



(UNIVERSITY OF CHOICE)

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

**MAIN CAMPUS
MAIN EXAMINATION**

**UNIVERSITY EXAMINATIONS
2021/2022 ACADEMIC YEAR**

FIRST YEAR FIRST SEMESTER EXAMINATIONS

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

COURSE CODE: SBI 825

COURSE TITLE: GENOMICS AND GENE EXPRESSION

DATE: THURSDAY, 28TH APRIL 2022

TIME: 9:00 – 12:00 P.M.

INSTRUCTIONS TO CANDIDATES

Answer any FOUR questions

TIME: 3 Hours

MMUST observes ZERO tolerance to examination cheating.

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

1. Discuss a detailed workflow protocol in genome assembly and sequence annotation. [15 marks]
2. Discuss the applications of single nucleotide polymorphisms [SNPs] as genetic markers in cancer research. [15 marks]
3. Discuss the applications of microarray technology in clinical research. [15 marks]
4. Write an essay on the evolution of Next Generation Sequencing platforms and how it has revolutionized clinical research. [15 marks]
5. Discuss the applications of transcriptomic workflow analysis in research. [15 marks]
6. Draw a protein structure prediction flow chart. [15 marks]