

CHUKA

UNIVERSITY



UNIVERSITY EXAMINATIONS

**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF
SCIENCE IN BIOCHEMISTRY**

BIOC 313: NUTRITIONAL BIOCHEMISTRY

STREAMS: BIOC

TIME: 2 HOURS

DAY/DATE: TUESDAY 19/12/2023

11.30 A.M. – 1.30 P.M.

Question One

- a) Using a suitable diagram, explain the absorption of carbohydrates in human beings (8 marks)
- b) Describe major abnormalities in digestion and absorption (6marks)
- c) Explain various complications associated with obesity and highlight their mitigation strategies (6 marks)
- d) Outline the significance of specific dynamic action (4 marks)
- e) Explain the functions of fibre in human nutrition (6 marks)

Question Two

- a) Describe the mechanisms of protein absorption (6 marks)
- b) Explain the symptoms, biochemical manifestation and treatment of Kwashiorkor and marasmus (14 marks)

Question Three

- a) Describe the metabolism of alcohol and highlight the toxic effects of alcohol metabolism (14 marks)

b) Describe the pathophysiology of methyl alcohol poisoning (6 marks)

Question Four

Describe the digestion and absorption of food in a donkey (20 marks)

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