



## **SUPPLEMENTARY EXAMINATION**

**PROGRAMME:**              **BIOKINETICS**

**MODULE NAME:**          **EXERCISE PHYSIOLOGY**

**MODULE CODE:**          **EXP 01Y2**

**DATE:**                      **10 JANUARY 2018**

**DURATION:**              **THREE (3) HOURS**

**TOTAL MARKS:**          **160 MARKS**

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**EXAMINER:**              **MR AJJ LOMBARD**  
                                  **DR H MORRIS-EYTON**

**MODERATOR:**          **PROF Y COOPOO**

**NUMBER OF PAGES:**  **THIS PAPER CONSISTS OF FOUR (4) PAGES**

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### **INSTRUCTIONS TO CANDIDATES:**

**MAKE SURE THAT YOU HAVE THE COMPLETE PAPER.**  
**SECTION 1 SHOULD BE WRITTEN IN A SEPARATE BOOK**

**ANSWER ALL THE QUESTIONS.**

<b>SECTION 1: DIDACTICS</b>	<b>[25]</b>
<b>SECTION 2: EXERCISE SCIENCE</b>	<b>[35]</b>
<b>SECTION 3: CARDIORESPIRATORY</b>	<b>[50]</b>
<b><u>SECTION 4: PERIODIZATION</u></b>	<b><u>[50]</u></b>

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**SECTION 1: DIDACTICS**

**[25]**

**QUESTION 1**

Explain the difference between skills based and knowledge based forms of curricular. (4)

**QUESTION 2**

Explain the difference between positive, negative and zero transfer of learning. Give an example of each. (6)

**QUESTION 3**

Develop a rubric you could use to assess a patient doing a lunge. Include all value judgements and competency areas. (15)

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**SECTION 2: EXERCISE SCIENCE**

**[35]**

**QUESTION 1**

Describe how energy production can be regulated by the Cori cycle as an extra cellular mechanism. (7)

**QUESTION 2**

Briefly discuss male versus female anaerobic characteristics. (6)

**QUESTION 3**

Describe the five (5) physiological reasons for lactic acid production. (15)

**QUESTION 4**

Briefly discuss the Local Ischemic Model to explain Delayed Onset of Muscle Soreness (DOMS). (8)

**SECTION 3: CARDIORESPIRATORY**

**[50]**

**QUESTION 1**

Describe the response of the major cardiovascular variables during long-term, moderate to heavy sub maximal aerobic exercise. (16 X ½ = 8)

**QUESTION 2**

Discuss the similarities and differences between the sexes in the cardiovascular response to the various classifications of exercise i.e. submaximal exercise to maximum. (16 X ½ = 8)

**QUESTION 3**

Explain why the magnitude of cardiovascular response is mainly influenced by the intensity of muscular contraction (6)

**QUESTION 4**

Explain the possible advantages of a warm up and cool down to an athlete. (5)

**QUESTION 5**

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

**QUESTION 6**

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

**QUESTION 7**

Name any three (3) pulmonary adaptations as a result of training. (3)

**SECTION 4: PERIODIZATION** [50]

**QUESTION 8**

Describe the dominant motor or bio motor abilities playing a role in sport performance. (6)

**QUESTION 9**

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

**QUESTION 10**

Name and discuss common misconceptions of strength training for endurance sports. (10)

(10)

**QUESTION 11**

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 12**

Name the six (6) phases of strength periodization. (6)

**QUESTION 13**

Discuss the training session plan as the main tool for organizing a daily workout plan. (6)