



(University of Choice)

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

(MAIN CAMPUS)

UNIVERSITY EXAMINATIONS

MAIN EXAMINATION

2021/2022 ACADEMIC YEAR

SECOND YEAR SECOND SEMESTER EXAMINATIONS

**FOR THE DIPLOMA
IN
APPLIED BIOLOGY**

COURSE CODE: DSB 035

COURSE TITLE: HISTOLOGY

DATE: WEDNESDAY, 20TH APRIL 2022 TIME: 8:00 – 10:00 A.M.

INSTRUCTIONS TO CANDIDATES

Answer **ALL** questions in section A and **ANY TWO** selected from section B

TIME: 2 Hours

MMUST observes ZERO tolerance to examination cheating
This Paper Consists of 2 Printed Pages. Please Turn Over 

SECTION A (SHORT ANSWER QUESTIONS, 40 MARKS)

1. Outline;
 - a) FIVE types of animal tissue. (2.5 marks)
 - FIVE types of plant cells. (2.5 marks)
2. Outline FIVE important points for consideration in care, safety and storage a light microscope. (5 marks)
3. Briefly describe features of electron microscope. (5 marks)
4. Describe types of smear preparation. (5 marks)
5. Outline FIVE functions of skeleton tissue. (5 marks)
6. Briefly explain paracellular and transcellular pathways. (5 marks)
7. Make short notes on;
 - i) Permanent slide. (2.5 marks)
 - ii) Squash preparation. (2.5 marks)
8. Briefly explain working principle of a phase microscope. (5 marks)

SECTION B (ESSAY QUESTIONS, 30 MARKS)

9. (a) Discuss epithelial tissue. (10 marks)
- (b) Discuss three methods of data collection. (5 marks)
10. Describe gram staining technique. (15 marks)
11. (a) Outline gram positive bacteria and the disease they cause. (5 marks)
- (b) Discuss the factors that may lead a gram-positive bacterium not to appear during a gram test. (5 marks)