

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

SPECIAL/SUPPLEMENTARY EXAMINATIONS

**FIRST YEAR EXAMINATION FOR BACHELOR OF SCIENCE IN MEDICAL
BIOCHEMISTRY AND BACHELOR OF SCIENCE IN BIOMEDICAL SCIENCE**

BMET 110: HUMAN MORPHOLOGY AND DEVELOPMENTAL ANATOMY

STREAMS: Y1S2

TIME: 2 HOURS

DAY/DATE: WEDNESDAY 11/8/2021

8.30 A.M. – 10. 30 A.M.

INSTRUCTIONS:

- 1. Do not write anything on the question paper.**
- 2. Mobile phones and any other reference materials are NOT allowed in the examination room.**
- 3. Answer questions ONE and two other questions.**
- 4. Number ALL your answers and indicate the order of appearance in the space provided in the cover page of the examination answer booklet.**

Question One

- Define blastocyst (2 marks)
- Outline the major events that occur during the second week of embryonic development (8 marks)
- Explain two methods other than the LMP that are used in estimating the fetal age (4 marks)
- List the organs that constitute the urinary system explaining the function(s) of each (8 marks)
- With a well-labeled diagram outline the major parts of the nephron (8 marks)

Question Two

The heart contracts from the intrauterine life until death.

- Describe the external anatomy of the heart using the aid of a diagram (7 marks)
- Name the three (3) histological/microscopic layers of the heart (3 marks)

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- c) Explain how the heart and the lungs are structurally related (4 marks)
- d) Explain the functions of the semilunar valves (6 marks)

Question Three

The respiratory system mediates gaseous exchange:

- a) List the structures that are part of the conducting zone of the respiratory system (4 marks)
- b) With an aid of a diagram, describe the structure of the bronchial tree (12 marks)
- c) Explain how the lungs are structurally related to the heart (4 marks)

Question Four

The nervous system provides control for major body processes:

- a) Explain the difference between gray matter and white matter (4 marks)
 - b) Describe the protective structures of the spinal cord (4 marks)
 - c) List and number the twelve pairs of the cranial nerves together with their destinations (12 marks)
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