Total No. of printed pages = 4

**BP 404T**

Roll No. of candidate 4/6/24



**2024**

**B.Pharm. 4th Semester End-Term Examination**

**PHARMACOLOGY – I**

Full Marks – 75 Time – Three hours

---

The figures in the margin indicate full marks for the questions.

Section A

1. Multiple Choice Questions : (20 × 1 = 20)

(i) Bioavailability is highest in following routes of drug administration

(a) Subcutaneous (b) Intravenous

(c) Intramuscular (d) Intradermal

(ii) Following factors influence absorption and bioavailability

(a) Particle size (b) Degree of Ionization

(c) Food (d) All the above

(iii) A constant fraction (Percentage) of drug is eliminated in constant interval of time in following elimination kinetics

(a) First order (b) Zero order

(c) Mixed order (d) None of above

(iv) Following is a second messenger for GPCR

(a) cAMP (b) ATP

(c) Ion channel (d) Tyrosine kinase

(v) Therapeutic index should be

(a) More than 1 (b) Equal to 1

(c) Less than 1 (d) None of above

**[Turn over**

(vi) Following is the example of microsomal enzyme

(a) Monoamine oxidase

(b) Amidase

(c) Transferase

(d) Cytochrome p450

(vii) Following is the compartment/reservoir for distribution of drugs in our body

(a) Cell (b) Fat

(c) Plasma protein (d) All the above

(viii) In voltage operated ion channel

(a) Ion conductance is regulated by a drug

(b) Ion conductance is regulated by alteration in voltage gradient across plasma membrane

(c) Agonist open the channel

(d) Antagonist prevent the channel from opening

(ix) Neurotransmitter at the sympathetic ganglia is

(a) Noradrenaline (b) Acetyicholine

(c) Histamine (d) Serotonin



(x) $\alpha_2$ – agonist

(a) Increase release of Nor adrenaline

(b) Decrease release of Nor adrenaline

(c) Increase release of Dopamine

(d) None of above

(xi) The anxiolytic which is a potent enzyme inducer and exhibit more drug interactions

(a) Diazepam (b) Phenobarbital

(c) Zolpidem (d) Buspirone

(xii) Majority of antipsychetic drugs act by

(a) Blocking dopamine receptors

(b) Activating dopamine receptors

(c) Blocking muscarine receptors

(d) Activating nicotine receptor

(xiii) Following is the excitatory neurotransmitters

(a) NMDA (b) GABA

(c) Glycine (d) None of above

(xiv) Dissociative anesthesia is produced by

(a) Ketamine (b) Propofol

(c) Fentanyl (d) Thiopental

(xv) Following is a respiratory stimulant

(a) Picrotoxin (b) Doxapram

(c) Strychnine (d) Bicuculine

(xvi) Following are the pharmacological actions of alcohol

(a) Decrease myocardial contractility

(b) Diuresis

(c) Cutaneous vasodilation

(d) All the above

(xvii) Following is a drug for glaucoma that blocks acetylcholine esterase enzyme

(a) Physostigmine (b) Timolol

(c) Pilocarpine (d) Acetazolamide

(xviii) "Side effects" are coming under following type of ADR

(a) A (b) B

(c) C (d) D

(xix) Atracurium works by

(a) Blocking GABA receptor

(b) Blocking $N_M$ receptor

(c) Blocking $\alpha$ 2 receptor

(d) Blocking $M_1$ receptor

(xx) Morphine causes

(a) Miosis (b) Suppression of cough

(c) Respiratory depression (d) All the above



## Section B

2. Short Type Questions (Answer any Seven) : (5 × 7 = 35)

(a) What are the mechanisms of bio transportation? Write in brief about carrier mediated transport system.

(b) Explain the synthesis, release and degradation of acetylchotine.

(c) Define Competitive and Noncompetitive antagonism.

(d) Classify antipsychotics and explain their MOA.

(e) Define sedatives and hypnotics. Explain the mechanism of Barbiturates with ADR.

(f) Explain in brief about Drug–Drug Interactions.

(g) Classify antiadrenergic drugs and mention a few therapeutic applications.

(h) Write a short note on drug dependence and drug abuse.

(i) What are the different types of seizures? Write in brief about Phenytoin including MOA and ADR.



Section C

3. Long Type Questions (Answer Any Two) (2 × 10 = 20)

(a) Explain in details about G-protein coupled receptor and intracellular receptor. (7+3 = 10)

(b) Define local anaesthetics. Classify local anaesthetics with mechanism of action and ADR. (2+8 = 10)

(c) Explain the classic symptoms of Parkinsons Disease. Classify antiparkinson drugs with Mechanism of action and ADR. (2+2+6 = 10)