

Time: 3 Hours

Marks: 75

Q.1. Choose an appropriate option for the following multiple choice based questions. (20M)

1. The nitrates activate guanylyl cyclase by
 - a Increased cGMP and dephosphorylation of myosin light chain kinase
 - b Increased cGMP and phosphorylation of myosin light chain kinase
 - c Decreased cGMP and dephosphorylation of myosin light chain kinase
 - d Increased cGMP and phosphorylation of myosin light chain kinase
2. Fibrates act on _____ receptor
 - a PPAR β
 - b PPAR α
 - c PPAR μ
 - d PPAR γ
3. Vasodilator mainly act by opening ATP sensitive potassium channel
 - a Minoxidil
 - b Sodium nitroprusside
 - c Hydralazine
 - d Clonidine
4. Prazosin exhibits _____ adverse effect as a virtue of alpha adrenergic receptor block
 - a Salivation
 - b Arrhythmia
 - c Postural hypotension
 - d Nausea
5. _____ receptor is primarily activated by vasopressin to promote water reabsorption in kidneys.
 - a Beta-1 adrenergic receptors
 - b Alpha-1 adrenergic receptors
 - c V2 receptors
 - d V1 receptors
6. _____ is crucial for treatment of anaemia associated with chronic kidney disease
 - a Folic acid
 - b Iron
 - c Vitamin B12
 - d Erythropoietin
7. _____ class of drugs are primarily used in the therapy of shock.
 - a Adrenergic antagonists
 - b Adrenergic agonists
 - c Histamine agonists
 - d Cholinergic agonists

8. _____ is a phosphodiesterase inhibitor with anti-platelet and vasodilatory effects.
- a Abciximab
 - b Rivaroxaban
 - c Dipyridamole
 - d Enoxaparin
9. _____ are the principal source of histamine release during inflammatory conditions.
- a B cells
 - b Presynaptic nerve terminals
 - c T lymphocytes
 - d Mast cells
10. The following is a symptom of gout
- a Purple or red skin, swelling in joints
 - b Muscle weakness, muscle aches or muscle cramps
 - c breast tenderness or swelling
 - d Bluish tone to the skin
11. NSAIDs should not be given to _____ patients
- a Asthma
 - b Irritable bowel syndrome
 - c Diabetes
 - d Hypertension
12. 5HT_{2a} antagonist drug is:
- a Cisapride
 - b Sumatriptan
 - c Ketanserin
 - d Clozapine
13. Eicosanoids are synthesized from
- a Arachidonic acid
 - b Linoleic acid
 - c Palmitic acid
 - d Stearic acid
14. Sulfonylureas reduce blood glucose levels by
- a Inhibiting glucose absorption
 - b Increasing insulin secretion
 - c Increasing insulin sensitivity
 - d Decreasing hepatic glucose production
15. _____ is hypocalcaemia hormone that decreases plasma calcium levels by inhibiting osteoclast activity
- a Parathyroid hormone
 - b Vitamin D
 - c Calcitonin
 - d Cortisol

16. Hyperprolactinemia can be treated with _____
- Serotonin agonists
 - Dopamine antagonists
 - Serotonin antagonists
 - Dopamine agonists
17. Hormone replacement therapy is useful in _____
- Vaginal atrophy
 - Coronary heart disease
 - Glomerulonephritis
 - COPD
18. _____ is the progesterone antagonist
- Desogestrel
 - Tamoxifen
 - Mifepristone
 - Raloxifene
19. The _____ gland(s) synthesise androgens and their precursors
- Anterior pituitary
 - Adrenal medulla
 - Adrenal and gonads
 - Adrenal and pineal
20. Sildenafil acts by inhibiting
- Protein phosphatase
 - Phosphodiesterase-5
 - Adenyl cyclase
 - Guanyl cyclase

II Long Answers (Answer Any 2 out of 3)

(20M)

- Classify the drugs used in Congestive heart failure based on mechanism of action. Add a note on difference between cardiac glycosides and cardiac stimulants
- Classify diuretics. Give mechanism of action, uses and adverse effects of Loop diuretics.
- Classify NSAIDs and Give mechanism of action and adverse effect of any two class of drugs.

III Short Answers (Answer 7 out of 9)

(35M)

- Differentiate between angiotensin receptor blockers and angiotensin converting enzyme inhibitors
- Write a note on calcium channel blockers as antiarrhythmics
- Give a detail account on P2Y₁₂-ADP receptor blockers.
- Classify antigout drugs. Give mechanism of action of any two class.
- Give MOA of Insulin and add a note on human insulin analogues
- Classify thyroid inhibitors. Give mechanism of action and adverse effects of Thioamides
- Elaborate on uses and adverse effects of oral corticosteroid therapy.
- Give a note on uterine stimulants
- Discuss in detail bioassay of vasopressin