



EMBU UNIVERSITY COLLEGE
(A CONSTITUENT COLLEGE OF THE UNIVERSITY OF NAIROBI)

FIRST SEMESTER EXAMINATIONS 2014/2015

**SECOND YEAR EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE
IN AGRICULTURE, BACHELOR OF SCIENCE IN HORTICULTURE, BACHELOR
OF SCIENCE IN AGRIBUSINESS MANAGEMENT, BACHELOR OF SCIENCE IN
AGRICULTURAL EDUCATION AND EXTENSION AND BACHELOR OF SCIENCE
IN MANAGEMNET OF AGROECOSYSTEMS AND ENVIRONMENT.**

ACS 201/ ACR 201/AEB 209/ ACR 201: PRINCIPLES OF CROP PRODUCTION

DATE: DECEMBER 8, 2014

TIME: 13:30 – 15:30

INSTRUCTIONS:

Answer Question ONE and ANY Other TWO Questions

QUESTION ONE

- a) Define the following terms
- i.) Cropping systems (1 mark)
 - ii.) Essential plant nutrients (1 mark)
 - iii.) Integrated pest management (1 mark)
 - iv.) Fertilizers (1 mark)
- b) Differentiate between
- i.) Domestication and centers of origin (2 marks)
 - ii.) Trap crops and cover crops (2 marks)

- iii.) Plant stand and soil tilth (2 marks)
- c) Write short notes on the following
- i.) The green revolution (5 marks)
- ii.) Economic classification of crop plants (5 marks)
- iii.) Benefits of land preparation (5 marks)
- d). Discuss how crop production is likely to be affected by climate change in Kenya. (5 marks)

QUESTION TWO

- a) Explain the following;
- i.) Role of agriculture in Kenya's economy. (5 marks)
- ii.) Function of potassium in plant growth and development. (5 marks)
- iii.) How temperature affects plant growth, development and distribution. (5 marks)
- iv.) Importance of water in growth of crops. (5 marks)

QUESTION THREE

- a) Outline three (3) advantages and three (3) disadvantages of crop rotation. (6 marks)
- b) Explain the importance of application of farm yard manure. (4 marks)
- c) Citing relevant examples describe characteristics of weeds which enable them compete effectively with crop plants. (10 marks)

QUESTION FOUR

- a) Citing relevant examples, explain the economic importance of insect pests. (5 marks)
- b) Describe the economic importance of plant diseases in agriculture. (7 marks)
- c) Explain the effects of abiotic stresses on plant growth and development. (8 marks)

QUESTION FIVE

- a) Explain four (4) factors that influence soil erosion. (4 marks)
- b) Describe five (5) methods used in water conservation. (5 marks)
- c) Explain the disadvantages of chemical method of pest control. (5 marks)
- d) Outline three (3) benefits and three (3) limitations of intercropping. (6 marks)

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