



MASENO UNIVERSITY

UNIVERSITY EXAMINATIONS 2012/2013

SECOND YEAR SECOND SEMESTER EXAMINATIONS FOR THE DEGREE OF BACHELOR OF SCIENCE IN ENVIRONMENTAL SCIENCE WITH INFORMATION TECHNOLOGY (MAIN CAMPUS)

NES 211: AGROFORESTRY SYSTEMS

Date: 22nd July, 2013

Time: 2.30 – 4.30 p.m.

INSTRUCTIONS:

Answer Question ONE and any other TWO questions.

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1. a) Distinguish between:
 - i) Spatial and rotational systems. [4 marks]
 - ii) Productive and protective functions of agroforestry. [4 marks]
 - b) Explain the criteria to be satisfied for a land use to be called an agroforestry system. [8 marks]
 - c) Describe the benefits of riparian buffers in an agricultural landscape. [8 marks]
 - d) Explain the advantages of using trees and shrubs for production in dry areas. [6 marks]
2. Discuss the factors that can influence the adoption of agroforestry technologies by small scale farmers in Kenya. [20 marks]
 3. Describe how perennial-crop combination can maintain or improve soil fertility. [20 marks]
 4. a). Explain the THREE types of on-farm trials in agroforestry. [6 marks]
 - b). Describe the problems associated with on-farm trials. [14 marks]
5. Discuss the socio-economic and environmental conditions under which hedgerow intercropping might prove acceptable to farmers. [20 marks]
 6. Explain the following agroforestry technologies.
 - a) Block planting. [8 marks]
 - b) Mixed planting. [6 marks]
 - c) Strip planting. [6 marks]