

**W1-2-60-1-6**

**JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY**

**UNIVERSITY EXAMINATIONS 2015/2016**

**YEAR I SEMESTER I EXAMINATION FOR THE DEGREE OF MASTER OF SCIENE IN MICRIBIOLOGY**

**SBT 3125: IMMUNOLOGY AND SEROLOGY**

**DATE:DECEMBER 2015 TIME: 3 HOURS**

**INSTRUCTIONS: Answer question one (compulsory) and any other two questions in section B.**

**SECTION A (30 MARKS)**

**QUESTION ONE**

a. Discuss with the aid of diagrams the cellular components of the immune system.

 (15 marks)

b. Discuss the types of lymphoid organs. (15 marks)

SECTION B 40 MARKS

QUESTION TWO

Describe the physical , biological characteristics and functions of the five major immunoglobulin classes. (20 marks)

QUESTION THREE

Discuss the different approaches to vaccine preparation. (20 marks)

QUESTION FOUR

Write an essay on hybriduma technology. (20 marks)

QUESTION FIVE

With the aid of well labeled diagrams discuss the different immunoassays. (20 marks)