

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

SSC4209

FACULTY OF APPLIED SCIENCES

BACHELOR OF SCIENCE HONOURS DEGREE EXAMINATIONS

DEPARTMENT OF SPORTS SCIENCE AND COACHING

THEORY: SSC4209: ADVANCED SPORTS STUDIES

MAY 2012

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. Discuss the use of anthropometry in body composition assessment. [25 marks]
2. a) Discuss the assumptions for using skinfolds (SKFs) as a measure of subcutaneous fat. [6 marks]
b) Describe the relationship between sum of skinfolds and body density for homogenous and heterogeneous populations. [10 marks]
c) Discuss ways of reducing measurement error for the SKF method. [9 marks]
3. a) Describe the underlying principles and basic assumptions of hydrodensitometry. [10 marks]
b) Describe the procedure for hydrodensitometry. [15 marks]
4. i) Define somatotype. [6 marks]
ii) Describe the measurement procedures for the height, mass and supraspinale skinfold pointing out the likely sources of error. [19 marks]
5. a) Define kinanthropometry. [5 marks]
b) Discuss the application of kinanthropometry in modern sport. [20 marks]
6. a) Discuss ways in which body composition data can be used by athletes, coaches and sports medicine professionals with special reference to a long distance runner and a boxer. [16 marks]
b) Identify and describe strategies for helping athletes achieve a healthy body composition. [9marks]

END OF EXAMINATION