



MACHAKOS UNIVERSITY

University Examinations for 2019/2020 Academic Year

SCHOOL OF ENVIRONMENT AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF ENVIRONMENTAL SCIENCES

SECOND YEARSEMESTER EXAMINATION FOR

BACHELOR OF ENVIRONMENTAL STUDIES (RESOURCE CONSERVATION)

BACHELOR OF ENVIRONMENTAL SCIENCES

ENS 230: ENVIRONMENTAL ECOLOGY

DATE:

TIME:

INSTRUCTIONS;

Answer question ONE and any other TWO questions

QUESTION ONE (COMPULSORY) (30 MARKS)

- a) Explain the following terms:
 - i. Ecology (2 marks)
 - ii. Population (2 marks)
 - iii. Succession (2 marks)
- b) Explain how animals survive in the harsh Tundra environment. (10 marks)
- c) Using illustrations, discuss THREE types of natural selections in populations. (9 marks)
- d) Discuss the exponential population growth model. (5 marks)

QUESTION TWO (20 MARKS)

- a) Using illustrations, describe different types of ecological pyramids. (10 marks)
- b) Describe the nitrogen cycle. (10 marks)

QUESTION THREE (20 MARKS)

Discuss different types of ecological successions in communities.

QUESTION FOUR (20 MARKS)

Discuss FIVE types of species interactions in an ecosystem.

QUESTION FIVE (20 MARKS)

As an environmental officer working for a county government in Kenya, explain to the county board of managers why funds should be set aside for wetland conservation.