

(3 Hours)

[Total Marks 75]

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

- 1 Digitalis increases force of contraction by _____
 - a Accumulating potassium intracellularly
 - b Enhancing opening of sodium potassium ATPase pump
 - c Extruding calcium
 - d Inhibiting sodium potassium ATPase pump

- 2 The _____ agents decrease cholesterol absorption and increase its excretion
 - a Bile acid binding resins
 - b Statins
 - c Fibrates
 - d PPAR agonists

- 3 The _____ class of drugs are the type of vasodilator
 - a Calcium channel blocker
 - b Sodium potassium ATPase pump
 - c Vasopressin
 - d Fibrates

- 4 Organic nitrates exert their action by
 - a Phosphorylation of myosin light chain kinase
 - b Phosphorylation of myosin
 - c Dephosphorylation of myosin light chain kinase
 - d Dephosphorylation of myosin

- 5 _____ is indicated in Diabetes insipidus
 - a Thyroxine
 - b Desmopressin
 - c Bromocriptine
 - d Thyrotropin

- 6 The _____ class of diuretics acts mainly on the collecting tubule
 - a Potassium sparing diuretics
 - b Thiazide diuretics
 - c Osmotic diuretics
 - d Loop diuretics

- 7 _____ promotes coagulation, thus indicated in haemorrhagic states
- a Warfarin
 - b Heparin
 - c Menadione
 - d Lepirudin
- 8 Thrombolytic therapy is contraindicated in _____
- a Acute myocardial infarction
 - b Deep vein thrombosis
 - c Pulmonary embolism
 - d Peptic ulcer
- 9 Aspirin in low doses produces long lasting inhibition of platelet cyclooxygenase (COX) because:
- a Platelets contain low quantity of COX
 - b Platelets cannot synthesize fresh COX
 - c Platelets bind aspirin with high affinity
 - d Platelet COX is inducible
- 10 Mechanism of action of colchicine is _____
- a Inhibits gout inflammation, release of chemotactic factor and granulocyte migration
 - b Inhibit absorption of calcium
 - c Reduced preload and afterload
 - d Inhibits platelet generation of thromboxane A₂, resulting in an antithrombotic effect
- 11 Activation of H₂ receptor results in _____
- a Gastric acid secretion
 - b Smooth muscles contraction
 - c Platelet aggregation
 - d Constrict cranial blood vessels
- 12 The _____ class of drugs inhibit specific cytokines which play key role in inflammatory cascade of rheumatoid arthritis
- a Immunosuppressants
 - b Immunomodulators
 - c Biological TNF alpha inhibitors
 - d Colchicine

- 13 The COX-2 inhibitors exert _____ action
- a Gastric mucosal damage
 - b Lack cardioprotective effect
 - c Inhibit platelet aggregation
 - d Inhibit thromboxane A₂
- 14 _____ is the radioactive isotope of Iodine used in the treatment of Hyperthyroidism
- a Iodine 135
 - b Iodine 127
 - c Iodine 129
 - d Iodine 131
- 15 _____ is an insulin secretagogues
- a Acarbose
 - b Miglitol
 - c Glimepiride
 - d Pioglitazone
- 16 Somatostatin and its analogues are indicated in the treatment of _____
- a Addison's disease
 - b Acromegaly
 - c Prader-Willi syndrome
 - d Turner syndrome
- 17 The pharmacological action of oral contraceptives is mainly achieved by _____
- a Suppression of fertility
 - b Stimulation of fertility
 - c Increasing testosterone level
 - d Inhibition of sperm transport
- 18 Hormone replacement therapy is useful in _____
- a Vaginal atrophy
 - b Coronary heart disease
 - c Glomerulonephritis
 - d COPD

- 19 The _____ hormone in males triggers sertoli cells to synthesize androgen binding globulin (ABG)
- Gonadotropin releasing hormone (GnRH)
 - Luteinizing hormone (LH)
 - Oxytocin
 - Follicle-stimulating hormone (FSH)
- 20 Estrogen basic mechanism of action is
- To stimulation of glucose uptake
 - To regulate the development and function of the uterus
 - To stimulates the production of red blood cells
 - To regulate the glucocorticoid (steroid) hormone cortisol

Q.2. Long answers (Answer any 2 questions out of 3 questions) (20M)

- 1 Classify antiarrhythmic. Give detailed account on sodium channel blockers as antiarrhythmic drugs.
- 2 Define and classify anti-coagulants. Give mechanism of action, therapeutic uses and adverse effects of Coumarin anti-coagulants.
- 3 Give any two pharmacological uses of Angiotensin, Leukotrienes, Thromboxane, Substance P and Bradykinin.

Q.3. Short answers (Answer any 7 questions out of 9 questions) (35M)

- 1 Give detailed account on Statins in treatment of hyperlipidaemia.
- 2 Give mechanism of action of Thiazide and Loop diuretics.
- 3 Give a detailed account on Prostaglandins.
- 4 Discuss in detail 5-hydroxy tryptamine antagonists.
- 5 Give mechanism of action and adverse effects of Biguanides.
- 6 Classify Corticosteroids and discuss any one class in detail.
- 7 Write a note on growth hormone and its inhibitor.
- 8 Discuss in detail bioassay of oxytocin.
- 9 Write a short note on Anabolic steroids.