CHUKA  **UNIVERSITY**

UNIVERSITY EXAMINATIONS

FOURTH YEAR EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE IN BIOCHEMISTRY

BIOC 400: IMMUNOLOGY

STREAMS: BSC (BIOCHEM)Y4S1 **TIME: 2 HOURS**

DAY/DATE: WEDNESDAY 06/12/2017 **8.30 A.M. – 10.30 A.M.**

INSTRUCTIONS:

- **ANSWER QUESTION ONE AND ANY OTHER TWO QUESITONS**
- **DO NOT WRITE ON THE QUESTION PAPER**

QUESTION ONE (30 MARKS)

(a) Describe and give the functions of the different types of T-lymphocytes. [5 marks]

(b) Explain why removal of an antigen leads to a decline in an immune response. [5 marks]

(c) Describe the principal components that lead to inflammation as a response to tissue damage. [5 marks]

(d) Antibodies are bifuntional molecules. Explain this statement. [5 marks]

(e) Describe the various ways through which T cells mediate viral immunity. [10 marks]

QUESTION TWO (20 MARKS)

(a) Briefly describe the different classes of hypersensitivity. [10 marks]

(b) Describe strategies employed in treatment/prevention of allergic state. [10 marks]

QUESTION THREE (20 MARKS)

(a) Describe the viral strategies for resisting control by immune effector mechanisms. [10 marks]

(b) Describe how poorly neutralizing antibodies can enhance viral infectivity. [10 marks]

QUESTION FOUR (20 MARKS)

(a) Describe the various forms of antigenic material that can be used in vaccine development. [10 marks]

(b) Describe the factors to consider during immunization. [10 marks]
