



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF ENVIRONMENT & HEALTH SCIENCES

UNIVERSITY EXAMINATION FOR:

DEGREE IN BJMC, BJMC, BBJ, BSMR & BSFO (SEMESTER I 2017/2018)

AES 4101- ENVIRONMENTAL STUDIES

SERIES: SEPTEMBER 2017

TIME: 2 HOURS

Instructions to Candidates

This paper consists of FIVE questions

Answer question ONE (COMPULSORY) and any other TWO questions

This paper consists of 2 printed pages.

Question One (Compulsory)

- a) Define the following terms as used in Environmental studies **(5 marks)**
- (i) Edaphic Factors
 - (ii) Ozone layer
 - (iii) Radiative forcing
 - (iv) Cycling pool
 - (v) Sedimentary cycles
- b) Explain three main processes of energy transfer at the global scale. **(3marks)**
- c) Identify the effects of biodiversity loss in the world today **(5marks)**
- d) Describe the Indirect influences on hydrological cycle **(4marks)**
- e) Describe the characteristics of human population necessary to be considered to ensure effective environmental management **(3 marks)**
- f) Explain five (5) ways through which humans alter the carbon cycle. **(5marks)**
- g) Describe the 'greenhouse effect'. **(5marks)**

Question Two

- a) Using a well labelled diagram, describe the composition of the atmosphere based on thermal composition **(10marks)**
- b) Describe the sources of energy into the atmosphere, indicating ways by which Energy is transferred within and between environmental systems **(10marks)**

Question Three

- a) Using a well labeled diagram, describe the principle components of the Hydrological cycle **(15marks)**
- b) Describe ways through which human influence the hydrological cycle. **(5marks)**

Question Four

Discuss the Pros and Cons of the establishment of Lamu Port to the Kenya's environment. **(20marks)**

Question Five

Compare and contrast fossil fuels and solar energy sources **(20 marks)**