

091906T4HRI

HEALTH RECORDS AND INFORMATION TECHNOLOGY LEVEL 6

HE/OS/HR/CC/01/6/A

APPLY HUMAN ANATOMY AND PHYSIOLOGY

NOV /DEC 2023



WRITTEN ASSESSMENT

Time: 3 hours

INSTRUCTIONS TO CANDIDATES

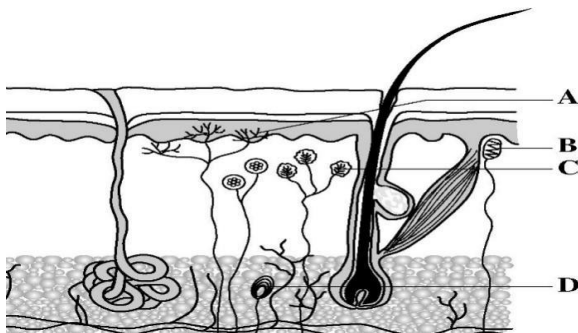
1. This paper has two sections A and B.
2. You are provided with a separate answer booklet.
3. Marks for each question are as indicated.
4. Do not write on the question paper.

**This paper consists of FOUR (4) printed pages
Candidates should check the question paper to ascertain that all
pages are printed as indicated and that no questions are missing**

SECTION A: (40 MARKS)

Answer ALL questions in this section

1. Define the following terms as used in human anatomy and physiology:
 - a) Tachycardia (2 Marks)
 - b) Tidal Volume (2 Marks)
2. In his description of disease, the doctor describes a disease that result in abnormal metabolism of carbohydrates and elevated levels of glucose in the blood because body's ability to produce or respond to the hormone insulin is impaired.
 - a) What disease was the doctor referring to? (1 Mark)
 - b) Identify TWO main types of the disease mentioned in (a) above (2 Marks)
 - c) Name any TWO risk factors for the above-mentioned disease (2 Marks)
3. State FOUR adaptations of the red blood cell to its function (4 Marks)
4. A teacher defined a subject as 'The study of internal and external structures of the body and the physical relationships among body parts'
 - a) What subject was the teacher referring to? (1 Mark)
 - b) Recall THREE types of body systems (3 Marks)
5. The figure below shows a cross section of the human skin.



- a) Name the parts labeled A and D (2 Marks)
 - b) State TWO adaptations of the skin to its functions (2 Marks)
6. Blood plasma forms about 50% of human blood. Name FOUR components of plasma (4 Marks)

7. The figure below shows one of the cells in human.



- a) Name the cell (1 Mark)
 - b) State TWO adaptation of the cell to its functions (2 Marks)
8. While collecting medical files in wards, a student observed that a patient was lying down with her face and torso facing down.
- a) What anatomical term can be used to describe the above-mentioned position? (1 Mark)
 - b) Recall any other TWO anatomical positions (4 Mark)
9. State THREE anatomical differences between an artery and a vein. (3 Marks)
10. Highlight FOUR characteristics of enzymes (4 Marks)

SECTION B: (60 MARKS)

*Answer any **THREE** questions in this section*

11. The circulatory system is responsible for transporting materials to the entire body
- a) Identify the function of any **FOUR** components of the circulatory system. (4 Marks)
 - b) Describe any **FIVE** pathways of systemic circulation. (10 Marks)
 - c) Describe any **THREE** adaptations of the heart to its function (6 Marks)
12. Mr. T has been involved in a road accident. An x-ray show that he has sustained injuries in most of the bone that are in the axial skeletal system
- a) Name **TWO** structures found in the axial skeletal system. (2 Marks)
 - b) Explain **FOUR** functions of the skeletal system. (8 Marks)
 - c) Describe **FIVE** classification of bone and give an example of two bone under each category (10 Marks)
13. Most of the human body is water, with an average of roughly 60%. Water is essential for health and is necessary for numerous bodily functions.
- a) Explain **FIVE** functions of water in the body. (10 Marks)
 - b) Describe **FIVE** constituents of the blood plasma (10 Marks)
14. Reproductive system plays key role in ensuring there is continuity of species.
- a) Using a well labelled diagram, illustrate the anatomy of male reproductive organ (10 Marks)
 - b) Explain the function of any **FIVE** parts of the organ drawn in (a) above (10 Marks)

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