

**CHUKA**



**UNIVERSITY**

**UNIVERSITY EXAMINATIONS**

**RESIT/SPECIAL EXAMINATIONS**

**FIRST YEAR EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF PUBLIC HEALTH AND BACHELOR OF SCIENCE (NUTRITION AND DIETETICS)**

**PUHU 111: HUMAN ANATOMY**

**STREAMS: Y1T1**

**TIME: 2 HOURS**

**DAY/DATE: TUESDAY 29/08/2023**

**11.30 A.M. – 1.30 P.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. The paper has three sections. Answer ALL questions in Section I and II and ONLY one question in Section III.
4. All your answers for Section I (MCQs) should be on one page.
5. Number ALL your answers and indicate the order of appearance in the space provided in the cover page of the examination answer booklet.
6. Write your answers legibly and use your time wisely

**SECTION I: MULTIPLE CHOICE QUESTIONS (MCQs)**

**(10 Marks)**

1. Match the following common names and anatomical descriptive adjectives:

- |             |            |
|-------------|------------|
| A. Axillary | i. Armpit  |
| B. Inguinal | ii. Skull  |
| C. Cervical | iii. Groin |
| D. Cranial  | iv. Neck   |

2. Mitochondria:

- A. Contain some of the genes to replicate themselves
- B. Synthesise proteins for use outside the cell

- C. Have the same shape all the time
  - D. Are single-membrane structures involved in the breakdown of carbohydrate
3. Smooth muscle is both:
- A. Involuntary and striated
  - B. Involuntary and non-striated
  - C. Voluntary and striated
  - D. Voluntary and non-striated
4. The skull and ribs are part of:
- A. the appendicular skeleton
  - B. the external skeleton
  - C. the axial skeleton
  - D. the internal skeleton
5. The innermost layer of connective tissue surrounding a skeletal muscle is:
- A. Hypodermis
  - B. Perimysium
  - C. Endomysium
  - D. Epimysium
6. One of these structures in the digestive system is considered an accessory organ:
- A. Salivary Gland
  - B. Pancreas
  - C. Liver
  - D. All of them
7. One of the following structures are found in the renal medulla:
- A. Glomerulus
  - B. Bowman's capsule
  - C. Loop of Henle
  - D. Proximal convoluted tubule
8. The sperm are stored and mature in:
- A. The epididymis
  - B. The ova
  - C. The testes

- D. The vas deferens
- 9. Adrenal glands are located:
  - A. In the chest
  - B. Behind the thyroid gland
  - C. Next to the stomach
  - D. On top of the kidneys
- 10. Indicate whether each of the following statements about the integumentary system is TRUE or FALSE.
  - A. An individual with a dark skin colour has more melanocytes than a fair-skinned person.
  - B. In order to permanently prevent growth of an unwanted hair, you must destroy the hair matrix

**SECTION II: SHORT ANSWER QUESTIONS (SAQs)**

- 1. Define the following terms as used in human anatomy (6 Marks)
  - a. Histology
  - b. Midsagittal plane
  - c. Cytology
  - d. Anatomical position
  - e. Superior
  - f. Dorsal
- 2. Describe the structural organization of the human body (4 marks)
- 3. Differentiate between endocrine and exocrine glands (2 Marks)
- 4. Explain the functions of any four endocrine glands in the body (8 Marks)
- 5. Explain five functions of the Liver (10 Marks)
- 6. State the functions of the four types of neuroglia cells found in the central nervous system (4 Marks)
- 7. Describe the protections of the brain (4 Marks)

**SECTION III: LONG ANSWER QUESTIONS (LAQs)**

- 1. The digestive system includes the alimentary canal, and its accessory organs
  - a. Explain the basic structure of the walls of the alimentary tract (10 Marks)
  - b. Draw a well-labelled structure of the human stomach (5 Marks)

- c. State five functions of the small intestine (5 Marks)
  - 2. The circulatory system is one of the systems involved in the transportation of blood across the body
    - a. Draw a well-labelled diagram of a frontal section of the human heart (8 Marks)
    - b. Compare and contrast veins and arteries (4 Marks)
    - c. Describe the composition of blood (8 Marks)
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