

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

P. Pages : 3

Time : Three Hours



**GUG/W/23/13185**

Max. Marks : 75

Notes : 1. All questions as compulsory.

**1. Multiple choice questions attempt all. 20**

- i) Diphenhydramine is a -----.
  - a) Ethylene diamine derivative      b) Amino alkyl ether analogue
  - c) Cyclic basic chain analogue      d) Mono amino propyl analogue
- ii) Which one is not alkylating agent?
  - a) Cyclophosphamide      b) Chlorambucil
  - c) Mechlorethamine      d) Mercaptopurine
- iii) Which class of oral hypoglycemics acts on postprandial hyperglycemia?
  - a) Meglitinides      b) Sulfonylureas
  - c) Guanidine derivatives      d) Thiazolidinediones
- iv) Which among the following is an example of Potassium sparing diuretics?
  - a) Metolazone      b) Hydrochlorothiazide
  - c) Spironolactone      d) Mannitol
- v) Thiazolidinedione acts on which receptor among the following?
  - a) Sulfonylureas      b) Peroxisome proliferator activator
  - c)  $\alpha$  -glucosidase inhibitors      d) Glucose transporter 2
- vi) Ototoxicity is the side effect of which drug among the following?
  - a) Furosemide      b) Bumetanide
  - c) Tolbutamide      d) Glimepiride
- vii) The Antianginal drug that inhibits phosphodiesterase enzyme.
  - a) Aspirin      b) Nifedipine
  - c) Isosorbide dinitrate      d) Dipyridamole
- viii) A chain of Insulin is composed of.
  - a) 21- amino acids      b) 31- amino acids
  - c) 20 amino acids      d) 30 amino acids
- ix) Histamine is -----.
  - a) 1,2,4, imidazolyl ethylamine      b) 2,4- imidazolyl ethylamine
  - c) 2,2,4- imidazolyl ethylamine      d) 3,4 -imidazolyl ethylamine
- x) Chlorpropamide is an example of.
  - a) Biguanides      b) Thiazolidinediones
  - c) Meglitinides      d) Sulfonylureas

- xi) Which is the natural local anesthetic agent.
- |               |               |
|---------------|---------------|
| a) Lignocaine | b) Procaine   |
| c) Cocaine    | d) Benzocaine |
- xii) One of the following is HMG-CoA reductase inhibitors.
- |                   |                     |
|-------------------|---------------------|
| a) Lovastatin     | b) Clofibrate       |
| c) Both a) and b) | d) All of the above |
- xiii) Process in which the blood gets converted into a gel and form a blood clot.
- |                     |                      |
|---------------------|----------------------|
| a) Coagulants       | b) Anticoagulants    |
| c) Thrombophlebitis | d) None of the above |
- xiv) Electron donating group on aromatic ring increases -----.
- |                   |                      |
|-------------------|----------------------|
| a) Lipophilicity  | b) Metabolism        |
| c) Hydrophilicity | d) None of the above |
- xv) T3 hormone is -----.
- |                   |                      |
|-------------------|----------------------|
| a) Thyroxine      | b) Triiodothyronine  |
| c) Both a) and b) | d) None of the above |
- xvi) Benzocaine is an example of -----.
- |                                   |
|-----------------------------------|
| a) Amino benzoic acid derivatives |
| b) Benzoic acid derivatives       |
| c) Anilide derivatives            |
| d) All of the above               |
- xvii) Name the factor XII from clotting factors.
- |                  |                            |
|------------------|----------------------------|
| a) Kallikrein    | b) Hageman factor          |
| c) Stuart factor | d) Antihemophilic factor B |
- xviii) CHF stands for.
- |                             |                           |
|-----------------------------|---------------------------|
| a) Congenital heart failure | b) Coronary heart failure |
| c) Congestive heart failure | d) None of the above      |
- xix) All of the following are antihyperlipidemic agents except -----.
- |                 |                   |
|-----------------|-------------------|
| a) Clofibrate   | b) Nicotinic acid |
| c) Atorvastatin | d) Digitoxin      |
- xx) PAH is -----.
- |                                    |
|------------------------------------|
| a) Pulmonary arterial hypotension  |
| b) Pulmonary arterial hypertension |
| c) None of above                   |
| d) Both a & b                      |

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

**2x10  
=20**

- i) What is mean by antineoplastic agents, write there classification and synthesis of mercaptopurine.
- ii) What are antidiuretics, give there classification with SAR of Thiazide diuretics and synthesis of any one drug of antidiuretic agents.

- iii) What are Antihyperlipidemic agents. Classify the antihyperlipidemic agents and describe the mode of action of HMG-CoA reductase inhibitors.

**3. Short answer question any seven.**

**5x7  
=35**

- i) Write short note on proton pump inhibitors.
- ii) Explain the mode of action of Furosemide and give its synthesis.
- iii) Explain the role of Insulin and give the synthesis of Tolbutamide.
- iv) Explain the local anaesthetic agents with their classification and give the SAR of local anesthesia agents.
- v) What are the thyroid hormones? Explain the hyperthyroidism with symptoms, causes and their treatment.
- vi) What is CHF. Explain what are the positive inotropic agents? Give their mechanism.
- vii) Give a note on H<sub>2</sub> antagonist ranitidine.
- viii) Define Antihyperlipidemic agent. Classify it in details.
- ix) Give account on Digitoxin.

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