



# **MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY**

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## **University Examinations 2022/2023**

SECOND YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE OF  
BACHELOR OF SCIENCE IN AGRICULTURE, AND BACHELOR OF EDUCATION  
SCIENCE

### **AAA 3250: ANNUAL CROP PRODUCTION**

**DATE: APRIL 2023**

**TIME: 2 HOURS**

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**INSTRUCTIONS:** Answer question *one* and any other *two* questions

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#### **QUESTION ONE (30 MARKS)**

- a) Distinguish between System for Rice Intensification (SRI) and convention flooded rice production (5 marks)
- b) Describe the appropriate soil and nutrient management for wheat (*Triticum aestivum*) production (5 marks)
- c) Discuss the agronomic constraints that cause low yields of cow pea (*Vigna unguiculata* (L.) and green gram (*Vigna radiata* (L.) in Kenya (8 marks)
- d) Discuss the soil types suitable for production of sweet potato (*Ipomea batatas*) (6 marks)
- e) Outline strategies to increase production of Cotton (*Gossypium hirsutum* L.) in Kenya (6 marks)

#### **QUESTION TWO (20 MARKS)**

- a) List any 3 pests and 3 diseases that attack cereal crops in Kenya (3 marks)

- b) Discuss the appropriate soil moisture management during production of maize (*Zea mays*) (8 marks)
- c) Outline key considerations in variety selection during production of rice (*Oryza spp.*) in Kenya (9 marks)

**QUESTION THREE (20 MARKS)**

Outline the production practices for dry bean (*Phaseolous vulgaris* L.) under the following aspects:

- a) Land preparation (5 marks)
- b) Planting (4 marks)
- c) Nutrient management (6 marks)
- d) Harvesting (5 marks)

**QUESTION FOUR (20 MARKS)**

Describe the production of groundnut (*Arachis hypogaea* L.) an important oil crop under the following aspects

- a) Soils and land preparation (6 marks)
- b) Plant and seed germination (5 marks)
- c) Nutrient management (5 marks)
- d) Harvesting (4 marks)