

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF BIOMEDICAL
SCIENCES AND TECHNOLOGY**

BIOC 424: BIOCHEMICAL ENDOCRINOLOGY

STREAMS: BIOC

TIME: 2 HOURS

DAY/DATE: MONDAY 28/08/2023

8.30 A.M. – 10.30 A.M

INSTRUCTIONS

- Answer question **ONE (COMPULSORY)** and any other **TWO** questions.
- Sketch diagrams may be used whenever they may help to illustrate your answer.
- Do not write anything on the question paper.
- This is a closed book exam. **No** reference materials are allowed in the examination room.
- There will be **No** use of mobile phones or any other unauthorized materials.

1. QUESTION ONE (30 MARKS)

- a. Briefly discuss the metabolic role of the mineralocorticoids. (6 marks)
- b. Illustrate three different hormones secreted from ovaries which are naturally found in human. (8 Marks)
- c. Citing examples on each class, discuss the classification of hormones. (8 marks)
- d. Describe how glucagon or epinephrine facilitates blood sugar elevation in human body. (4 marks)
- e. Briefly, explain the effects of hypophysectomy. (4 marks)

2. QUESTION TWO (20 MARKS)

- a. Discuss in general, the biological functions of the hormones. (10 marks)
- b. Mention the principal sites of the parathyroid hormones and discuss its physiological functions. (10 marks)

3. QUESTION THREE (20 MARKS)

- a. Discuss in detail ten biochemical actions of the thyroid hormones. (10 marks)
- b. Illustrate and explain the probable pathway of gonadal hormones biosynthesis in human. (10 marks)

4. QUESTION FOUR (20 MARKS)

- a. Describe some of the factors controlling hormone secretion. (10 marks)
 - b. Discuss five (5) metabolic activities attributed to the hormone Somatotropin in human. (10 marks)
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