

15/01/24

Seat Number

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DAGDU-24

BP-501T

Medicinal Chemistry-II
(735501)

Total Pages : 5]

Time : 3 Hours

Max. Marks : 75

- Note :** (1) Do not write anything on question paper except Seat No.
(2) Graph or diagram should be drawn with blank ink pen being used for writing paper or black HB pencil.
(3) Students should note, no supplement will be provided.
(4) All questions are compulsory.
(5) Figures to the right indicate full marks.
1. (A) Attempt the following multiple choice questions : 10
- (i) From the following drugs which is loop diuretic ?
- (a) Ethaclynic acid
 - (b) Chlorthiazide
 - (c) Amiloride
 - (d) Mannitol
- (ii) Pteridine ring structure is present in
- (a) Mifepristone
 - (b) Methotrexate
 - (c) Minoxidil
 - (d) Mercaptopurine

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- (iii) is HMG CoA reductase inhibitor.
- (a) Cholesteramine
 - (b) Clofibrate
 - (c) Cholestipol
 - (d) Lovastatin
- (iv) Biguanide structure is present in which of the following drugs ?
- (a) Nateglinide
 - (b) Pioglitazone
 - (c) Metformine
 - (d) None of the above
- (v) Azocane ring system is present in
- (a) Guanethidine
 - (b) Diazoxide
 - (c) Guanabenz
 - (d) Azothioprine
- (vi) 2-[4-(3-methoxypropoxy)-3-methylpyridine-2-yl] methylsulfinyl 1H-benzimidazole is :
- (a) Omeprazole
 - (b) Lansoprazole
 - (c) Pantoprazole
 - (d) Rabeprazole

- (vii) Phosphoramidate mustard is the metabolite of
- (a) Cyclothiazide
 - (b) Meclorothamine
 - (c) Cyclophosphamide
 - (d) Melphalan
- (viii) Which of the following drugs contains quinoline nucleus ?
- (a) Dibucaine
 - (b) Ranitidine
 - (c) Amiodarone
 - (d) Lansoprazole
- (ix) 4-(2-Nitrophenyl)-2, 6-dimethyl-3, 5-dicarbomethoxy-1, 4-dihydropyridine is the IUPAC of
- (a) Nifedipine
 - (b) Felodipine
 - (c) Amlodipine
 - (d) Nicardipine
- (x) Unwanted growth of facial hair is the side effect of
- (a) Captopril
 - (b) Minoxidil
 - (c) Timolol
 - (d) Enalapril

(B) Solve the following questions :

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- (i) Define coagulants and anticoagulants. Give the synthesis of warfarin.

- (ii) Draw the structure and give the IUPAC of methotrexate.
- (iii) Draw the structures of Captopril and Enalapril and give its MAO.
- (iv) Give the structures of any *one* thiazolidinedione antidiabetic agents and explain MAO.
- (v) Draw the structure, give the IUPAC and synthesis of Benzocaine.
2. Solve any *two* of the following questions : 20
- (i) Classify anticancer agents and discuss in detail the SAR and MOA of antimetabolites.
- (ii) Classify antidiabetic agents. Explain their mechanism of action and give the SAR of sulphonyl ureas.
- (iii) What are antihistaminic agents ? Give the classification and explain in detail the SAR of H₁-antihistaminics.
3. Solve any *seven* of the following questions : 35
- (i) Write a note on calcium channel blockers.
- (ii) Define local anaesthetics. Give the classification and SAR of local anaesthetics.
- (iii) Draw the structures and give the synthesis of Chlorothiazide and Acetazolamide.

- (iv) Write a note on antibiotic anti-neoplastic agents.
- (v) Explain the chemistry and SAR of corticosteroids.
- (vi) What are antihypertensive agents ? Classify and give SAR of ACE inhibitors.
- (vii) Write a note on anti-arrhythmic drugs.
- (viii) Give the synthesis of Diphenhydramine and Promethazine hydrochloride.
- (ix) Explain the drugs used in Congestive Heart Failure.