



PROGRAMME: PUBLIC HEALTH
UNIT CODE: PHES 225 (SUPPLEMENTARY)
UNIT NAME: PHARMACOLOGY AND THERAPEUTICS

SECTION A: SHORT ANSWER QUESTIONS (5 MARKS EACH). ATTEMPT ALL QUESTIONS

1. Define the following terms: (5 marks)
 - i. First-pass metabolism
 - ii. Bioavailability
 - iii. Distribution
 - iv. Therapeutic window
 - v. Affinity

2. List 5 factors affecting drug absorption (5 marks)
3. With examples, list 5 sources of drugs (5 marks)
4. List 5 adverse effects of Corticosteroids (5 marks)
5. List 5 adverse effects of NSAIDs. (5 marks)
6. Give 5 mechanisms of drug resistance. (5 marks)

7. Define the following and for each, give an example (5 marks)
 - a. Anesthesia
 - b. Antidiarrheal agents
 - c. Anti-inflammatory
8. Give 5 mechanisms of drug excretion (5 marks)

SECTION B: LONG ANSWER QUESTIONS (15 MARKS EACH). CHOOSE ONLY TWO

1. Highlight 5 classes of antiviral drugs and for each class, give the mechanism of action, an example and an adverse effect (15 Marks)
 - a. Nucleoside analogs
 - b. Protease inhibitors
 - c. Neuraminidase inhibitors
 - d. Integrase inhibitors
 - e. Entry inhibitors

2. a) Explain four factors that affect drug metabolism (4 marks)

- b) Discuss 5 types of drug formulations and for each give an advantage and a disadvantage (5 marks)
- c) With regards to pharmacokinetics:
- i) Define bioavailability (1 mark).
 - ii) Give three factors that affect bioavailability (3 marks).
 - iii) Describe the concept of a drug's half-life and its clinical significance (1 mark).
3. Describe:
- a. Standards for the care of Lab animals (7 marks)
 - b. Procedures for handling sampled tissues and organs (8 marks)