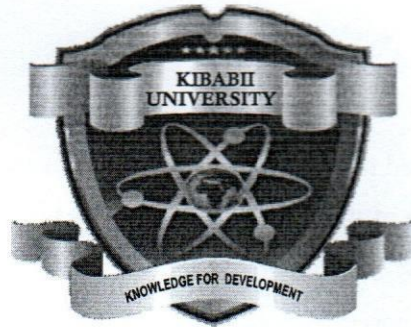


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*(Knowledge for Development)*

**KIBABII UNIVERSITY**  
**UNIVERSITY EXAMINATIONS**  
**2020/2021 ACADEMIC YEAR**

**FIRST YEAR 1ST SEMESTER**  
**MAIN EXAMINATION**

**FOR THE DEGREE OF BACHELOR OF EDUCATION SCIENCE**

**COURSE CODE:** ACR 111  
**COURSE TITLE:** AGRICULTURAL BOTANY

**DATE:** 18/02/2021.

**TIME:** 8-10 AM

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**INSTRUCTIONS TO CANDIDATES**

Answer Questions ONE and ANY other TWO Questions.

TIME: 2 Hours

This paper consists of 2 printed pages. Please Turn Over

KIBU observes ZERO tolerance to examination cheating

1. (a) (i) Bryophytes are referred to as `amphibians' of the plant kingdom. Explain (3 marks)  
(ii) State the significance of fungi in the brewing and baking industries (2 marks)  
(ii) Give five reasons why the study of agricultural botany is relevant today (5 marks)
- (b) (i) State two aspects of economic importance in the family Musaceae (2 marks)  
(ii) Mention three types of modified stem in angiosperms (3 marks)  
(iii) Explain the meaning of the word *gymnosperm* (3 marks)  
(iv) List two examples of pteridophytes (2 marks)
- (c) Differentiate between the following:
- (i) seed and spore (2 marks)  
(ii) cytoplasm and vacuole (2 marks)  
(iii) cytoplasm and protoplasm (2 marks)  
(iv) bulb and tuber (2 marks)  
(v) secondary and adventitious root (2 marks)

2. Recent estimates show that nearly half the world's productivity that is carbon fixation, comes from the oceans. Discuss this statement in view of the economic importance of algae. (20 marks)

3. The grass family (Gramineae or Poaceae) is widely distributed throughout the world. The family is of greater importance than any other plant family. Discuss (20 marks)

4. Based on the number of ovaries and the number of flowers involved in the fruit formation, fruits are classified into three major groups. Explain (20 marks)

5. Write brief notes on the following plant families of agricultural significance (20 marks)

- (a) Leguminosae (b) Compositae (c) Malvaceae (d) Cruciferae  
(e) Solanaceae