

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.