

# NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

SSC2212

FACULTY OF APPLIED SCIENCES

BACHELOR OF SCIENCE HONOURS DEGREE EXAMINATIONS

DEPARTMENT OF SPORTS SCIENCE AND COACHING

## **THEORY: SSC2212: SPORTS SPECIALITY MODULE – TRACK AND FIELD THROWS**

MAY 2011

3 HOURS (100 MARKS)

### **INSTRUCTIONS**

Answer 4 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) Explain what happens at the power position in the discus event. [8 marks]
- (b) Which specific muscles and joints are involved during the movement out of the power position. [9 marks]
- (c) State and explain general and specific flexibility training activities to develop the muscles. [8 marks]
  
- 2) (a) Design an instrument to analyse the technique at all the phases of the javelin throw. [13 marks]
- (b) The following constitute the demand profile for strength training in the throws. Identify the training goal as well as the content and training method for each:-
  - i) Maximum strength. [3 marks]
  - ii) Speed strength. [3 marks]
  - iii) Reactive strength. [3 marks]
  - iv) General body strength. [3 marks]
  
- 3) (a) The four (4) throwing events have common features name and describe fully each of the phases in throws, using an event of choice as an example. [10 marks]
- (b) Considering all throws were developed from weapons of war use the aid of diagram to critically discuss the safety precautions during the teaching of throws. [15 marks]
  
- 4) (a) Use diagrams and/or equations to show how the release angle, release speed, and release height affect the path of a projectile. [10 marks]
- (b) Ideally the optimum angle of release should be  $45^{\circ}$ , but research has shown that in the world shot put champions release angles range between  $33^{\circ}$  and  $42^{\circ}$ . Identify the causes of this variation and explain how they contribute to this. [15 marks]

- 5) The following are steps in the teaching progressions of the hummer: standing throw, heel toe turns, safety and grip, standing swings, complete sequence, introduction to turning.
- (a) Arrange them in the recommended order. [7 marks]
  - (b) Identify the objective for each of the given steps and explain how you would teach/coach an athlete to achieve that objective. [18 marks]
- 6) Write notes on the following:
- (a) Open and Closed skills. [4 marks]
  - (b) Simple and Complex skills. [4 marks]
  - (c) Shaping and Chaining. [5 marks]
  - (d) Feedback.
    - i) Intrinsic Feedback. [3 marks]
    - ii) Augmented feedback. [3 marks]
  - (e) Effective Verbal Feedback
    - iii) Specific not General. [1 mark]
    - iv) Constructive not Destructive. [1 mark]
    - v) Sooner not later. [1 mark]
    - vi) Checked for Clarity. [1 mark]
    - vii) Directed to Changeable Behaviour. [1 mark]
    - viii) Correct one fault at a time. [1 mark]

**END OF EXAMINATION**