

B. PHARM
(SEM VI) THEORY EXAMINATION 2022-23
MEDICINAL CHEMISTRY III

Time: 3 Hours

Total Marks: 75

Note: Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

- 1. Attempt all questions in brief. 10 x 2 = 20**
- a. Describe the nomenclature of beta-lactam antibiotics.
 - b. Give two examples of tetracycline antibiotics.
 - c. Describe the concept of Prodrug in drug development.
 - d. Outline the synthesis of Chloramphenicol.
 - e. Enlist anti-tubercular antibiotics.
 - f. Outline the synthesis for Acyclovir.
 - g. Describe the synthesis of Dapsone.
 - h. Define antiprotozoal agents with examples.
 - i. Illustrate combinatorial synthesis in drug discovery.
 - j. Define Molecular Docking.

SECTION B

- 2. Attempt any twoparts of the following: 2 x 10 = 20**
- a. Outline the classification of beta-lactam antibiotics with examples. Explain structure activity relationship for Penicillin.
 - b. Outline classification of anti-infective agents used in urinary tract infections. Explain structure activity relationship for Quinolones and synthesis of Ciprofloxacin.
 - c. Enlist and illustrate the physicochemical parameters used in QSAR.

SECTION C

- 3. Attempt any fiveparts of the following: 7 x 5 = 35**
- a. Describe the synthesis and uses of Diethylcarbamazine citrate and Mebendazole.
 - b. Illustrate Solid Phase and Solution Phase Synthesis along with their applications.
 - c. Outline the synthesis, and uses of Isoniazid and Nitrofurantoin.
 - d. Illustrate in detail about types of Prodrugs with their applications.
 - e. Classify antiviral agents with examples and explain their mechanism of action.
 - f. Illustrate the classification of Sulphonamides with synthesis of Sulfacetamide.
 - g. Describe azoles as antifungal agents with suitable examples.