

CHUKA



UNIVERSITY

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

BIOC 424: BIOCHEMICAL ENDOCRINOLOGY

STREAMS:

TIME: 2 HOURS

DAY/DATE: WEDNESDAY 03/11/2021

11.30 A.M - 1.30 P.M.

INSTRUCTIONS

- i. Answer Question One and any other Two Questions**
- ii. Do not write on the question paper**

Question One (30 marks)

- a) Briefly discuss the general functions of hormones. (6 marks)
- b) With the aid of diagrams, explain the chemical structures of estrogen hormones. (6 marks)
- c) Discuss in detail the biosynthesis and metabolism of progesterone. (6 marks)
- d) Hyperadrenocorticism is the excessive supply of adrenal cortical steroids. Discuss. (6 marks)
- e) Insulin deficiency is characterized by diabetes mellitus in man. This disease is characterized by? (6 marks)

Question Two (20 marks)

- a. Discuss in detail the structure and function of the hormone glucagon. (10 marks)
- b. What are the disorders that result from insufficient secretion of pituitary hormones (hypopituitarism). (10 marks)

Question Three (20 marks)

- a. Gastrin, Secretin and Cholecystokinin are hormone secreted by mucosal cells of the gastrointestinal tract. Discuss. (10 marks)
- b. Discuss in detail hyperthyroidism and hypothyroidism (10 marks)

Question Four (20 marks)

- a. Discuss in detail the structure and functions of epinephrine and norepineprine (10 marks)
 - b. Describe the biosynthesis of various types of eiconasoids from arachidonic acid. (10 marks)
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