

# MURANG'A UNIVERSITY OF TECHNOLOGY

# SCHOOL OF AGRICULTURE AND ENVIRONMENTAL STUDIES

# DEPARTMENT OF AGRICULTURE

# UNIVERSITY ORDINARY EXAMINATION

2023/2024 ACADEMIC YEAR

# FIRST YEAR SECOND SEMESTER EXAMINATION FOR BACHELOR

OF SCIENCE IN AGRICULTURE

GAC 113 - CROP PRODUCTION 1

**DURATION: 2 HOURS** 

# **INSTRUCTIONS TO CANDIDATES:**

- 1. Answer question ONE any other two questions.
- 2. Mobile phones are not allowed in the examination room.
- 3. You are not allowed to write on this examination question paper.

#### SECTION A – ANSWER ALL QUESTIONS IN THIS SECTION

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

a) Discuss five (5) ways in which soil fertility can be lost.	(10 marks)
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b) Explain weed control under the following methods:

i. Cultural control methods (5 marks)

ii. Biological control methods (5 marks)

c) Explain how temperature influence the following:

i. Plant biochemical reactions (5 marks)

ii. Rate of photosynthesis (5 marks)

# SECTION B – ANSWER ANY TWO QUESTIONS IN THIS SECTION

# **QUESTION TWO (20 MARKS)**

Describe five fertilizer application methods. (20 marks)

# **QUESTION THREE (20 MARKS)**

Discuss the following topics under land preparation:

a) Five (5) benefits of land tillage (10 marks)

b) Five (5) drawbacks associated with land tillage. (10 marks)

# **QUESTION FOUR (20 MARKS)**

Discuss five (5) principles to obtain a good plant/crop stand in the field. (20 marks)