

B.PHARM
(SEM-VII) THEORY EXAMINATION 2018-19
PHARMACEUTICAL CHEMISTRY-VIII
(MEDICINAL CHEMISTRY-III)

Time: 3 Hours

Total Marks: 100

Note: 1. Attempt all Sections.

SECTION A

1. Attempt all questions in brief. 2 x 10 = 20
- a. Draw the structures of Estrane and Cholestane.
 - b. Define mineralocorticoids and glucocorticoids.
 - c. What are semi-synthetic Penicillins?
 - d. What are Aminoglycosides antibiotics?
 - e. Draw the structure of any two Anthelmintic drugs?
 - f. What are Macrolides antibiotics?
 - g. Why Plasmodium falciparum infection is life-threatening?
 - h. Write down the synthesis of Chlorhexidine.
 - i. Draw the structure of any two cinchona alkaloid used as antimalarial agents.
 - j. What are the natural agents used in treatment of cancer.

SECTION B

2. Attempt any three of the following: 10 x 3 = 30
- a. Discuss the classification, nomenclature and stereochemistry of steroids.
 - b. Classify Antifungal drugs. Give the synthesis and mechanism of action of Ketoconazole.
 - c. Discuss the structure activity relationship (SAR) of Chloramphenicol.
 - d. Write down the synthesis and mechanism of action of Sulphadiazine
 - e. Discuss the SAR of Ampicillin and write down the synthesis and MOA of Ampicillin.

SECTION C

3. Attempt any one part of the following: 10 x 1 = 10
- (a) Write down the synthesis and mechanism of action of Nalidixic acid and Ofloxacin.
 - (b) Discuss the synthesis, MOA and uses of Dexamethasone.
4. Attempt any one part of the following: 10 x 1 = 10
- (a) Classify Tetracyclines. Give the structure activity relationship (SAR) of Tetracyclines with suitable examples.
 - (b) Classify Cephalosporin antibiotics and also give their examples with structure.
5. Attempt any one part of the following: 10 x 1 = 10
- (a) Classify Sulphonamides. Give the structure activity relationship (SAR) of Sulphonamides with suitable examples.
 - (b) What are Alkylating agents? Outline the synthesis and mode of action of chlorambusil.

6. **Attempt any *one* part of the following:** **10 x 1 = 10**
- (a) Write down the synthesis and mechanism of action of Ethambutol and Dapsone.
 - (b) Write down the synthesis route, mechanism of action and uses of Amantadine and Zydovudine.
7. **Attempt any *one* part of the following:** **10 x 1 = 10**
- (a) Discuss the SAR of 4-aminoquinolines and 8-aminoquinolines as antimalarial drugs.
 - (b) Discuss the synthesis route, mechanism of action and uses of Diloxanide and Ornidazole.