

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE IN
BIOMEDICAL TECHNOLOGY**

BMET 316 : METABOLISM

STREAMS: B.MED

TIME: 2 HOURS

DAY/DATE: TUESDAY 02/11/2021

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 pyrimidine 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. (6 marks)
- (b) Discuss the synthesis and degradation of aromatic amino acids. (14 marks)

QUESTION THREE: (20 Marks)

- (a) Describe β -Oxidation of 18-carbon fatty acid, hence calculate Kilojoules of energy produced. (10 marks)
- (d) Describe glycogenolysis and its relevance in the cell. (10 Marks)
-