



**EDD-143002**

Seat No. \_\_\_\_\_

**M. Sc. (Sem.-III) Examination**

**November / December - 2021**

**MSC0C302 : Organic Chemistry**  
*(Medicinal Chemistry)*

Time : 3 Hours]

[Total Marks : 70

Instruction : (1) All questions are compulsory.  
(2) Figures to Right indicate full marks.

1. Answer the following.
    - (A) (i) Define Antibiotics. How antibiotics are classified on the basis of their chemical structures ? 4
    - (ii) Discuss SAR of Penicillin. 3

OR

    - (i) Give brief account of third generation Cephalosporin's . 4
    - (ii) Discuss SAR of tetracycline's. 3  - (B) (i) What are the cardinal requirements for a compound to be antibiotic? Give name and structure of any one unclassified antibiotics. 4
  - (ii) Give synthesis and uses of Ampicillin. 3
- OR
- (i) Give synthesis and uses of Cephalosporin. 4
  - (ii) Give synthesis of Chloramphenicol. 3
2. Answer the following.
  - (A) (i) Give classification and structural variation in local anesthetics. 4
  - (ii) Give synthesis and uses of Chlorozepam. 3

OR

  - (i) Give classification and structural variation in general anesthetics. 4
  - (ii) Give synthesis and uses of Alprazolam. 3- (B) (i) What are anti depressant ? classify them giving one example of each class. 4
- (ii) Give synthesis and uses of dibucaine. 3

OR

  - (i) What are neuroleptics ? classify them giving one example of each class. 4
  - (ii) Give synthesis and uses of nikethamide. 3
3. Answer the following :
  - (A) (i) What are antimalarial drugs ? Discuss SAR of antimalarial. 4
  - (ii) Give a brief account of 9- aminoacridines. 3

OR

- (i) Discuss a sexual life cycle of malarial parasite in detail and give synthesis of Chloroquine. 4
- (ii) Give synthesis and uses of Primaquine. 3
- (B) (i) Classify antituberculosis and antileprosy agents giving suitable example of each class. 4
- (ii) Give synthesis and uses of Dapsone. 3
- OR
- (i) Give synthesis and uses of Ethambutol. 4
- (ii) Give synthesis and uses of Isoniazid(INH). 3
4. Answer the following :
- (A) (i) Classify diuretics drugs and discuss each class in detail. 4
- (ii) When the states of hyperglycemia and glycosuria arise in man ?  
Give a brief account on hypoglycemic agents.. 3
- OR
- (i) Discuss structural variations in sulphonyl ureas. 4
- (ii) Write a note on anti-diabetic agents. 3
- (B) (i) Define and Classify cardiovascular drugs giving suitable example of each class. 4
- (ii) Give synthesis and uses of Ethanamide. 3
- OR
- (i) Give synthesis and uses of Glibenclamide and Acetazolamide. 4
- (ii) Give synthesis and uses of Diltiazim. 3
5. Answer in following: 14
- Definition / short questions
- (1) How many stereo centers are present in penicillin ?
  - (2) Toxicity
  - (3) Pharmacophore
  - (4) What is tincture of iodine ?
  - (5) What are CNS stimulants and depressants?
  - (6) What is combination therapy ?
  - (7) What are SSRI agents?
  - (8) What is "Qinghaosu"?
  - (9) What is an Arrhythmia ?
- Give Structure and Uses :
- (10) Glutethimide
  - (11) Quinine
  - (12) Cycloserine
  - (13) Atenolol
  - (14) Pethidine