



MACHAKOS UNIVERSITY

University Examinations for 2020/2021 Academic Year

SCHOOL OF AGRICULTURAL SCIENCES

DEPARTMENT OF AGRICULTURAL EDUCATION AND EXTENSION

SECOND THIRD YEAR SPECIAL/ SUPPLEMENTARY EXAMINATION FOR
BACHELOR OF SCIENCE IN AGRICULTURAL EDUCATION AND EXTENSION

AGR 201: PRINCIPLES OF CROP PRODUCTION

DATE: 26/3/2021

TIME: 2.00-4.00 PM

INSTRUCTIONS:

Answer *ALL* questions from Section A and any other *THREE* from Section B:

SECTION A: COMPULSORY: (40 MARKS)

QUESTION ONE

- a) Explain six reasons why farmers carry out land preparation before planting (6 marks)
- b) Explain four reasons why knowledge of crop agro-ecological zones is important to an agricultural extension officer (4 marks)
- c) Explain four importance of weeds in crop production (4 marks)
- d) i) Explain four reasons why a farmer would prefer to use compound fertilizers compared to straight fertilizers (4 marks)
ii) Describe four characteristics of Carbamide fertilizer that makes farmers prefer in utilizing than Chilean Nitrate (4 marks)
- e) Explain four factors that affect plant spacing in crop production (4 marks)
- f) Explain three special classification in legume production (3 marks)
- g) Explain four reasons why miscellaneous operations are necessary in subsistence farming (4 marks)
- h) Describe disease triangle concept used in management of disease (3 marks)

SECTION B: Answer any THREE Questions (40 Marks)

QUESTION TWO

- a) Describe SIX methods a farmer can successfully employ to manage pests and diseases in crops (12 marks)
- b) Explain FOUR ways farmers can adopt to manage post-harvest losses in Kenya (8 marks)

QUESTION THREE

- a) Describe FIVE methods that of fertilizer application in crops (10 marks)
- b) Explain FIVE methods that farmers can apply in an effort to control soil erosion in their farms (10 marks)

QUESTION FOUR

- a) Explain SIX ecological factors that affect crop production in Kenya (12 marks)
- b) Explain FOUR ways in which Kenyan farmers can adopt in order to enhance production in drylands (8 marks)

QUESTION FIVE

- a) Discuss preparation of THREE organic fertilizers (12 marks)
- b) Explain FOUR methods planting in crop production (8 marks)