



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

UNIVERSITY EXAMINATIONS

2021/2022 ACADEMIC YEAR

**MAIN EXAMINATIONS
MAIN CAMPUS**

FIRST YEAR SECOND SEMESTER EXAMINATIONS

**FOR THE DEGREE
OF
MASTER OF SCIENCE IN BIOINFORMATICS**

COURSE CODE: SBI 822

**COURSE TITLE: MOLECULAR MARKERS & THEIR
APPLICATION**

DATE: TUESDAY, 26TH APRIL 2022

TIME: 9:00 – 12:00 P.M.

INSTRUCTIONS TO CANDIDATES

Answer ANY FOUR questions (60 marks)

TIME: 3 Hours

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 2 Printed Pages. Please Turn Over. 

1. Using case examples discuss how functional markers can be utilized in improvement of organisms. (15 marks)

2. Design an experiment where you are utilizing biochemical markers to answer a scientific question of choice. (15 marks)

3. Genomic markers are not affected by environmental factors, sample collection and stage of development of a plant. Validate this statement. (15 marks)

4. Using case examples discuss the bottlenecks that are associated with morphological markers that led to significant adoption of molecular markers. (15 marks)

5. Using illustrations where necessary, discuss the application of different molecular markers in DNA fingerprinting and genome mapping. (15 marks)