



MURANG'A UNIVERSITY OF TECHNOLOGY

SCHOOL OF PURE, APPLIED AND HEALTH SCIENCES

DEPARTMENT OF HEALTH SCIENCES

UNIVERSITY ORDINARY EXAMINATION

2023/2024 ACADEMIC YEAR

FIRST YEAR SECOND SEMESTER EXAMINATION FOR BACHELOR

OF SCIENCE IN MEDICAL LABORATORY SCIENCES

MML 107 – MEDICAL PHYSIOLOGY

DURATION: 2 HOURS

INSTRUCTIONS TO CANDIDATES:

1. Answer question ONE and any other two questions.
2. Mobile phones are not allowed in the examination room.
3. You are not allowed to write on this examination question paper.

SECTION A – ANSWER ALL QUESTIONS IN THIS SECTION

QUESTION ONE (30 MARKS)

- a) Give five examples of organ system explaining on how they coordinate their roles and the organs involved. (5 marks)
- b) Name five body systems that are involved in the homeostasis. (5 marks)
- c) Define homeostasis and name the three main system of homeostasis that the body must regulate. (5 marks)
- d) Highlight five functions of the reproductive system. (5 marks)
- e) List the organs that are involved in the coordination of digestive system. (5 marks)
- f) Highlight five functions of hormones. (5 marks)

SECTION B – ANSWER ANY TWO QUESTIONS IN THIS SECTION

QUESTION TWO (20 MARKS)

Describe reproductive system in the following context

- a) The functions of the reductive system. (4 marks)
- b) Using a diagram, state the functions of the parts of male reproductive system. (8 marks)
- c) Define spermatogenesis as found in the male reproductive system. (2 marks)
- d) Describe the accessory glands that are found in the male reproductive system. (6 marks)

QUESTION THREE (20 MARKS)

Describe reproductive system in the following context;

- a) What are the four functions of female reproductive system? (4 marks)
- b) Using a well labelled structure of a female reproductive system, state the functions of the stated parts. (8 marks)
- c) What are the four main types of hormones that are involved in the female reproductive system. (4 marks)
- d) Highlight the functions of the female sex hormones oestrogen and progesterone. (2 marks)
- e) Name the hormones that are found in male reproductive system. (3 marks)

QUESTION FOUR (20 MARKS)

- a) What are the eight characteristics of life and their examples? (8 marks)
- b) What are the different means by which organism adapt to their habitat? (5 marks)

c) Highlight the hierarchy of classification of organism in the order of rank. (7 marks)