

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

SSC2112

FACULTY OF APPLIED SCIENCES

BACHELOR OF SCIENCE HONOURS DEGREE EXAMINATIONS

DEPARTMENT OF SPORTS SCIENCE AND COACHING

**THEORY: SSC2112: SPORTS SPECIALITY MODULE (TRACK AND FIELD ATHLETICS
- JUMPS)**

DECEMBER 2005

3 HOURS (100 MARKS)

INSTRUCTIONS

Answer any 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. Design a technique analysis instrument to use for checking correct technique for all the phases of the long jump. (25 marks)
2. (a) Identify the subcomponents of the following biomotor abilities and discuss their importance to Triple Jump performance.
 - (i) Speed (3 marks)
 - (ii) Strength (4 marks)
 - (iii) Endurance (3 marks)
 - (iv) Coordination (4 marks)
- (b) (i) Why are flexibility exercises important to a long and triple jumper? (3 marks)
- (ii) Identify 8 mobility exercises for a long jumper, explain how they are done and the effect(s) they produce. (8 marks)
3. a) Discuss the differences between the technique of the straddle and the Fosbury Flop. (7 marks)
- b) Discuss exercises for strength development for a high jumper, under the following:
 - (i) General strength (6 marks)
 - (ii) Specific strength (6 marks)
 - (iii) Jump training (6 marks)
4. a) Design a Pole Vault training plan for a 5 day microcycle in the preparation period. (10 marks)
- b) For a particular day on that microcycle plan, draw a detailed plan for a 2-hour training session. (15 marks)
5. Give a detailed exposition of the tests you would use to determine the fitness progress of a high jumper during a training macrocycle. [25 marks]

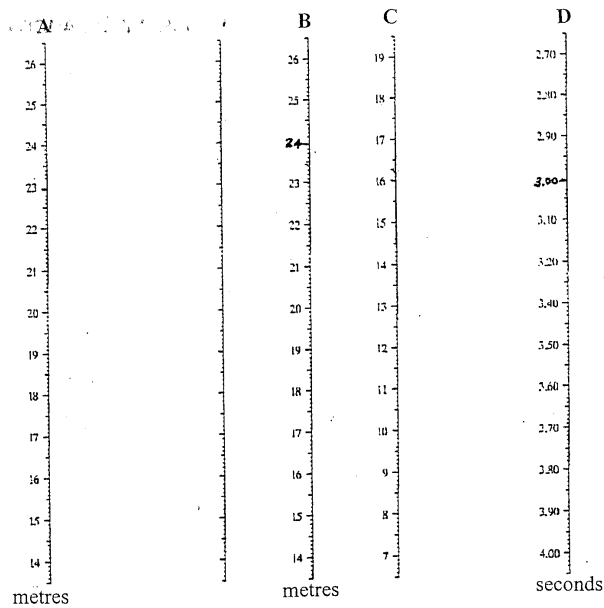


Figure 1 Potential Triple Jump performance predictors

6. a) What does each of the scales labeled (a) to (d) in the instrument used for predicting triple jump performance in figure 1 stand for? (4 marks)
- b) A jumper manages 22.0 metres with the jump leg, 23.0 metres with the hop-step leg, and covers 30 metres in 3.10 seconds. What is the predicted triple jump performance? Show how you get the answer on the scale. (2 marks)
- c) Give an explanation of how the test is carried out. (7 marks)
- d) Discuss exercises for technique development for the flop under the following sub headings. (4 marks)
- (i) Approach (4 marks)
 - (ii) Approach/Take off Complex (4 marks)
 - (iii) Ascension/Bar Clearance (4 marks)

END OF EXAMINATION QUESTION PAPER