

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

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

ENSC 253: BIODIVERSITY CONSERVATION

STREAMS: BSC (NARE)

TIME: 2 HOURS

DAY/DATE: MONDAY 02/12/2019

8.30 A.M. – 10.30 A.M.

INSTRUCTIONS:

- Answer ALL questions in section A and any other TWO in section B
- Do not write anything on the question paper

SECTION A (30 MARKS)

1. Briefly explain the significance of various lifeforms on planet Earth. [6 marks]
2. Explain how habitat fragmentation is a major threat to world's biodiversity [6 marks]
3. Explain three situations of ecosystem degradation by invasive species in Kenya.[6 marks]
4. Explain three biogeographical limits of living organisms [6 marks]
5. Explain the circumstances under which preservation of biodiversity may be justified [6 marks]
6. Explain the main approaches through which Kenyan government promotes biodiversity conservation. [6 marks]

SECTION B (40 MARKS)

7. Using an appropriate illustration, explain the value of biodiversity in the world. [20 marks]

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8. (a) The samples values of 5 species are 60, 10, 25, 14. Calculate the Shannon diversity index and evenness for these sample values [10 marks]
- (b) Explain the impacts and significance of various forms of organisms interactions in an ecosystem. [10 marks]
9. Discuss the categories of the conservation status of World's biodiversity as described in the IUCN Red Data Book, 2004 Edition. [20 marks]
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