

GUJARAT TECHNOLOGICAL UNIVERSITY

B.PHARM. - SEMESTER– VII • EXAMINATION – SUMMER-2016

Subject Code: 2270003

Date: 07/05/2016

**Subject Name: Pharmaceutical Chemistry – IX
(Medicinal Chemistry - III)**

Time: 2:30 PM to 5:30 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) Discuss the various parameters used in drug design with explanation. | 06 |
| | (b) What is important of QSAR in drug design? | 05 |
| | (c) Explain Hensch Linear Free Energy Relationship model in drug design. | 05 |
| Q.2 | (a) Give detail classification & SAR of cephalosporin groups of antibiotics. | 06 |
| | (b) Give the method of synthesis and mechanism of action of Chloramphenicol. | 05 |
| | (c) Define and classify Antifungal agent with suitable examples. | 05 |
| Q.3 | (a) What do you understand regarding combinatorial chemistry? Discuss its importance in synthetic chemistry. | 06 |
| | (b) Write an informative note on “ Computer Aided Drug Design” | 05 |
| | (c) Write short note on “Free Wilson Mathematical model of QSAR” | 05 |
| Q.4 | (a) Give the method of synthesis & uses of
i) Sulphacetamide ii) Ofloxacin | 06 |
| | (b) Explain the mechanism of action and SAR of Sulphonamides. | 05 |
| | (c) Define and classify Anti-malarial drugs with suitable examples. | 05 |
| Q.5 | (a) Define and classify Anti-neoplastic agents. Give the method of synthesis of Chlorambucil. | 06 |
| | (b) Write an informative note on anti-amoebic drugs. | 05 |
| | (c) Give the method of synthesis of
i) Metronidazole ii) Albendazole | 05 |
| Q. 6 | (a) Give the mechanism of action and SAR of Tetracycline groups of antibiotics. | 06 |
| | (b) Define β -lactam antibiotic. Classify the penicillin groups of antibiotics. Give the structural formula of Amoxicillin. | 05 |
| | (c) Write short note on “Anthelmintics” | 05 |
| Q.7 | (a) Define and classify anti-tubercular agents. Give the structural formula of Isoniazide and Pyrazinamide. | 06 |
| | (b) Give the method of synthesis of
i) Ethambutol ii) Ketoconazole | 05 |
| | (c) Define and classify Antiviral agent with suitable examples. Give the method synthesis of Amantadine. | 05 |
