

**PARUL UNIVERSITY**  
**FACULTY OF PHARMACY**  
**B. Pharm. Winter 2019 - 20 Examination**

**Semester: 5**  
**Subject Code: BP501T**  
**Subject Name: Medicinal Chemistry-II**

**Date: 20/11/2019**  
**Time: 10:00am to 1:00pm**  
**Total Marks: 75**

**Instructions:**

1. Figures to the right indicate maximum marks.
2. Make suitable assumptions wherever necessary.

**Q.1 Multiple Choice Questions (MCQs) (1 Mark Each)****(20)**

1. Chemically diltiazem is
 

a) 1,4 dihydropyridine derivative	b) Phenyl alkyl amine derivative
c) Benzothiazepine derivative	d) None
2. Testosterone is an example of
 

a) Androgen	b) Estrogen
c) Progestin	d) None
3. In thiazide diuretics sulphonamide group present at
 

a) Fifth position	b) Sixth position
c) Seventh position	d) Seventh position
4. Sildenafil is used us
 

a) Erectile dysfunction	b) Antidiabetic agents
c) Anti-hypertensive agents	d) Calcium channel blockers
5. Which of the following has coumarin nucleus?
 

a) Warfarine	b) Minadione
c) Clopidogrel	d) All of the above
6. The amino acid present in lisinopril is
 

a) Proline	b) Lysine
c) Valine	d) None
7. Acreloin toxicity is associated with
 

a) Cyclophosphamide	b) 6-mercaptopurin
c) Melphalan	d) Bleomycin
8. Tetracaine local anaesthetic is example of
 

a) Benzoic acid derivative	b) Anilide derivative
c) p-amino benzoic acid derivative	d) None of the above
9. The antiarrhythmic drug with local anaesthetic action is
 

a) Verapamil	b) Procainamide
c) Disopyramide	d) Bretylium
10. One of the following drug acts by sequestering the bile acid in the GIT
 

a) Colestipole	b) Clofibrate
c) Ezetimibe	d) Lovastatin
11. In cardiac glycoside which of the following part is steroidal in nature and responsible for cardiac effect
 

a) Glycone	b) Aglycone
c) Both a and b	d) none of the above
12. The starting material used for the synthesis of histamine
 

a) S-Histidine	b) D-Histidine
c) L-Histidine	d) None
13. Omeprazole is
 

a) H <sub>2</sub> -antagonist	b) oral contraceptives
c) proton pump inhibitor	d) Antithyroid drugs
14. The mechanism of action of rosiglitazone is
 

a) Insulin releasing agent	b) PPAR $\gamma$ agonist
c) Increases cellular uptake of glucose	d) Reduces release of insulin

15. Voglibose belongs to the class
- |                          |                   |
|--------------------------|-------------------|
| a) Glucosidase inhibitor | b) Sulphonyl urea |
| c) Thiazolidinedione     | d) Biguanide      |
16. Famotidine contains \_\_\_\_\_ ring
- |             |              |
|-------------|--------------|
| a) Furan    | b) Imidazole |
| c) Thiazole | d) Oyrrole   |
17. Indole containing moiety present in vinca alkaloid is known as
- |                 |                 |
|-----------------|-----------------|
| a) Vindoline    | b) Vinrosidine  |
| c) Cathranthine | d) Vinleuroside |
18. Mechanism of action of nitrates is
- |                               |                                |
|-------------------------------|--------------------------------|
| a) Inhibits phosphodiesterase | b) Stimulate guanylate cyclase |
| c) $\beta$ -blockers          | d) Calcium channel blockers    |
19. Diphenhydramine hydrochloride belongs to
- |                                  |                                 |
|----------------------------------|---------------------------------|
| a) Piperazine derivatives        | b) Ethylene diamine derivatives |
| c) Amino alkyl ether derivatives | d) Phenothiazine derivatives    |
20. Which one of the following drug is carbonic anhydrase inhibitor?
- |                  |                    |
|------------------|--------------------|
| a) Acetazolamide | b) Ethacrynic acid |
| c) Amiloride     | d) Mannitol        |

**Q.2 Long Answers (any 2 out of 3) (10 Mark Each)**

**(20)**

1. Classify Antihypertensive agents with suitable examples. Discuss SAR of ACE inhibitors.
2. Write classification of anti-neoplastic agents. Outline synthesis of Methotrexate.
3. Classify Anti arrhythmic agents and explain mode of action of each class.

**Q.3 Short Answers (any 7 out of 9) (5 Mark Each)**

**(35)**

1. Explain Nomenclature and stereochemistry of Steroids.
2. Discuss SAR of local Anaesthetics.
3. Write synthesis of Furosemide and Cimetidine.
4. Outline SAR activity of HMG COA Reductase inhibitors.
5. Give short notes on Antithyroid drugs.
6. Classify Antihistaminic agents with suitable examples.
7. Discuss mechanism of action of calcium channel blockers and loop diuretics.
8. Write short note on Oral Hypoglycemic agents.
9. Write mechanism of action, use and synthesis of Nitroglycerin.