



Technical University of Mombasa

Faculty of Applied and Health Sciences

DEPARTMENT OF PURE AND APPLIED SCIENCES
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF
SCIENCE IN COMMUNITY HEALTH
BCH 13J

APH 4121 : FUNDAMENTALS OF IMMUNOLOGY II

SPECIAL/SUPPLEMENTARY EXAMINATION

October 2013 SERIES

2 HOURS

Instructions to candidates:

This paper consist of **FIVE** questions

Answer question **ONE** (compulsory) and any other **TWO** questions

Question ONE

- a) Briefly describe the following:
- (i) Epitope (3marks)
 - (ii) Allergic reactions (3marks)
 - (iii) Autoimmunity (3marks)
- b) Distinguish the following:
- (i) Pattern recognition receptors and somatically generated receptors (2marks)
 - (ii) Antigens and antigens (2marks)
- c) Describe the THREE layers of the immune system (6marks)
- d) Describe THREE mechanisms immune system employs to fight microbes (6marks)

- e) Briefly describe the significance of bone marrow **(4marks)**
- f) Briefly describe allergen immunotherapy **(5marks)**
- g) Describe the THREE immune responses involved in tissue rejection **(6marks)**

Question TWO

Using illustrations, discuss antigen presentation in MHC molecule class II. **(20marks)**

Question THREE

Discuss type (I) hypersensitivity **(20marks)**

Question FOUR

Discuss monoclonal antibody (mab) production and their applications **(20marks)**

Question FIVE

Discuss the functions of the adaptive immune system **(20marks)**