



MACHAKOS UNIVERSITY

University Examinations for 2017/2018 Academic Year

SCHOOL OF AGRICULTURAL SCIENCES

DEPARTMENT OF AGRICULTURAL EDUCATION AND EXTENSION

SECOND/THIRD YEAR FIRST SEMESTER EXAMINATION FOR

BACHELOR OF AGRIBUSINESS MANAGEMENT

BACHELOR OF EDUCATION SCIENCE

KRM 303: FIELD CROPS PRODUCTION

DATE: 6/12/2017

TIME: 11.00-1.00 PM

Instructions:

Answer **ALL** questions in section A and **ANY TWO** questions in section B

SECTION A: COMPULSORY: (30 MARKS)

QUESTION ONE (30 MARKS)

- a) Define the following terms as used in crop genetic improvement;
 - i. Plant Breeding (2 marks)
 - ii. Polyploidy (2 marks)
 - iii. Pureline (2 marks)
 - iv. Clone (2 marks)
 - v. Heterosis (2 marks)
- b) With specific examples, describe **FOUR** types of pre or post-harvest losses associated with crop production (8 marks)
- c) Explain **TWO** types of maturity that determine crop harvesting (4 marks)
- d) Giving relevant examples, explain classification of important crops in Kenya (8 marks)

SECTION B: ANSWER ANY TWO QUESTIONS (40 MARKS)

QUESTION TWO (20 MARKS)

- a) Describe **FIVE** methods used for the general management of weeds (10 marks)
- b) Explain **FIVE** important agronomic practices that need to be carried out to realize high maize crop yields (10 marks)

QUESTION THREE (20 MARKS)

- a) Giving relevant examples, discuss **FIVE** key roles played by field crops production in the economic development in Kenya (10 marks)
- b) Describe the suitable climatic and edaphic conditions required for the optimal production of the following major field crops;
 - i. Sugarcane (2 marks)
 - ii. Coffee (2 marks)
 - iii. Tea (2 marks)
 - iv. Soybeans (2 marks)
 - v. Wheat (2 marks)

QUESTION FOUR (20 MARKS)

Describe the production of cotton under the following headings;

- a) Planting spacing (5 marks)
- b) Agronomic practices (5 marks)
- c) Harvesting (5 marks)
- d) Processing (5 marks)

QUESTION FIVE (20 MARKS)

Discuss crop protection strategies used to manage the following diseases.

- a) Bacterial diseases (7 marks)
- b) Fungal disease (7 marks)
- c) Viral diseases (6 marks)