



MACHAKOS UNIVERSITY

University Examinations for 2018/2019 Academic Year

SCHOOL OF AGRICULTURAL SCIENCES

DEPARTMENT OF AGRIBUSINESS MANAGEMENT AND TRADE

SECOND YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR

BACHELOR OF SCIENCE IN AGRICULTURAL EDUCATION AND EXTENSION

AGR 201: PRINCIPLES OF CROP PRODUCTION

DATE: 22/7/2019

TIME: 2.00-4.00 PM

INSTRUCTIONS:

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

SECTION A: COMPULSORY: (30 MARKS)

QUESTION ONE

- a) Explain FOUR physiological disorders brought about by uneven watering (4 marks)
- b) Explain FOUR reasons for raising seedlings in a nursery (4 marks)
- c) Explain FOUR requirements for a successful grafting (4 marks)
- d) Describe any FOUR methods of classifying weeds based on habitat where it is found (4 marks)
- e) Describe FOUR instances when hardening-off is done (4 marks)
- f) Explain FIVE factors affecting deterioration of agricultural produce during storage (5 marks)
- g) Explain FIVE advantages of using resistant varieties as a method of pest and disease control (5 marks)

SECTION B: Answer any TWO Questions (40 Marks)

QUESTION TWO

Describe the following farming systems giving their constraints

- a) Livestock cereal system (5 marks)

- b) Coffee based system (5 marks)
- c) Cashewnut coconut system (5 marks)
- d) Wheat dairy system (5 marks)

QUESTION THREE (20 MARKS)

Discuss the following methods of tillage stating their advantages and shortcomings

- a) Convection tillage practice (10 marks)
- b) Zero tillage practice (10 marks)

QUESTION FOUR (20 MARKS)

Discuss FIVE cultural methods of pest and disease management in crops

QUESTION FIVE (20 MARKS)

Explain the role, and deficiency symptoms of the following plant nutrients

- a) Phosphorus (5 marks)
- b) Sulphur (5 marks)
- c) Boron (5 marks)
- d) Copper (5 marks)