



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

PHYSICAL EDUCATION

9396/11

Paper 1

October/November 2013

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.

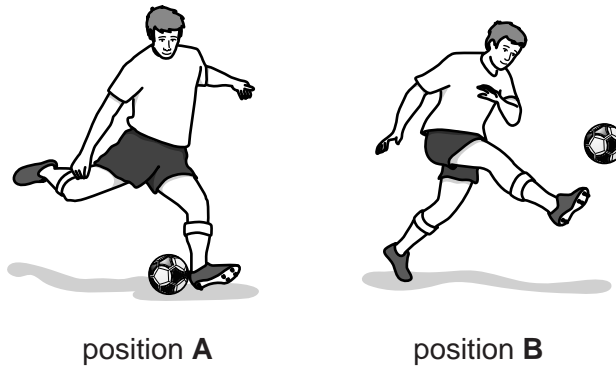
This document consists of **4** printed pages.



Answer **all** questions.

Section A: Applied Anatomy and Physiology

- 1 (a) Identify the items 1–5 in the table below, to describe a movement analysis of the hip and knee joints of the striking leg during a penalty kick, from position **A** to the finishing position **B**. Include the type of muscle contraction, the type of movement occurring and the agonist muscles.



	muscle contraction	movement	agonist muscles
hip joint	1	2	3
knee joint		4	5

[5]

- (b) Identify the muscle fibre types a 100 metre sprinter would predominantly use during a race.

Explain how the structure and function of these fibres make them suitable for this activity. [5]

- (c) During exercise the heart rate will increase.

(i) Describe how the heart rate is regulated during exercise. [4]

(ii) Explain how the cardiac output of trained and untrained performers can be the same at rest but is different during maximal exercise. [2]

- (d) During a sporting contest the muscles require an efficient supply of blood.

(i) Outline the function and processes of the systemic circulatory system. [4]

(ii) Explain how blood is redistributed during a sporting contest. [3]

- (e) When exercising, the respiratory system plays an important role in gaseous exchange.

(i) Describe the structural features of the lungs that assist gaseous exchange. [3]

(ii) Explain how oxygen is transferred from the lungs to the working muscles. [4]

[Total: 30]

Section B: Acquiring, Developing and Performing Movement Skills

- 2 (a) Skills are classified by placement on a continuum of characteristics. Using a practical example for each, explain the terms *simple skill* and *complex skill*. [4]
- (b) The memory plays an important part in acquiring and performing movement skills.
Describe the basic model of the memory process when performing movement skills. [4]
- (c) Explain what is meant by *closed loop control* when performing movement skills. [4]
- (d) Movement skills can often take time to learn fully.
Name and describe the three phases of learning movement skills. [3]
- (e) Explain how motor skill development is affected by early childhood experiences and environmental exposure. [4]
- (f) Motivation is often used in the learning and performance of movement skills.
Describe how methods of motivation can be effective in the learning and performance of movement skills. [5]
- (g) The learning of skills can be seen as the strengthening of the S-R bond.
Using a practical example, explain the term *S-R bond* and suggest how the S-R bond can be strengthened. [6]

[Total: 30]

Section C: Contemporary Studies in Physical Education and Sport

- 3 (a) Explain the difference between swimming as a recreational activity, and swimming as a sport. [6]
- (b) Give reasons why some sport performers become violent during a competitive performance. [4]
- (c) Outdoor and adventurous activities such as canoeing and rock climbing take place in the natural environment and involve an element of risk.

Using examples from canoeing or rock climbing, explain what is meant by *real risk* and *perceived risk*. [4]

- (d) Fig. 3.1 shows a sport performance pyramid.

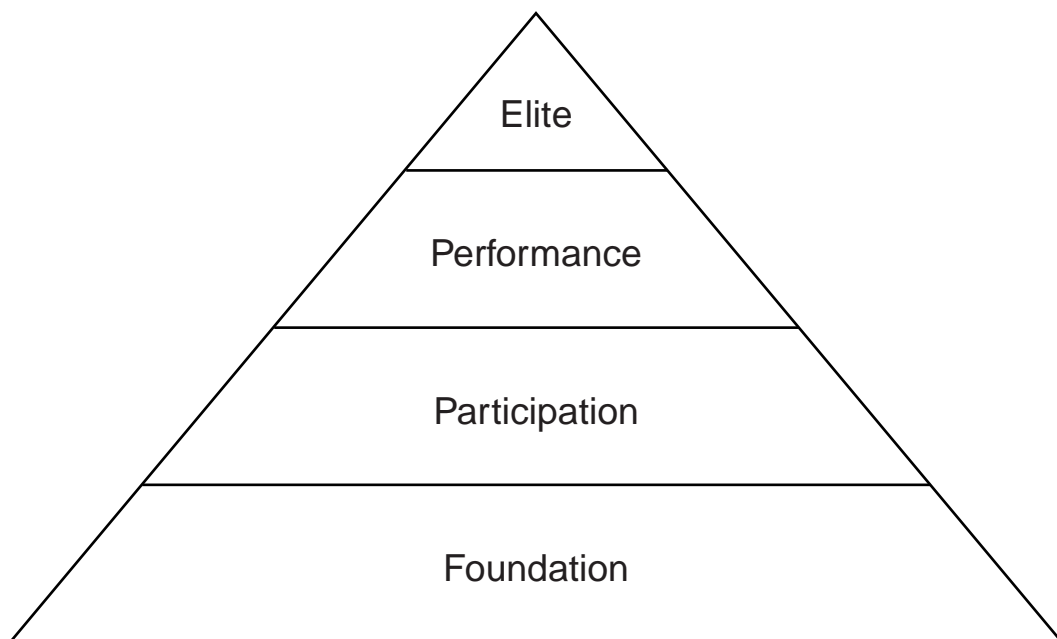


Fig. 3.1

- (i) Explain the four levels of the sport performance pyramid. [4]
- (ii) Explain what is needed for a performer to stay at the elite level. [4]
- (e) 'Fair play' is more than simply playing within the rules of a particular sport. It incorporates the concepts of respect for others and playing the game with the right spirit.
- (i) Describe how a performer could show respect for others on the field of play. [2]
- (ii) Using examples from sport, describe how gamesmanship is used by performers to gain an unfair advantage. [2]
- (f) Explain the characteristics of commercial sport. [4]

[Total: 30]

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