

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[BPHARM 1022]

OCTOBER 2022  
(MARCH 2022 EXAM SESSION)

Sub. Code: 2059

**B.PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)**

**PCI Regulation 2017 – SEMESTER VI**

**PAPER I – MEDICINAL CHEMISTRY III**

*Q.P. Code : 562059*

**Time: Three hours**

**Maximum: 75 Marks**

**I. Elaborate on: Answer any TWO questions. (2 x 10 = 20)**

1. Explain combinatorial chemistry in detail.
2. Briefly discuss the mechanism of action and SAR of azole antifungals.
3. Define and classify urinary-tract Anti-infective agents with examples. Explain the chemistry, SAR, mechanism of action of Quinolone anti-bacterial agents.

**II. Write notes on: Answer any SEVEN questions. (7 x 5 = 35)**

1. Explain the mechanism of action of Metronidazole.
2. Describe the mechanism of action of (a) Polyene antifungals (b) Allylamine antifungals.
3. Write the mechanism of action and structure of any one class of antitubercular agents.
4. Discuss the mechanism of action, SAR and synthesis of chloramphenicol.
5. Describe various electronic parameters involved in QSAR study.
6. Write notes on synergism and mechanism of action of sulphonamide.
7. Brief out the chemistry of cephalosporins.
8. Outline the synthesis of Chloroquine.
9. Write the structure of a) trimethoprim b) pyrimethamine.

**III. Short answers on: Answer ALL questions. (10 x 2 = 20)**

1. Write the structure and use of mebendazole.
2. Give an account on bigaunaide antimalarials.
3. Write the structure of sulfonamides used for burn therapy.
4. Give an account on saquinavir.
5. Write a note on the applications of combinatorial library synthesis.
6. Write a note on  $\beta$ - Lactamase inhibitors.
7. Define amoebiasis and give an account on the causative agents.
8. Write the synthesis of amantadine.
9. Brief out on the types of prodrugs.
10. Classify macrolides with examples.

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