



MACHAKOS UNIVERSITY

University Examinations for 2022/2023 Academic Year

SCHOOL OF AGRICULTURE, ENVIRONMENT AND HEALTH SCIENCES

DEPARTMENT OF ENVIRONMENTAL SCIENCES

FOURTH YEAR SECOND SEMESTER EXAMINATION FOR

BACHELOR OF ENVIRONMENTAL SCIENCE

ENS 457: ARID AND SEMIARID LANDS DEVELOPMENT

DATE:

TIME:

INSTRUCTIONS: Answer question **One (compulsory)** and any other **Two** questions

QUESTION ONE (COMPULSORY) (30 MARKS)

- a) Explain the factors that should be considered when restocking livestock in a Kenyan arid area. (5 marks)
- b) Explain the importance of conservation agriculture and tillage in Kenyan dry land areas. (5 marks)
- c) As an environmental officer working in arid and semi-arid lands of Kenya, explain to farmers how they can cope with drought conditions. (10 marks)
- d) Discuss the climatic conditions of arid environments. (10 marks)

QUESTION TWO (20 MARKS)

Discuss the environmental problems affecting dry lands in Eastern Africa.

QUESTION THREE (20 MARKS)

Discuss the adaptations of wild animals to the arid zones environment.

QUESTION FOUR (20 MARKS)

Discuss five factors affecting soil formation in arid and semi-arid lands.

QUESTION FIVE (20 MARKS)

'Increased desertification in Kenya will have devastating effects on humans if remediation measures are not implemented'. Discuss.