

TECHNICAL UNIVERSITY OF MOMBASA

Faculty of Applied and Health Sciences

DEPARTMENT OF ENVIRONMENT AND HEALTH SCIENCES

UNIVERSITY EXAMINATION OF DEGREE

BACHELOR OF SCIENCE IN COMMUNITY HEALTH (BSCH14S)

AML 4121: FUNDAMENTALS OF IMMUNOLOGY (SUPPLEMENTARY)

END OF SEMESTER EXAMINATIONS

SERIES: JANUARY 2016

TIME: 2 HOURS

INSTRUCTION TO CANDIDATE

This paper consists of **FIVE QUESTIONS**.

Answer QUESTION 1 (COMPULSORY) and any OTHER two.

QUESTION ONE (30marks)

- a) State the ways in which immunoglobulin are expressed (2marks)

- b) State the major functions of major histocompatibility complex (2marks)

- c) Name the four functions of antibody mediated cells (5marks)

- d) Name the major functions of the cells of the macrophage (3marks)

- e) Define the terms;
 - i. Hapten (2marks)
 - ii. Antigenicity (2marks)
 - iii. Adjuvant (2marks)
 - iv. Epitope (2marks)
 - v. Cytokines (2marks)
- f) Differentiate between localized or systematic inflammation responses (4marks)
- g) Give examples of diseases of major groups of human viruses and bacteria pathogens (4marks)

QUESTION TWO

- a) Discuss the different types of transplants (8marks)
- b) Discuss the four types of hypersensitive reactions (12marks)

QUESTION THREE

Discuss the primary organs of the immune system (20marks)

QUESTION FOUR

With the aid of diagram, discuss the three types of granulocytes and their roles (20marks)

QUESTION FIVE

- a) Explain the major characteristics of the adaptive immune response (8marks)
- b) Discuss the process of B cell development (12marks)