

**OXFORD CAMBRIDGE AND RSA EXAMINATIONS**

**A2 GCE**

**G453/01**

**PHYSICAL EDUCATION**

**Principles and Concepts Across Different Areas  
of Physical Education**

**THURSDAY 26 JANUARY 2012: Afternoon**

**DURATION: 2 hours 30 minutes**

**SUITABLE FOR VISUALLY IMPAIRED CANDIDATES**

**Candidates answer on the Answer Booklet.**

**OCR SUPPLIED MATERIALS:**

**16 page Answer Booklet  
(sent with general stationery)**

**OTHER MATERIALS REQUIRED:**

**None**

**READ INSTRUCTIONS OVERLEAF**

## **INSTRUCTIONS TO CANDIDATES**

- **Write your name, centre number and candidate number in the spaces provided on the Answer Booklet. Please write clearly and in capital letters.**
- **Use black ink. HB pencil may be used for graphs and diagrams only.**
- **Answer THREE questions, at least one of which must be from Section A.**
- **Read each question carefully. Make sure you know what you have to do before starting your answer.**

## **INFORMATION FOR CANDIDATES**

- **The number of marks is given in brackets [ ] at the end of each question or part question.**
- **The quality of your written communication will be assessed in questions that are indicated accordingly (\*).**
- **The total number of marks for this paper is 105.**

## **SECTION A**

**Candidates must answer at least one question from Section A.**

### **HISTORICAL STUDIES (OPTION A1)**

- 1 (a) Nineteenth century public schools went through three developmental stages of athleticism.**

**Describe stage one and give ONE reason for the transition to stage two. [5]**

- (b) Explain the influence of both the university 'melting pot' and Oxbridge graduates on the development of rational recreation from 1850 to 1900. [5]**

- (c) How successful was lawn tennis as a vehicle for the emancipation of women in the late nineteenth century?**

**Explain ONE way that tennis in the UK today attempts to be an inclusive game. [5]**

- (d)\*Physical Education in state schools has changed considerably since 1933.**

**Explain why the 1933 syllabus was replaced by the 1950s approach.**

**Critically evaluate whether the National Curriculum for Physical Education in schools today is better than the 1950s approach. [20]**

**[Total: 35]**

## **SECTION A**

### **COMPARATIVE STUDIES (OPTION A2)**

- 2 (a) Explain the popularity of Australian Rules Football in Australia. Give ONE reason why the game is much less popular in the UK. [5]**
- (b) Compare the provision for elite sports performers in the UK and in Australia. [5]**
- (c) Physical Education is valued in many schools in the UK and in the USA.**

**Compare Physical Education in the UK and the USA. [5]**

- (d)\*Compare the cultural factors that influence sporting excellence in the UK and the USA. [20]**

**[Total: 35]**

## SECTION B

### SPORTS PSYCHOLOGY (OPTION B1)

- 3 (a) Personality characteristics are often linked to performance in sport. Fig. 1 represents a trait approach to personality.

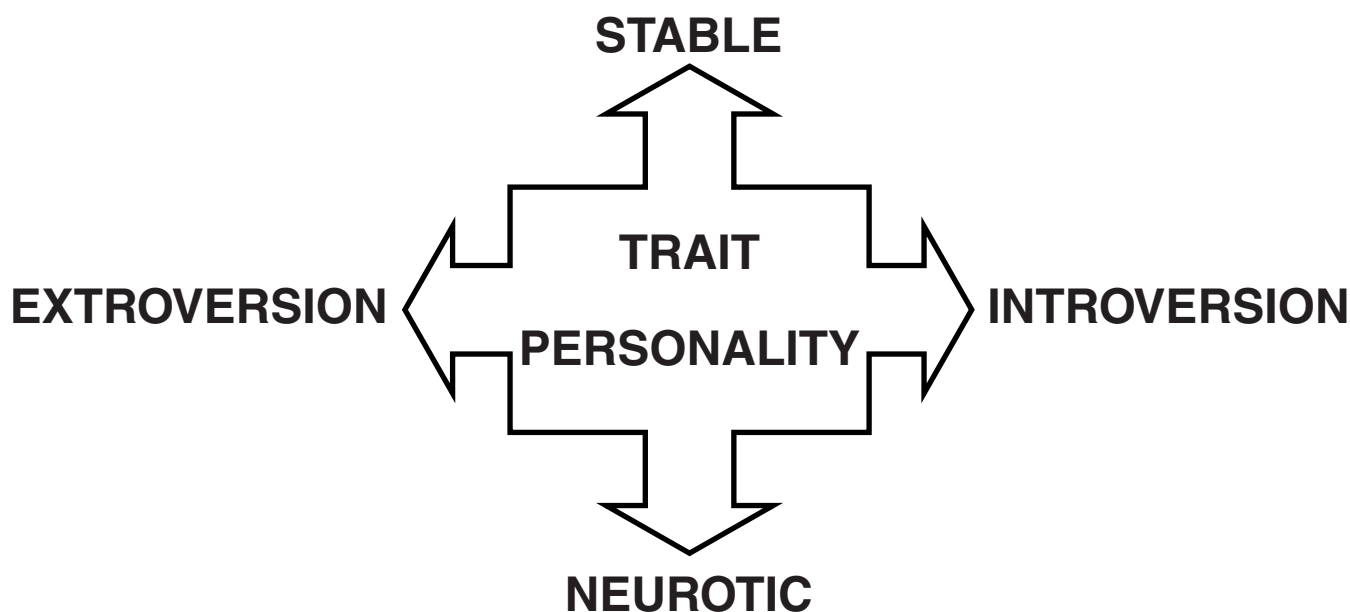


Fig. 1

Describe the characteristics of both extrovert and neurotic personalities.

Use practical examples from sport to describe the characteristics of Type A and Type B trait personalities. [4]

- (b) Describe Nideffer's attentional styles of broad, narrow, external and internal.

Using practical examples, explain how broad AND internal attentional styles might be used in different sports' situations. [6]

- (c) When individuals join a sports team or a social group, their behaviour related to lifestyle can change.**

**Explain the possible effects of a group on the behaviour related to lifestyle of group members.**

**[5]**

- (d)\*Some sports' psychologists state that '*good leaders in sport are born and not made*'.**

**Critically evaluate the trait, social learning and interactionist theories of leadership.**

**Describe how autocratic AND democratic leadership styles might affect lifestyle behaviour.**

**[20]**

**[Total: 35]**

## **SECTION B**

### **BIOMECHANICS (OPTION B2)**

- 4 (a) A gymnast performs a somersault rotating through 6 radians in 0.5 seconds.**

**Identify the axis of rotation through which the gymnast turns and calculate the average angular velocity of the somersault. [3]**

- (b) Sketch a force/time graph which shows both the effect of hitting a hockey ball with AND without a follow through.**

**Explain the effects on the hockey ball when hit using a follow through. [6]**

- (c) Explain how a lift force is imparted to a discus during flight and describe its effects on the flight path of the discus. [6]**

- (d)\*Using free body diagrams, analyse the concepts of balanced and unbalanced forces in both horizontal and vertical directions in sport. [20]**

**[Total: 35]**

## **SECTION B**

### **EXERCISE AND SPORT PHYSIOLOGY (OPTION B3)**

**5 (a) Describe how the lactic acid energy system provides energy for the body during high intensity activity. [4]**

**(b) Calculate the Body Mass Index (BMI) of an 80 kg adult who is 2.0 m tall.**

**Describe THREE effects of obesity on involvement in physical activity. [5]**

**(c) Excluding gender and age, identify TWO physiological factors that can affect the strength of a performer in sport.**

**Discuss the use of plyometrics training as a method of developing dynamic strength. [6]**

**(d)\*Critically evaluate ergogenic aids that performers might use in sport. [20]**



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