



10035

PG-245

IV Semester M.Sc. (CBCS) Examination, July - 2019

CHEMISTRY

C-404-OC : Medicinal Organic Chemistry

Time : 3 Hours

Max. Marks : 70

Instruction : Answer question no. 1 and any five of the remaining.

10×2=20

1. Answer any ten of the following .

- (a) What is a Receptor ? Give examples.
- (b) Write Hansch equation and explain the terms involved in it.
- (c) Explain Harten reaction taking proper example.
- (d) Write the structure of any one tetracycline and mention its importance.
- (e) What is a β lactum antibiotic ? What role it plays in antibiotic action ?
- (f) Write the structure of acyclovir and mention its application.
- (g) Give the synthesis of aspirin
- (h) What are antimetabolites ? Give examples.
- (i) Explain the mode of action of antipyretics.
- (j) Explain the Boots Synthesis of Ibuprofen.
- (k) Write the synthesis of Isoniazide.
- (l) Citing suitable examples differentiate between Bacteriostatic and Bacteriocidal drugs.

3+3+4=10

2. (a) Write a note on CADD
(b) Give the synthesis of ethinyl oestradiol.
(c) How was the size of ring D steroids established ?

3. (a) Give the synthesis and discuss the structure elucidation of Cephalosporin-C. **5+5=10**
(b) Discuss the synthesis and structure elucidation of streptomycin.

4. (a) Explain the mechanism of action of verapamil and give its synthesis.
(b) What are antihistamines ? Give the synthesis of chlorpheniramine and explain its mechanism of action. **5+5=10**

P.T.O.



- (a) What are sulphonamides? Write the synthesis of any one sulphonamide and explain its mode of action. **5+5=10**
- (b) What are antimalarials? Outline the synthesis of chloroquine.
- (a) Write a note on stereochemical aspects of psychotropic drugs. **3+4+3=10**
- (b) Explain neurochemistry of mental diseases.
- (c) Discuss the synthesis of chlorpromazine.
- (a) Discuss the determination of ring size, nature of side chain, position of angular methyl and stereochemistry of ring junction with respect to bile acids **5+5=10**
- (b) Discuss the synthesis of progesterone.
- (a) Explain carcinolytic antibiotics and mitotic inhibitors. **3+3+4=10**
- (b) Discuss the role of alkylating agents in cancer therapy.
- (c) What are antidiabetics? Explain the mode of action of antidiabetics. Outline the synthesis of insulin.

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