



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS  
General Certificate of Education  
Advanced Subsidiary Level and Advanced Level

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**PHYSICAL EDUCATION**

**9396/31**

Paper 3

**October/November 2011**

**2 hours 30 minutes**

Additional Materials: Answer Booklet/Paper



**READ THESE INSTRUCTIONS FIRST**

If you have been given an Answer Booklet, follow the instructions on the front cover of the Booklet.

Write your Centre number, candidate number and name on all the work you hand in.

Write in dark blue or black pen.

You may use a soft pencil for any diagrams, graphs or rough working.

Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **all** questions.

At the end of the examination, fasten all your work securely together.

The number of marks is given in brackets [ ] at the end of each question or part question.

This document consists of **4** printed pages.



Answer **all** questions

**Section A: Exercise and Sport Physiology**

- 1 (a) (i) During the recovery process the body returns to its pre-exercise state.  
Describe the alactacid component of excess post exercise oxygen consumption (EPOC). [4]
- (ii) How can a performer use their knowledge of the alactacid component to their advantage when training or performing? [3]
- (b) An athlete's aerobic endurance is sometimes referred to as their  $VO_2$  max.  
Define and describe a test that would measure an athlete's  $VO_2$  max. [4]
- (c) Discuss reasons why the aerobic energy system is the predominant system used during endurance events. [7]
- (d) After a period of endurance training a muscle cell has an increased density of mitochondria and contains more myoglobin. How do these adaptations contribute to an increase in  $VO_2$  max? [4]
- (e) (i) If you have a Body Mass Index (BMI) of over 30 you are considered to be obese.  
How is BMI calculated? Give reasons why this measure of obesity may not be accurate for a power based athlete. [4]
- (ii) What health problems are associated with a high BMI? [4]

[Total: 30]

**Section B: Psychology of Sports Performance**

- 2 (a) What are attitudes and how might they influence behaviour in sport?
- (b) Describe **two** theories of personality and sport. [4]
- (c) Explain **three** limitations of personality profiling in sport. [3]
- (d) What is the difference between aggression and assertion in sport?
- What might be the causes of aggressive behaviour in sport? [6]
- (e) Describe the methods a sports coach might use to eliminate aggressive tendencies of performers. [3]
- (f) Leadership has been recognised as important for effective team play in sport.
- Explain how different leadership styles can be used in team sports. [4]
- (g) What are the possible psychological effects on a sports performer when an audience is present?
- Give **one** way in which a sports performer might combat the negative effects of an audience. [5]

[Total: 30]

### Section C: Olympic Games: A Global Perspective

- 3 (a) Describe the mission and the role of the International Olympic Committee.
- (b) Fig. 3.1 shows a poster for the 1936 Olympic Games held in Berlin.



Fig. 3.1

- (i) How did Hitler use the Berlin Olympic Games to express nationalism? [4]
- (ii) What contribution did the American Jesse Owens make to the Berlin Olympic Games? [3]
- (c) Table 3.1 shows a comparison in participants in the Paralympic Games between Rome 1960 and Beijing 2008.

| Paralympic Summer Games | Number of nations participating | Number of athletes competing |
|-------------------------|---------------------------------|------------------------------|
| Rome 1960               | 23                              | 400                          |
| Beijing 2008            | 146                             | 3951                         |

Table 3.1

- Explain why the Paralympic Movement has gained impetus. [6]
- (d) Discuss the significance of the modern Olympic Games as a social force. [7]
- (e) Outline **three** reforms which you would make to improve the modern Olympic Games. [6]

[Total: 30]