

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF
AGRICULTURAL EDUCATION AND EXTENSION**

BOTA 101: GENERAL BOTANY

STREAMS: B.Sc. AGED Y1S1 (SB)

TIME: 2 HOURS

DAY/DATE: FRIDAY 06/12/2019

11.30 A.M. – 1.30 P.M.

INSTRUCTIONS:

- Answer ALL questions in section A and any TWO in section B.
- Do not write anything on the question paper.
- Use illustrations where appropriate to enhance your answers.

SECTION A (30 MARKS)

- Define the term “species.” (1 mark)
 - Giving examples of each, distinguish between vital and mechanical functions of plants. (4 marks)
- State what each of the following branches of botany is concerned with: (3 marks)
 - Pharmacognosy
 - Plant systematics
 - Horticulture
 - What is natural classification of plants? (2 marks)
- Name five kingdoms of living organisms. (2 marks)
 - Classify the members of the domain Achaea based on the environment in which they occur. (2 marks)

4. (a) Explain why bryophytes are termed “amphibian” plants. (1 mark)
(b) Distinguish between cryptogams and phanerogams. (4 marks)
5. With the aid of a diagram, describe the structure of a chloroplast. (5 marks)
6. (a) Explain the causes of the phenomenon referred to as “red tide”. (2 marks)
(b) Explain the following with regard to sexual reproduction in algae: (3 marks)
- (i) Isogamy
 - (ii) Anisogamy
 - (iii) Oogamy

SECTION B (40 MARKS)

7. Describe the process of bulk flow and long distance transport. (20 marks)
8. Discuss the economic importance of bacteria. (20 marks)
9. Write an essay on the classification of angiosperms. (20 marks)
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