



**AMREF INTERNATIONAL UNIVERSITY
SCHOOL OF PUBLIC HEALTH
DEPARTMENT OF COMMUNITY HEALTH
BACHELOR OF SCIENCE IN COMMUNITY HEALTH
END OF SEMESTER EXAMINATION APRIL 2026.**

UNIT CODE: CHP 122 **UNIT NAME:** HUMAN ANATOMY AND PHYSIOLOGY

DATE: XX April 2025

TIME: TWO Hours

Start:

Finish

INSTRUCTIONS

1. This exam is marked out of 70 marks
2. This Examination comprises TWO Sections
 Section A: Compulsory Question (30 marks)
 Section B: Long Answer Questions (40 marks)

SECTION A: COMPULSORY (30 Marks)

Short Answer Questions

1. Define:
 - i. Anatomy (1 mark)
 - ii. Physiology (1 mark)
 - iii. State one difference between anatomy and physiology (1 mark)
2. List five levels of structural organization in the human body (5 marks)
3. State five functions of the skeletal system (5 marks)
4. Outline four major tissue types in the human body (4 marks)
5. Define homeostasis and give two examples of homeostatic mechanisms (4 marks)
6. List five functions of blood (5 marks)
7. State four characteristics of cardiac muscle (4 marks)

SECTION B: Long Answer Questions.

(Each Questions is 20 Marks)

ANSWER ANY TWO (2) QUESTIONS (40 Marks)

Question 1 (20 Marks)

A 25-year-old patient is admitted to the hospital with severe dehydration after prolonged diarrhea. The attending clinician explains that movement of water and electrolytes across the cell membrane plays an important role in maintaining normal body functions.

- (a) Describe the structure and functions of the cell membrane (8 marks)
- (b) Explain the roles of any four cell organelles in maintaining normal cellular activities (8 marks)
- (c) State four differences between passive transport and active transport across the cell membrane (4 marks)

Question 2 (20 Marks)

A 60-year-old man arrives at a health facility complaining of chest pain and shortness of breath. The clinician suspects a cardiovascular problem and explains the importance of the heart and blood circulation in supplying oxygen and nutrients to body tissues.

- (a) Describe the structure of the human heart (8 marks)
- (b) Explain the pathway of blood flow through the heart (8 marks)
- (c) State four functions of the circulatory system (4 marks)

Question 3 (20 Marks)

A patient with pneumonia is experiencing difficulty in breathing. The healthcare provider explains that the respiratory system is responsible for gas exchange between the body and the environment.

- (a) Describe the structure of the respiratory system (8 marks)
- (b) Explain the process of gaseous exchange in the lungs (8 marks)
- (c) State four functions of the respiratory system (4 marks)

