



# Technical University of Mombasa

*Faculty of Applied and Health Sciences*

**DEPARTMENT OF ENVIRONMENT AND HEALTH SCIENCES**

DIPLOMA IN COMMUNITY HEALTH AND HIV MANAGEMENT  
(DCH13S)

**AAB 2108 : HUMAN ANATOMY AND PHYSIOLOGY I**

**SUPPLEMENTARY/SPECIAL: EXAMINATIONS**

**SERIES: MARCH 2014**

**TIME: 2 HOURS**

**INSTRUCTIONS:**

You should have the following for this paper

- *Answer booklet*

This paper consists of **FIVE** questions.

Answer Question **ONE (compulsory)** and any other **TWO** questions

### QUESTION ONE

- a) Draw a well labeled diagram of the male reproductive system (4 marks)
- b) State two disorder of the female breast (2 marks)
- c) State four functions of the human stomach (4 marks)
- d) Explain the following phenomena
  - (i) No glucose is found in the urine of a healthy person (2 marks)
- e) State four adaptations of the small intestines to their functions (4 marks)
- f) Define the following terms
  - (i) Cell (2 marks)
  - (ii) Tissue (2 marks)
  - (iii) Organ (2 marks)
- g) State the events of interphase in mitosis (4 marks)
- h) State four functions of the connective tissues. (4 marks)

### QUESTION TWO

- a) With the aid of a well labelled diagram, describe the structure and function of the human skin (10 marks)
- b) Differentiate between keratinized and non-keratinized tissues (2 marks)
- c) State the characteristics of neutrons that enables them to function (3 marks)

### QUESTION THREE

- a) With the aid of a well labelled diagram, describe the flow of lymph fluid in the lymph node (6 marks)
- b) Indicate the function of the following organs in the body
  - (i) Spleen (2 marks)
  - (ii) Thymus gland (2 marks)
  - (iii) Bone marrow (2 marks)
- c) State three differences between the endocrine and nervous system (3 marks)

### QUESTION FOUR

- a) Describe the process of gaseous exchange between

- (i) Lungs and blood (5 marks)
- (ii) Blood and body cells (5 marks)
- b) Explain five functions of the human skeleton (5 marks)

#### QUESTION FIVE

- a) Briefly describe the main components of a homeostatic control mechanism and explain the role played by each (10 marks)
- b) Describe the response of the body to an increase in body temperature (5 marks)