



# Technical University of Mombasa

*Faculty of Applied and Health Sciences*

DEPARTMENT OF **PURE AND APPLIED SCIENCES**

DIPLOMA IN INDUSTRIAL MICROBIOLOGY AND BIOTECHNOLOGY  
(DIMBT 11M)

## **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 following terms :-
  - (i) Immunology (1mark)
  - (ii) Phagocytosis (1mark)
  - (iii) Antigen (1mark)
- b) With examples differentiate between;
  - i) Active immunity and passive immunity (4marks)
  - ii) Humoral immunity cell mediated immunity (4marks)
  - iii) Self and non self discrimination (4marks)
- c) State any FOUR factors that determine immunogenicity. (4marks)
- d) Outline any FOUR rules of lencocytes (4marks)
- e) State FOUR functions of helper T-Cells (4marks)
- f) Name THREE prievedfed sites found in human body (3marks)

### Question TWO

- a) Describe the FOUR types of grafts (8marks)
- b) Explain any FOUR mechanisms of preventing graft rejection. (7marks)

### Question THREE

- a) Discuss the classes of antigens based on their structural properties. (8marks)
- b) Differentiate between T-dependent and T-independent antigens (7marks)

### Question FOUR

Describe characteristics and function of blood lencocytes (15marks)

### Question FIVE

- a) Differentiate between primary and secondary immune responses (6marks)
- b) Describe the functions of antibodies. (8marks)