



RAN-2406000102010501-S

II-M.B.B.S. Examination October - 2025

Pharmacology (Paper 1 - Set 2)

Time: 3 Hours]
[Total Marks: 100
સૂચના : / Instructions

- (1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
- (2) Each question carries one mark and there is no negative marking.
- (3) More than one selection is not allowed.
- (4) Answers should be precise and to the point.
- (5) Give examples and figures if needed. Time: hours
- (6) First 20 mins have been allotted to solve multiple-choice questions

Seat No.:

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Student's Signature

SECTION I
Q.I. Multiple choice questions
[1*20=20]

1. Tachyphylaxis is seen after use of:

a. Tamoxifen	b. Morphine
c. Ephedrine	d. Chlorpromazine
2. In which of the following phases of clinical trials, healthy normal human volunteers participate

a. Phase-I	b. Phase-III
c. Phase-II	d. Phase-IV
3. Allopurinol specifically inhibits :

a. Xanthine oxidase	b. Xanthine transferase
c. Xanthine arginase	d. Xanthine reductase
4. Most common side effect of inhalational beclomethasone is

a. Adrenal suppression	b. Oropharyngeal candidiasis
c. Bronchoconstriction	d. Hepatitis
5. Atropine does not cause :

a. Pin point pupil	b. Dryness
c. Mydriasis	d. Tachycardia
6. True about orphan drug is :

a. Drug for common disease.
b. Drugs used in emergency condition.
c. Drugs used for rare diseases.
d. Drug which is having rare adverse drug reaction.
7. Which drug is used to treat hypertension during pregnancy?

a. Labetalol	b. Furosemide
c. Propranolol	d. Captopril

8. Phase 4 clinical trial also called as :
 - a. Human pharmacology and safety.
 - b. Post marketing surveillance.
 - c. Therapeutic exploration and dose ranging.
 - d. Therapeutic confirmation.
9. Prostaglandin useful for prevention of duodenal ulcer is
 - a. Dinoprost
 - b. Misoprostol
 - c. Alprostadil
 - d. Carboprost
10. Pharmacovigilance means :
 - a. Monitoring of drug safety
 - b. Monitoring of unethical trade of drugs
 - c. Monitoring drug effectiveness
 - d. Monitoring drug efficacy
11. Which of the following is not a carbamate?
 - a. Physostigmine
 - b. Edrophonium
 - c. Neostigmine
 - d. Pyridostigmine
12. Aspirin is contraindicated in children suffering from influenza or similar viral infection because of increased risk of:
 - a. Gastric bleeding
 - b. Reye's syndrome
 - c. Thrombocytopenia
 - d. Fanconi's syndrome
13. Foetal hydantoin syndrome is seen if following drug is used in pregnancy?
 - a. Phenytoin
 - b. Ferrous gluconate
 - c. Ethosuximide
 - d. Phenobarbitone
14. Mechanism of actions of montelukast is :
 - a. Competitive antagonist of leukotriene receptors
 - b. Inhibits alpha receptor
 - c. Beta receptor agonist
 - d. Stimulate alpha receptor
15. A drug that undergoes Hoffmann elimination is
 - a. Atracurium
 - b. Pancuronium
 - c. Mivacurium
 - d. Doxacurium
16. Buprenorphine is:
 - a. Partial agonist at μ Receptor
 - b. Full Agonist at μ Receptor
 - c. Partial agonist at κ Receptor
 - d. Full Agonist at κ Receptor
17. Which of the following is directly acting skeletal muscle relaxant?
 - a. Dantrolene
 - b. Suxamethonium
 - c. Pancuronium
 - d. Atracurium
18. Which of the following drugs has no cycloplegic action?
 - a. Atropine
 - b. Phenylephrine
 - c. Tropicamide
 - d. Cyclopentolate

19. Benzodiazepines act on :
 - a. GABA- A receptor
 - b. Both GABA - A and GABA- B
 - c. GABA - B receptor
 - d. Calcium channels
20. Which enzyme is inhibited by aminophylline?
 - a. Monoamine oxidase
 - b. Phosphodiesterase
 - c. Alcohol dehydrogenase
 - d. Monoamine reductase

Q.2. Short answer question [any five]: [3*5=15]

- a. Enlist advantages and disadvantages of intravenous route of drug administration.
- b. Name different phases of clinical trials. Write a short note on placebo.
- c. Explain the factors affecting distribution of drug.
- d. Elaborate adverse effects and clinical uses of propranolol.
- e. Write a note on drugs used in glaucoma.
- f. Explain potency and efficacy of a drug giving suitable examples.

Q.3. Short essay question [any three]: [5*3=15]

- a. Define adverse drug reaction. Describe teratogenicity in detail.
- b. Explain drug-drug interactions with suitable examples.
- c. Discuss the therapeutic uses, adverse drug reactions and contraindications of atropine.
- d. Classify drugs for treating asthma. Describe mechanism and adverse effects of β_2 agonists.

Q.4. Answer the following questions based on the given case scenario: [10*1=10]

A 25-year-old woman develops sudden generalized urticaria, difficulty breathing, and hypotension after a bee sting. She is diagnosed as having anaphylaxis and she is immediately given adrenaline.

- a. Explain the mechanism of action of adrenaline in anaphylaxis. [3]
- b. Which route, dose and concentration of adrenaline is preferred in this patient? [3]
- c. Which other adjuvant drugs can be given in this patient? [2]
- d. Can we use noradrenaline in this patient? Give reason for your answer. [2]

SECTION II

Q.5. Short answer question [any five]: [3*5=15]

- a. Classify antipsychotic agents. Enumerate adverse drug reactions of typical antipsychotic agents.
- b. Enlist drugs used for Parkinson's disease. Give rationale of giving levodopa and carbidopa in Parkinson's disease.
- c. Why adrenaline is combined with lignocaine in local anesthesia? In which conditions adrenaline should be avoided with lignocaine?
- d. Enumerate COX inhibitors. Explain actions of aspirin in different doses.
- e. Explain the mechanism and clinical uses of non-depolarizing neuromuscular blockers.
- f. Classify drugs used for treatment of cough. Describe dextromethorphan in short.

Q.6. Short essay question [any three]: [5*3=15]

- a. Classify antiepileptic drugs and describe the mechanism and adverse drug reactions of phenytoin.
- b. Discuss the mechanism of action, therapeutic uses, and adverse effects of Benzodiazepines.
- c. Describe the pharmacology of morphine and mention its contraindications.
- d. Compare and contrast halothane and ether as anesthetic agents.

Q.7. Answer the following questions based on the given case scenario: [10*1=10]

A 28-year-old woman presents with recurrent episodes of throbbing headache on one side of her head, associated with nausea, photophobia, and phonophobia. The attacks last 6-8 hours and occur about 3-4 times a month. She mentions that the headaches are often preceded by visual disturbances (seeing zig-zag lines). She is diagnosed as having migraine. Currently she is having severe headache.

- a. Which is the drug of choice for this patient for current episode? Write its mechanism of action in treating acute episode. [3]
- b. What adverse drug reactions can occur in this patient? [2]
- c. Enlist four drugs used for migraine prophylaxis and mention their mechanisms. [4]
- d. Name one drug that can be prescribed for nausea and vomiting for this patient. [1]
