



MACHAKOS UNIVERSITY

University Examinations 2018/2019

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

DEPARTMENT OF SOCIAL SCIENCES

FOURTH YEAR SECOND SEMESTER EXAMINATION FOR

BACHELOR OF EDUCATION (ARTS)

BACHELOR OF ARTS

AGE 403: APPLIED BIOGEOGRAPHY

DATE: 10/5/2019

TIME: 2.00-4.00 PM

INSTRUCTIONS

Answer Question One and any other Two Questions

- 1
 - a) Describe the following terms:
 - i. Biodiversity (2 marks)
 - ii. Endangered species (2 marks)
 - b) Explain two parameters which govern species distribution in an ecosystem (6 marks)
 - c) Distinguish between the tropical and temperate biomes (6 marks)
 - d) Explain the ways in which forests provide ecological services in an ecosystem (8 marks)
 - e) Explain the role of human in the biosphere (6 marks)
2. Discuss the effects of human activities on the biosphere and the possible consequences (20 marks)
- 3
 - a) Assess the role of biotic and abiotic factors in species diversity and richness (14 marks)
 - b) Explain how the laws of thermodynamics are relevant to the biosphere (6 marks)

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| 4 | a) | Examine the potential of biotechnology in alleviating poverty in Africa | (14 marks) |
| | b) | Explain the relationship between humanity and the environment before the industrial revolution | (6 marks) |
| 5. | a) | Explain how IUCN enlists species as threatened, endangered or extinct | (6 marks) |
| | b) | Discuss the threats that endanger biodiversity | (8 marks) |
| | c) | Explain the significance of biodiversity in an ecosystem | (6 marks) |