

27/12/23

Seat Number

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DAGDU-34

BP-601T

Medicinal Chemistry-III

(736601)

Total Pages : 2]

Time : 3 Hours

Max. Marks : 75

Note : (1) Do not write anything on question paper except Seat No.

(2) Answer sheet should be written with black ink pen only.

(3) All questions are compulsory.

1. Attempt the following :

10×2=20

- (a) Give the schematic representation for synthesis of Dapsone.
- (b) Give the structure and IUPAC name of Chloramphenicol.
- (c) Give the structure and IUPAC name of Cotrimazole.
- (d) Give the important adverse effects of sulfonamide therapy with explanation.
- (e) Give the synthesis of Mebendazole.
- (f) Why combination therapy is preferred while treating tuberculosis.
- (g) Along with diethylcarbamazine citrate, purgative are given. Why ?
- (h) Draw the structure and discuss mode of action of Neomycin.
- (i) Draw the structure of Rifampicin.
- (j) Why *n*-octanol is preferred as organic solvent while determining logP value of drug.

P.T.O.

2. Attempt any *two* :

2×10=20

- (a) Discuss the stereochemistry and SAR of tetracycline with suitable example and structure.
- (b) Give the classification of sulphonamide with *one* example and structure from each class. Discuss the SAR of sulphonamide and give the synthesis of sulphacetamide and sulfamethaxazole.
- (c) Draw the structure. Give IUPAC name and synthesis of Chloroquine and Pamaquine.

3. Attempt any *seven* :

7×5=35

- (a) Write a note on folate reductase inhibitor.
- (b) Give the schematic representation for the synthesis of Ciprofloxacin and Nitrofurantoin.
- (c) Give the chemical degradation pathway of penicillin.
- (d) Discuss the SAR of quinoline derivatives as antimalarial agents.
- (e) Classify antitubercular agents giving *one* example and structure from each class.
- (f) Draw the structure of Didanosine, Lamivudine, Ribavirin, Saquinavir and Indinavir.
- (g) Define antimycotic agents. Give the structures of antimycotic antibiotics.
- (h) Discuss in detail partition coefficient as physiochemical parameter in QSAR.
- (i) Write a brief note on prodrug.