UNIVERSITY OF JOHANNESBURG

NOVEMBER 2017 EXAMINATION

PROGRAMME: **BIOKINETICS**

MODULE NAME: **EXERCISE PHYSIOLOGY**

MODULE CODE: **EXP01Y2**

DATE: **14 NOVEMBER 2017**

DURATION: **THREE (3) HOURS**

TOTAL MARKS: **160 MARKS**

EXAMINER: **MR. A.J.J. LOMBARD**
DR. H. MORRIS-EYTON

MODERATOR: **PROF Y COOPOO**

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

INSTRUCTIONS TO CANDIDATES:

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

ANSWER ALL THE QUESTIONS.

SECTION 1: DIDACTICS	**[25]**
SECTION 2: EXERCISE SIENCE	**[35]**
SECTION 3: CARDIOVASCULAR	**[50]**
SECTION 4: PERIODIZATION	**[50]**

SECTION 1: 25 marks

QUESTION 1

Identify the different types of curriculum which could impact on the development of your planning to teach an athlete how to skip as part of a cardio-vascular conditioning rehabilitation programme. (8)

QUESTION 2

Compare the difference between formative and summative assessment by completing the table below. (5)

FORMATIVE	SUMMATIVE
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.

QUESTION 3

Match column A with the correct answer in column C. Write your numeric answer in column B. (5)

A	B	C
A. National sport and recreation plan		1. consistency
B. Piaget		2. poor validity
C. Inactive cognitive development		3. content
D. Indicator of motor learning		4. NSRP
E. Cognition		5. general statement of purpose and intent
F. Curriculum bound by learning outcomes		6. Kolb
G. Experiential learning		7. skills based
H. Authentic assessment		8. short term statement with an outcome
I. Goal		9. what people know and think
J. Summative assessment		10. formal operational cognitive development
K. Objective		11. does not focus on test scores
L. Pedagogy of instruction		12. Bruner

QUESTION 4

List the 6 steps in curricular design. (6)

SECTION 2: 35 marks

QUESTION 1

Describe how energy production can be regulated by the Cori cycle as an extra cellular mechanism. (5)

QUESTION 2

Briefly discuss male versus female anaerobic characteristics. (5)

QUESTION 3

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

QUESTION 4

Name the 10 training principles. (10)

SECTION 3: 50 marks

QUESTION 1

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

SECTION 4: 50 marks

QUESTION 7

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

QUESTION 8

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

QUESTION 9

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 10

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

QUESTION 11

Name any three (3) phases of strength periodization. (3)