

CHUKA



UNIVERSITY

**UNIVERSITY EXAMINATION  
RESIT/SUPPLEMENTARY / SPECIAL EXAMINATIONS  
EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE IN  
BIOCHEMISTRY**

**BMET 111: HUMAN PHYSIOLOGY**

**STREAMS:**

**TIME: 2 HOURS**

**DAY/DATE: TUESDAY 02/11/2021**

**11.30 A.M - 1.30 P.M.**

**INSTRUCTIONS:**

- *Answer question **one** and **any other two** questions*

**Questions**

**Question 1 (Compulsory) (30 marks)**

- On his midsummer trek through the desert, Josh ran out of water. Explain why this particularly dangerous. (6 marks)
- Briefly describe the role of aldosterone in regulation of body water output. (5 marks)
- Name the six levels of organization of the human body. (6 marks)
- Explain the mechanism by which body temperature is regulated. (5 marks)
- Explain the hormonal changes that occur during menses phase of menstrual cycle. (4 Marks)
- Explain 4 roles of testosterone in male reproductive function. (4 Marks)

**Question 2 (20 marks)**

- Describe Renin-Angiotensin pathway and explain its role in regulation of blood pressure. (10 marks)
- Explain the sequence of events that follow hormone binding to an intracellular receptor. (10 marks)

**Question 3 (20 marks)**

- a) Describe the events during spermatogenesis that produce haploid sperm cell from diploid cells. (10 Marks)
- b) Explain five major functions played by human stomach in digestive process. (10 marks)

**Question 4 (20 marks)**

- a) Compare and contrast endocrine and exocrine glands. (10 Marks)
  - b) Describe ABO and RH blood grouping. (10 Marks)
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