

CHUKA



UNIVERSITY

**UNIVERSITY EXAMINATION
RESIT/SUPPLEMENTARY / SPECIAL EXAMINATIONS
EXAMINATION FOR THE AWARD OF DEGREE OF MASTER OF SCIENCE IN
NURSING**

NUMS 823: ADVANCED PHARMACOLOGY I

STREAMS:

TIME: 3 HOURS

DAY/DATE: THURSDAY 04/11/2021

11.30 A.M - 2.30 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.
- Number ALL your answers and indicate the order of appearance in the space provided in the cover page of the examination answer booklet.

ANSWER ANY FIVE (5) QUESTIONS

1 a. Describe drug development process. (10 marks)

b. Different therapeutic approaches can be used to manage different disease conditions.

Explain how you would manage a small child brought to emergency room suffering from pneumonia using empiric therapy. (10 marks)

2. a. Explain five (5) clinical situations where prophylactic antibiotics are indicated. (10 marks)

b. Describe the clinical uses, route of administration, mechanism of action and side effects of the “azoles” group of antiprotozoal compounds. (10 marks)

3. a. Explain four classes of **antiretroviral** drugs used in management of HIV/AIDS clearly outlining their mechanism of action, side effects and two examples in each class. (10marks)

b. Discuss the mechanism of action, side effects and main clinical indications of **albendazole** (10 marks)

4. a. Describe the mechanism of action, clinical uses, route(s) of administration and major side effects of **Tetracyclines**. (10 marks)

b. Discuss the use of drugs in the treatment of Tuberculosis, focusing on the mechanism of action and main side effects of any **FOUR** main drugs used in treatment of Tuberculosis. (10 marks)

5. Explain the following concepts, using examples where appropriate:

a. The importance of dose response curves in toxicity testing. (5 marks)

b. The concept of selective toxicity as applied to antimicrobial drugs (5 marks)

c. Receptor down regulation (5 marks)

d. Metabolic activation of prodrugs (5 marks)

6. a. i) Classify fluoroquinolones according to their spectrum of activity, giving relevant examples in each class of drugs (4 ½ marks)

ii) Explain their mechanism of action, clinical indications and side effects. (5 ½ marks)

b. Describe the clinical uses, route of administration, mechanism of action and side effects of **macrolides**. (10 marks)

.....