

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.

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SECTION B

2. Attempt any *two* parts 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 pharmacareerinsider.com

3. Attempt any *five* parts 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.