JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY

University Examinations 2017/2018

EXAMINATION FOR THE DEGREE OF BACHELOR

ALP 2407: LAND USE MODELLING I

DATE: JANUARY, 2018   TIME: 2 HOURS

INSTRUCTIONS: Answer Question ONE and Any Other TWO Questions.

1. a) Define the following terms using suitable examples
    i)   Land use   (2 marks)
    ii)   Land cover   (2 marks)
    iii)   Land use change   (2 marks)
    iv)   Land use modeling   (2 marks)

    b) Discuss the major land use trends in Kenya today and expound on their impacts on land use management. Cite relevant illustrations   (12 marks)

    c) Discuss the factors hindering sustainable use of land using relevant examples   (10 marks)

2. a) "Deforestation is a big blow towards the achievement of the Sustainable Development Goals (SDGs)." Discuss the assertion of this statement with reference to any 5 SDGs and using relevant examples   (10 marks)
    b) Using suitable illustrations, discuss various governance issues that hamper the conservation of forested areas   (10 marks)

3. a) Define the term urban – rural linkages   (2 marks)
    b) "Urban- rural linkages as a result of various flows and interactions." Discuss this statement citing relevant examples   (8 marks)
    c) Explain using relevant examples the impacts of urbanization on watersheds and general hydrology   (10 marks)

4. a) Discuss ways through which land and related resources can be put into optimal use   (10 marks)
    b) Describe the direct and indirect drivers of land use and land cover changes using suitable examples   (10 marks)

5. a) "Understanding the interactions between anthropogenic activities and natural resources is a critical element that needs to be understood by land use planners." Discuss the relevance of this statement in land use management
    (20 marks)