

## **SSA JANUARY 2017 EXAMINATION**

PROGRAMME : SPORT SCIENCE AND BIOKINETICS HONOURS

MODULE NAME : EXERCISE PHYSIOLOGY

MODULE CODE : HMS 8X08 / SPB 06X7

**DATE** : JANUARY 2017

<u>DURATION</u>: THREE (3) HOURS

TOTAL MARKS : 125 MARKS

**EXAMINER** : MR. A.J.J. LOMBARD, PROF Y. COOPOO

MODERATOR : MR J. CLARK (UP)

NUMBER OF PAGES : TWO (2) PAGES

**INSTRUCTIONS TO CANDIDATES:** 

MAKE SURE THAT YOU HAVE THE COMPLETE PAPER

ANSWER ANY FIVE (5) QUESTIONS.

# **QUESTION 1**

Discuss the internal mechanisms regulating metabolic pathways involved in bioenergetics. (25)

#### **QUESTION 2**

Discuss the main biochemical and mechanical properties of skeletal muscle fibre types and their role in sport performance. (25)

# **QUESTION 3**

Discuss cardiovascular responses and possible adaptations as a result of aerobic training. (25)

# **QUESTION 4**

Discuss the endocrine regulation of blood glucose levels during exercise. (25)

# **QUESTION 5**

Discuss physiological responses, performance and acclimatization at altitude. (25)

# **QUESTION 6**

Discuss the advantages and disadvantages of anabolic steroids and human growth hormone on the enhancement of sport performance. (25)

#### **QUESTION 7**

Discuss fuel for exercise under the following headings:

- 1. Factors influencing fuel choice
- 2. Fuel intake before and post exercise (25)

**TOTAL: 125 MARKS**