



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2009/2010

**SECOND SEMESTER EXAMINATION FOR THE DEGREE OF
BACHELOR OF SCIENCE
(MEDICAL LABORATORY SCIENCE)**

HML 205: CLINICAL PHARMACOLOGY

DATE: Tuesday 22nd December 2009

TIME: 11.00am – 1.00pm

INSTRUCTIONS:

This Examination Paper contains three sections:

- 1. Section A: Short Answer Questions**
- 2. Section B: Essay Questions**
- 3. Section C: Multiple Choice Questions**

SECTION A: Short Answer Questions.

Attempt ALL the questions in this section (5 Marks Each)

- Q.1. a) List five pharmacokinetic parameters. (2 ½ marks)
b) Explain drug redistribution and give a suitable drug example. (2 ½ marks)
- Q2. Outline the Zero order and First order kinetics of drug elimination. (5marks)
- Q3. a) Outline the components of an organ bath as used in isolated tissue experiments. (2 ½ marks)
b) Explain the use of the following equipment in pharmacological experiments:
i) Kymograph (1mark)
ii) Bull-dog Clamp [2½ marks]

SECTION B: Essay Questions.

Attempt Only One Question (20 Marks)

- 1 Discuss factors that affect Renal excretion.
2. a) Define half-life (t ½ marks) and give its importance. (4marks)
b) Show that half-life (t ½ marks) = $\frac{0.6909}{K}$, for a mono exponential drug elimination. (10marks)
c) Outline the characteristic of monoexponential drug eliminator. (6marks)

SECTION C: Multiple Choice Questions

There are thirty (30) multiple Choice Questions in this Section.

Attempt ALL of them by placing a circle around the letter representing the right answer. Each MCQ answer is equal to half ($\frac{1}{2}$) Mark.