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(University of Choice)

**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)**

(MAIN CAMPUS)

**UNIVERSITY EXAMINATIONS (MAIN PAPER)
2021/2022 ACADEMIC YEAR**

THIRD YEAR FIRST TRIMESTER EXAMINATIONS

**FOR THE DEGREE
OF
MASTER OF SCIENCE IN MEDICAL BIOTECHNOLOGY AND
MEDICAL LABORATORY SCIENCES**

COURSE CODE: BMI 827

**COURSE TITLE: MOLECULAR IMMUNOLOGY AND
IMMUNOGENETICS**

DATE: 29/04/2022

TIME: 8.00 -10.00 AM

INSTRUCTIONS TO CANDIDATES

This paper is divided into three sections, **A B** and **C**, carrying respectively: Multiple Choice Questions (**MCQs**), Short Answer Questions (**SAQs**) and Long Answer Questions (**LAQs**). **Answer all questions. DO NOT WRITE ON THE QUESTION PAPER.**

TIME: 2 Hours

MMUST observes ZERO tolerance to
examination cheating

This Paper Consists of 2 Printed Pages. Please Turn Over

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Answer all questions

1. Discuss the immunoglobulin variable gene segments and loci [20 Marks]
2. Explain the process of Formation of B α cell receptor micro-clusters [20 Marks]
3. Elucidate the two classes of T α cell receptors [20 Marks]
4. Discuss the role of Toll-like receptors in pathogen recognition [20 Marks]
5. Describe the steps in VDJ recombination process [20 Marks]