

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**FIRST YEAR EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF
SCIENCE IN ENVIRONMENTAL SCIENCE**

ENSC 221: ENERGY AND THE ENVIRONMENT

STREAMS: BSC ENSC Y2S1

TIME: 2 HOURS

DAY/DATE: TUESDAY 23/03/2021

2.30 P.M – 4.30 P.M

INSTRUCTIONS:

Answer ALL questions in section A and any two in section B

Do not write anything on the question paper

SECTION A (30 MARKS)

1. Differentiate 'superheated water' from 'dry steam' geothermal resources. [4 marks]
2. Highlight four types of unconventional natural gas. [4 marks]
3. An electric water pump rated 1.8kW is used to pump water for 3 hours per day for one month, how many kilo Joules of energy does it consume in one month. [4 marks]
4. With examples, briefly explain the two laws of thermodynamics. [6 marks]
5. Briefly describe the working of a Trombe wall system. [6 marks]
6. Briefly explain any three ways by which energy can be conserved at home.[6 marks]

SECTION B (40 MARKS)

7. Discuss any five environmental impacts that may result from relying on petroleum as a source of energy. [20 marks]
8. Discuss any five major constraints to energy conservation in Kenya. [20 marks]
9. Analyze the merits of the renewable energy that you believe Kenya should be presently promoting. [20 marks]

