

**CHUKA**



**UNIVERSITY**

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**UNIVERSITY EXAMINATIONS**

**EXAMINATION FOR THE AWARD OF DEGREE OF DOCTOR OF PHILOSOPHY  
IN**

**BOTA 922: PLANT GROWTH AND DEVELOPMENT**

**STREAMS: PhD**

**TIME: 3 HOURS**

**DAY/DATE: WEDNESDAY 18/12/2019**

**8.30 A.M. – 11.30 A.M.**

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**INSTRUCTIONS:**

- Answer any **THREE** questions.

**QUESTION 1**

Discuss the formation of shoot apical meristems (SAM). (20 marks)

**QUESTION 2**

- (a) Differentiate between growth and development in plants and explain the growth curve. (10 marks)
- (b) Discuss the role of light duration on plant growth and development. (10 marks)

**QUESTION 3**

- (a) Define vernalisation in plants and its practical application. (10 marks)
- (b) Discuss the types of plant movements and their importance. (10 marks)

**QUESTION 4**

Explain the role of growth regulators in plant growth and development. (20 marks)

**QUESTION 5**

- (a) Discuss the lifecycle of a flowering plant with emphasis on egg cell formation and seed development. (10 marks)
- (b) Explain the major events of flowering plant embryogenesis. (10 marks)
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