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University Examinations 2011/2012

FIRST YEAR, FIRST SEMESTER EXAMINATIONS FOR THE DEGREE OF BACHELOR
OF SCIENCE IN HORTICULTURE/FOOD SCIENCE AND NUTRITION/FOOD SCIENCE
AND TECHNOLOGY

AHS 2101: INTRODUCTION TO AGRICULTURE AND AGROMETEOROLOGY

DATE: AUGUST 2011

TIME: 2 HOURS

INSTRUCTIONS: Answer question *one* and any other *two* questions

QUESTION ONE – (30 MARKS)

- (a) Explain any three components of sustainable agriculture. (6 Marks)
- (b) Agriculture is a source of employment in Kenya. Discuss. (6 Marks)
- (c) Altitude is a major factor which influences agriculture. Explain (3 Marks)
- (d) Give a brief definition of the following terms:
 - (i) Temperature stress (1 Mark)
 - (ii) Vernalization (1 Mark)
 - (iii) Climate change (1 Mark)
- (e) Give a detailed explanation of the term green revolution stating the initiatives involved. (6 Marks)
- (f) Briefly explain how soil PH influences crop production. (3 Marks)
- (g) State any three effects of frequent droughts on fisheries and aquaecosystems. (3 Marks)

QUESTION TWO – (20 MARKS)

- (a) State any two reasons why some African countries have failed to adopt the concepts of green revolution. (2 Marks)
- (b) Briefly explain any three social economic impacts of green revolution. (6 Marks)
- (c) State any two theories which try to explain what drove world population to adopt agriculture. (2 Marks)
- (d) Temperature is one of the climatic factors which influence crop production and distribution. Explain. (10 Marks)

QUESTION THREE – (20 MARKS)

- (a) What is global warming and the possible causes of global warming. (3 Marks)
- (b) List down any five effects of global warming. (5 Marks)
- (c) State any three effects and three implications of the following meteorological parameters on fisheries and aquaecosystems:
 - (i) Temperature rise (6 Marks)
 - (ii) Rise in sea water level (6 Marks)

QUESTION FOUR – (20 MARKS)

Soil affects crop production

- (a) State all the soil factors which influences agriculture. (6 Marks)
- (b) Give a brief explanation of how each soil factor influences crop production. (14 Marks)

QUESTION FIVE – (20 MARKS)

- (a) Briefly discuss what Neolithic agriculture revolution involved. (8 Marks)
- (b) Organic farming is becoming a popular practice in the developed world. Discuss. (12 Marks)