

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY
LONERE - RAIGAD - 402 103
Winter Semester Examination - December - 2019

Course: B. Pharm.

Subject with Subject Code: Medicinal Chemistry-II (BP501T)

Date: 16/12/2019

Semester: V

Marks: 75

Duration: 3hrs

- Instructions:** i) All questions are compulsory
ii) Figures to the right indicate full marks
iii) Draw the diagrams or flow charts wherever necessary.

Q. 1 Choose the correct alternative.

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1. Which of the following is not a second generation antihistaminic?
 - A. Cetrizine
 - B. Cyclizine
 - C. Loratidine
 - D. fexofenadine

2. Which of the following actions is not caused by H₁ receptor
 - A. Vasoconstriction
 - B. Gastric acid secretion
 - C. Increase permeability
 - D. Bronchoconstriction

3. Gynaecomastia may be associated with administration of _____.
 - A. Ranitidine
 - B. Cimetidine
 - C. Terfenadine
 - D. Omeprazole

4. Rosiglitazone mechanism of action is _____.
 - A. Acts as PPAR gamma agonist
 - B. Inhibitor of alpha glycosidase
 - C. Acts as amylin analogue
 - D. Acts as dipeptidyl peptidase inhibitor

5. Which of the following is long acting insulin?
 - A. Lispro
 - B. Aspart
 - C. Glargine
 - D. Glulisine

6. Mechanism of action lovastatin is by
 - A. Competitive inhibition of rate limiting step in cholesterol synthesis
 - B. Bile acid sequestration
 - C. Activate lipoprotein lipase
 - D. Inhibits lipolysis and triglyceride

7. Which of the following is long acting corticosteroid?
 - A. Triamcilone
 - B. Betamethasone
 - C. Hydrocortisone
 - D. Prednisolone

8. Steroid with equal mineralocorticoid and glucocorticoid activity is _____.
 - A. Betamethasone
 - B. Dexamethasone
 - C. Hydrocortisone
 - D. Beclomethasone

9. Which of the following are Alkylating agents except?
- | | |
|----------------|---------------|
| A. Busulfan | B. Carmustine |
| C. Decarbazine | D. Etoposide |
10. Anticoagulant with both *in vitro* and *in vivo* activity is _____.
- | | |
|-------------|---------------|
| A. Heparin | B. Warfarin |
| C. Apixaban | D. Dabigatran |
11. Why anticancer drug thalidomide was banned in 1960?
- | | |
|----------------------------------|-------------------------|
| A. It inhibits the RNA synthesis | B. Teratogenic effect |
| C. Causes breast carcinoma | D. Cross linking of DNA |
12. Why loop diuretics are contraindicated with aminoglycosides?
- | | |
|-------------------|------------------|
| A. Nephrotoxicity | B. Neurotoxicity |
| C. Ototoxicity | D. Phototoxicity |
13. Which of the following drug is not used in Prinzmetal angina?
- | | |
|----------------|------------------------|
| A. Propranolol | B. Verapamil |
| C. Nitrates | D. Isosorbidedinitrate |
14. Cough is a adverse reaction seen with intake of _____
- | | |
|-------------|--------------|
| A. Thiazide | B. Ifedipine |
| C. Enalpril | D. Prazosin |
15. Which of the following ACE inhibitor is not a prodrug?
- | | |
|---------------|---------------|
| A. Fosinopril | B. Enalapril |
| C. Ramipril | D. Lisinopril |
16. Which drug prevents peripheral conversion of T₄ to T₃?
- | | |
|---------------------|----------------|
| A. Propylthiouracil | B. Propranolol |
| C. Iodides | D. Diltiazem |
17. Digitalis toxicity can cause-
- | | |
|-----------------|---------------------|
| A. Hyperkalemia | B. Nausea |
| C. Arrhythmias | D. All of the above |
18. Which of the following anti arrhythmic drug decreases the action potential duration in Purkinje fibres?
- | | |
|---------------|---------------|
| A. Quinidine | B. Flecainide |
| C. Amiodarone | D. Lidocaine |
19. Sildenafil acts by inhibiting _____.
- | | |
|------------------------|------------------------|
| A. Phosphodiesterase-2 | B. Phosphodiesterase-5 |
| C. Adenyl cyclase | D. Guanyl cyclase |

20. Digoxin acts by inhibiting _____.

- A. $\text{Na}^- - \text{K}^+$ ATPase B. $\text{H}^- - \text{K}^+$ ATPase
C. $\text{Na}^- - \text{K}^+ - 2\text{Cl}^-$ channel D. $\text{Na}^+ - \text{K}^+$ ATPase

Q. 2 Answer **any two** of the following questions.

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- A. Classify antihistamines and add a note on general SAR of classical antihistaminic. Give the mechanism of action for H_2 receptor antagonist as well as sketch out synthetic route for Cimetidine.
- B. What are diuretics? Write classification of diuretics with example from each category. Briefly discuss about Thiazides.
- C. Classify oral anti-hyperglycemic agents with suitable examples and structures. Add a note on sulfonylureas anti-hyperglycemic agents.

Q. 3 Answer **any seven** of the following questions.

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- A. Define and classify anticancer agents. Write a note on alkylating agents.
- B. Write synthesis for (Any two)
- a) Furosemide
- b) Diphenhydramine
- c) Methotrexate
- d) Tolbutamide
- C. Write a note on ACE inhibitors.
- D. Explain important structural features and mode of action of local anesthetics.
- E. Write a note on Thyroid hormones and antithyroid drugs.
- F. Comment on Oral Contraceptives.
- G. Write a note on Proton Pump Inhibitor.
- H. Classify and explain anticoagulant.
- I. What are cardiotonics? Explain in detail.

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