



NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

SSC1108

FACULTY OF APPLIED SCIENCE

DEPARTMENT OF SPORTS SCIENCE AND COACHING

BACHELOR OF SCIENCE (HONOURS) DEGREE IN SPORTS SCIENCE

CONVENTIONAL/BLOCK RELEASE PROGRAMME

SSC1108: PRINCIPLES OF HUMAN PHYSIOLOGY

EXAMINATION QUESTION PAPER

DEC 2024

This examination paper consists of 2 pages

Time Allowed : 3 hours
Total Marks : 100
Special Requirements : NIL
Examiner's Name : MISS T. B. MGUNI
External Examiner:

INSTRUCTIONS

1. Answer **Four (4)** questions. Each question carries 25 marks.
2. Where a question contains subdivisions, the mark value for each subdivision is given in brackets.
3. Illustrate your answer where appropriate with large, clearly labelled diagrams

MARK ALLOCATION

QUESTION	MARKS
1.	25
2.	25
3.	25
4.	25
5.	25
6.	25
TOTAL	100

1. (a) Outline the stages of the digestive system detailing the key processes that occur in each stage from ingestion to egestion. **(20 marks)**

(b) Describe one common gastrointestinal issue faced by individuals with physical disability and its potential management strategies. **(5 marks)**
2. Explain the menstrual cycle, detailing its phases, hormonal regulation, and physiological changes in the female reproductive system. Additionally, discuss the implications of hormonal imbalances on the menstrual cycle. **(25 marks)**
3. Discuss the structure and function of the major glands in the endocrine system, include in your answer the hormones produced by each gland, their target organs, and the physiological effects of these hormones. **(25 marks)**
4. Describe the physiological processes involved in muscle contraction and how these processes enable movement at the joints. Include a description of the role of motor neurons and the sliding filament theory. **(25 marks)**
5. (a) Illustrate the structure and function of the human circulatory system. Include details about the heart, blood vessels, and the types of blood circulation. **(15 marks)**

(b) Explain the pathophysiology of a heart attack (myocardial infarction). Discuss its causes, risk factors, symptoms, and potential treatments. **(10 marks)**
6. Discuss the structure and function of the human respiratory system. **(25 marks)**

END OF EXAMINATION