



SOUTH EASTERN KENYA UNIVERSITY

UNIVERSITY EXAMINATIONS 2017/2018

FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN AGRICULTURE

ACS 302: PLANT BREEDING

DATE: 14TH DECEMBER, 2017

TIME: 4.00 -6.00 PM

**Instructions: ANSWER ALL QUESTIONS IN SECTION A
ANSWER ANY TWO QUESTIONS IN SECTION B**

SECTION A (30 marks):

- 1) Discuss five applications of biotechnology in plant breeding (10 marks)
- 2) Describe sexual seed production in flowering plants (10 marks)
- 3) Write short notes on five objectives of plant breeding (10 marks)

SECTION B (40 marks):

- 4) Discuss the five steps followed in modern plant breeding (20 marks)
- 5) Explain the following special breeding techniques:
 - a) Mutation breeding (10 marks)
 - b) Tissue culture (10 marks)
- 6) Discuss marker assisted selection (20 marks)