

PHARMACOLOGY

PHA 01

17/07/2025 8:30 AM –11:30 AM

SUBJECT: PHARMACOLOGY

**OPTION : ASSOCIATE NURSING PROGRAM
(ANP)**

DURATION: 3 HOURS

Names:
Index number:

S6 QUESTIONS and ANSWERS BOOKLET

**ADVANCED LEVEL NATIONAL EXAMINATIONS,
2024-2025**

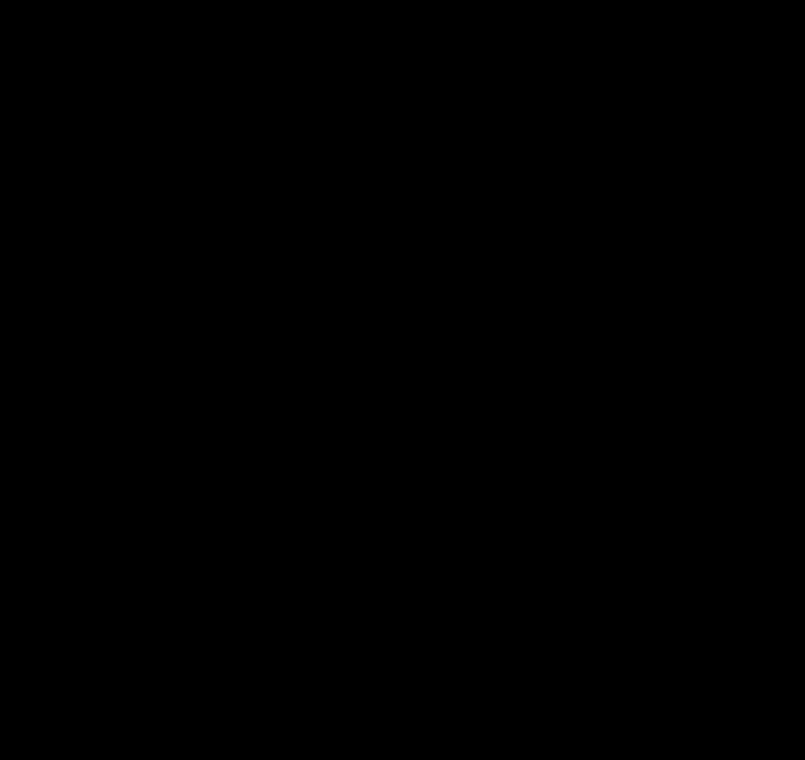
Instructions to candidates:

- 1) Write your names and index numbers exactly as they appear on your registration form.
- 2) Do not open this question paper until you are told to do so.
- 3) This paper consists of **THREE** sections: **A**, **B** and **C**.
Section A: Attempt **all** questions. (30 marks)
Section B: Attempt **all** questions. (40 marks)
Section C: Attempt **all** questions. (30 marks)
- 4) Use only a **blue** or **black** pen.
- 5) For Multiple Choice Questions, circle the letter corresponding to the right answer.
- 6) Read questions carefully before answering them.

TOTAL MARKS...../100

FOR EXAMINER'S USE ONLY

Questions	Marks	Questions	Marks
1		16	
2		17	
3		18	
4		19	
5		20	
6		21	
7		22	
8		23	
9		24	
10		25	
11		26	
12		27	
13		28	
14		29	
15		30	



Section A: Attempt ALL questions (30 marks)

For all multiple choice questions, circle the letter corresponding to the correct answer.

- 1) A patient's medical record includes an order that reads as follows: "Paracetamol 500 mg once daily at 09h00." Which action of the nurse is correct? **(2 marks)**

A) Gives the drug orally.
B) Does not give the drug.
C) Contacts the prescriber to clarify the dosage route
D) Gives the drug intravenously.

- 2) The main organ responsible for drug metabolism is: **(2 marks)**
A) Kidney
B) Lung
C) Stomach
D) Liver

- 3) Steady-state concentration of a drug is achieved after: **(2 marks)**
A) 1-2 half-lives
B) 4-5 half-lives
C) 7-10 half-lives
D) 12-15 half-lives

- 4) The patient took 50 mg of drug with half-life of 2 hours at 8h00 AM. How many milligrams will be remaining in the body at 12h00 PM? **(2 marks)**
A) 6.25mg
B) 12.5mg
C) 20mg
D) 25 mg

- 5) During drug administration, the nurse needs to ensure that all the RIGHTs of medication administration are respected. Therefore, while applying the right time; medications should be prescribed as closely to the time as possible, and nurses should not deviate from this time not more than: **(2 marks)**
A) half an hour to avoid consequences
B) one hour to avoid consequences
C) two hours to avoid consequences
D) three hours to avoid consequences

6) All of the following are the main parts of a medication order, EXCEPT:

(2 marks)

- A) The frequency of drug administration
- B) The name of the drug to administer
- C) The signature of the patient
- D) The time of drug administration

7) Which of the following statements best describes a SINGLE-DOSE order?

(2 marks)

- A) The drug is administered when, in the nurse's judgment, the client's condition requires it such as in case of pain management.
- B) These are one-time medications or orders that require the administration of drops or even tablets over a short period of time.
- C) An order for a single dose of medication to be given immediately, often in emergency situations to modify a serious physiological response
- D) These are the orders for drugs that are administered routinely as specified until the order is canceled by another order.

8) What is the correct dosage of paracetamol in children?

(2 marks)

- A) 10mg/kg every 6 hours
- B) 10mg to 15 mg/kg every 4 to 6 hours
- C) 10 mg to 15 mg/kg
- D) 10 mg to 20 mg /kg.

9) Which of the following drug combination is appropriate for the management of moderate pain according to the WHO pain management ladder? **(2 marks)**

- A) Paracetamol + Buscopan
- B) Morphine + Paracetamol
- C) Ibuprofen + Paracetamol
- D) Tramadol + Buscopan

10) After reviewing a patient case and consulting clinical guidelines, the physician opts to prescribe a broad-spectrum antibiotic rather than a narrow-spectrum one. Which of the following justifications could be valid for this decision?

(2 marks)

- A) The patient shows no symptoms of a bacterial infection.
- B) The patient has a high fever and signs of sepsis.
- C) The patient has an allergy to all narrow-spectrum antibiotics.
- D) Short treatment duration can solve most infections.

- 11) How many days/hours should the patient avoid alcohol after treatment with metronidazole? **(2 marks)**
- A) 48 hours
 - B) 1 day
 - C) 3 days
 - D) 5 days
- 12) What is an ideal duration for using omeprazole in short-term management of active peptic ulcers? **(2 marks)**
- A) Two to three weeks
 - B) Four to eight weeks
 - C) One to three weeks
 - D) Three to eight weeks
- 13) Select the statement that is TRUE about the mechanism of action of H₂ receptor antagonists: **(2 marks)**
- A) They occupy the histamine receptors and prevent acid secretion
 - B) They bind to enzyme H⁺, K-ATPase and increase histamine release
 - C) They block prostaglandin secretion and decrease histamine release
 - D) They neutralize the secreted acid directly in the stomach lining
- 14) Which of the following antihypertensive drugs is classified in the third line of anti-hypertensive drugs based on national guidelines? **(2 marks)**
- A) Atenolol
 - B) Amlodipine
 - C) Captopril
 - D) Hydralazine
- 15) According to the national guide line for NCDs, choose which drug is given as second line treatment for a patient with diabetes type 2? **(2 marks)**
- A) Insulin+ metformin
 - B) Vildagliptin + Metformin
 - C) Glibenclamide+ Glucophage
 - D) Insulin+ Glibenclamide

Section B: Attempt all questions (40 marks)

16) The patient should receive $\frac{1}{2}$ l of dextrose 5% in 3hrs. Knowing that the drop factor is 20 drops per mL. Calculate the drop rate. After calculation choose the best answer: **(2 marks)**

- A) 21 drops/min
- B) 42 drops/min
- C) 45 drops/min
- D) 55 drops/min

17) Propose which of the following combinations should a pregnant HIV-negative partner of the discordant couple be given as a single dose at labor? **(2 marks)**

- A) TDF+3TC+DTG
- B) ABC+3TC+DTG
- C) ABC+3TC+NVP
- D) EFV+3TC+NVP

18) A pregnant mother in the first trimester was diagnosed with simple malaria. The fellow student in the clinical placement asks you the reason why quinine was given and not Coartem. What would be your answer to this student?

(2 marks)

19) A 10-year-old male patient weighing 28 kilograms is admitted at the health center. He complains of fever, headache and vomiting. The laboratory exam reveals malaria. The nurse decides to give artemether immediately and she tasks to calculate the dose to administer to this patient immediately.

I. How would you calculate this dosage? **(2 marks)**

II. After calculation choose the correct answer. **(2 marks)**

- A) 44,8 mg
- B) 84 mg
- C) 86,8 mg
- D) 89.6 mg

20) Explain the importance of directly observed therapy in patient care. **(3 marks)**

21) Outline the common side effects of antibiotics. **(8 marks)**

22) What are the three major groups of helminths? **(3 marks)**

23) What are the adverse effects of topical antifungal agents? **(2 marks)**

24) What can be done if a patient experiences toxicity typical of a particular drug in the regimen? **(4 marks)**

- 25) Drugs are substances that are used in the diagnosis, prevention, treatment or cure of diseases. These substances are derived from natural sources others are manufactured synthetically in the laboratory. Match the sources of drugs listed in **column A** with the specific drugs/products and its use listed in **column B**.
(10 marks)

COLUMN A (Source of drugs)	COLUMN B (Products or drugs/ its use)
1) Leaves of eucalyptus	a) Anti-viral
2) Atropa belladonna	b) Quinine/ antimalarial drugs
3) Ipecacuanha root	c) Oil eucalyptus/ Cough syrup
4) Cinchona bark	d) Atropine/ anticholinergic
5) Pancreas	e) Thyroxin/ Hypertension
6) Chondrodendron tomentosum	f) Vit A & Vit D
7) Cod liver	g) Tuboquararine/ skeletal muscle relaxant
8) Sheep thyroid	h) Insulin/ Diabetes
9) Urine of pregnant women	i) hCG/ Infertility
10) Fish and marine microorganisms	j) Emetine/ induce vomiting

Section C: Attempt all questions (30 marks)

- 26) Using the picture of a drug label below, answer to the following questions:
(10 marks)



- Give the trade name.....
- Give the generic name.....
- Give the chemical name.....
- Give the dosage strength.....
- Give the drug amount.....
- Give the drug form.....
- Give the drug route.....
- Give two given directions.....
- Give the NDC number.....
- Give the name of manufacturer.....

27) Elie is 45 years old patient with severe malaria on Quinine, on the night duty, a nurse has ordered a student associate nurse to give Quinine IV 600mg to Elie, the student was confused on the patient's names and give Quinine to Ella a girl of 25 years old suffering gastritis, the student gave Quinine IM 900mg. Miss Ella was noted to be having extreme difficulty breathing. BP was 190/110, HR 120, RR 28. Her lungs were assessed and were moist with crackles throughout. The attending physician was called. The physician ordered Ella to be transferred in ICU. While awaiting help for transport, Ella went into cardiac arrest and could not be resuscitated.

A) Identify all medication errors in this case scenario. **(3 marks)**

B) Discuss on the ways to prevent medication administration errors.

(5 marks)

C) What would you do if you were the student associate nurse who was going to administer Quinine? **(2 marks)**

28) NG is a 26 years old man who presents to X health center for consultation where you are working today as a nurse. The patient is complaining of fever, headache, and chills for 2 days. You took vital signs and found that axillary temperature is 40.9°C; Pulse was 70 beats/min, Respiration 22 cycles per minutes, Blood pressure 100/72 mmHg and has the pain of 6/10 on numeric scale, his weight is 65kg. Mr. NG declared that he has history of gastritis, soon after he started shaking, finally got convulsion.

A) Elaborate all medications you will use to manage this case and give the reasons. **(3 marks)**

B) Which medications will you avoid to use? Why? **(1 mark)**

29) After 5 months of tuberculosis treatment, the patient still has positive sputum smear that reveals tuberculosis bacteria. The healthcare personnel decide that such patient requires antituberculosis retreatment, and the treatment is immediately started. As the relative, you need to give clear details on the drugs to receive, with focus on the additional drugs, their mode of administration, and for how long these drugs will be taken. Referring to the data above, answer the following questions: **(3 marks)**

I. Which drug will be added on the usual tuberculosis primo-treatment drugs?

A) Plazomycin.

B) Streptomycin

C) Cintobramycin

D) Azithromycin

II. What is the route of administration for the added drug?

A) Orally

B) Intravenous

C) Intramuscular

D) Rectal route

- A) 2 weeks
B) 1 month
C) 2 months
D) 6 months

(3 marks)

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