



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

**FIRST SEMESTER EXAMINATIONS 2014/2015**

**FIRST YEAR EXAMINATION FOR THE DIPLOMA IN CROP PROTECTION**

**ACP 012: INTRODUCTION TO AGRICULTURE AND PRINCIPLES OF CROP  
PRODUCTION**

**DATE: DECEMBER 8, 2014**

**TIME: 13:30 – 15:30**

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**INSTRUCTIONS:**

**Answer Question ONE and ANY Other TWO Questions.**

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**QUESTION ONE:**

- a) Explain the relationship between agriculture and the Kenyan economy. (4 marks)
- b) Differentiate:
- i) Catch crops from trap crops (2 marks)
  - ii) Vivipary from apomixis (2 marks)
- c) Name three benefits of seed dormancy. (3 marks)
- d) State four ways in which cultivated crops are spread from their centres of origin. (4 marks)
- e) State five characteristics of a good nursery for crops. (5 marks)
- f) Define the following terms
- i) Bio-fertilizers (2 marks)
  - ii) Biological pest control (2 marks)

- g) Explain the concept of conservation agriculture. (3 marks)
- h) State three objectives of post-harvest processing. (3 marks)

### **QUESTION TWO**

- a) Explain the four criteria used to classify cultivated crops. (8 marks)
- b) Discuss the environmental factors that influence plant growth and reproduction. (12 marks)

### **QUESTION THREE**

- a) Most groundnut farmers in Kenya do not meet the yield potential of the crop due to lack of quality seed. Explain five advantages of using good quality seeds. (10 marks)
- b) Explain various methods that can be used to break seed dormancy. (10 marks)

### **QUESTION FOUR**

- a) Discuss the role of organic matter in the soil. (10 marks)
- b) Explain three types of irrigation systems. (10 marks)

### **QUESTION FIVE**

- a) Explain three principles of crop protection. (6 marks)
- b) Citing relevant examples, explain the losses caused by plant diseases to someone who has no knowledge in crop protection. (8 marks)
- c) Briefly explain the difference between integrated pest control and integrated crop management. (6 marks)

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