



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE & TECHNOLOGY
SCHOOL OF BIOLOGICAL AND PHYSICAL SCIENCES
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF EDUCATION
SCIENCE WITH IT
THIRD YEAR FIRST SEMESTER 2018/2019 ACADEMIC YEAR
MAIN CAMPUS - REGULAR

COURSE CODE: SBT 301
COURSE TITLE: PLANT GROWTH AND DEVELOPMENT
EXAM VENUE: STREAM: (BED)
DATE: EXAM SESSION:
TIME: 2 HOURS

Instructions:

- 1. Answer ALL questions in Section A and Any two questions 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**
-

SECTION A: SHORT ANSWER QUESTIONS (30 MARKS)

1. List the mechanisms by which auxins are inactivated in plants (3 marks).
2. State and explain any three indicators that could be used to measure growth in plants (3 marks).
3. Using an appropriate diagram, explain the role of auxin hormones in phototropism (3 marks).
4. State and explain any three causes of seed dormancy in plants (3marks).
5. Using an appropriate illustration, outline the main phases of plant growth (3 marks).
6. Briefly explain the following terms (3 marks).
a). cell differentiation b). cell dedifferentiation c). cell redifferentiation
7. Outline three cell characteristics of the meristematic zone of primary growth in plants (3 marks).
8. Outline three factors responsible for seed dormancy in plants (3 marks).
9. Briefly discuss the three main conditions for plant growth (3 marks).
10. Outline three categories of angiosperms based on their photoperiodic responses (3 marks).

SECTION B: ESSAY QUESTIONS (40 MARKS)

11. Discuss secondary growth in plant (20 marks).
12. Discuss mitotic cell division in plants (20 marks).
13. Discuss the physiological effects of growth regulators in plants (20 marks).
14. Write an essay on how growth in plants can be determined in a plant house and in a tree forest (20 marks).