



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2010/2011

INSTITUTIONAL BASED PROGRAMME (IBP) – AUGUST SESSION

EXAMINATION FOR THE DEGREE OF MASTER OF SCIENCE IN

INTEGRATED SOIL FERTILITY MANAGEMENT

KRM 511: AGROFORESTRY SYSTEMS

DATE: Thursday, 30th December, 2010

TIME: 9.00 a.m. – 12.00 p.m.

INSTRUCTIONS:

Answer question **ONE** and any other **TWO** questions.

1. a) Briefly explain the following:
 - i) Shifting cultivation
 - ii) Alley cropping
 - iii) Homegardens
 - iv) Agroforestry technology
 - v) Biomass transfer

(10 marks)
- b) Discuss the four broad criteria commonly used in classifying agroforestry systems. (8 marks)
- c) Explain three main attributes of agroforestry (6 marks)
- d) State and explain six characteristics of a suitable agroforestry tree for proving soil fertility. (6 marks)
2. a) Discuss the development of hedgerow intercropping as an agroforestry stem. (5 marks)

- b) Explain the likely effects of hedgerow intercropping on soil properties and crop yields (5 marks)
 - c) Why has the hedgerow intercropping not adopted widely by farmers? (5 marks)
3. Discuss processes through which trees improve physical, chemical and biological properties of soil. (15 marks)
4. The solution to tropical deforestation may lie less in forestry than in agriculture. Do you agree? Discuss. (15 marks)