



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

MCH 114 – HUMAN ANATOMY AND PHYSIOLOGY

DURATION: 2 HOURS

INSTRUCTIONS TO CANDIDATES:

1. Answer question ONE 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) State the five principles of cell theory. (5 marks)
- b) State five examples of disorders that are inheritable. (5 marks)
- c) Give five examples of organ system and name the organs involved in each. (5 marks)
- d) Give five examples of completely heritable traits. (5 marks)
- e) Define a tissue and name examples of human body tissues. (5 marks)
- f) State the functions of skeletal system. (5 marks)

SECTION B – ANSWER ANY TWO QUESTIONS IN THIS SECTION

QUESTION TWO (20 MARKS)

- a) Compare and contrast the eukaryotic cells and prokaryotic cells. (10 marks)
- b) Discuss the role and organs involved in five organ system of human body. (10 marks)

QUESTION THREE (20 MARKS)

- a) Describe with a proper well labelled diagram the mammalian cell and state its role of the parts. (10 marks)
- b) Explain the functions of a cell. (5 marks)
- c) Explain the functions of the cell membrane. (5 marks)

QUESTION FOUR (20 MARKS)

Discuss the cell organelles and their functions. (20 marks)