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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.