



(Knowledge for Development)

# KIBABII UNIVERSITY

UNIVERSITY EXAMINATIONS

2019/2020 ACADEMIC YEAR

FOURTH YEAR FIRST SEMESTER

SUPPLEMENTARY/SPECIAL EXAMINATION

FOR THE DEGREE OF BACHELOR OF SCIENCE IN AGRICULTURE AND  
BIOTECHNOLOGY

COURSE CODE: SAB 430

COURSE TITLE: SEED SCIENCE AND TECHNOLOGY

DATE: 05/02/2021. TIME: 8-10 AM.

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## INSTRUCTIONS TO CANDIDATES

Answer Question One (COMPLUSORY) and Any other TWO (2) Questions

TIME: 2 Hours

This Paper Consists of 2 Printed Pages. Please Turn Over.

**QUESTION ONE (COMPULSORY)**

**(30 MKS)**

- a. Briefly explain the SIX steps of seed formation (6 Marks)
- b. Differentiate between Angiosperms and Gymnosperms. (6 Marks)
- c. Outline any THREE roles of seed technology in the seed industry (3 MKS)
- d. Describe the products of Glycolysis. (4 Marks)
- e. Describe any THREE causes of seed dormancy (9 Marks)
- f. Using a diagram, describe epigeal type of seed germination. (2 marks)

**QUESTION TWO**

Outline the procedure steps followed in seed certification process. (20 Marks)

**QUESTION THREE**

- a. Describe any FIVE requirements for producing certified seeds. (10 Marks)
- b. Describe any FIVE classes of seed (10 Marks)

**QUESTION FOUR**

Discuss any FIVE parameters used in measuring seed quality (20 MKS)

**QUESTION FIVE**

- a. Describe the procedure of breeding a pure line towards producing a hybrid seed. (16 Marks)
- b. Briefly explain any TWO limitations of conventional breeding. (4 Marks)