

CHUKA



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**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE IN
NATURAL RESOURCES AND BACHELOR OF SCIENCE IN ENVIRONMENTAL
SCIENCE**

ENSC 400/NARE 459: ECOLOGICAL SURVEYS AND TECHNIQUES

STREAMS: BSC NARE, ENSC

TIME: 2 HOURS

DAY/DATE: MONDAY 4/12/2017

11.30 A.M – 1.30 P.M

INSTRUCTIONS:

SECTION A (30 MARKS): ANSWER ALL QUESTIONS

1. Define the following terms; [4marks]
 - (a) Ecological classification
 - (b) Environmental variables
2. Describe five levels of studying ecology. [5marks]
3. State five guiding principles in ecological classification. [5marks]
4. Differentiate between random quadrants and belt transect as ecological sampling techniques. [4marks]
5. Briefly discuss the application of remote sensing in ecological survey. [6marks]
6. Briefly describe any three observations that you have to consider during ecological mammal survey. [6marks]

SECTION B (40 MARKS) ANSWER ONLY TWO QUESTIONS

7. Discuss the contribution of various natural factors to occurrence of different ecological systems in spatial temporal context. [20marks]
 8. Given a task to establish population distribution and abundance in Meru National Park, discuss the techniques you would use for counting various mammals. [20marks]
 9. Discuss measurement methods for different environmental variables as an integral part of ecological field research . [20marks]
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