



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2016/2017

SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN ENVIRONMENTAL HEALTH

HEH 102: HUMAN ANATOMY AND PHYSIOLOGY

DATE: Tuesday 9th May 2017

TIME: 2.00p.m -4.00p.m

INSTRUCTIONS:

SECTION A: ANSWER ALL QUESTIONS

1. a) Briefly explain the different types of cells that make up the bone tissue. [5 marks]
- b) Describe the processes of associated with respiration. [5 marks]
- c) Illustrate the structure of the kidney nephron. [5 marks]
- d) Describe the functions of the stomach. [5 marks]

SECTION B: ANSWER ALL QUESTIONS IN PART 1 AND ANY TWO IN PART II

PART I

2. Homeostasis is any self-regulating process by which biological systems tend to maintain stability while adjusting to conditions that are optimal for survival. Discuss how homeostasis is achieved in:
 - i. Maintaining constant body temperature. [12 marks]
 - ii. Regulating blood pressure. [8 marks]

PART II

3. The skin is made of multiple layers of cells and tissues which are held to underlying structures by connective tissue. Describe:
 - a. The structure of the skin using an illustration. [5 marks]
 - b. Eccrine and apocrine sweat glands structure. [10 marks]
4. Discuss all the six activities involved in the process of digestion. [15 marks]
5. The lymphatic system is the system of vessels, cells, and organs that carries excess fluids to the bloodstream and filters pathogens from the blood. Describe the main functions of the lymphatic system. [15 marks]