

Paper 1
TECHNICAL UNIVERSITY OF MOMBASA
FACULTY OF APPLIED AND HEALTH SCIENCES
DEPARTMENT OF ENVIRONMENT & HEALTH SCIENCES
UNIVERSITY EXAMINATION FOR DIPLOMA IN COMMUNITY
HEALTH AND HIV MANAGEMENT
DCH 16M/YEAR 1/ SEMESTER 2
AML 2104: FUNDAMENTALS OF IMMUNOLOGY

END OF SEMESTER EXAMINATION

SERIES:DECEMBER2016

TIME:2HOURS

DATE:Pick DateDec2016

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of **FIVE** Question(s). Attempt question ONE (Compulsory) and any other TWO questions.

Question ONE

- a) Tabulate any differences between innate and acquired immunity (4 marks)
- b) Explain the immunological role of IgE (4 marks)
- c) Differentiate between humoral immune responses and cellular immune responses. (4 marks)
- d) Outline the functions of the following parts of an immunoglobulin
 - i. Fab fragment (2 marks)
 - ii. Fc fragment (3 marks)
- e) Give an example for the following types of acquired immunity (4 marks)
 - i. Natural passive
 - ii. Natural active
- f) Outline the numerical sequence of complement activation in the alternative pathway (5 marks)
- g) Briefly state the immunological mediator of inflammation produced by a mast cell during Type I hypersensitivity (4 marks)

Question TWO

- a) Describe the major characteristics and give one role of the following immunoglobulin molecules
- i. IgG (4 marks).
 - ii. IgA (3 marks)

(b) Draw a well labeled diagram of an immunoglobulin (8 marks)

Question THREE

- a) Briefly explain the types of hypersensitivity (4 marks)
- b) Discuss the mechanisms of Type (I) hypersensitivity (11 marks)

Question FOUR

- (a) Describe factors influencing Immunogenicity (6 marks)
- (b) Discuss the stages of Classical Pathway of complement activation (9 marks)

Question FIVE

- (a) Discuss the Mechanical barriers in innate immunity (7 marks)
- (b) Tabulate the differences between classical and alternative pathways of complement activation. (8 marks).