Roll No :- _____

3632

M.Sc. (Applied Chemistry) (Semester-IV) EXAMINATION, 2019

Paper-MAC18-ET-23A

(Pharmaceutical chemistry-I)

Time Allowed - Three Hours

Maximum Marks - 40

Note : This question paper is divided into three parts : Part-A, Part-B and Part-C

Part-A: It is compulsory and is of 8 marks. This part contains eight questions (answer 20 words each). Answer all eight questions. Each question carries one mark.

Part-B: It is compulsory and is of 8 marks. This part contains four questions at least one from each unit (answer 50 words each). Answer all four questions. Each question carries two marks.

Part-C: This part is of 24 marks and contains six questions two from each unit (answer 400 words each). Answer any three questions selecting one grom each unit. Each question carries eight.

Part-A (Compulsory)

1. What is prodrug? Give an example. 1
2- Define LD-50? 1
3- What do you mean by Pharmacodynamics? 1
4- Draw the structure of Ciprofloxacin and chloroquin.
5- Give one synthesis of dapsone. 1
6- Define enzyme inhibition. 1
7- Give two examples of antibiotics with structure containing β lactum ring. 1
8- What is lead compound? 1

Part-B

9- Write short note on soft drug. 2
10- Describe partition coefficient. 2
11- What are the important parameters in defining drug disposition? 2
12- Give general mode of action of sulphonamides. 2

Part-C

Unit-I

13- Explain the following theories of drug activity

i) Occupancy theory.

ii) Rate Theory.

iii) Induced fit theory. (2½+2½+3)

OR

14- Write short notes on the following.

a) Lipophilicity.

b) Electronic ionization constant. 4+4

Unit-II

15- Explain drug absorption, disposition and elimination using pharmacokinectics. 8

OR

16- Write short notes on the following.

a) Membrane active drug.

b) Biotransformation. 4+4

Unit-III

17- Give synthesis and mode of action of following drugs.

i) Norfloxacin.

ii) Fluconazole.

iii) Primaquin

iv) Ethambutol 2x4

OR

18- Write short notes on the following.

i) Cell Wall biosynthesis.

ii) Synthesis of streptomycin and tetracycline. 4+4