



MACHAKOS UNIVERSITY

University Examinations for 2019/2020 Academic Year

SCHOOL OF ENVIRONMENT AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF ENVIRONMENTAL SCIENCES

THIRD YEARSEMESTER EXAMINATION FOR

BACHELOR OF ENVIRONMENTAL SCIENCE

SMR 305: WILDLIFE ECOLOGY AND MANAGEMENT

DATE:

TIME:

INSTRUCTIONS:

Answer question ONE and any other TWO questions

QUESTION ONE (30 MARKS)

- a) Describe the concept of habitat as it applies in wildlife ecology. (6 marks)
- b) Explain briefly the concept of natural selection in species adaptation. (5 marks)
- c) Distinguish between ecological and economic carrying capacity. (4 marks)
- d) Explain briefly the principle of disturbance and how ecosystems cope with disturbance in regulating wildlife populations. (5 marks)
- e) Explain wildlife control based on the law of limiting factors (5 marks)
- f) Outline the goals of wildlife management . (5 marks)

QUESTION TWO (20 MARKS)

- a) Discuss the principle of competitive exclusion and how it is applied in ecological niche concept. (15 marks)
- b) Outline the conditions necessary for interspecific competition to occur. (5 marks)

QUESTION THREE (20 MARKS)

Discuss the concept of predation and its effect and relevance to wildlife management.

QUESTION FOUR (20 MARKS)

Discuss the group attributes of a wildlife population and its distribution patterns.

QUESTION FIVE (20 MARKS)

Discuss critically the principles of wildlife harvesting and exploitation.