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Total No. of Pages : 02

Total No. of Questions : 09

M.Sc. (Chemistry) (2015 to 2017) (Sem.-3)

MEDICINAL CHEMISTRY

Subject Code : MSCH-312

M.Code : 72626

Time : 3 Hrs.

Max. Marks : 100

INSTRUCTION TO CANDIDATES :

1. Attempt FIVE questions in ALL including question no. 1 which is COMPULSORY and selecting ONE each from UNIT I to IV.

1. Write briefly :

- a) What are Antibacterial agents?
- b) Define HIV-protease inhibitors.
- c) What are Cinchona alkaloids?
- d) Give chemical structure of Sontoquine and Proguanil.
- e) Define the terms Hypnotics and Sedatives.
- f) What are Analeptics?
- g) Explain tricyclic antidepressants.
- h) Define Osmotic agents.
- i) Give structure and uses of Furosemide.
- j) Define Endocrine Antagonists.

UNIT-I

2.
 - a) Discuss in detail history and mechanism of antibacterial drugs. Add a note on Fluoroquinolones.
 - b) What are Beta-lactams? Discuss in detail bacterial resistance against antibacterial drugs.
3.
 - a) What are antiviral agents? Discuss in detail DNA polymerase inhibitors.
 - b) Enumerate different targets for anti-HIV drugs. Discuss anti-HIV nucleosides.



**UNIT-II**

4. a) Define and classify Antimalarials. Discuss in detail 4-aminoquinolines and 8-aminoquinolines.
b) Discuss in detail Sulphonamides and 9-aminoacridines.
5. a) What are Biguanides? Outline the synthesis of Chloroquine.
b) Discuss pyrimidines and sulfones. Outline the commercial synthetic route to Pyrimethamine.

UNIT-III

6. a) Write a detailed note on Barbiturates. What are non-barbiturates?
b) Discuss Hydantoins and Benzodiazepines. Outline the synthesis Phenytoin.
7. a) Define and classify Anticonvulsants. Discuss in detail Glutethimide and Phenacemide.
b) What are Monoamine Oxidase Inhibitors? Outline the synthesis of Diazepam.

UNIT-IV

8. a) Explain Diuretics. Add a detailed note on Chlorothiazides and Analogs.
b) Discuss Sulfamoylbenzoic acid and analogs. Outline synthesis of Chlorthalidone.
9. a) What are mercurials and acidifying salts? Outline synthesis of Amelioride and Triamterene.
b) Discuss Benzothiadiazine and related compounds. Outline synthesis of Hydrochlorothiazide.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

