TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF ENVIROMENT & HEALTH SCIENCES

UNIVERSITY EXAMINATION FOR:

DIPLOMA IN COMMUNITY HEALTH AND HIV MANAGEMENT

DCHM 16S/YEAR 1/ SEMESTER 2

AML 2104: FUNDAMENTALS OF IMMUNOLOGY
SPECIAL SUPPLEMENTARY EXAMINATION
SERIES: sept. 2017
TIME: 2 HOURS

Instructions to Candidates
This paper consists of FIVE questions
Answer question ONE (COMPULSORY) and any other TWO questions
This paper consists of two printed pages.
Mobile phones are NOT allowed in the examination room

Question ONE

(a) State the two main subdivisions of the immune system (2 marks)

(b) Give the types of hypersensitivity as classified by Gell and Coombs (4marks)

(c) Tabulate any differences between innate and adaptive immunity (4 marks)

(d) List any four organs of the immunological apparatus (5 marks)

(e) Briefly explain characteristics of IgM (6 marks)

(f) Explain factors that determine immunogenicity (5 marks)

(g) Distinguish between active and passive immunity (4 marks)

Question TWO

(i) Outline the following methods by which non-specific immunity operates

a) Physical barriers (6 marks)

b) Chemical barriers (6 marks

(ii) Explain how the body's natural microbial flora helps in preventing the establishment of pathogens. (3 marks)

Question THREE

Discuss the hemolytic disease of the new born (15 marks)

Question FOUR

(a) Using appropriate illustrations describe the classical and alternative pathway of complement activation. (7 marks)

(b) Outline the differences between primary and secondary immune responses (8 marks)

Question FIVE

(a) Describe the major characteristics and give one role of the following immunoglobulin molecules

(i) IgG

(ii) IgA (9 marks)

(b) Give an example for the following types of acquired immunity

(i) Natural passive

(ii) Natural active

(iii) Artificial passive

(iv) Artificial active (6 marks)