



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

UNIVERSITY EXAMINATIONS

2021/2022 ACADEMIC YEAR

**MAIN EXAMINATIONS
MAIN CAMPUS AND WEBUYE CAMPUS**

FOURTH YEAR FIRST SEMESTER EXAMINATIONS

**FOR THE DEGREE
OF
BACHELOR OF SCIENCE IN EDUCATION**

COURSE CODE: SBT 411

COURSE TITLE: PLANT BIOCHEMISTRY

DATE: THURSDAY, 21ST APRIL 2022

TIME: 9:00 – 11:00 A.M.

INSTRUCTIONS TO CANDIDATES

Answer ALL questions in section A and ANY TWO questions from section B (70 marks)
TIME: 3 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 (a). Give the reasons why sucrose is an ideal transport molecule in plants. (5 marks)
- (b). There has been an increase in the research interests in plant lipids. Explain? (3marks).
2. State three applications of the non-edible oil seeds. (3 marks)
3. Briefly describe any five simple proteins. (5 marks)
4. Give a brief account of seed proteins. (5 marks)
5. Outline four shortcomings encountered in plant protein investigation. (4 marks)
6. State five factors affecting the effectiveness of enzymes. (5 marks)
7. (a). Name five secondary plant metabolites. (5 marks)
- (b). State the functions of phenols in plants (5 marks)

SECTION B (ESSAY QUESTIONS, 30 MARKS)

8. Discuss the various classification of carbohydrates. (15 marks)
9. Discuss the fate of carbon in the cytoplasm of a particular leaf tissue. (15 marks)
10. Discuss the prosthetic groups, co-factors and co-enzymes as used in plant enzymes. (15 marks)
11. Describe the Calvin cycle (15 marks)