



ZIMBABWE EZEKIEL GUTI UNIVERSITY
COLLEGE FOR LIFELONG LEARNING.

FACULTY OF SCIENCE, TECHNOLOGY, AGRICULTURE AND FOOD SYSTEMS

EXAMINATION PAPER

COURSE CODE : DSC112 - Physiology and Performance
COURSE TITLE : SPORTS SCIENCE AND COACHING
SPECIAL REQUIREMENTS : None

DURATION : 3 Hours

LEVEL : 1.1

DATE :

29.07.24

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

Practical Application

Demonstrate your ability to apply physiological knowledge to practical scenarios. You may include:

- (a) Case studies (e.g., athlete performance analysis)
- (b) Problem-solving (e.g., exercise prescription for a specific goal)
- (c) Data interpretation (e.g., exercise testing results) **(25 Marks)**

Section B. ANSWER ANY THREE QUESTIONS

QUESTION 2

Explain in brief the purpose of each function in the athlete's body?

- (a) Energy systems (5 Marks)
- (b) Muscle physiology (5 Marks)
- (c) Cardiovascular system (5Marks)
- (d) Respiratory system (5 Marks)
- (e) Thermoregulation (3 Marks)
- (f) Nutrition and performance (2 Marks)

QUESTION 3

Answer each question concisely and to the point.

Explain in brief the purpose of the following training functions?

- (a) Adaptations to training (10 Marks)
- (b) Exercise-induced stress response (10 Marks)
- (c) Performance factors (e.g., psychology, environment) (5 Marks)

QUESTION 4

As a coach of a club, how do you plan for the following:

- (a) Injury prevention and rehabilitation (15 Marks)
- (b) Biomechanics of movement (10 Marks)

QUESTION 5

Answer all parts of the question. Provide detailed and comprehensive explanations of the following:

- (a) The role of hormones in exercise performance (5 Marks)
- (b) The physiological basis of different sports (5 Marks)
- (c) Exercise prescription for specific populations (5 Marks)
- (d) The impact of environmental factors on performance (5 Marks)
- (e) The science of sports training and periodization (5 Marks)

QUESTION 6

Demonstrate your ability to apply physiological knowledge to practical scenarios.

- (d) What is the purpose of an Athlete Performance Analysis (15 Marks)
- (e) How do you utilize Data interpretation to enhance and measure performance (10 Marks)