2025/11

SET A

B.Sc. OPERATION THEATRE TECHNOLOGY
THIRD SEMESTER
PHARMACOLOGY
BOT-302

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 3 hrs. **Full Marks: 70**

Objective

Time: 30 mins. **Marks: 20**

Choose the correct answer from the following: ***1×20=20***

1. Which of the following is a direct-acting cholinergic agonist?
   a. Atropine b. Pilocarpine
   c. Neostigmine d. Pralidoxime
2. Atropine produces which of the following effects?
   a. Miosis b. Bronchoconstriction
   c. Bradycardia d. Mydriasis
3. A patient with asthma is prescribed a β2-agonist. Which drug is most appropriate?
   a. Propranolol b. Salbutamol
   c. Metoprolol d. Atenolol
4. Which drug is used in hypertensive emergencies?
   a. Methyldopa b. Hydralazine
   c. Sodium nitroprusside d. Amlodipine
5. Calcium channel blockers mainly cause:
   a. Vasoconstriction b. Vasodilation
   c. Increased heart rate d. Increased preload
6. Which drug decreases mortality in chronic heart failure?
   a. Digoxin b. Furosemide
   c. ACE inhibitors d. Nitrates
7. Major adverse effect of β-blockers is:
   a. Hypoglycemia b. Diarrhea
   c. Bronchospasm d. Tachycardia
8. Clozapine is classified as:
   a. Antispasmodic b. Sedative-hypnotic
   c. Antidepressant d. Antipsychotic
9. Which of the following is a barbiturate?
   a. Diazepam b. Phenobarbital
   c. Alprazolam d. Midazolam
10. The mechanism of action of local anesthetics is:
    a. Blocking sodium channels b. Blocking potassium channels
    c. Enhancing GABA action d. NMDA receptor blockade

11. The autonomic nervous system controls:
    a. Skeletal muscles
    b. Voluntary movement
    c. Sensory impulses
    d. Smooth muscles and glands

12. Which enzyme breaks down acetylcholine?
    a. Monoamine oxidase
    b. Catechol-O-methyl transferase
    c. Tyrosine hydroxylase
    d. Acetylcholinesterase

13. Irreversible anticholinesterases are:
    a. Organophosphates
    b. Carbamates
    c. Choline esters
    d. Adrenergic agonists

14. Salbutamol is primarily used in:
    a. Hypertension
    b. Angina
    c. Glaucoma
    d. Asthma

15. Drug of choice in anaphylactic shock:
    a. Noradrenaline
    b. Adrenaline
    c. Soproterenol
    d. Dopamine

16. Pharmacology is the study of:
    a. Diseases and their causes
    b. Drugs and their effects on living systems
    c. Tissues and cells
    d. Surgery techniques

17. Pharmacokinetics deals with:
    a. Drug absorption, distribution, metabolism and excretion
    b. Mechanism of drug action
    c. Clinical uses of drugs
    d. Adverse effects of drugs

18. The study of harmful effects of drugs is called:
    a. Pharmacognosy
    b. Toxicology
    c. Chemotherapy
    d. Pharmaceutics

19. The process by which a drug reaches the systemic circulation is called:
    a. Absorption
    b. Distribution
    c. Metabolism
    d. Excretion

20. The bioavailability of an intravenous drug is:
    a. 50%
    b. 75%
    c. 100%
    d. Variable

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Descriptive

Time : 2 hr. 30 mins. Marks : 50

[Answer question no.1 & any four (4) from the rest]

1.	Discuss briefly different routes of drug administration.	10
2.	Describe the mechanism of fate of drugs. Discuss Bioavilability.	10
3.	Classify the beta-adrenergic blocking agents. Describe the muscarinic action of acetylcholine.	5+5=10
4.	Classify the drugs used in vascular disease and tissue ischemia. Write mechanism of action, pharmacokinetics and adverse effect of vasodilator.	10
5.	Define and discuss the hypertension. What are the different grades of hypertension?	10
6.	Classify sedative and hypnotics. Write mechanism of action, pharmacokinetics and adverse effect of Benzodiazepines.	10
7.	What is drug dependence? Types of drug dependence. Give examples.	2+8=10
8.	Define cholinomimetic alkaloids. Mention their uses. White a short note on glaucoma.	10

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