



### AMREF INTERNATIONAL TRAINING CENTER

**Qualification Code :** 102105T4COH  
**Qualification :** Community Health Level 5  
**Unit Code :** HE/OS/CH/CC/03/5/A  
**Unit of Competency :** Apply Human Anatomy and Physiology

### 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 the pages are printed as indicated*

**SECTION A: (40MARKS)**

*Answer ALL the questions in this section*

1. Distinguish between anatomy and physiology. (4 marks)
2. The Integumentary System is the body's outer layer. It consists of the skin, hair, nails and glands. State **FOUR** functions of the Integumentary system. (4 marks)
3. Nerves are like cables that carry electrical impulses between your brain the rest of your body. Name the **THREE** types of nerves. (3 marks)
4. The Lymphatic System is a network of delicate tubes throughout the body. Identify **THREE** components of the lymphatic system. (4 marks)
5. Most absorption of food happens in the small intestines. Highlight **TWO** adaptations of the small intestines to their functions. (4 marks)
6. Groups of cells performing a similar function are referred to as tissues. Outline **FOUR** types of human tissues. (4 marks)
7. Chewing is part of mechanical digestion that takes place in the mouth. Highlight **FOUR** importance of chewing. (4 marks)
8. The Pituitary gland is the chief gland in the endocrine system, state **FOUR** hormones produced by its anterior part. (4 marks)
9. The nervous system contains the human brain, spinal cord and nerves. Outline **FOUR** functions of the nervous system. (4 marks)
10. A healthy diet and physical exercise promote healthy blood vessels reducing the risk of cardiovascular diseases. State **FOUR** differences between arteries and veins. (4 marks)

**SECTION B: (60 MARKS)**

*Answer any THREE questions in this section. (Question 11 is Complusory)*

11. Case Study: Cardiovascular Health and Hypertension

Maria, a 45-year-old woman, visits her primary care physician complaining of headaches and occasional dizziness. Upon examination, her blood pressure readings

consistently show values above 140/90 mmHg. Using your knowledge of human anatomy and physiology, address the following:

a. Describe the structure and function of the cardiovascular system, including the heart, and blood vessels, and their role in maintaining blood pressure regulation.

(4 marks)

b. Explain how changes in blood vessel diameter and elasticity can contribute to hypertension.

(4 marks)

c. Discuss the pathophysiological mechanisms underlying hypertension in Maria's case.

(4 marks)

d. Explain the potential effects of chronic hypertension on Maria's cardiovascular health, as well as its impact on other organ systems such as the kidneys, eyes, and brain.

(4 marks)

e. Discuss lifestyle modifications and pharmacological interventions that Maria's physician might consider to manage her hypertension effectively.

(4 marks)

12. The Uterine cycle, also called the menstrual cycle relates to changes occurring in the endometrium of the uterus that are induced by female sex hormones.

Describe the **three** phases of the menstrual cycle.

a) Menstrual phase.

(6 marks)

b) Proliferative phase.

(7 marks)

c) Secretory phase

(7 marks)

13. The skin is a very vital organ in the body and has a high significance to our survival.

a) Illustrate with a labeled diagram of the skin.

(10 marks)

b) Outline **FIVE** functions of the skin

(10 marks)

14. The human urinary system comprises of the kidney, ureters, bladder, and the urethra.

a. Illustrate the structure of the nephron.

(12 marks)

b. Describe **FOUR** functions of the urinary system.

(8 marks)