

**NATIONAL UNIVERSITY OF LESOTHO**

**B.Ed/BSc/B.URP SUPPLEMENTARY EXAMINATION**

**GES 2303 – ADVANCED HUMAN ENVIRONMENTAL SYSTEMS**

**AUGUST 2023**

**MARKS: 100**

**3 HOURS**

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Instructions: Answer any four (4) questions and where necessary illustrate your answer with the use of appropriate diagram.

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**Question 1**

Distinguish between the following pairs of terms/concepts. Give example of each.

- a) Habitat and Ecosystem (8)
- b) Energy conservation and energy efficiency (8)
- c) Net energy yield and Gross energy yield (9)

(25 Marks)

**Question 2**

Explain any 4 human activities that interfere with the phosphorous cycle. With each explain the environmental impact.

(25 Marks)

**Question 3**

- a) Comprehensively describe the hydrological cycle. (10)
- b) Identify any three human activities that affect the hydrological cycle, and explain how these affect the cycle. (15)

(25 Marks)

#### Question 4

The tropical rain forest can support the largest biomass of animals than any biomes in the world. Explain with four reasons why this is the case.

(25 Marks)

#### Question 5

Explain the meaning of the following terms/concepts as used in environmental science.

- i) High input agriculture (5)
- ii) Ecosystem (5)
- iii) Nitrogen fixation (5)
- iv) Autotrophs (5)
- v) Positive feedback loop (5)

(25 Marks)

#### Question 6

Explain why the consumption of animal products is more environmentally costly than the consumption of crops.

(25 Marks)