



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

PHYSICAL EDUCATION

9396/13

Paper 1

October/November 2012

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) Using examples from sport define the following movements that can occur at a ball and socket joint:
- flexion
 - extension
 - abduction
 - adduction
- [4]
- (b) Muscles often work in antagonistic pairs.
- Using the elbow joint as an example, explain the term antagonistic pair. [4]
- (c) Explain why the Rectus Abdominus muscle will perform two different types of muscle contraction during the performance of a sit-up. [4]
- (d) Give a definition and the units of measurement for the following three terms; heart rate, stroke volume and cardiac output. Explain the relationship between these terms. [4]
- (e) When the body starts to exercise, heart rate increases. Explain the neural control of heart rate. [5]
- (f) The vital capacity of the lungs is comprised of three lung volumes. Explain the changes that take place during ventilation to each of the three lung volumes as the body starts to exercise. [4]
- (g) Explain the impact of exercising at altitude on the respiratory system. [5]

[Total: 30]

Section B: Acquiring, Developing and Performing Movement Skills

- 2 (a) What is meant by the term 'ability' when learning a movement skill? Give an example of a gross motor ability and an example of a psychomotor ability in sports specific movements. [3]
- (b) Transfer is important in the learning and performance of movement skills.
- (i) Give an example of positive transfer and explain how you would optimise its effects. [2]
- (ii) What is meant by the term 'negative transfer' and how might you limit its effects? [2]
- (c) Reinforcement is often linked to effective learning of movement skills. Give a practical example for each of the following:
- positive reinforcement
 - negative reinforcement
 - punishment [3]
- (d) Using drive theory, explain how different levels of arousal can affect the performance of movement skills. [4]
- (e) Feedback can be an important aspect of the learning and performance of movement skills.
- (i) Give **three** main functions of feedback in the learning of movement skills. [3]
- (ii) Give an example of knowledge of performance and an example of knowledge of results in the learning of movement skills. [2]
- (f) Describe Bandura's observational learning theory.
- Give **one** way in which you would make a demonstration effective when teaching or coaching a movement skill. [5]
- (g) Describe schema theory in relation to the learning of movement skills. [6]

[Total: 30]

Section C: Contemporary Studies in Physical Education and Sport

- 3 (a) Describe the characteristics of a school Physical Education lesson. [4]
- (b) How can Outdoor Education help children to become more aware of safety in a natural environment? [5]
- (c) Describe the characteristics of a recreational badminton session. [4]
- (d) Outline barriers to participation in sport for people with disabilities. What other barriers exist for those from ethnic minority groups? [6]
- (e) Explain the benefits to the individual of regular participation in sport. [5]
- (f) Describe the relationship between sport and commercialism. [6]

[Total: 30]

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