



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

**1. Multiple choice questions.**

**1x20  
=20**

- Proton pump inhibitors like omeprazole & lansoprazole contain the following ring system.
 

a) Pyrimidine	b) Benzimidazole
c) Benzothiazole	d) Oxindole
- Which of the following drug belong to non-sedative antihistamine class?
 

a) Chlorpheniramine	b) Buclizine
c) Azatadine	d) Cetirizine
- Which one of the following drug is alkylating agent?
 

a) Cyclophosphamide	b) Methotrexate
c) Allopurinol	d) Rifampicine
- An antineoplastic agent acting by folate antagonism & having a pteridine ring is ---
 

a) Trimethoprim	b) Mercaptopurine
c) Methotrexate	d) Folic acid
- Calcium channel blockade is the mechanism of action of -----
 

a) Lignocaine	b) Verapamil
c) Procainamide	d) Quinidine
- Mechanism of methazolamide is -----
 

a) It works as osmotic diuretics	b) Inhibits $\text{Na}^+ / \text{Cl}^-$ transporter
c) Inhibits Carbonic anhydrase	d) Inhibits $\text{Na}^+ / \text{K}^+ / 2\text{Cl}^-$ transporter
- Which of the following have Benzothiadiazine moiety?
 

a) Chlorothiazide	b) Hydrochlorothiazide
c) Hydroflumethiazide	d) All of these
- The antiarrhythmic drug with local anaesthetic action is –
 

a) Verapamil	b) Procainamide
c) Digoxine	d) None

- ix) One of the following have sulphonamide character.
- |              |              |
|--------------|--------------|
| a) Lidocaine | b) Verapamil |
| c) Sotalol   | d) None      |
- x) One of the following group is responsible for the duration of local anaesthetic action?
- |                     |                       |
|---------------------|-----------------------|
| a) Ionizable group  | b) Side chain         |
| c) Lipophilic group | d) Intermediate chain |
- xi) The basic ring system present in Dibucaine is –
- |              |                 |
|--------------|-----------------|
| a) Benzene   | b) Pyrroline    |
| c) Quinoline | d) Isoquinoline |
- xii) Injection of Insulin I.P. should be kept at pH between ----
- |             |             |
|-------------|-------------|
| a) 5 to 5.5 | b) 3 to 3.5 |
| c) 7 to 7.5 | d) 9 to 9.5 |
- xiii) The antidiabetic also effective in lowering the cholesterol level is -----
- |                   |                  |
|-------------------|------------------|
| a) Chlorpropamine | b) Repaglinide   |
| c) Phenfarmin     | d) Rosiglitazone |
- xiv) Which of the following glands is not activated by products of the anterior pituitary?
- |                   |                  |
|-------------------|------------------|
| a) Adrenal Cortex | b) Thyroid gland |
| c) Pancreas       | d) Mammary gland |
- xv) In the presence of aromataze enzyme testosterone is converted into –
- |                                    |              |
|------------------------------------|--------------|
| a) $5\alpha$ - dihydrotestosterone | b) Progestin |
| c) Estradiol                       | d) Estrial   |
- xvi) Corticoids are used as –
- |                      |                  |
|----------------------|------------------|
| a) Anti-inflammatory | b) Antiobesity   |
| c) Antidiabetic      | d) Anticoagulant |
- xvii) Cardiac glycoside inhibits which of the following?
- |                   |                 |
|-------------------|-----------------|
| a) Na-H-ATPase    | b) Na-K-ATPase  |
| c) Na-H Symporter | d) All of these |
- xviii) Which of the following is an intravenous endothelin receptor antagonist?
- |               |              |
|---------------|--------------|
| a) Nesiritide | b) Digoxin   |
| c) Tezosentan | d) Digitoxin |
- xix) Protein C & S are dependent on which vitamin for synthesis?
- |              |              |
|--------------|--------------|
| a) Vitamin C | b) Vitamin B |
| c) Vitamin E | d) Vitamin K |
- xx) Anion exchange resin having anti-hyper lipidemic activity is ---
- |                |                |
|----------------|----------------|
| a) Cholestipol | b) Lovastatin  |
| c) Simvastatin | d) Pravastatin |

- 2. Solve any two.** **10x2  
=20**
- a) What are diuretics ? Classify them with suitable examples. Explain in detail about carbonic anhydrase inhibitors.
  - b) Write an exhaustive note on antimetabolites as antineoplastic agents.
  - c) What are local anaesthetics? Write its SAR & explain in detail about Anilide derivatives.

- 3. Solve any seven.** **5x7  
=35**
- a) Discuss about proton pump inhibitors.
  - b) Outline the synthesis & clinical uses of limetidine and triprolidine HCL.
  - c) Write a short note on calcium channel blockers as antianginal agents.
  - d) Discuss about HMG CoA reductase inhibitors.
  - e) Write a short note on drugs used in erectile dysfunction.
  - f) Write structure, IUPAC name, MOA & uses of Talbutamide.
  - g) Write a short note on cardiac glycosides.
  - h) Write a short note on oral contraceptives.
  - i) Discuss about class II anti-arrhythmic agent.

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