



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF MEDICAL SCIENCES

UNIVERSITY EXAMINATION FOR:

MSC IN IMMUNOLOGY

AML 5116 : PRINCIPLES OF IMMUNOLOGY

SPECIAL SUPPLEMENTARY EXAMINATION

SERIES: AUGUST 2017

TIME: 3 HOURS

DATE: Pick Date Sep 2017

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 ALL questions.

Do not write on the question paper.

Question ONE

- a) Discuss the cold chain and its equipment (10 marks)
- b) Discuss reasons explaining why the cold chain is important in vaccination (10 marks)

Question TWO

Discuss the mechanisms of protection against infections contributed by physical barriers and their secretions (20 marks)

Question THREE

Illustrate the process of MHC presentation of extracellular and intracellular antigens (20 marks)

Question FOUR

- a) Discuss the immune evasion mechanisms of herpes viruses (15 marks)
- b) Exemplify the viruses for each mechanism mentioned in Q4 (a) above (5 marks)

Question FIVE

- a) Illustrate the process of monoclonal and polyclonal antibody production (15 marks)
- b) Discuss the applications of monoclonal antibodies (5 marks)