonamides and folate reductase inhibitors. | 05 |
| | (c) | Give the synthesis of ciprofloxacin. | 05 |
| Q.2 | (a) | Classify sulphonamides with relevant examples. Discuss the mode of action. | 06 |
| | (b) | Discuss the chemistry and SAR of sulphonamides. | 05 |
| | (c) | Give the scheme of synthesis of sulphamethoxazole and sulphaceamide. | 05 |
| Q.3 | (a) | Discuss the structural features & different classes of β lactam antibiotics with relevant examples. | 06 |
| | (b) | Discuss the SAR of Penicillins. | 05 |
| | (c) | Discuss the synergism of ampicillin with other drugs. | |
| Q.4 | (a) | Discuss SAR of aminoglycosides antibiotics with relevant examples. | 06 |
| | (b) | Why tetracyclines are called so? Discuss their SAR. | 05 |
| | (c) | What are anthelmintics? Give the synthesis of albendazole. | 05 |
| Q.5 | (a) | Give the classification of anticancer drugs. Give mechanism of action of vinca alkaloids and give synthesis of Tamoxifen. | 06 |
| | (b) | Give the classification of anti TB drugs with relevant examples. | 05 |
| | (c) | Discuss the synthesis of clotrimazole and fluconazole. | 05 |
| Q. 6 | (a) | Discuss the steroid ring nomenclature, stereochemistry and structure. | 06 |
| | (b) | What are progestins? Give their SAR. | 05 |
| | (c) | Write a short note on antiviral therapy with examples of drugs used in antiretroviral therapy. | 05 |
| Q.7 | (a) | Classify drugs used in type 2 diabetes and give synthesis of Tolbutamide. | 06 |
| | (b) | Write a short note on Immunomodulators. | 05 |
| | (c) | Give classification of antithyroid drugs. Write synthesis of Carbimazole and Thyroxine. | 05 |
