



(Knowledge for Development)

KIBABII UNIVERSITY

UNIVERSITY EXAMINATIONS

2017/2018 ACADEMIC YEAR

FOURTH YEAR SECOND SEMESTER

MAIN EXAMINATION

**FOR THE DEGREE OF BACHELOR OF AGRICULTURE AND
BIOTECHNOLOGY**

COURSE CODE: SBT 427

COURSE TITLE: PLANT BREEDING

DATE: 1ST AUGUST 2018

TIME: 9 – 11 AM

INSTRUCTIONS TO CANDIDATES

Answer Question ONE and any TWO.

TIME: 2 Hours

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

Question One

- a. Describe the process of fertilization and zygote formation. (6 marks)
 - b. Compare and contrast evolution and domestication. (6 marks)
 - c. Discuss the importance of choice of mode of reproduction to plant breeding. (4 marks)
 - d. What are orthodox and recalcitrant seeds? Give any two differences between the two types of seeds. (6 marks)
 - e. Discuss any four sources of variation in plant breeding. (6 marks)
 - f. State and explain any two key genetic and breeding implications of self-pollination. (2 marks)
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2. a) Compare and contrast the mass selection and pure line selection methods of breeding. (10 marks)
 - b) Discuss how breeding for protein is achieved in seed crops. (10 marks)
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3. a) Describe the role of plant hormones in plant breeding. (10 marks)
 - b) i) What factors contribute to genetic erosion. (5 marks)
 - ii) Give any four reasons why conservation of genetic resources is important. (5 marks)
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4. a) Discuss the genetic and breeding implications of clonal propagation. (10 marks)
 - b) Identify and explain any FIVE advantages of single seed descent method of selection. (10 marks)

END