



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF HEALTH SCIENCES**

**UNIVERSITY EXAMINATION FOR TVET DIPLOMA IN HEALTH RECORDS
MANAGEMENT**

1ST YEAR 2ND SEMESTER 2023/2024 ACADEMIC YEAR

MAIN CAMPUS

COURSE CODE: HDR 2122

COURSE TITLE: HUMAN ANATOMY

EXAM VENUE: STREAM: (TVET Dip. Health Records)

DATE: EXAM SESSION:

TIME: 2.00 HOURS

Instructions:

- 1. Answer all the questions in Section A and ANY other 2 questions in Section B.**
- 2. Candidates are advised not to write on the question paper.**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room.**

Section A: answer all questions

1. List **three** types of cartilage tissues (3 marks)
2. Outline **three** types of joint based on the degree of movement (3 marks)
3. Name **three** types of cells found in bones (3 marks)
4. Outline **three** functions of simple squamous epithelium (3 marks)
5. Define the following terms
 - a) Gross anatomy (1 marks)
 - b) Deltoid muscle (1 marks)
 - c) cranial nerve I (1 marks)

For questions 6 to 19, choose the most appropriate answer

6. What mechanism transports the largest portion of oxygen around the body?
 - A. oxygen is carried bound to plasma proteins
 - B. oxygen is transported in solution dissolved in blood plasma
 - C. oxygen is bound to haemoglobin within red blood cells
 - D. oxygen is transported as bicarbonate after reacting with water to form carbonic acid
7. Which membrane surrounds the lungs?
 - A. the pericardium
 - B. the pleura
 - C. the mediastinum
 - D. the diaphragm
8. Which structure carries incoming impulses towards the nerve cell body?
 - A. axon hillock
 - B. axon
 - C. dendrite
 - D. synaptic knobs
9. Which of the following structures together make up the brainstem?
 - A. medulla oblongata, pons, midbrain, cerebellum
 - B. medulla oblongata, pons, midbrain
 - C. medulla oblongata, pons, midbrain, thalamus
 - D. medulla oblongata, pons, midbrain, pineal gland
10. What hormone is released by the corpus luteum in the greatest quantity?
 - A. progesterone
 - B. oestrogens
 - C. luteinising hormone
 - D. follicle stimulating hormone
11. What is the term “formed elements” used to mean in a description of blood?
 - A. white blood cells, red blood cells and platelets
 - B. blood plasma
 - C. blood serum
 - D. the clotting factors in blood
12. Which of the tissue types below consists of a single layer of cells?

- A. stratified squamous epithelial tissue
 - B. glandular epithelium
 - C. areolar connective tissue
 - D. simple columnar epithelial tissue
13. What are tendons and ligaments composed of?
- A. Dense connective tissue
 - B. Liquid connective tissue
 - C. Muscular tissue
 - D. Epithelial tissue
14. Which of the stated relationships is correct?
- A. the heart is superior to the large intestine
 - B. the shoulder is distal to the metacarpals
 - C. the phalanges are proximal to the carpals
 - D. the eye is medial to the nose
15. Which of the listed terms is described by: “All the chemical processes that take place in the organelles and cytoplasm the cells of the body”?
- A. Metabolism
 - B. Cellular respiration
 - C. Homeostasis
 - D. Physiology
16. Facilitated diffusion refers to the process of
- A. movement along a concentration gradient assisted by protein carrier molecules.
 - B. movement of ions and molecules along a concentration gradient.
 - C. transport of molecules and ions against their concentration gradient.
 - D. water movement through a semi-permeable membrane
17. What is the gap between the plasma membranes of a neuron that conducts an incoming signal and the cell that is going to receive the signal called?
- A. neuromuscular junction
 - B. intercellular cleft
 - C. synaptic cleft
 - D. intercalated disc
18. Full thickness burns to more than 20 % of the skin surface is a life-threatening situation. Why is this?
- A. The synthesis of vitamin D (calcitriol) is severely compromised.
 - B. The loss of skin sensation prevents access to environmental information.
 - C. The body is not able to prevent water loss from the burnt area.
 - D. Soft internal tissues are abraded by the external environment.
19. Which word correctly completes the statement: “All motor neurons are...”
- A. interneurons
 - B. multipolar
 - C. bipolar
 - D. unipolar

SECTION B: ANSWER ANY TWO QUESTIONS

1. Describe the homeostatic reflex arcs for hypoglycemia and hyperglycemia .
(20 marks)
2. Describe the structure and function of male reproductive system. (20 marks)
3. Describe the structure of the human skin. (20 marks)