

**W1-2-60-1-6**

## JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY

**UNIVERSITY EXAMINATIONS 2020/2021**

**YEAR 1 SEMESTER 2 EXAMINATIONS FOR THE DEGREE OF BACHELOR OF SCIENCE IN PUBLIC HEALTH**

**ICH 2106: BIOCHEMISTRY**

**DATE: APRIL 2021 TIME: 2 HOURS**

**INSTRUCTIONS: ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER ONE QUESTION**

QUESTION ONE (48 MARKS)

a) Explain the following terms (6 marks)

i) Vitamins

ii) Carbohydrates

iii) Metabolism

iv) Active transpolt

v) Amino acids

vi) Nucleotides

b) Describe the structure and functions of proteins (6 marks)

c) Explain the functions of carbohydrates in the body (6 marks)

d) Classify enzyming indicating their catalytic properties (6 marks)

e) Draw the basic structures of a puine and pyrimidine (6 marks)

g) Describe the election transport chain (6 marks)

h) Explain the ATP cycle (6 marks)

QUESTION TWO (22 MARKS)

Discuss the TCA cycle.

QUESTION THREE (22 MARKS)

a) Describe the pentase phosphate pathway (10 marks)

b) Explain how proteins are metabolized in the body (12 marks)

QUESTION FOUR (22 MARKS)

Discuss vitamins.