

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 10/08/2021

8.30 A.M - 10.30 P.M.

INSTRUCTIONS

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

Questions

Question 1 (Compulsory) (30 marks)

- Explain 3 roles of plasma proteins. (6 marks)
- Highlight any 5 hormones secreted from anterior pituitary gland. (5 marks)
- Describe the mechanism of blood pH regulation by respiratory system. (6 marks)
- Explain the hormonal changes that occur during menses phase of menstrual cycle. (4 mark)
- Explain the role of testosterone in male reproductive function. (4 marks)
- Highlight five major functions played by human stomach in digestive process. (5 marks)

Question 2 (20 marks)

- Describe renal regulation of acid-base balance. 10 marks)
- Describe the signaling events involved with the second messenger cAMP. (10 marks)

Question 3 (20 marks)

- Illustrate how the extrinsic and intrinsic coagulation pathways lead to the common pathway, and the coagulation factors involved in each (10 marks)

- b) Illustrate the mechanism of hormone response resulting from the binding of a hormone with an intracellular receptor. (10 marks)

Question 4 (20 marks)

- a) Explain the events during spermatogenesis that produce haploid sperm from diploid cells. (10 marks)
- b) Explain hormonal controls involved in digestion. (10 marks)
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