

 W1-2-60-1-6

**JOMO KENYATTA UNIVERSITY**

**OF**

**AGRICULTURE AND TECHNOLOGY**

 **UNIVERSITY EXAMINATIONS 2015/2016**

**YEAR IV SEMESTER II EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN BIOCHEMISTRY AND MOLECULAR BIOLOGY**

**HBB 2425: CELL AND MOLECULAR IMMUNOLOGY II**

**DATE: APRIL 2016 TIME: 2 HOURS**

**INSTRUCTIONS: ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS**

**QUESTION ONE**

1. Explain briefly how maturing T-lymphocytes are committed to become $CD\_{4}^{+ve}$ or

$CD\_{8}^{+ve}$ in the Thymus [4 marks]

1. What is the role of lymphocytes mentioned in (1a) above. [4 marks]
2. Explain briefly how maturing B lymphocytes attain self antigen tolerance in the human body. [3 marks]
3. Mention FOUR ways self-reactive immune cells are suppressed in the body. [4 marks]
4. Chronic rheumatoid arthritis and gout are attributed to joint pain. Explain how each medical condition is caused and managed. [6 marks]
5. What factors are likely to cause allograft rejection? [3 marks]
6. Describe tissue matching using complement mediated lymphocytotocixity testing. [6 marks]

**QUESTION TWO**

Discuss in detail factors which contribute to autoimmunity. [20 marks]

**QUESTION THREE**

Based on mode of action, describe 4 categories of drugs used to control alloimmune response in transplant patients. Give two examples in each case. [20 marks]

**QUESTION FOUR**

Discuss in detail the forms of rejection associated with allografts. [20 marks]