

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

Time : Three Hours



Max. Marks : 75

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

$$\begin{aligned} 1 \times 20 \\ = 20 \end{aligned}$$

- 1) Which is the example of calcium channel blocker?
 - a) Alprazolam
 - b) Fluconazole
 - c) Atenolol
 - d) Verapamil
- 2) Amyl nitrate as -----
 - a) Vasodilator
 - b) Vasoconstrictor
 - c) β -receptors
 - d) Calcium channel
- 3) Which one is proton pump inhibitor?
 - a) Captopril
 - b) Omeprazole
 - c) Phenytoin
 - d) Codeine
- 4) IUPAC name of Histamine is
 - a) 2-(imidazole-4-yl) ethylamine
 - b) 3-(imidazole-4-yl) ethylamine
 - c) 2-(imidazole-4-yl) propylamine
 - d) 3-(imidazole-4-yl) propylamine
- 5) which one is not a alkylating agents?
 - a) Cyclophosphamide
 - b) Chlorambucil
 - c) Mechlorethamine
 - d) Mercaptopurine
- 6) An example of 5α reductase inhibitor is -----
 - a) Finasteride
 - b) Dacarbazine
 - c) Etoposide
 - d) Vinblastine
- 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) Give SAR of H₁ – Receptor Antagonist. Write synthesis, Clinical uses and doses of Diphenhydramine.

- 2) Explain SAR and mechanism of action of Carbonic Anhydrase Inhibitor Diuretics and Write synthesis of Acetazolamide.
- 3) What are antihypertensive drugs? Classify them and give one structural example of each class.

3. Short Answer Questions. (Solve **any seven).**

**5x7
=35**

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