



RAN-2406000102010502-S

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

Pharmacology (Paper 2 - Set 1)

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.
- (6) First 20 mins have been allotted to solve multiple choice questions.

Seat No.:

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Student's Signature

Section I
Multiple Choice Questions (MCQs)
[1×20=20]

1. Which of the following drug inhibits peripheral conversion of T_4 to T_3 ?
 a. Carbimazole b. Methimazole
 c. Propylthiouracil d. Lugol's iodine
2. Nitroglycerine benefits in angina by all **EXCEPT**
 a. Preload reduction b. Cardiac contraction
 c. Afterload reduction d. Redistribution of coronary flow
3. Which anti-malarial drug is used to prevent relapse from dormant liver-stage hypnozoites?
 a. Artemether-lumefantrine b. Quinine
 c. Primaquine d. Mefloquine
4. Which of the following drug is used for motion sickness?
 a. Cetirizine b. Hyoscine
 c. Meclizine d. Fexofenadine
5. Furosemide causes all **EXCEPT** :
 a. Hyperglycemia b. Hypomagnesemia
 c. Hypokalemia d. Acidosis
6. Which of the following drugs do not cause hypoglycemia?
 a. Acarbose b. Insulin
 c. Glimepiride d. Nateglinide
7. Which of the following antihypertensives is not given in pregnancy?
 a. Labetalol b. α -methyldopa
 c. Nifedipine d. Enalapril

8. The most appropriate course of action as post exposure prophylaxis of HIV infection for an adult is
 - a. Tenofovir 300 mg + Lamivudine 300 mg + Dolutegravir 50 mg Daily for 4 Week
 - b. Lamivudine 300mg + Emtricitabine 200 mg + Dolutegravir 50 mg for 2 Week
 - c. Lamivudine 150mg + Zidovudine 300 mg + Dolutegravir 50 mg for 4 Week
 - d. Tenofovir 300mg+ Lamivudine 300mg + Dolutegravir 50mg Daily for 2 Week
9. Which of the following drug is used in iron poisoning?
 - a. Desferioxamine
 - b. D-Penicillamine
 - c. Dimercaprol
 - d. Dicobalt EDTA
10. Topically used antifungal agent is :
 - a. Ketoconazole
 - b. Amphotericin B
 - c. Clotrimazole
 - d. Physostigmine
11. Which of the following is an aromatase inhibitor?
 - a. Tamoxifen
 - b. Danazol
 - c. Letrozole
 - d. Taxane
12. Coronary steal phenomenon is seen with :
 - a. Glyceryl trinitrate
 - b. Dipyridamole
 - c. Verapamil
 - d. Propranolol
13. Drug of choice for bacterial vaginosis is
 - a. Metronidazole
 - b. Fluconazole
 - c. Ampicillin
 - d. Ciprofloxacin
14. Bisacodyl is :
 - a. Bulk forming laxative
 - b. Stimulant purgative
 - c. Stool softener
 - d. Osmotic purgative
15. Antiplatelet drug Abciximab is :
 - a. Antibody against IIb/IIIa receptors
 - b. Topoisomerase inhibitor
 - c. Antibody against Ib/IX receptors
 - d. Adenosine inhibitor
16. Spironolactone is contraindicated with enalapril because it causes :
 - a. Hyperkalemia
 - b. Hypercalcemia
 - c. Hypokalemia
 - d. Hyponatremia
17. Bisphosphonates are used in all **EXCEPT** :
 - a. Malignancy
 - b. Postmenopausal osteoporosis
 - c. Vitamin D excess
 - d. Hypercalcemia
18. Mechanism of action of tetracycline is :
 - a. Block translocation
 - b. Block DNA synthesis
 - c. Block cell wall synthesis
 - d. Inhibits binding of amino acyl t-RNA to A site

19. Which of the following anticancer drug causes haemorrhagic cystitis?
 - a. Cyclophosphamide
 - b. 5-Fluorouracil
 - c. 6-Mercaptopurine
 - d. Busulfan
20. Iodophor solution is mixture of:
 - a. Iodine and alcohol
 - b. Iodine and surface active agents
 - c. Iodine and aldehyde
 - d. Iodine and phenol

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

- a. Enumerate angiotensin receptor blockers(ARBs). What are adverse effects of ARBs?
- b. Elaborate the indications of parenteral iron preparations.
- c. Enlist 5HT3 antagonists and write their uses and adverse effects.
- d. Write a note on thiazide diuretics.
- e. Classify calcium channel blockers. Enumerate their uses.
- f. Mention mechanism of action and important side effects of statins.

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

- a. Classify drugs used in congestive heart failure. Describe the drugs that decrease mortality in CHF.
- b. Enlist drugs used for peptic ulcer. Describe proton pump inhibitors in detail.
- c. Classify anticoagulant drugs. Describe the mechanism of action and clinical uses of heparin.
- d. Describe mechanism of action, clinical uses and adverse effects of furosemide.

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

A 62-year-old man with a history of myocardial infarction 2 years ago now presents for hypertension management. His BP is 158/96 mmHg. He also complains of occasional chest discomfort on exertion. He is started on metoprolol, ramipril, and low-dose aspirin.

- a. Explain why β -blockers like metoprolol are preferred in hypertensive patients with prior MI. Mention two important adverse effects to monitor with β -blockers. [3]
- b. Describe the mechanism of action of ramipril and its benefit post-MI. [3]
- c. Name two absolute contraindications for ACE inhibitors. [1]
- d. Why is low-dose aspirin used in this patient? [3]

Section II

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

- a. Write the treatment of hyperthyroidism in pregnancy.
- b. Describe one drug used in treatment of amoebiasis.
- c. Write a short note on gentamycin.
- d. What is empathy? What is the role of empathy in the care of patient?
- e. Antiseptics used in surgical practice.
- f. Enlist the uses of corticosteroids.

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

- a. Describe insulin preparations and their clinical uses in diabetes mellitus.
- b. Explain the mechanism of action and therapeutic uses of oral contraceptive pills.
- c. Classify beta-lactam antibiotics and write the mechanism of action of penicillins.
- d. Discuss the treatment of drug sensitive tuberculosis.

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

- A 35-year-old male returns from a rural area of Odisha with high-grade fever, chills, jaundice, and altered sensorium. Peripheral smear shows *Plasmodium falciparum* trophozoites with high parasite index. He is started on intravenous artesunate followed by oral artemisinin-based combination therapy (ACT).
- a. Explain why intravenous artesunate is preferred over quinine in severe *falciparum* malaria. [2]
 - b. Describe the mechanism of action of artesunate. [2]
 - c. Why is combination therapy used instead of artesunate monotherapy? [4]
 - d. Name one ACT regimen recommended in uncomplicated *falciparum* malaria in India. [2]
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