



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF AGRICULTURAL AND FOOD SCIENCES

**SECONDYEAR SECOND SEMESTER UNIVERSITY EXAMINATION FOR THE DEGREE
OF BACHELOR OF SCIENCE AGRICULTURAL EXTENSION EDUCATION**

2019/2020 ACADEMIC YEAR

REGULAR

COURSE CODE:

AHT 3221

COURSE TITLE:

PLANT PHYSIOLOGY

EXAM VENUE:

STREAM: BSc. Agric. Ext. Educ.

DATE:

EXAM SESSION:

TIME: 2 HOURS

Instructions:

- 1. Answer ALL the questions in section A and any TWO in section B.**
 - 2. Candidates are advised not to write on question paper.**
 - 3. Candidates must hand in their answer booklets to the invigilator while in the examination room.**
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SECTION A [30 MARKS]

Answer ALL questions from this Section.

1. a) What is osmosis and osmotic pressure. (4marks)
b) Differentiate between the terms hypotonic and hypertonic. (3marks)

- 2 a) Explain the meaning of plasmolysis. (3marks)
b) What is turgor pressure? (3marks)

- 3 a) Explain the term colloid. (4 marks)
b) What is the meaning of root pressure? (3marks)
c) Explain the meaning of transpiration. (3marks)

- 4 a) What do you understand by semipermeable membrane? (4marks)
b) Explain the meaning of turgid. (3marks)

SECTION B (40 marks)

Answer any of the two Questions

5. a) What do you understand by phosphorylation? (10 Marks)
b) What is the meaning of the terms hydathode and guttation? (10 Marks)

a) Describe the process of light reactions on chlorophyll? (10 Marks)
6. . b) Describe the process of water absorption from the soil to the xylem of vascular plants. (10 Marks)

7. a) Write an essay on the Calvin Cycle. (10 Marks)
b) Explain plastocyanin. (10marks)

8. Q 4. a) Explain the meaning of the word. (10 Marks)
9. b) Describe pentose phosphate pathway. (10 marks)