



# Cambridge International AS & A Level

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**PHYSICAL EDUCATION**

**9396/12**

Paper 1

**May/June 2021**

**2 hours 30 minutes**



You must answer on the enclosed answer booklet.

You will need: Answer booklet (enclosed)

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## INSTRUCTIONS

- Answer **all** questions.
- Follow the instructions on the front cover of the answer booklet. If you need additional answer paper, ask the invigilator for a continuation booklet.
- You may use a calculator.
- You should show all your working and use appropriate units.

## INFORMATION

- The total mark for this paper is 90.
- The number of marks for each question or part question is shown in brackets [ ].

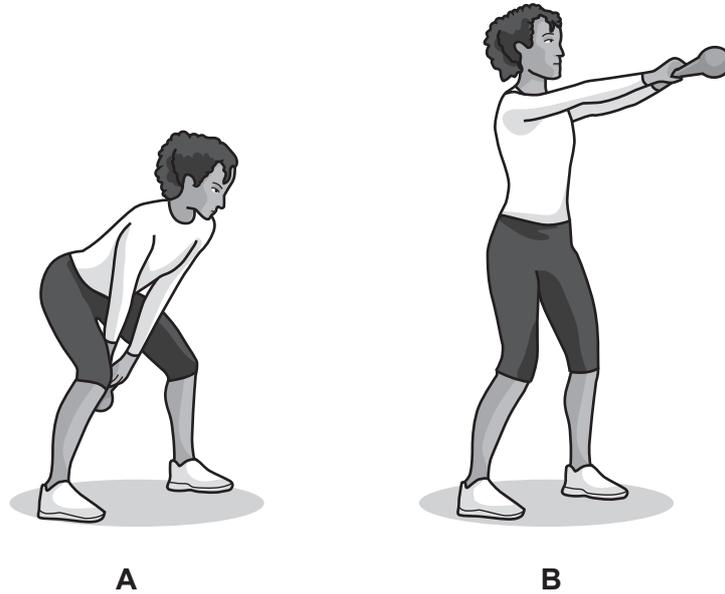
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This document has **8** pages. Any blank pages are indicated.

Answer **all** questions.

**Section A: Applied anatomy and physiology**

- 1 (a) The diagrams show a performance of a weight-training exercise.



Identify the items 1–5 in the table to describe a movement analysis of the shoulder joint and hip joint from position **A** to position **B**. Your analysis should include the type of movement occurring, the main agonist and the type of muscle contraction.

	type of movement occurring	main agonist	type of muscle contraction
shoulder joint from <b>A</b> to <b>B</b>	1	2	3
hip joint from <b>A</b> to <b>B</b>	4	5	

[5]

- (b) The synovial joint at the shoulder has a large range of movement.

Describe structures and features of the shoulder joint that allow this large range of movement.

[3]

- (c) Describe each of the following types of muscle contraction:

- eccentric
- isometric.

[2]

- (d) (i) Define the term *cardiac output*. State a unit for cardiac output.

[2]

- (ii) Describe how the sinoatrial node (SAN) regulates heart rate as exercise begins.

[5]

- (e) Describe the pulmonary circulatory system.

[4]

- (f) (i) Identify features within the lungs, other than those of the bronchi, that assist gaseous exchange. [5]
- (ii) Explain how **two** structural features of the bronchi help the respiratory system to function efficiently. [4]

[Total: 30]

**Section B: Acquiring, developing and performing movement skills**

- 2 (a) Explain, using different practical examples for each, the following terms:
- gross skill
  - discrete skill
  - complex skill
  - low organisation skill.
- [4]
- (b) Describe, using a practical example, each of the following elements of Bandura's theory of observational learning:
- attention
  - retention
  - motor reproduction
  - motivation.
- [4]
- (c) Identify and describe the **two** types of reinforcement that may be used during the learning of motor skills. [2]
- (d) Skilled movements are controlled by motor programmes.
- Describe, using a suitable example, how motor programmes are formed and stored. [4]
- (e) (i) Describe closed-loop control of motor programmes. [4]
- (ii) Explain why closed-loop control may **not** be applicable to all skills. [3]
- (f) Identify each of the **three** phases of learning. Describe a different characteristic of performance in each phase. [6]
- (g) Explain what is meant by drive-reduction theory. [3]
- [Total: 30]

**Section C: Contemporary studies in physical education and sport**

- 3 (a) (i)** Define what is meant by physical education in schools. [1]
- (ii)** Describe the characteristics of physical education in schools. [4]
- (b)** Compare cycling as physical recreation with cycling as a sport. [5]
- (c)** Describe, using a country of your choice, how potential elite performers are identified and developed. [5]
- (d)** Suggest ways that the base of the performance pyramid could be widened. [3]
- (e)** Suggest benefits for a local community of private bodies providing leisure facilities. [3]
- (f)** Suggest strategies to increase participation in physical activity by disabled people. [3]
- (g)** Outline the advantages and disadvantages of the relationship between sport and sponsorship. [6]

[Total: 30]





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