

**MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY**

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**University Examinations 2016/2017**

FOURTH YEAR, FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN BIOLOGICAL SCIENCES.

**SBT 2450: PLANT GROWTH AND DEVELOPMENT**

**DATE: DECEMBER, 2016 TIME: 2 HOURS**

**INSTRUCTIONS: -** *Answer question* ***one*** *and any other* ***two*** *questions*

**QUESTION ONE (30 MARKS)**

1. Briefly explain how the following affect plant growth.
2. Light (2 marks)
3. Carbon dioxide (2 marks)
4. Oxygen (2 marks)
5. Explain the activities that take place in the following phases of growth in plants
6. Cell differentiation (3 marks)
7. Cell enlargement (3 marks)
8. Distinguish between the following terms;
9. Dedifferentiation and redifferentiation (2 marks)
10. Interclalary meristems and lateral meristems (2 marks)
11. Monoecious plants and dioecious plants (2 marks)
12. Pariental placentation and axile placentation (2 marks)
13. State five significance of dormancy in plant growth and development (5 marks)
14. Explain how myrmechory occur (5 marks)

**QUESTION TWO (20 MARKS)**

1. Describe the theories of senescence. (10 marks)
2. Discuss the factors influencing senescence. (10 marks)

**QUESTION THREE (20 MARKS)**

Discuss secondary growth in flowering plants. (20 marks)

**QUESTION FOUR (20 MARKS)**

Discuss Ethylene as a plant hormone. (20 marks)

**QUESTION FIVE (20 MARKS)**

Discuss Juvenility in plants. (20 marks)