



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2010/2011

SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE AGRIBUSINESS, AGRICULTURE RESOURCE MANAGEMENT AND BACHELOR OF EDUCATION (SCIENCE) KRM 102: FARMING SYSTEMS

DATE: Monday 28th March, 2011

TIME: 8.00 a.m. – 10.00 a.m.

INSTRUCTIONS

Answer Question ONE and any other THREE questions.

- Q1. a) Briefly describe the terms below:
- i. Cropping system [1 mark]
 - ii. Potential yield [1 mark]
 - iii. Harvest index [1 mark]
 - iv. Actual yield [1 mark]
 - v. Agricultural system [1 mark]
- b) Using examples distinguish between long, neutral and short day plans. [5 marks]
- c) Using soil p^H as an example explain the concept of diminishing return relationship between grain yield and increased nutrients supply. [5 marks]
- d) Explain the following terms relating them to water management in rainfed agriculture:
- i. Crop transpiration [1 mark]
 - ii. Potential evapotranspiration [2 marks]
 - iii. Crop water requirement [2 marks]
- e) Using examples differentiate between determinate and indeterminate crops. [5 marks]
- Q2. Discuss interventions for improved water management in rainfed agriculture. [15 marks]
- Q3. a. Compare and contrast Pastoralism and agropastoralism. [7 marks]
- b. Discuss why there has increased trend towards agropastoralism using a specific area in the arid and semi-arid areas of Kenya. [8 marks]
- Q4. 'Organic farming is not synonymous to sustainable farming'. Using examples, discuss the statement above. [15 marks]
- Q5. Using examples discuss the Socio-economic and biophysical factors that determine the integration of legumes into a farming system. [15 marks]

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