



MACHAKOS UNIVERSITY

University Examinations for 2018/2019 Academic Year

SCHOOL OF ENVIRONMENT AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF ENVIRONMENTAL SCIENCES

THIRD YEAR SECOND SEMESTER EXAMINATION FOR

BACHELOR OF ENVIRONMENTAL STUDIES (COMMUNITY DEVELOPMENT)

ECD 315: ENERGY RESOURCES AND COMMUNITY DEVELOPMENT

DATE: 15/4/2019

TIME: 2:00 – 4:00 PM

INSTRUCTIONS: Answer question ONE and TWO other questions

QUESTION ONE (COMPULSORY) (30 MARKS)

- a) Using a specific example, discuss the critical role of energy resources in the realization of the government's Big Four Agenda (10 marks)
- b) Highlight **FIVE** principles of energy resource conservation (10 marks)
- c) Discuss any **FIVE** implications of energy use on the atmosphere (10 marks)

QUESTION TWO (20 MARKS)

Using an illustration, explain why it is not advisable for any country to solely depend on non renewable energy resources to realize its development agenda.

QUESTION THREE (20 MARKS)

Assume you have been appointed the Chief Advisor on energy development to the Governor of your County. Discuss the key factors you will consider in selecting the types of energy that the County government should promote to ensure its sustainable development.

QUESTION FOUR (20 MARKS)

Discuss any **FIVE** factors that influence the demand and supply of energy for use in any sector of development.

QUESTION FIVE (20 MARKS)

Using an appropriate illustration, discuss any **FOUR** adverse environmental impacts of a **NAMED** energy resource on a given community and recommend measures to mitigate the adverse impacts.