

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

END OF SEMESTER EXAMINATIONS (PAPER 1)

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) Explain the following terms:
 - i. Antigen(2marks)
 - ii. Phagocytosis(2marks)
 - iii. Toxoid(2marks)
 - iv. Autograft(2marks)
 - v. Immunogenicity(2marks)

- b) State the four characteristics a substance must possess in order to be immunogenic (4marks)

- c) State the two functions of the secondary lymphoid organs (2marks)

- d) Define Immunization, and differentiate between active immunization and passive immunization (6marks)

- e) Name the two major types of cells that participate as effector cells in adaptive immunity (2marks)

- f) Define inflammation and its hall mark signs (6marks)

QUESTIONS TWO

- a) Discuss the different cell types and functions in innate immunity (12marks)
- b) Explain the mechanism of humoral and cell mediated immune response to virus (8marks)

QUESTION THREE

Discuss Innate and Adaptive Immune System and, state their major properties (20marks)

QUESTION FOUR

- a) Discuss the four types of hypersensitive reactions (10marks)
- b) Discuss the various gradations in relationships of transplantation from donor to recipient. (10marks)

QUESTION FIVE

- a) Discuss the process of phagocytosis in the killing of micro-organism (12marks)
- b) Discuss the major classes of Antigen (8marks)