

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**EXAMINATION FOR THE AWARD OF BACHELOR OF SCIENCE IN BIOCHEMISTRY
BIOC 100: INTRODUCTION TO BIOCHEMISTRY AND BIODIVERSITY**

STREAMS: BIOC

TIME:2 HOURS

DAY/DATE: TUESDAY 17/12/2024

11.30 A.M. –1.30 P.M.

INSTRUCTIONS:

Answer question ONE and any other TWO questions

QUESTION ONE (30 MARKS)

- a) Describe the various levels of protein structure. (8 marks)
- b) Explain the importance of biodiversity. (5 marks)
- c) Distinguish between the following terminologies: (4 marks)
 - (i) extirpation and extinction. (2.5 marks)
 - (ii) Protostomes and deuterostomes. (2.5 marks)
- d) Discuss any four key adaptations for life on land that distinguish the main lineages of the plants. (8 marks)
- e) Define Biochemistry and state any four of its major achievements to science and medicine. (5 marks)

QUESTION TWO (20 MARKS)

- a) Describe the Permian extinction. (10 marks)
- b) Describe the phylogeny of chordates. (10 marks)

QUESTION THREE (20 MARKS)

- a) Describe the features and structure of cnidarians. (10 marks)
- b) Discuss the characteristics of living organisms. (10 marks)

QUESTION FOUR (20 MARKS)

- a) List any eight functions of carbohydrates. (8 marks)
 - b) Compare and contrast DNA and RNA. (6 marks)
 - c) Explain the three levels of biodiversity. (6 marks)
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