

B. Pharm. (CBCS Pattern) Semester-VI
BP601T - Medicinal Chemistry-III

Time : Three Hours



Max. Marks : 75

- Notes :
1. All questions carry equal marks.
 2. Diagrams and Chemical equation should be given wherever necessary.
 3. Illustrate your answers wherever necessary with the help of neat sketches.
 4. All questions are compulsory.

**20x1
=20**

- 1) The beta lactam antibiotics are -----
 - a) Penicillin
 - b) Cephalosporin
 - c) Imipenem
 - d) All of these
- 2) which one is the first generation cephalosporin?
 - a) Cefepime
 - b) Cefoperazone
 - c) Cefalexin
 - d) None
- 3) Amino glycoside gives -----
 - a) Bactericidal effect
 - b) Bacteriostatic effect
 - c) fungicidal effect
 - d) None of these.
- 4) Tetracycline act on -----
 - a) 50s ribosomes
 - b) 30s ribosomes
 - c) Both a & b
 - d) None of these
- 5) Yellow discoloration of teeth is caused by ----
 - a) Chloramphenicol
 - v) Macrolide
 - c) Penicillin
 - d) Tetracycline
- 6) Erythromycin contains -----
 - a) Macrocyclic lactone ring
 - b) Lactam ring
 - c) Purine ring
 - d) Pyrrolidine ring
- 7) Chloramphenicol is used for the treatment of
 - a) Brain fever
 - b) Pneumonia
 - c) Typhoid fever
 - d) Hay fever
- 8) Chloroquine contains -----
 - a) 8 – aminoquinoline
 - b) 4 – aminoquinoline
 - c) 2 – aminoquinoline
 - d) 6 – amino acid.
- 9) Pyrimethamine act by inhibit the enzyme ---
 - a) Transaminase
 - b) Folate reductase
 - c) Peptidase
 - d) Amylase
- 10) Prodrug with two active compounds are known as -----
 - a) Mixed type prodrug
 - b) Pro-prodrugs
 - c) Bioprecursors
 - d) Mutual prodrugs

- 11) The most important reason for using a combination of chemotherapeutics agents in the treatment of tuberculosis is -----
 - a) To prevent development of resistance to the drug.
 - b) To obtained bactericidal effect.
 - c) To broaden the spectrum of activity
 - d) To reduce adverse effect of drugs.
- 12) Select the drug that acts by inhibiting HIV protease enzyme.
 - a) Zalcitabine
 - b) Efavirenz
 - c) Stavudine
 - d) Saquinavir
- 13) Which one is antitubercular antibiotic?
 - a) Pyrazinamide
 - b) INH
 - c) Rifampicin
 - d) Amikacin
- 14) Fluoroquinolone derivative of urinary – anti-infective drug is -----
 - a) Ciprofloxacin
 - b) Penicillin
 - c) Nalidixic acid
 - d) Amikacin
- 15) Amphotericin B comes under which class of drug?
 - a) Anti – TB
 - b) Anti fungal agent
 - c) Anti – viral agent
 - d) Anthelmintic agent
- 16) Clotrimazole is used for -----
 - a) Bacterial infection
 - b) Meningitis
 - c) Fever
 - d) Candidiasis
- 17) Sulphonamides are the derivatives of -----
 - a) PABA
 - b) Sulphur
 - c) Sulphanilamide
 - d) None
- 18) Who developed the Auto Dock programme of software for DOCKING?
 - a) Frienser 2004
 - b) Abagyan in 2001
 - c) Morris in 1998
 - d) Schnecke in 2001
- 19) In which synthesis solid support used in combinatorial chemistry.
 - a) Liquid phase synthesis.
 - b) Solid phase synthesis.
 - c) Phase I synthesis
 - d) None of the above
- 20) What is the requirement for Ligand preparation for Binding-Mode assessment?
 - a) Molecular weight between 150 & 750D.
 - b) Number of rotatable bonds less than 7.
 - c) At least one polar atom (N, O, S, or P).
 - d) All of the above

2. Solve **any two**

**10x2
=20**

- a) Give life cycle of malarial parasite. Classify antimalarials with examples & add note on 4-amino quinolines.

- b) Classify sulphonamides on the basis of their site of action. Give general mechanism, SAR & structure, chemical name & uses of any one potent drug from each category.
- c) Classify urinary tract anti-infective agents with examples. Explain in detail about Quinolones as urinary antiseptics.

3. Solve any seven

**5x7
=35**

- a) Explain SAR of cephalosporin.
- b) Give a note on chloramphenicol.
- c) Write structure, chemical name, mechanism of action & uses of Isoniazid.
- d) Write a short note on reverse transcriptase inhibitors.
- e) Classify anthelmintic agents & explain about DEC.
- f) Write synthesis of Trimethoprim & miconazole
- g) Explain about Hansch analysis.
- h) Write a short note on solid phase synthesis.
- i) Give SAR of tetracyclines.
