

M.B.B.S. SECOND PROFESSIONAL EXAMINATION, FEBRUARY-2025**PHARMACOLOGY****PAPER - FIRST****[Time allotted: Three hours]****SET - A****[Max Marks: 100]****Q. 1. Multiple choice questions (Darken the single best response in OMR sheet. Time allotted 20 minutes) (20 x 01 = 20)**

1. Irreversible inhibitor of cyclooxygenase
 - a. Indomethacin
 - b. Aspirin
 - c. Ibuprofen
 - d. Piroxicam
2. Antiepileptic drug causing bilateral contraction of visual fields
 - a. Carbamazepine
 - b. Vigabatrin
 - c. Phenobarbitone
 - d. Lamotrigine
3. Retinoscopy in 5yr old is best done with
 - a. Atropine
 - b. Homatropine
 - c. Tropicamide
 - d. Cyclopentolate
4. Tolterodine acts by
 - a. Nicotine receptor stimulation
 - b. Muscarinic receptor stimulation
 - c. Muscarinic receptor inhibition
 - d. α receptor inhibition
5. Malignant hyperthermia is a rare complication of which of the following anesthesia
 - a. Ketamine
 - b. Thiopentone
 - c. Halothane
 - d. Ether
6. Most common dose limiting adverse effect of Colchicine is
 - a. Sedation
 - b. Kidney damage
 - c. Diarrhoea
 - d. Muscle paralysis
7. If the total amount of a drug present in the body at a given moment is 2.0 g and its plasma concentration is 25 μ g/ml, its volume of distribution is:
 - a. 100 L
 - b. 80 L
 - c. 60 L
 - d. 50 L
8. Half-life of a drug can be useful to determine
 - a. Dosage schedule of the drug
 - b. Level of absorption
 - c. to determine steady state
 - d. Distribution into tissues
9. Drug of choice in intractable hiccoughs is:
 - a. Metoclopramide
 - b. Haloperidol
 - c. Thioridazine
 - d. Chlorpromazine
10. The following disease is not worsened by propranolol:
 - a. Variant Angina
 - b. COPD
 - c. Thyrotoxicosis
 - d. Congestive heart failure
11. Maintenance dose of a drug primarily depends on
 - a. Volume of distribution
 - b. Clearance
 - c. Rate of administration
 - d. Half life
12. What term is used to describe a gradual decrease in responsiveness to a drug, taking weeks to develop
 - a. Refractoriness
 - b. Cumulative effect
 - c. Tolerance
 - d. Tachyphylaxis
13. Atypical anxiolytic exert their action on
 - a. BZD receptors
 - b. BZD and 5-HT_{1A}
 - c. 5-HT_{1A}
 - d. 5-HT₂
14. Wearing off and on /off phenomena by levodopa can be reduced by all **EXCEPT**
 - a. Adding dopamine agonist
 - b. Adding MAO-B inhibitor
 - c. Adding benzhexol
 - d. Adding carbidopa
15. Advantages of SSRI over TCAs are all **EXCEPT**
 - a. No cardiovascular, anticholinergic
 - b. High safety margin
 - c. Lag time of 5 weeks
 - d. Nausea and vomiting
16. Relatively higher dose of theophylline is required to attain therapeutic plasma concentration in:
 - a. Smokers
 - b. Congestive heart failure patients
 - c. Those receiving erythromycin
 - d. Those receiving cimetidine
17. Which of the following drug is long acting beta-2 agonist?
 - a. Albuterol
 - b. Salmeterol
 - c. Pirbuterol
 - d. Ociprenalin
18. The drug of choice for obsessive compulsive disorder is
 - a. Fluoxetine
 - b. Imipramine
 - c. Thioridazine
 - d. Haloperidol
19. Which of the following is an antagonist of a peptide and is used to reduce chemotherapy induced nausea and vomiting?
 - a. Atrial natriuretic
 - b. Aprepitant
 - c. Bradykinin
 - d. Enalapril
20. All of the following are adverse effects of sodium valproate except
 - a. Weight gain
 - b. Alopecia
 - c. Liver damage
 - d. Osteomalacia

**PHARMACOLOGY
PAPER- FIRST**

Note: Attempt all questions in sequence.
Draw suitable diagrams (wherever necessary)

- Q. 2. Give reasons:** (5 x 2 = 10)
- Phenylephrine in elderly for fundoscopy
 - Forced diuresis in quinine poisoning
 - Timolol used in open angle Glaucoma
 - Glycopyrrolate is preferred over atropine in pre-anaesthetic medication
 - Budesonide in Chronic Bronchial Asthma
- Q. 3. Problem based question:** (4 x 2.5 = 10)
- A 55-year-old Parkinson patient was stabilized on 2mg/day of Levodopa. He had viral fever and weakness for which he took 1 tablet of Vitamin B complex. After five days his symptoms like tremors, bradykinesia started reappearing for which he went to physician for advice.
- What could be the reason for Parkinsonian symptoms to reappear?
 - What alterations in the therapy would you recommend?
 - What instructions should be given to a patient of Parkinsonism while prescribing Levodopa?
 - What is the rationale of centrally acting anticholinergics with levodopa and Carbidopa combination?
- Q. 4. Write short notes on:** (4 x 6 = 24)
- Non benzodiazepine sedative hypnotics.
 - Should Healthcare right be a fundamental right
 - Therapeutic uses of Neostigmine
 - Pre-Anaesthetic medication
- Q. 5. Structured question: -** (2 x 10 = 20)
- (i) (4 x 2.5=10)
- Classify Antiepileptic Drugs
 - Illustrate with a diagram sites & mechanism of action of Antiepileptic drugs.
 - Write four major differences between Phenytoin & Fosphenytoin
 - Mention three therapeutic uses of sodium valproate.
- (ii) (4 x 2.5=10)
- Classify NSAIDs.
 - Write two differences selective and non-selective COX inhibitors
 - Write the mechanism of action of Diclofenac sodium in osteoarthritis
 - Mention 3 major adverse effects of Diclofenac sodium
- Q. 6. Write in brief about-** (4 x 4 = 16)
- Plot a DRC and explain its clinical significance
 - Pharmacogenetics with three examples.
 - Colchicine in acute Gout
 - 5-HT₃ receptors antagonists
