



# **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: 14<sup>TH</sup> 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)