



OFFICE OF THE DEPUTY PRINCIPAL
ACADEMICS, STUDENT AFFAIRS AND RESEARCH

UNIVERSITY EXAMINATIONS

2019 /2020 ACADEMIC YEAR

THIRD YEAR FIRST SEMESTER REGULAR EXAMINATION

**FOR THE DEGREE OF BACHELOR OF
EDUCATION (SCIENCE)**

COURSE CODE: BOT 300 E

**COURSE TITLE: PLANT PHYSIOLOGY AND
BIOCHEMISTRY**

DATE: 11TH DECEMBER, 2019

TIME: 9.00 AM – 12.00 PM

INSTRUCTIONS TO CANDIDATES

- SEE INSIDE

THIS PAPER CONSISTS OF 3 PRINTED PAGES

PLEASE TURN OVER



BOT 300E

BOT 300: PLANT PHYSIOLOGY AND BIOCHEMISTRY

STREAM: BEd. (Science)

DURATION: 3 Hours

INSTRUCTION TO CANDIDATES

- i. Answer ALL questions from section A and any other **THREE** from section B.*
 - ii. Do not write on the question paper.*
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SECTION A (24 MARKS)

Question One

- a) Give an account of studying plant physiology (6 Marks)
- b) Explain the importance of transpiration in plants (6 Marks)

Question Two

- a) Citing relevant examples, explain how plants adapt to acquiring essential elements (6 Marks)
- b) Highlight the effects of Potassium deficiency in plants (4 Marks)
- c) Differentiate between Fermentation and aerobic respiration (2 Marks)

SECTION B (36 MARKS)

Question Three

- a) Highlight the role of gibberellins in plants (6 Marks)
- b) Outline the significance of osmosis in plants (6 Marks)

Question Four

Define glycolysis and describe the process of glycolysis in plants (12 Marks)

Question Five

Describe the process and stages of photosynthesis, use diagrams where appropriate (12 Marks)

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Question Six

Compare carboxylation in C3 and C4 plants

(12 Marks)

Question Seven

Explain the importance of water to plant life

(12 Marks)

