

CHUKA



UNIVERSITY

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

BMET 316: METABOLISM

STREAMS: BSc. BMET

TIME: 2 HOURS

DAY/DATE: TUESDAY 10/08/2021

8.30 A.M - 10.30 A.M.

INSTRUCTIONS

- **Answer All the Questions**
- **Do not write on the question paper**

QUESTION ONE: (30 Marks)

- (a) Discuss the following in relation to **Gout**.
- (i) Causes. (2 marks)
- (ii) Clinical features. (5 marks)
- (iii) Treatment. (2 marks)
- (b) Discuss purine nucleotide catabolism and its clinical relevance. (10 marks)
- (c) Define ketolysis and explain its functions. (4 marks)
- (d) Explain mechanism of ammonia intoxication of brain. (7 marks)

QUESTION TWO:(20 Marks)

- (a) Discuss in details, the urea cycle, highlighting the genetic defects associated with it and management of the conditions resulting from the defects. (12 marks)
- (b) Discuss the synthesis, degradation and conversion of glutamate to special substances. (8marks)

QUESTION THREE: (20 Marks)

- (a) Explain the causes, clinical manifestations and laboratory diagnosis of;
 - (i) Albinism
 - (ii) Von Gierke's disease (10 marks)
 - (d) Describe Krebs's Cycle and its relevance in the cell. (10 marks)
-