ALUPE UNIVERSITY COLLEGE
Bastion of Knowledge....
P. O.Box 845-50400 Busia(K)
principal@auc.ac.ke
Tel: +254 741 217 185
+254 736 044 469
off Busia-Malaba road

OFFICE OF THE DEPUTY PRINCIPAL
ACADEMICS, STUDENT AFFAIRS AND RESEARCH

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: **8TH MARCH 2021** **TIME: 9.00 A.M – 12.00 P.M**

INSTRUCTIONS TO CANDIDATES

- **SEE INSIDE**

THIS PAPER CONSISTS OF 3 PRINTED PAGES **PLEASE TURN OVER**

BOT 300E

REGULAR - MAIN EXAM

SBL 401 E: PLANT PHYSIOLOGY & BIOCHEMISTRY

STREAM: B.EDS **DURATION: 3 Hours**

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)

****