

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE IN NURSING****NURU 126: PHARMACOLOGY II****STREAMS: BSC NURSING UPGRADING Y1T3****TIME: 2 HOURS****DAY/DATE: WEDNESDAY 29/09/2021****2.30 P.M – 4.30 P.M.****INSTRUCTIONS:**

- Do not write anything on the question paper.
- Mobile phones and any other reference materials are NOT allowed in the examination room.
- The paper has THREE sections. Answer ALL questions
- All your answers for Section I (MCQs) should be on one page.
- Number ALL your answers and indicate the order of appearance in the space provided in the cover page of the examination answer booklet.

MULTIPLE CHOICE QUESTIONS (10 marks)

1. Pharmacodynamics involves?

- a) Information about main mechanisms of drug absorption
- b) Information about unwanted effects
- c) Information about biological barriers
- d) Information about excretion of a drug from the organism

2. Disinfectants are:

- a) Strong chemical agents that inhibit or kill micro-organisms
- b) Agents with sufficient toxicity for host cells
- c) They kill both vegetative cells and spores
- d) A process intended to kill or remove all types of micro-organisms including

spores and include viruses

3. What is the definition of a therapeutical dose:
 - a) The amount of a substance to produce the minimal biological effect
 - b) The amount of a substance to produce effects hazardous for an organism
 - c) The amount of a substance to produce the required effect in most patients
 - d) The amount of a substance to accelerate an increase of concentration of medicine in an organism
4. What is the type of drug-to-drug interaction which is the result of interaction at receptor, cell, enzyme or organ level?
 - a) Pharmacodynamic interaction
 - b) Physical and chemical interaction
 - c) Pharmaceutical interaction
 - d) Pharmacokinetic interaction.
5. Chloramphenicol can cause the following unwanted effect:
 - a. Nephrotoxicity
 - b. Pancytopenia
 - c. Hepatotoxicity
 - d. Ototoxicity
6. Which of the following is the most important for movement through capillary walls?
 - a) Molecular size
 - b) Lipid solubility
 - c) Diffusion constant
 - d) pH
7. Idiosyncratic reaction of a drug is:
 - a. A type of hypersensitivity reaction
 - b. A type of drug antagonism
 - c. Unpredictable, inherent, qualitatively abnormal reaction to a drug
 - d. Quantitatively exaggerated response

8. Which of the following drugs belonging to antibiotics-macrolides:
- Doxycycline
 - Streptomycin
 - Clarithromycin
 - Amoxicillin
9. Which of the following is NOT a recognized complication of ampicillin toxicity:
- Hemolytic anemia
 - Diarrhea
 - Nausea
 - Overgrowth of gram-positive organisms
10. Which of the following groups of antibiotics demonstrates a bacteriostatic effect:
- Carbapenems
 - Macrolides
 - Aminoglycosides
 - Cephalosporins

SHORT ANSWER QUESTIONS (30 marks)

1. Explain the application of complementary and alternative medicine (CAM) in contemporary medicine. (4 marks)
2. Explain ways through which route of drug administration affects the bioavailability of drug (4 marks)
3. Differentiate between the two phases of drug metabolism (5 marks)
4. Explain 'first pass effect' and its implications on drugs (4 marks)
5. **State the two acts** of parliaments that control and regulate drugs/poisons in Kenya and briefly explain what each addresses (4 marks)

6. Drug interactions can be **beneficial** or **harmful**. Using relevant examples, explain two situations in which we combine drugs for their beneficial effects and two situations where combination may be harmful. (6 marks)
7. Outline three (3) main adverse reactions associated with aminoglycoside (3 marks)

LONG ANSWER QUESTIONS (30 marks)

1. Describe the drug development process (10 marks)
2. a. Different therapeutic approaches can be used to manage different disease conditions. Kama, a child of four years is brought to emergency room suffering from bronchopneumonia. Explain how you would manage him using **empiric therapy**. (10 marks)
- b. Using **the nursing process**, explain how you would carry out health education to the mother of baby Kama on home care before discharge. (10 marks)
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