



# **THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE**

(A CONSTITUENT COLLEGE OF JKUAT)

(A Centre of Excellence)

***Faculty of Applied and Health Sciences***

DEPARTMENT OF PURE AND APPLIED SCIENCES

DIPLOMA IN SCIENCE LABORATORY TECHNOLOGY

(DSLTL12J)

## **ABT 2204: IMMUNOLOGY**

**SPECIAL/SUPPLEMENTARY: EXAMINATIONS**

**SERIES: FEBRUARY 2013**

**TIME: 2 HOURS**

### **INSTRUCTIONS:**

You should have the following for this paper

- *Answer booklet*

This paper consists of **FIVE** questions.

Answer Question **ONE (compulsory)** and any other **TWO** questions

*This paper consists of 2 PRINTED pages*

### Question ONE

- a) Define the term
  - (i) Immunology (2marks)
  - (ii) Phagocytosis (2marks)
- b) Differentiate between passive specific from active specific immunity (4marks)
- c) Outline characteristics of innate immunity (2marks)
- d) Explain the derailment of compliment system by pathogenic microbes. (5marks)
- e) Describe the characteristics of natural kill or cells (5marks)
- f) State the biological roles of IgE. (4marks)
- g) Outline the importance of macrophage in cell mediated immunity (4marks)
- h) State the stages of phagocytosis (2marks)

### Question TWO

Discuss hypersensitivity reaction under the following

- (i) Causes
- (ii) Mechanism of archer
- (iii) Correction

(15marks)

### Question THREE

- a) Describe the types of grafts (10marks)
- b) Graft rejection is immunological. Explain. (5marks)

### Question FOUR

Discuss mechanism of innate immunity

(15marks)

### Question FIVE

- a) Discuss antigen – antibody interations as the basis for most clinical assays. (10marks)
- b) Define the following terms:
  - (i) Affinity (1mark)
  - (ii) Avidity (1mark)
  - (iii) Specificity (1mark)
  - (iv) Cross reactivity (1mark)
  - (v) Antigen (1mark)