

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B.PHARM - SEMESTER- 6 EXAMINATION – SUMMER -2023**

**Subject Code: BP601TP****Date: 01/07/2023****Subject Name: Medicinal Chemistry III****Time:10.30 a.m. to 1.30 p.m.****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) Classify Quinolones with synthesis of any one drug. **06**  
(b) Write synthesis of Mebendazole and Miconazole **05**  
(c) Write short note on MDR TB, XDR TB and TDR TB. **05**
- Q.2** (a) Write structure, synthesis, use and mechanism of action of Chloramphenicol. **06**  
(b) Write brief note on SAR of Quinolones with structural examples. **05**  
(c) Give brief note on combinatorial chemistry. **05**
- Q.3** (a) Give synthetic pathway of Dapson and Trimethoprim. **06**  
(b) Do as directed. **05**  
    I. Comment: Amoxycillin is frequently given in combined with clavulanic acid.  
    II. Tetracyclins are not prescribe in pregnancy.  
(c) Give brief note on etiology of malaria. **05**
- Q.4** (a) Define and classify anti-tubercular agents with synthesis of any one drug. **06**  
(b) Write short note on SAR of sulfonamides with structural examples. **05**  
(c) Give name and structure of any five drug containing imidazole ring system. **05**
- Q.5** (a) Define and classify Penicillines and Tetracyclines with its mechanism of action. **06**  
(b) Give synthesis of Metronidazole and Sulfacetamide. **05**  
(c) Classify antiviral agents with structural examples of any five drugs. **05**
- Q.6** (a) Define and classify sulfonamides with structural examples. **06**  
(b) Write synthesis of Sulfamethoxazole and Para amino salicylic acid **05**  
(c) Draw structure of following drugs. **05**  
    i) Oxytetracycline                      ii) Clarithromycin                      iii) Isoniazid  
    iv) Ciprofloxacin                      v) Norfloxacin
- Q.7** (a) What is drug design? Give brief note on physicochemical parameters used in QSAR. **06**  
(b) Give synthesis of Acyclovir and Chloroquine. **05**  
(c) Give brief note on prodrug with appropriate structural examples. **05**

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