



Technical University of Mombasa

Faculty of Applied and Health Sciences

DEPARTMENT OF ENVIRONMENT AND HEALTH SCIENCES

DIPLOMA IN COMMUNITY HEALTH AND HIV MANAGEMENT
(DCH 13S)

AMD 2101 : HUMAN ANATOMY & PHYSIOLOGY I

SPECIAL /SUPPLEMENTARY: EXAMINATIONS

SERIES: OCTOBER 2013

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

This paper consists of 3 PRINTED pages

Question ONE

- a) State TWO functions of each of the following human cell organelles
- (i) Centrioles (2marks)
 - (ii) Nucleolus (2marks)
- b) State FOUR characteristics of the epithelial tissue. (4marks)
- c) (i) State TWO organs that are found in the dorsal cavity (2marks)
- (ii) State TWO functions of the mucous membranes in a human body (2marks)
- d) Distinguish between the terms “homestasis” and “homeostasis” (2marks)
- e) (i) State one function of the Cowper’s gland. (1mark)
- (ii) Describe briefly , three functions of the human female reproductive system. (3marks)
- f) (i) Define the term “angiogenesis” (1mark)
- g) Briefly describe the role of blood supply in the development of cancer. (2marks)
- h) State role of each of the following hormones in a human body
- (i) Glucagon (1mark)
 - (ii) Erythropoietin (1mark)
- i) Briefly describe the regulation of the body’s pH by the kidneys (2marks)
- j) Name and describe any two diseases that affect the human musculoskeletal system. (4marks)

Question TWO

- a) Outline FIVE functions of glial cells in a human body (5marks)
- b) Describe the process of electrical impulse transmission in a motor neuron. (10marks)

Question THREE

- a) Describe the structure of the human heart (9marks)
- b) Name THREE cardiovascular diseases and give three reasons why these diseases have become prevalent in Kenya in the recent times (6marks)

Question FOUR

- a) Distinguish between tissue fluid and lymph (2marks)
- b) (i) Outline FIVE functions of the human lymphatic system (5marks)
- (ii) Briefly describe the process of lymph formation in a human body. (8marks)

Question FIVE

- a) State and describe the main components of a homestatic control mechanism and their roles (6marks)

- b) (i) Distinguish between positive and negative feedback control mechanisms **(6marks)**
(ii) State THREE effects of homostatic imbalance on the human body. **(3marks)**