

EHS106 ENVIRONMENTAL PHYSICS RE-SIT JULY 2019



UNIVERSITY OF SWAZILAND

Faculty of Health Sciences

Department of Environmental Health Science

BACHELOR OF SCIENCE DEGREE IN ENVIRONMENTAL HEALTH SCIENCE

RE-SIT EXAMINATION PAPER JULY 2019

TITLE OF PAPER : ENVIRONMENTAL PHYSICS

COURSE CODE : EHS106

DURATION : 2 HOURS

MARKS : 100

INSTRUCTIONS : READ THE QUESTIONS & INSTRUCTIONS
CAREFULLY

: ANSWER **ANY FOUR** QUESTIONS

: EACH QUESTION **CARRIES 25** MARKS.

: WRITE NEATLY & CLEARLY

: NO PAPER SHOULD BE BROUGHT INTO THE EXAMINATION ROOM.

: BEGIN EACH QUESTION ON A SEPARATE SHEET OF PAPER.

REQUIREMENT : USE OF CALCULATORS

DO NOT OPEN THIS QUESTION PAPER UNTIL PERMISSION IS GRANTED BY THE INVIGILATOR.

QUESTION ONE

Discuss Biomass as one of the energy resources, under the following themes:

- A. What is biomass? [1 mark].
- B. How would you classify this energy resource? Is it renewable or non-renewable? [1 mark].
- C. Describe how this source of energy is tapped at a local community level? [4 marks].
- D. In a tabular form, list five Advantages and five disadvantages of using this energy source. [10 marks].
- E. Name the two liquid bio-fuels and their individual raw materials and then discuss the advantages of using liquid biofuels. [9 marks].

Total 25 marks

QUESTION TWO

Discuss Wind energy as one of the renewable energy sources under the following themes

- A. Describe wind energy and explain how it is formed and harnessed? [6 marks].
- B. In a tabular form enumerate five advantages and five disadvantages of using this source of energy. [10 marks].
- C. Write short notes on the use of geothermal energy. [9 marks].

Total 25 Marks

QUESTION THREE

Describe how climate change came about focusing on the following:

- a. Causes [7 marks].
- b. Evidence [9 marks].
- c. Consequences [9 marks].

Total 25 Marks

QUESTION FOUR

Describe the effects of depletion of the stratospheric ozone layer due to anthropogenic activities on the following themes:

- a. Human health and structures [6 marks].
- b. Food and forests [6 marks].

- c. Wildlife [6 marks.]
- d. Air pollution and climate change [7 marks].

Total 25 Marks

QUESTION FIVE

In March 2019, Cyclone Idai tore through southern Africa causing havoc and destroyed human life and property in many countries in Mozambique, Malawi and Zimbabwe. Discuss Tropical Cyclones under the following themes:

- a. Explain how cyclone Idai was formed and giving two examples of a tropical cyclone. [11 marks].
- b. What help Meteorologists to track their paths, wind speed and warn people in areas likely to be hit by these violent storms? [2 marks].
- c. What help Meteorologists to track the formation and movement of tropical cyclones? [2 marks].
- d. The impact of tropical cyclones [10 marks].

Total 25 marks

END OF EXAMINATION