



MACHAKOS UNIVERSITY

University Examinations for 2019/2020 Academic Year

SCHOOL OF ENVIRONMENT AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF ENVIRONMENTAL SCIENCES

SECOND YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR
BACHELOR OF ENVIRONMENTAL STUDIES (RESOURCE CONSERVATION)

ERC 215: NATURAL RESOURCE MAPPING AND CARTOGRAPHY

DATE: 20/01/2021

TIME: 8.30-10.30 AM

INSTRUCTIONS:

Answer question ONE and any other TWO questions

QUESTION ONE (30 MARKS)

- a) Explain the following terms as they relate to natural resource mapping and cartography:
- Thematic map (2 marks)
 - General-reference map (2 marks)
 - Cartography (2 marks)
 - Vector data (2 marks)
 - Raster data (2 marks)
- b) Discuss the key factors that should be considered when creating land cover maps (10 marks)
- c) Explain the key operations used to carry out generalization in the mapping of natural resources (10 marks)

QUESTION TWO (20 MARKS)

As a consultant in a project for mapping of land cover changes in your county, discuss the key steps that you would adopt in the development of maps for different stakeholders

QUESTION THREE (20 MARKS)

Using appropriate illustrations, explain how different of spatial data types affect the symbolization of geographic features in mapping

QUESTION FOUR (20 MARKS)

- a) Explain the elements which affect visual weight in map composition (10 marks)
- b) Discuss the main goals that an effective map design should achieve in mapping of natural resources (10 marks)

QUESTION FIVE (20 MARKS)

Citing relevant examples, discuss the main forms of geographic phenomena encountered in the mapping of natural resources