NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

SSC1231

FACULTY OF APPLIED SCIENCE

DEPARTMENT OF SPORTS SCIENCE AND COACHING

BACHELOR OF SCIENCE (HONOURS) DEGREE IN SPORTS SCIENCE AND COACHING

CONVENTIONAL/BLOCK RELEASE PROGRAMME

SSC1231: HUMAN EXERCISE PHYSIOLOGY

EXAMINATION QUESTION PAPER

SEPTEMBER 2024

This examination paper consists of 2 pages

Time Allowed : **3 hours**

Total Marks : **100**

Special Requirements :

Examiner's Name : **MISS T. B. MGUNI**

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 effects of exercise on the integumentary system. **(15 marks)**

   (b) Discuss the tests used to measure fitness of the musculoskeletal system. **(10 marks)**

2. Describe the adaptations of the cardiovascular system to acute and chronic exercise. **(25 marks)**

3. (a) Explain how the digestion system benefits from regular exercise. **(10 marks)**

   (b) Describe the ways in which the spinal code is affected: before, during and after exercise. **(15 marks)**

4. Mrs Mpofu is a 40 year old house wife, visiting the hospital for contact dermatitis and an eye prescription. She has enjoyed good past health and has no significant risk factors for cardiovascular disease, is in the low-risk category for exercise participation. Upon further exploration she is interested in embarking on more physical activity for health and muscle mass increase. Design a comprehensive exercise prescription for Mrs Mpofu. **(25 marks)**

5. Describe the Muscular-skeletal adaptations to chronic exercise. **(25 marks)**

6. (a) Discuss the Lymphatic system's role in acute and chronic exercise. **(8 marks)**

   (b) Illustrate the tests used to measure fitness of the cardiovascular system. **(17 marks)**

END OF EXAMINATION