
CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF EDUCATION
(SCIENCE) BACHELOR OF SCIENCE BIOLOGY**

BOTA 322: PLANT GROWTH AND DEVELOPMENT

STREAMS:

TIME: 2 HOURS

DAY/DATE: WEDNESDAY 11/12/2019

2.30 P.M – 4.30 P.M

INSTRUCTIONS

Answer all questions in section A and any TWO in section B

SECTION A

1. Explain the differences between growth and development in plants. [3 marks]
2. (a) Describe the process of fertilization in plants. [3 marks]
(b) Explain importance of fertilization in plants. [2 marks]
3. Using a well labeled diagram illustrate the longitudinal section of the root tip of a dicot plant. [5 marks]
4. Differentiate between primary and secondary growth in plants. [4 marks]
5. (a) Describe the characteristics of juvenility in plants. [3 marks]
(b) Describe the commercial importance of juvenility in plants. [2 marks]
6. Describe the factors that influence senescence in plants. [4 marks]
7. Describe the application of any two plant hormones of economic importance. [4 marks]

SECTION B

8. Describe the stages of embryo development in plants . [20 marks]
 9. Discuss a sexual reproduction in plants. [20 marks]
 10. (a) Discuss the factors that stimulate flower formation in plants. [10 marks]
(b) Describe the steps followed during plant tissue culture. [10 marks]
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