



AMREF INTERNATIONAL UNIVERSITY

SCHOOL OF MEDICAL SCIENCES

DEPARTMENT OF NURSING & MIDWIFERY SCIENCES

END OF SEMESTER AUGUST 2026 EXAMINATIONS

COURSE CODE AND TITLE: BSN 222: Pharmacology

DATE: 3RD AUGUST 2026

Duration: 2 HOURS

START: 9AM

STOP: 11AM

INSTRUCTIONS

1. This exam is out of 70 marks
2. This Examination comprises THREE Sections. Section I: Multiple Choice Questions (20 marks) Section II: Short Answer Questions (30 marks) and Section III: Long Answer Questions (20 marks)
3. Answer ALL Questions.
4. Do Not write anything on the question paper -use the back of your booklet for rough work if need be.

SECTION A: MULTIPLE CHOICE QUESTIONS – 20 MARKS

1. Hydroxychloroquine is: -
 - A. Is used for rheumatoid arthritis
 - B. Can cause irreversible retinopathy
 - C. Is an NSAID
 - D. Has antimalarial activity
2. Tetracycline's: -
 - A. inhibit cell wall synthesis.
 - B. complex with calcium to affect teeth, bones, and interact with foods.
 - C. Are narrow-spectrum.
 - D. Minocycline is ineffective in the treatment of acne
3. An example of a COX-2 selective nonsteroidal anti-inflammatory drug:-
 - A. Ibuprofen
 - B. Celecoxib
 - C. Naproxen
 - D. Acetaminophen
4. Most appropriate drug for a patient with status epilepticus?
 - A. Fluoxetine
 - B. Diazepam
 - C. Amitriptyline
 - D. Chlorpromazine
5. Appropriate drug that can be used to manage patient who are on antipsychotic drugs but presenting with rigidity and tremors: -
 - A. Neostigmine
 - B. Trihexyphenidyl
 - C. Propranolol
 - D. Naloxone
6. A patient on long-term antipsychotic therapy develops tardive dyskinesia. Which mechanism best explains this adverse effect?
 - A. Dopamine receptor hypersensitivity
 - B. Excess serotonin activity
 - C. Increased GABA inhibition
 - D. Cholinergic blockade
7. Which feature best differentiates Haloperidol from atypical antipsychotics?
 - A. Greater efficacy in negative symptoms
 - B. Lower extrapyramidal side effects
 - C. Strong D2 receptor blockade
 - D. High anticholinergic activity

8. Mode of action of ACE inhibitors in reduction of high blood pressure : -
- A. They increase sodium retention
 - B. They inhibit the formation of angiotensin II
 - C. They stimulate sympathetic activity
 - D. They increase cardiac output
9. Furosemide causes diuresis by: -
- A. Blocking sodium channels in collecting ducts
 - B. Inhibiting $\text{Na}^+/\text{K}^+/\text{2Cl}^-$ transporter in the loop of Henle
 - C. Blocking aldosterone receptors
 - D. Increasing ADH secretion
10. The electrolyte abnormality that increases digoxin toxicity is :-
- A. Hypercalcemia
 - B. Hyponatremia
 - C. Hypokalemia
 - D. Hypermagnesemia
11. The feature that distinguishes heparin from warfarin?
- A. Oral administration
 - B. Immediate onset of action
 - C. Inhibits platelet aggregation
 - D. Causes vitamin K deficiency
12. Inhaled corticosteroids are preferred over oral corticosteroids in management of long-term asthma control because: -
- A. They act faster in emergencies
 - B. They produce fewer systemic adverse effects
 - C. They cure asthma permanently
 - D. They increase mucus secretion
13. A patient using Ipratropium experiences dry mouth. This adverse effect occurs because the drug:
- A. Stimulates β_2 receptors
 - B. Blocks muscarinic receptors
 - C. Releases histamine
 - D. Activates leukotriene receptors
14. The statement that best explains the action of Sucralfate: -
- A. It forms a protective barrier over ulcers
 - B. It stimulates vomiting reflexes
 - C. It increases bowel movements
 - D. It destroys liver enzymes

15. A statement that best explains the action of Sucralfate?
- A. It forms a protective barrier over ulcers
 - B. It stimulates vomiting reflexes
 - C. It increases bowel movements
 - D. It destroys liver enzymes
16. A patient using long-term corticosteroid therapy should be monitored closely for:
- A. Hypoglycemia only
 - B. Hypertension and osteoporosis
 - C. Hearing loss
 - D. Severe dehydration only
17. A patient who would benefit most from Desmopressin therapy: -
- A. A patient with diabetes insipidus
 - B. A patient with hyperthyroidism
 - C. A patient with peptic ulcer disease
 - D. A patient with asthma
18. A patient using Sildenafil develops a headache and flushing. These effects occur because the drug:
- A. Causes vasodilation
 - B. Blocks estrogen receptors
 - C. Stimulates uterine smooth muscle
 - D. Inhibits progesterone release
19. A statement that best explains the action of Clomiphene: -
- A. It suppresses gonadotropin secretion
 - B. It stimulates ovulation by increasing gonadotropin release
 - C. It prevents implantation
 - D. It relaxes the uterine muscles

SHORT ANSWER QUESTIONS- 30 MARKS

1. With examples, outline the classes of drugs used in the management of diarrhea (5 marks)
2. Describe the role of beta blockers in managing hypertension, giving examples (5 marks).
3. State the classes of H1 and H2 histamine receptor blockers and provide one clinical use for each (5 marks)
4. Outline the five classes of drugs used in the treatment of cancer, giving one example for each class (5 marks).
5. Differentiate between combined oral contraceptives and progestin-only pills (5 marks)
6. Explain the mechanism of organophosphate toxicity, and what is its management. Give examples of organophosphates (5 marks)

LONG ANSWER QUESTIONS- 20 MARKS

1. a. With examples, Discuss classes of antihypertensive drugs (10 marks).
b. Describe the difference between alternative and complementary medicine and discuss the various forms (10 marks)