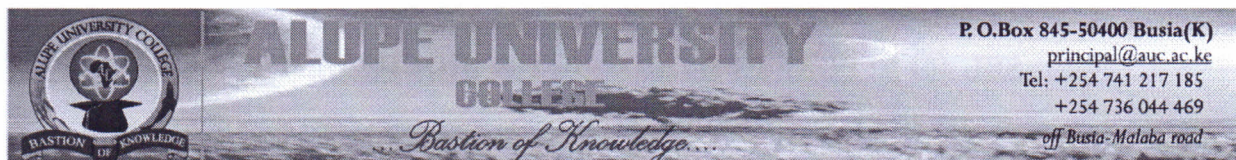


BOT 300E



OFFICE OF THE DEPUTY PRINCIPAL  
ACADEMICS, STUDENT AFFAIRS AND RESEARCH

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## UNIVERSITY EXAMINATIONS

### 2020 /2021 ACADEMIC YEAR

THIRD YEAR FIRST SEMESTER MAIN EXAMINATION

## FOR THE DEGREE OF BACHELOR OF EDUCATION SCIENCE

COURSE CODE: BOT 300 E

COURSE TITLE: PLANT PHYSIOLOGY AND  
BIOCHEMISTRY

DATE: 8<sup>TH</sup> MARCH 2021

TIME: 9.00 A.M – 12.00 P.M

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### INSTRUCTIONS TO CANDIDATES

- SEE INSIDE

THIS PAPER CONSISTS OF 3 PRINTED PAGES

PLEASE TURN OVER

REGULAR - MAIN EXAM

SBL 401 E: PLANT PHYSIOLOGY & BIOCHEMISTRY

STREAM: B.EDS

DURATION: 3 Hours

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INSTRUCTIONS TO CANDIDATES

- i. Answer *ALL* questions from section A and any *THREE* from section B.
  - ii. Diagrams should be used whenever they serve to illustrate the answer.
  - iii. Do not write on the question paper.
- =====

SECTION A (24 MARKS)

**Question One**

Differentiate the following;

- i. Glycolipid and phospholipid (4 Marks)
- ii. Nucleoside and nucleic acid (4 Marks)
- iii. Anabolism and catabolism pathways (4 Marks)

**Question Two**

- a) Explain the concept “negative feedback inhibition” (4 Marks)
- b) Illustrate the energy of activation (4 Marks)
- c) Highlight the properties of amino acids (4 Marks)

SECTION B (36 MARKS)

**Question Three**

Discuss the general causes of seed dormancy (12 Marks)

**Question Four**

- a) Outline the four structures of a protein molecule (4 Marks)
- b) Explain the factors that affect absorption of soil water (8 Marks)

**Question Five**

Discuss factors that limit plant population growth

(12 Marks)

**Question Six**

a. Discuss the requirements for photosynthesis

(4 Marks)

b. Explain special methods of obtaining essential elements

(8 Marks)

**Question Seven**

Discuss the importance of Indole Acetic Acid in plants

(12 Marks)

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