



MACHAKOS UNIVERSITY

University Examinations for 2020/2021 Academic Year

SCHOOL OF ENVIRONMENT AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF ENVIRONMENTAL SCIENCES

FOURTH YEAR FIRST SEMESTER EXAMINATION FOR

BACHELOR OF ENVIRONMENTAL STUDIES (RESOURCE CONSERVATION)

ERC 411: BIOLOGICAL CONTROL AND ENVIRONMENT

DATE: 12/8/2021

TIME: 8.30-10.30 AM

INSTRUCTIONS;

Answer question ONE and any other TWO questions

QUESTION ONE (COMPULSORY) (30 MARKS)

- Explain the advantages of biological control programmes in Kenya. (5 marks)
- As an environmental officer working on a weed biocontrol programme initiated by the Machakos County Government, explain to farmers the process of identifying target weeds for biological control. (5 marks)
- Discuss parasitoidal insects as biological control agents. (10 marks)
- Explain the biochemical adaptations of herbivores to plant defenses. (10 marks)

QUESTION TWO (20 MARKS)

Discuss the augmentative biological control method.

QUESTION THREE (20 MARKS)

Discuss the sources of invasive organisms in Kenya.

QUESTION FOUR (20 MARKS)

Give an account on the historical background of biological control.

QUESTION FIVE (20 MARKS)

- Explain the disadvantages of using biopesticides in a biocontrol programme in Kenya. (10 marks)
- Discuss the Sterile Insect Technique as a biological control method. (10 marks)