



# **EMBU UNIVERSITY COLLEGE**

**(A Constituent College of the University of Nairobi)**

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**2015/2016 ACADEMIC YEAR**

**SECOND SEMESTER EXAMINATION**

**THIRD YEAR EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE**  
**(AGRICULTURE)**

**ACS 310: VEGETABLE PRODUCTION**

**DATE: APRIL 12, 2016**

**TIME: 08:00-10:30**

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**INSTRUCTIONS:**

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

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**QUESTION ONE**

- a) Distinguish between vernalization and bolting as used in vegetable production. (2 Marks)
- b) Outline the two major functions of Nitrogen element in vegetables. (2 Marks)
- c) Briefly explain why selection for low cucurbitacin in cucumber is important. (1 Mark)
- d) Write short notes on pruning of melons. (4 Marks)
- e) State with examples four (4) physiological disorders caused by Boron deficiency in vegetables. (4 Marks)
- f) Outline the four (4) pre-harvest factors that affect vegetable quality. (4 Marks)

- g) Explain why a constant supply of moisture is a critical factor in the production of French beans. (3 Marks)
- h) Discuss the four (4) maturity indicators of watermelon. (4 Marks)
- i) Assume you have entered into a contract with Centro Food Industries to produce tomatoes for processing. Develop three strategies you should adopt to ensure good profitability in this venture. (6 Marks)

### **QUESTION TWO**

- a) Outline five (5) advantages of mulching in a vegetable garden. (5 Marks)
- b) Discuss the harvesting, grading and post-harvest handling of French beans. (15 Marks)

### **QUESTION THREE**

- a) Write short notes on harvesting, grading and storage of cucumber. (4 Marks)
- b) Citing relevant examples, describe the six ways through which vegetables can be utilized. (6 Marks)
- c) Describe any five (5) anti-nutritional components of vegetables. (10 Marks)

### **QUESTION FOUR**

- a) Discuss the nutritional value of vegetables. (6 Marks)
- b) Outline six (6) strategies you would put in place to ensure the quality of sweet corn for processed and fresh local and export market. (6 Marks)
- c) Discuss four major diseases of Irish potato (*Solanum tuberosum*). (8 Marks)

### **QUESTION FIVE**

- a) As a commercial tomato farmer, explain how you would choose the best cultivars for fresh consumption, processing and for sale in local and distant market. (8 Marks)
- b) Describe the different harvesting stages of tomato. (12 Marks)

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