MACHAKOS UNIVERSITY

University Examinations for 2018/2019 Academic Year

SCHOOL OF ENVIRONMENT AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF ENVIRONMENTAL SCIENCES

THIRD YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR

BACHELOR OF ENVIRONMENTAL RESOURCE CONSERVATION

ERC 304: AGROFORESTRY SYSTEM AND PRACTICES

DATE: 24/7/2019   **TIME: 2.00-4.00 PM**

INSTRUCTIONS;

Answer question ONE and any other TWO questions

Use illustrations where necessary.

QUESTION ONE (COMPULSORY – 30 MARKS)

a)   Distinguish between

      i.   Taungya and Alley cropping   (2 marks)

      ii.   Grazers and browsers   (2 marks)

      iii.   Agro-forestry system and agro-forestry practice   (2 marks)

      iv.   Silvi-pastoral system and sericulture system   (2 marks)

      v.   Social forestry and community forestry   (2 marks)

b)   State three objectives of Agro-forestry   (3 marks)

c)   State the characteristics of agro-forestry   (3 marks)

d)   Explain how you determine the attributes of Multi-purpose tree(MPT) in production and service functions   (4 marks)

e)   Explain the role of agro-forestry in land and water management   (10 marks)

QUESTION TWO (20 MARKS)

a)   Describe how agro-forestry help to conserve biodiversity   (10 marks)

b)   Highlight the origin of agro-forestry   (10 marks)

QUESTION THREE (20 MARKS)

You have been posted in Machakos County as an environmental conservation officer. Explain the agro-forestry technologies you could recommend to the farmers(20 marks)

QUESTION FOUR (20 MARKS)

a)   Explain the concept diagnosis and design (D&D) methodology in agro forestry. (2 marks)

b)   Highlight the six main steps in diagnosis and design methodology in agro forestry.

(6 marks)

c)   Discuss the principles/ consideration of agro forestry project design.   (12 marks)

QUESTION FIVE (20 MARKS)

Using practical examples, explain the differences and relationship between and agro-forestry system and agro-forestry practice