

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

SSC2216

FACULTY OF APPLIED SCIENCES

BACHELOR OF SCIENCE HONOURS DEGREE EXAMINATIONS

DEPARTMENT OF SPORTS SCIENCE AND COACHING

CONVENTIONAL PROGRAMME

THEORY: SSC2216: TESTING AND MEASUREMENT IN SPORTS

APRIL 2014

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) Describe in detail how each of the following tests is conducted:
 - i) The Sargent Jump Test **(7marks)**
 - ii) The Margaria-Kalamein Test **(8marks)**
- b) Outline possible sources of error when conducting the Sargent Jump test and the Margaria-Kalamein Test. **(10marks)**
2. i) Suggest the terms validity, reliability and objectivity as used in testing & measurement
Use examples from sports and physical activity. **(15marks)**
- ii) Explain the steps that you can take in order to ensure reliability when conducting the sit & reach test. **(10marks)**
- 3 a) Discuss what arrangements you would make in each of the following phases of testing prior to conducting the Beep Test:
 - i) Preparation of athletes. **(8marks)**
 - ii) Preparation of testing area. **(8marks)**
 - iii) Preparation of testers. **(9marks)**

4. a) Explain the terms

i) Objectivity of measurement. **(3marks)**

ii) Inter-rater reliability. **(3marks)**

iii) intra-rater reliability as used in testing & measurement. **(3marks)**

b) Suggest steps that one can take to enhance:

i) Inter-rater reliability when conducting the Illinois Agility Test. **(5marks)**

ii) intra-rater reliability when conducting the Standing broad jump test. **(5marks)**

5. The following are results of tests for a class of 9 Sports Science Students:

Candidate	Sit &reach/cm	Sargent Jump/cm	Sit-ups /min
1	13	57	13
2	18	40	5
3	5	12	17
4	20	10	30
5	19	53	37
6	5	7	7
7	18	10	20
8	3	15	23
9	8	22	30

i) Calculate the mean and standard deviation for each test. **(12 marks)**

ii) Student 5 shows high levels of flexibility, leg power and abdominal muscular endurance compared to other students in the class .Suggest possible reasons for such comparatively high levels of fitness. **(3marks)**

iii) Student 6 shows low levels of flexibility leg power and abdominal muscular endurance ,compared to others in the same class. Suggest how these components of fitness can be improved. **(7marks)**

iv) Using your answers in a) Comment on the statement ‘The group is homogeneous in flexibility’. **(3marks)**

6. i) Distinguish between field tests and laboratory tests, with reference to the Wingate Test and the 12 minute run. **(10marks)**

ii) Describe the advantages of field tests over lab tests. **(7marks)**

iii) Outline the major limitations of lab tests, with reference to the Wingate Test & the Cooper’s 12 minute run/walk. **(8marks)**

END OF EXAMINATION