



MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

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UNIVERSITY EXAMINATIONS 2023/2024

FIRST YEAR SECOND SEMESTER EXAMINATION FOR DIPLOMA IN
AGRICULTURAL EXTENSION

HO/OS/HP/CR/07/6/B: PRODUCE HORTICULTURAL NUTS

DATE: APRIL 2023

TIME: 3HOURS

INSTRUCTIONS: Answer Question ONE and any other THREE questions.

QUESTION ONE (40 MARKS)

1. Define a nut? (1 mark)
2. Name THREE tools used in pruning a macadamia nut tree? (3 marks)
3. List THREE soil sampling procedures used in horticultural production (3 marks)
4. Name THREE scarce resources that a farmer planning to start a macadamia production enterprise is likely to face (3 marks)
5. List TWO long-term effects of soil erosion on macadamia production (2 marks)
6. Highlight THREE ways farmers can mitigate effects of soil erosion? (3 marks)
7. List THREE pillars of Good Agricultural Practices (GAP) (3 marks)
8. List FOUR characteristics of a good farm plan (4 marks)
9. Highlight FOUR ways in which small-scale farmers in Kenya can be supported to increase their participation in groundnut production? (4 marks)
10. List THREE different varieties of groundnuts commonly grown in Kenya? (3 marks)
11. State FOUR importance of carrying out soil testing before nut establishment (4 marks)
12. State FIVE maturity indices of macadamia nut (5 marks)
13. State TWO post-harvest processing activities undertaken in nut production? (2 marks)



QUESTION TWO (60MARKS)

14. Agro-ecological zonation can help in the process of planning development strategies
- a) Describe THREE agro-ecological zones for nut production (6 marks)
 - b) Describe the Major challenges facing groundnut production in Kenya and how they can be addressed (6 marks)
 - c) Describe the soil sampling procedure for traverse method before groundnut establishment (10 marks)
15. Macadamia is a genus of four species of trees in the flowering plant family Proteaceae.
- a) Discuss macadamia nut under the following subheadings (10 marks)
 - i. Agronomic requirements:
 - ii. Varieties:
 - iii. Management practices:
 - iv. Maturity indices
 - b) Develop a crop planting calendar for macadamia nut production (10 marks)
16. Grafting has several advantages when it comes to nut production
- b) Outline the advantages of grafting in nut production (6 marks)
 - b) Describe tongue grafting procedure in macadamia seedlings (4marks)
17. Diseases and pest affect nut production.
- a) Explain 5 cultural management practices in nut production orchard (10 marks)
 - b) Describe the intervention measures that can be taken to control diseases and pests in cashewnut production (10 marks)

