Roll No. | | | | | | | | | | | | | Total No. of Pages : 03

Total No. of Questions : 22

B.Pharmacy (2017 Batch) (Sem.-6)

MEDICINAL CHEMISTRY-III-THEORY

Subject Code : BP-601T

M.Code : 77986

Time : 3 Hrs. Max. Marks : 75

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.
3. SECTION-C contains NINE questions carrying FIVE marks each and students have to attempt any SEVEN questions.

SECTION-A

Multiple Choice Question :

1. …….. inhibit the synthesis of bacterial cell wall.

   A. Penicillin B. Cephalosporin

   C. Tetracycline D. A & B both

2. …….. is a purine nucleoside based antiviral drug.

   A. Acyclovir B. lodoxuridine

   C. Rimantadine D. Loviride

3. …….. is a triazole derivative used as antifungal agent.

   A. Fluconazole B. Ketoconazole

   C. Miconazole D. Clotrimazole

4. …….. is a prodrug used in the treatment of tuberculosis.

   A. Isoniazid B. Pyrazinamide

   C. Ethionamide D. A & B both

5. …….is a l,8-naphthyridine-3-carboxylic acid used as urinary anti-infective.

A. Nalidixic acid B. Ciprofloxacin

C. Ofloxacin D. None of these

6. Quinine and quinidine are ……..

A. Optical isomers B. Geometrical isomers

C. Conformational isomers D. Anomers

7. Sulphonamides are competitive antagonists of ……..

A. *p*-Amino benzoic acid B. Tetrahydrofolic acid

C. Dihydrofolic acid D. Glutamic acid

8. Docking is a …….. drug designing technique.

A. Direct B. Indirect

C. Ligand Based D. A & C both

9. Positive value of Hammett's substituent constant indicates nature of the substituent.

A. Electron withdrawing B. Electron releasing

C. Lipophilic D. Hydrophobic

10. Hansch is also known as ……..

A. Extrathermodynamic approach B. Additivity Model

C. Mixed model D. *de novo* model

SECTION-B

11. Discuss structural manipulation in acyl group at 6^{th} position in penicillin to improve potency. Discuss chemical degradation of these class of antibiotics.

12. Classify anti-malarials with suitable examples. Discuss SAR of quinolines for anti-malarial activity.

13. What is combinatorial chemistry? Describe the solid phase and solution phase synthesis with one examples of each.

SECTION-C

14. Discuss ring and numbering systems of clinically available β-lactam antibiotic types.

15. Draw the structures of any two prodrugs used in the treatments of tuberculosis. Give synthesis of any one of them.

16. Write short note on reverse transcriptase inhibitors as antiviral agents.

17. Give synthesis and mechanism of action of Miconazole.

18. Draw the structures of any four antiprotozoal agents. Give mechanism of action of ornindazole.

19. Discuss SAR of Sulphonamide class of antibacterial.

20. What are folate reductase inhibitors? Give synthesis of Trimethoprim.

21. What is docking analysis? Describe its advantages over other CADD techniques.

22. Describe substituent constants of Hansch QSAR model with mathematical expression of each.

NOTE : Disclosure of identity by writing mobile number or making passing request on any page of Answer sheet will lead to UMC against the Student.