



MACHAKOS UNIVERSITY

University Examinations for 2018/2019

SCHOOL OF ENVIRONMENT AND NATURAL RESOURCE MANAGEMENT

DEPARTMENT OF ENVIRONMENTAL SCIENCES

SECOND YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR

BACHELOR OF ENVIRONMENTAL RESOURCE CONSERVATION

BACHELOR OF ENVIRONMENTAL COMMUNITY DEVELOPMENT

BACHELOR OF ENVIRONMENTAL SCIENCE

ENS 241: BIODIVERSITY CONSERVATION

DATE: 26/9/2019

TIME: 11:00 – 1:00 PM

INSTRUCTIONS: Answer question ONE and TWO other questions

QUESTION ONE (COMPULSORY) (30 MARKS)

- a) Define the following terms as used in biodiversity conservation
- i) Genetic diversity (2 marks)
 - ii) Extinction debt (2 marks)
 - iii) Ecological niche (2 marks)
 - iv) Flagship species (2 marks)
 - v) Ecosystem (2 marks)
- b) Write short notes on the following concepts
- i) Species diversity (3 marks)
 - ii) Endangered Species Act (3 marks)
 - iii) Limits to the distribution of species (4 marks)
- c) Explain the aims and objectives of the Convention on Biodiversity Conservation (10 marks)

QUESTION TWO (20 MARKS)

Discuss the benefits and controversies behind adoption of Genetically Modified Organisms (GMO) as a means of achieving food security in developing countries

QUESTION THREE (20 MARKS)

Invasive species cause change in bio-geographic patterns.

- a) Explain why species are introduced in a region. (10 marks)
- b) Explain why alien invasive species have a competitive advantage over indigenous species. (10 marks)

QUESTION FOUR (20 MARKS)

Discuss FIVE values of biodiversity that warrants its conservation.

QUESTION FIVE (20 MARKS)

Discuss the major obstacles to biodiversity conserving in Kenya.