



**TECHNICAL UNIVERSITY OF MOMBASA**  
***Faculty of Applied & Health Sciences***

DEPARTMENT OF ENVIRONMENT AND HEALTH SCIENCES

DIPLOMA IN COMMUNITY HEALTH

(DCH 13J)

**APH 2209: FUNDAMENTALS OF PHARMACOLOGY**

SPECIAL/SUPPLEMENTARY EXAMINATIONS

**SERIES: FEBRUARY 2015**

**TIME: 2 HOURS**

**INSTRUCTIONS:**

- This paper consists of **FIVE** questions.
- Answer question **ONE (Compulsory)** in Section **A** and any other **TWO** questions in **B**.  
*This paper consists of Two printed pages.*

## SECTION A (Compulsory) 30 Marks

### QUESTION 1

- a) Distinguish between drug and placebo. (4 marks)
- b) Explain the following pharmacological terms;  
i) Pharmacokinetics (2 marks)  
ii) Antidote (2 marks)
- c) Distinguish between agonist and antagonist. (4 marks)
- d) i) What is sublingual administration? (2 marks)  
ii) Give **THREE** advantages of sublingual route of drug administration. (3 marks)
- e) Name any **FOUR** routes of drug administration. (4 marks)
- f) Explain why patients on tetracycline therapy are advised to avoid milk. (4 marks)
- g) State **FOUR** advantages of enteral route of drug administration. (4 marks)
- h) Name the main organ for metabolizing drugs. (1 mark)

## SECTION B (Answer any TWO questions)

### QUESTION 2

Explain the following pharmacological phenomenon:

- a) Enteric coating (5 marks)
- b) Enzyme induction (5 marks)
- c) Entero-hepatic shunt (5 marks)

### QUESTION 3

- a) Outline **TEN** disadvantages of drug administration by oral route. (10 marks)
- b) State the factors that determine the choice of the route of drug administration. (5 marks)

### QUESTION 4

- a) Outline the pharmacologically active principles in plants. (5 marks)
- b) Explain why adrenaline is mixed with lignocaine during tooth extraction. (5 marks)
- c) Give the classification of drugs. (5 marks)

### QUESTION 5

- a) Describe the factors affecting the rate of gastro intestinal absorption of drugs. (12 marks)
- b) Explain the term first-pass metabolism. (3 marks)