

Roll No.....

Total No. of Printed Pages: [01]

Total No. of Questions: [09]

B.Sc. (Hons.) Chemistry (Semester – 4th)

PHARMACEUTICAL CHEMISTRY

Subject Code: BCHMD1412

Paper ID: 19131626

Time: 03 Hours

Maximum Marks: 60

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A

(2 marks each)

Q1. Attempt the following:

- a. What is the total synthesis of ibuprofen?
- b. Write the synthesis of dapsone?
- c. What is structure of Streptomycin?
- d. What are antifungal drugs? Discuss their mechanism of actions?
- e. Write the total synthesis of trimethoprim?
- f. What is phenobarbital?
- g. Write the structure of sulphamethoxazole?
- h. Discuss in brief fermentation method for production of ethyl alcohol?
- i. What is retrosynthesis?
- j. Write the synthesis of Aspirin?

Section – B

(5 marks each)

- Q2. What are anti-inflammatory agents? Discuss their mechanism of action with examples?
- Q3. Discuss the total synthesis of Diazepam?
- Q4. How is the production of penicillin achieved?
- Q5. What is the biosynthetic pathway for the synthesis of Glutamic acid?
- Q6. Discuss the fermentation production of Chloromycetin?

Section – C

(10 marks each)

- Q7. a. What are anti-HIV drugs? Discuss the total synthesis of Zidovudine? b. What is anti-pyretic agent?
- Q8. a. Classify various antibacterial drugs? b. Write total synthesis of Chloramphenicol?
- Q9. Discuss the fermentation methods for production of a). citric acid? b). Cephalosporin?