



MACHAKOS UNIVERSITY

University Examinations for 2019/2020 Academic Year

SCHOOL OF ENVIRONMENT AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF ENVIRONMENTAL SCIENCES

THIRD YEAR SECOND SEMESTER EXAMINATION FOR

BACHELOR OF ENVIRONMENTAL SCIENCES

ENS 347: ENERGY RESOURCES AND TECHNOLOGY

DATE: 12/11/2020

TIME: 8.30-10.30 AM

INSTRUCTIONS:

Answer question ONE and any other TWO questions

QUESTION ONE (30 MARKS)

- a) Using one specific example for each type, highlight any two advantages and disadvantages of renewable and non-renewable energy resources (10 marks)
- b) Briefly discuss how you would undertake an energy resources audit in your County (10 marks)
- c) Highlight any FIVE principles of energy resources management (10 marks)

QUESTION TWO (20 MARKS)

Give a detailed account of the energy resources mix that is relied on by Kenya to drive her socioeconomic development

QUESTION THREE (20 MARKS)

Suppose you have been appointed to advise your Governor on how to develop an energy policy in the County, discuss the key steps you would follow in undertaking the assignment and indicate the challenges you are likely to face

QUESTION FOUR (20 MARKS)

Using an appropriate illustration, discuss how energy use contributes to climate change

QUESTION FIVE (20 MARKS)

Discuss any FIVE challenges associated with energy resources planning in Kenya and highlight how to address the challenges