NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

SSC2112

FACULTY OF APPLIED SCIENCES

BACHELOR OF SCIENCE HONOURS DEGREE SUPPLEMENTARY EXAMINATIONS

DEPARTMENT OF SPORTS SCIENCE AND COACHING

THEORY: SSC2112: SPORTS SPECIALITY MODULE (ATHLETICS)

AUGUST 2012

3 HOURS (100 MARKS)

INSTRUCTIONS

Answer **four** questions only. Each question carries 25 marks. Where a question contains subdivisions, the mark value for each subdivision is given in brackets. Illustrate your answer where appropriate with large, clearly labeled diagrams.

1. (a) Give a biomechanical analysis of the fundamental techniques:
   i. in one horizontal [12 marks]
   ii. one vertical jump [13 marks]

   You may support your answer with diagrams.

2. (a) Analyse the demand profile in a jumping event of your choice. [16marks]

   (b) With reference to training the young athlete discuss:
   i. Resistance (strength) training [3 marks]
   ii. Aerobic training [3marks]
   iii. Anaerobic training [3 marks]

3. From your knowledge of biomechanics, describe any five faults that a novice can commit when learning the triple jump. [25 marks]

4. Identify, describe and justify your choice of test and control methods for an athlete who specialises in the sprint hurdles. [25 marks]

5. (a) Describe the phase structure of jumping [12 marks]

   (b) State and describe any three drills one can use to develop the triple jump technique. [9 marks]

   (c) State and describe two tests you would use to predict performance in jumps. [6 marks]

6. (a) Discuss three biomechanical aspects affecting performance in jumps. [6 marks]

(b) The movement of the jumping events can be broken down into four main phases

i. State the four phases. [8 marks]

ii. Critically discuss their contribution to performance. [11 marks]

END OF EXAMINATION