



KENYATTA UNIVERSITY
UNIVERSITY EXAMINATIONS 2010/2011
FIRST SEMESTER EXAMINATION FOR THE DEGREE OF
BACHELOR OF SCIENCE

SBT 308: PLANT GROWTH AND DEVELOPMENT

DATE: WEDNESDAY, 1ST DECEMBER 2010 TIME: 2.00P.M – 4.00P.M

INSTRUCTIONS:

- Answer ALL questions in section A and ANY ONE in section B.
- Answers should be concise and clear and should be written in the booklet provided
- Use illustration and examples where appropriate
- Questions in Each section carry equal marks.

SECTION A: SHORT ANSWER QUESTIONS (40 MARKS)

1. Describe the following processes in plants
 - a) Photoperiodism

b) Vernalization

2. Write short notes on the following
 - a) Juvenility

b) Apical dominance

c) Morphogenesis

d) Senescence

e) Growth analysis indices

3. Describe five applications of plant growth regulators in plant sciences

4. Describe how growth in plants can be determined in the plant house.

5. Highlight two physiological effects of each of the following plant hormones.

a) Abscissic acid

b) Gibberellins

c) Ethylene

d) Cytokinins

e) Auxins

6. Describe the bioassays of indole-3-acetic acid

8. Describe the metabolism of abscissic acids in plants.

SECTION B: Answer ANY ONE ESSAY (30 MARKS)

1. Describe different types of plant movements.
2. Describe tryptophan dependent pathway in the biosynthesis of auxin in plants and its mode of action
3. Write an essay on fruit setting, development and ripening.