

#### **SSA EXAMINATION**

PROGRAMME : HUMAN MOVEMENT STUDIES

MODULE NAME : EXERCISE SCIENCE 2B

MODULE CODE : EXS 02B2 / MBK 2B01 / MBK 2B02 / HMS 1BA2 / HMS

**2BB2** 

DATE : JANUARY 2017

**DURATION** : TWO (2) HOURS

TOTAL MARKS : 100 MARKS

**EXAMINER** : MR A.J.J. LOMBARD

MODERATOR : PROF Y. COOPOO

NUMBER OF PAGES : THREE (3) PAGES

#### **INSTRUCTIONS TO CANDIDATES:**

MAKE SURE THAT YOU HAVE THE COMPLETE PAPER.

ANSWER ALL THE QUESTIONS.

SECTION A: CARDIORESPIRATORY EXERCISE SCIENCE

**SECTION B: PERIODIZATION** 

# SECTION A: CARDIORESPIRATORY EXERCISE SCIENCE (50 MARKS)

### **QUESTION 1**

Describe the response of the major cardiovascular variables during long-term, moderate to heavy sub maximal aerobic exercise. (16 X  $\frac{1}{2}$  = 8)

### **QUESTION 2**

Discuss the responses of the major cardiovascular variables during static resistance exercise. (8)

# **QUESTION 3**

Discuss the application of the overload training principle to develop a cardio respiratory training program. (8)

# **QUESTION 4**

Describe the response of external respiration to short term, light to moderate, sub maximal aerobic exercise. (10)

# **QUESTION 5**

Discuss male and female respiratory differences during rest and exercise. (10)

### **QUESTION 6**

Discuss possible pulmonary adaptations as a result of training. (6) [50]

# **SECTION B: PERIODIZATION (50 MARKS)**

#### **QUESTION 1**

Name and briefly explain the five (5) types of strength training according to Bompa and Carrera (2005). (15)

#### **QUESTION 2**

Briefly discuss any four (4) of the six (6) intensity training zones as proposed by Bompa and Carrera (2005) (8)

#### **QUESTION 3**

Discuss your approach to the order of exercises, number of repetitions and sets as well as the rest intervals to be considered when designing a resistance training programme. (14)

# **QUESTION 4**

Briefly discuss the periodization of a yearly training plan. (10)

**QUESTION 5** 

Name any three (3) phases of strength periodization. (3) [50]

**TOTAL: 100 MARKS**