HUS 324

DEGREE EXAMINATIONS

February 2018

SUPPLEMENTARY EXAM

TIME: 3 HRS

SUBJECT: HUMAN MOVEMENT SCIENCE

MARKS: 100

PAPER: EXERCISE PHYSIOLOGY AND SCIENCE

INTERNAL EXAMINERS

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MR SIMBA MANDIRINGANA

EXTERNAL EXAMINER

PROF LINDA VAN DEN BERG

INSTRUCTIONS:

Answer All Questions
Question 1

You have been employed as the sport scientist for the UFH Netball team. The team has never been exposed to any sport scientific training and the coach has asked you for the following:

1. Firstly, describe the various principles of a training system that would apply to UFH netball team?  
(3x5=15)

2. Secondly, compile a split routine pure strength gymnasium training program specific for pre-season in table format. Please also indicate to the netball players the frequency of the training program for one week.  
(10)

Question 2

You have tasked with the Periodization annual training plan for the Buffalo Club Trail Running Team. Most of them compete in races that cover from 20-35km. Their competition schedule is listed below, with the most important races indicated with *:

16 June  Buffalo Beach Run
1 August  Eastern Cape Addo race *
18 October South African Championship train running event *

By making use of the annual training plan chart provided, please complete the annual periodization plan for these runners.

Question 3

The development of appropriate assessment protocols for various sport has become an integral part of a sport scientist function in a coaching team. As such various factors needs to be consider, by making use of a sport as an example, please answer the following question:

1) Discuss four criteria’s for test selection?  
(4x2=8)

2) Discuss four criteria’s for test administration?   
(4x2=8)

3) By compiling a test protocol specific for your selected sport, explain in what sequence the test would be done in one day?  
(9)
Question 4

1) You are the strength and conditioning coach for the UFH volleyball team. The coach has given you some practical examples of training sessions that was done last year. Apply a training strategy to change the training loads of the examples below. Make sure that you use a specific strategy only once
   a. 5km at 65% of MHR
   b. Bench press, 75% 1 RM, 5 reps, 3 sets, 3 min rest
   c. 50m sprint, 95% MHR x 5 repetitions, 3 sets, 5 min rest between repetitions and sets
   d. Sit ups, 15 repetitions, 3 sets
   e. Lunges, 15 repetitions, 5 sets

(5x3=15)

2) By making use of examples, please discuss 5 training principals

(5x2=10)
# Chart of the Annual Plan

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<tr>
<th>Athlete's name</th>
<th>Training objectives</th>
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<td>Performance</td>
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<th>Dates</th>
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<th>Competitions</th>
<th>Location</th>
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<td>Domestic</td>
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<td>International</td>
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<th>Strength</th>
<th>Endurance</th>
<th>Speed</th>
<th>Psychological</th>
<th>Nutrition</th>
<th>Macrocycles</th>
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<th>Medical control dates</th>
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