

B.Pharm. (CBCS Pattern) Semester-V
BP501T - Medicinal Chemistry-II

Time : Three Hours



GUG/S/25/13185(S)

Max. Marks : 75

Notes :

1. All questions are compulsory.
2. Diagrams and Chemical equation should be given wherever necessary.
3. Illustrate your answers wherever necessary with the help of neat sketches.

1. Multiple Choice Questions.

1x20

=20

- 1) Which one is proton pump inhibitor?
a) Captopril b) Omeprazole
c) Phenytoin d) Codeine
- 2) IUPAC name of Histamine is
a) 2-(imidazol-4-yl)ethylamine b) 3-(imidazol-4-yl)ethylamine
c) 2-(imidazol-4-yl)propylamine d) 3-(imidazol-4-yl)propylamine
- 3) Which one is not a alkylating agents?
a) Cyclophosphamide b) Chlorambucil
c) Mechlorethamine d) Mercaptopurine
- 4) An example of 5α reductase inhibitor is -----
a) Finasteride b) Dacarbazine
c) Etoposide d) Vinblastine
- 5) Which is the example of calcium channel blocker?
a) Alprazolam b) Fluconazole
c) Atenolol d) Verapamil
- 6) Amyl nitrate as -----
a) Vasodilator b) Vasoconstrictor
c) β-receptors d) Calcium channel
- 7) Which of the following is having benzothiazepine ring?
a) Verapamil b) Alprazolam
c) Diltiazem HCl d) Fluconazole
- 8) Basic nucleus present in Omeprazole is -----
a) Benzimidazole b) Indole
c) Quinoline d) Isoquinoline
- 9) Bumetanide belongs to which class of diuretics?
a) Carbonic anhydrase inhibitor b) Osmotic diuretics
c) Loop diuretics d) Potassium sparing diuretics
- 10) Which drug is proven to cross the placental barrier?
a) Furosemide b) Mannitol
c) Spironolactone d) Hydrochlorothiazide

- 11) Diphenhydramine is a -----
 - a) Ethylene diamine derivative
 - b) Amino alkyl ether analogue
 - c) Cyclic basic chain analogue
 - d) Mono amino propyl analogue
- 12) The antihypertensive drug having tetrazole ring is -----
 - a) Valsartan
 - b) Diazoxide
 - c) Losartan
 - d) Fosinopril
- 13) The main clinical use of clonidine is -----
 - a) Analgesic
 - b) Antihypertensive
 - c) Both
 - d) Neither
- 14) What is an arrhythmia?
 - a) Accelerated heart beat
 - b) Slow heart beat
 - c) Irregular heart beat
 - d) A type of heart cancer
- 15) Synonym for factor VII is -----
 - a) Proaccelerin
 - b) Prothrombin
 - c) Proconvertin
 - d) Christmas factor
- 16) Mechanism of action of Verapamil is -----
 - a) β blockers
 - b) Block Ca^{2+} channel
 - c) Block Na^{+} channel
 - d) Blocks K^{+} channel
- 17) Effects of the digitalis glycosides on the heart includes -----
 - a) Increase conduction velocity through AV node
 - b) Decreased refractory period of the AV node
 - c) Positive inotropic effect
 - d) Positive chronotropic effect
- 18) Sildenafil is used for the treatment of -----
 - a) Erectile dysfunction
 - b) Diabetes
 - c) Epilepsy
 - d) Malaria
- 19) T_4 is -----
 - a) Thyroxine
 - b) 3, 5, 3', 5'- tetraiodothyronine
 - c) Both a and b
 - d) None of these
- 20) Insulin is secreted by -----
 - a) α – cell
 - b) β – cell
 - c) Delta cell
 - d) All of the above

2. Long answer question solve **any two**.

**10x2
=20**

- 1) Explain SAR and mechanism of action of Carbonic Anhydrase Inhibitor Diuretics and Write synthesis of Acetazolamide.
- 2) What are antihypertensive drugs? Classify them and give one structural example of each class.
- 3) Give SAR of H₁-Receptor Antagonist. Write synthesis, Clinical uses and doses of Diphenhydramine.

3. Short answer questions solve **any seven**.

5x7=
35

- 1) Write MOA and Synthesis of Nitroglycerin.
- 2) Write Synthesis, MOA and Uses of Furosemide.
- 3) Write Synthesis, MOA and Uses of Promethazine.
- 4) Write Synthesis, MOA and Uses of Methyldopa hydrochloride.
- 5) Write Synthesis, MOA and Uses of Tolbutamide.
- 6) Write Synthesis, MOA and Uses of Disopyramide phosphate.
- 7) Write mechanism of action of ACE inhibitors and Aldosterone antagonist.
- 8) Write Synthesis, MOA and Uses of Furosemide.
- 9) Write Synthesis, MOA and Uses of Chlorothiazide.
