



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

UNIVERSITY EXAMINATIONS

2022/2023 ACADEMIC YEAR

**MAIN EXAMINATIONS
MAIN CAMPUS**

THIRD YEAR THIRD SEMESTER EXAMINATIONS

FOR THE DIPLOMA IN APPLIED BIOLOGY

COURSE CODE: DSB 051

COURSE TITLE: BIOINFORMATICS

DATE: MONDAY, 17TH APRIL 2023

TIME: 2:00 – 4:00 P.M.

INSTRUCTIONS TO CANDIDATES

Answer ALL questions in section A and any THREE from section B

TIME: 2 Hours

MMUST observes ZERO tolerance to examination cheating

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

DSB 051: BASIC BIOINFORMATICS

SECTION B: ESSAY QUESTIONS**(30 MARKS)**

11. Explain FIVE reasons why multiple sequence alignment is significant in biological data analysis. (10 marks)
12. Explain the various applications of bioinformatics in health care. (10 marks)
13. Describe the central dogma of molecular biology as a critical concept in bioinformatics. (10 marks)
14. Explain the main steps involved in constructing a phylogenetic tree. (10 marks)