



EMBU UNIVERSITY COLLEGE

(A Constituent College of the University of Nairobi)

2015/2016 ACADEMIC YEAR

SECOND SEMESTER EXAMINATION

SECOND YEAR EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE
(HORTICULTURE)

ACH 203: BEVERAGES, MEDICINAL AND NUT CROPS

DATE: APRIL 14, 2016

TIME: 08:30-10:30

INSTRUCTIONS:

Answer Question ONE and ANY Other TWO Questions

QUESTION ONE

- a) Demonstrate why flowering of a cocoa tree is not a true indicator of realizable ultimate yield (5 Marks)
- b) Name one medicinal crop that is affected by Armillaria root rot disease (1 Mark)
- c) Explain why you would rather prevent Armillaria root rot in tea than cure it (4 Marks)
- d) Explain why Ruiru 11 and Batian varieties are considered superior to other Kenyan coffee varieties. (4 Marks)
- e) Name three (3) products of economic importance from Cinchona bark (3 Marks)
- f) Briefly describe the two parts of pyrethrum flowers. (4 Marks)

- g) Name the two (2) types of coconut (2 Marks)
- h) Briefly discuss fertilizer application in macadamia (2 Marks)
- i) Assume you are an agricultural consultant and you have been approached by the Ministry of Agriculture to offer advice on the revival of the industrial crops sector in Kenya. Prepare a five points policy guideline on this topic (5 Marks)

QUESTION TWO

- a) Describe the damage caused by sucking bugs (*Helopeltis anarcadii* and *H. shoutedenii*) in cashew nuts. (2 Marks)
- b) Discuss the step-wise industrial processing of cashew nuts (8 Marks)
- c) Discuss the importance of balancing the level of shade in a cocoa plantation and how it is achieved (10 Marks)

QUESTION THREE

- a) As a coffee extension officer, develop a general guide for fertilizer application for use by coffee farmers (10 Marks)
- b) Discuss the two methods of tea frame formation (10 Marks)

QUESTION FOUR

- a) As a pyrethrum breeder, outline the attributes you would consider when selecting for an ideal pyrethrum variety (7 Marks)
- b) Discuss the step-wise process of macadamia propagation (13 Marks)

QUESTION FIVE

- a) Write short notes on weed control in pyrethrum (5 Marks)
- b) Outline the morphological characteristics of a cashew nut tree (5 Marks)
- c) Explain why ambient temperature is vital in Arabica coffee production (5 Marks)
- d) Briefly outline the major challenges facing industrial crops' value chain (5 Marks)

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