

**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.

- 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 **06**  
i) Sulphacetamide ii) Ofloxacin  
(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 **05**  
i) Metronidazole ii) Albendazole
- Q.6** (a) Give the mechanism of action and SAR of Tetracycline groups of antibiotics. **06**  
(b) Define  $\beta$ -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 **05**  
i) Ethambutol ii) Ketoconazole  
(c) Define and classify Antiviral agent with suitable examples. Give the method synthesis of Amantadine. **05**

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