



**AFRICA  
UNIVERSITY**  
*A United Methodist-Related Institution*

"Investing in Africa's Future"

**COLLEGE OF SOCIAL SCIENCES, THEOLOGY HUMANITIES  
AND EDUCATION  
DEPARTMENT OF SOCIAL SCIENCES**

**HES 221 INRODUCTION TO EARTH'S ENVIRONMENTS  
END OF FIRST SEMESTER EXAMINATIONS**

**NOVEMBER/DECEMBER 2018**

**LECTURER: G. R. CHIMONYO**

**DURATION: THREE HOURS**

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***INSTRUCTIONS***

- 1. Do NOT write your name on the answer sheet**
- 2. Use answer sheets provided**
- 3. Answer any THREE (3) questions**
- 4. Read and understand all questions and instructions before your answer**
- 5. Where necessary, illustrate your answers with sketches, figures and diagrams**
- 6. Each question is marked out of 20 marks**
- 7. Take note of mark distribution in each question**
- 8. Begin your answer for each question on a new page**
- 9. Credit is given to neat presentation of answers**



**Question One**

Give an explanation of any four environmental systems the you know citing specific examples from the physical environment.

**Question Two**

Explain the temperature stratification of the atmosphere, illustrating you answer with a diagram.

**Question Three**

Examine the importance of drainage basin surface cover materials on the drainage basin hydrological cycle.

**Question Four**

‘Climate is the most important factor in the formation of the soil profile.’ Discuss this statement in relation to factors affecting soil formation.

**Question Five**

Give an appraisal of the Davisian Cycle of erosion.

**Question Six**

Give a reasoned account of the role of the following processes in the shortwave radiation budget and balance:

- i. Scattering
- ii. Reflection
- iii. Absorption

**END OF QUESTION PAPER**