



ZIMBABWE EZEKIEL GUTI UNIVERSITY
COLLEGE FOR LIFELONG LEARNING.

FACULTY OF SCIENCE, TECHNOLOGY, AGRICULTURE AND FOOD SYSTEMS

EXAMINATION PAPER

COURSE CODE : DSC111 - Human Anatomy and Physiology
COURSE TITLE : SPORTS SCIENCE AND COACHING
SPECIAL REQUIREMENTS : None

DURATION : 3 Hours
LEVEL : 1.1
DATE :

29 JUL 2024

INSTRUCTIONS TO CANDIDATES:

1. No cell phones are allowed in the examination venue.
2. Answer any **FOUR (4)** questions.
3. The number of marks for each question or part question is shown in brackets []
4. Diagrams and labelled sketches are encouraged where appropriate.
5. Begin each answer on a new page.
6. **DO NOT OPEN THIS PAPER UNTIL THE INVIGILATOR INSTRUCTS YOU.**

SECTION A – COMPULSORY QUESTION

QUESTION 1

Demonstrate your ability to apply anatomical and physiological knowledge to real-world situations.

Through

- (a) Case studies
- (b) Problem-solving scenarios or
- (c) Interpretation of laboratory results **(25 Marks)**

SECTION B – ANSWER ANY THREE QUESTIONS

QUESTION 2

Answer each question concisely and to the point.

- (a) Explain the Physiological processes **(10 Marks)**
- (b) Organ system functions and interactions **(10 Marks)**
- (c) Common diseases and disorders **(5 Marks)**

QUESTION 2

Provide detailed and comprehensive explanations. Support your answers with relevant examples and diagrams where appropriate.

- (a) Integration of multiple organ systems **(10 Marks)**
- (b) Homeostatic mechanisms **(5 Marks)**
- (c) Pathophysiology of specific diseases **(5 Marks)**
- (d) Ethical and social implications of anatomical and physiological concepts **(25 Marks)**

QUESTION 3

Describe the structure and function of the nephron. Explain the role of the kidney in maintaining acid-base balance. **(25 Marks)**

QUESTION 4

Discuss the mechanisms of hormone action. Choose two endocrine glands and explain how their hormones regulate specific physiological processes. **(25 Marks)**

QUESTION 5

Compare and contrast the structure and function of skeletal muscle, cardiac muscle, and smooth muscle. **(25 Marks)**