



# **Cambridge International AS & A Level**

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**PHYSICAL EDUCATION**

**9396/12**

Paper 1

**October/November 2023**

**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 [ ].

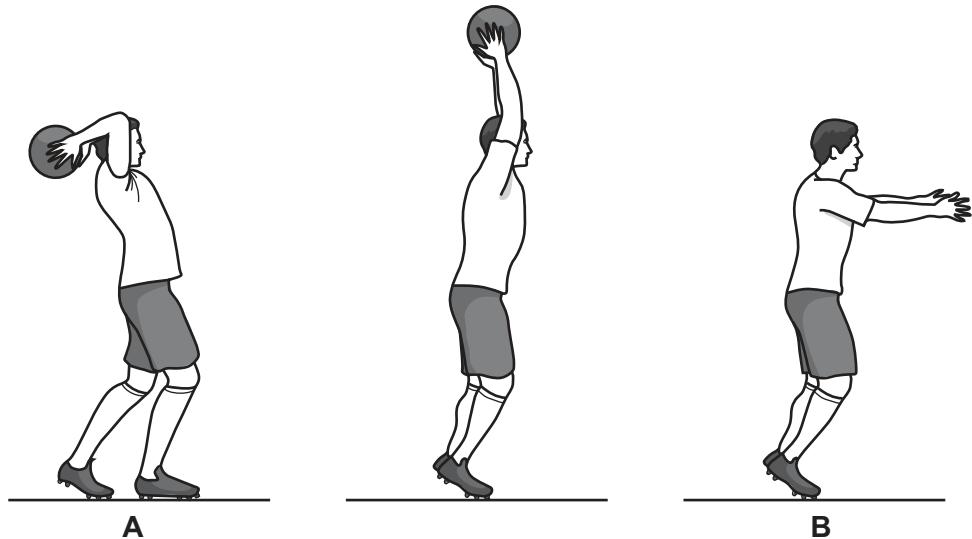
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This document has **8** pages. Any blank pages are indicated.

Answer **all** questions.

### Section A: Applied anatomy and physiology

1 (a) The diagrams show a two-handed overhead throw.



Identify the items 1–5 in the table to describe a movement analysis of the shoulder joint and the elbow 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
elbow joint from <b>A</b> to <b>B</b>	4	5	

[5]

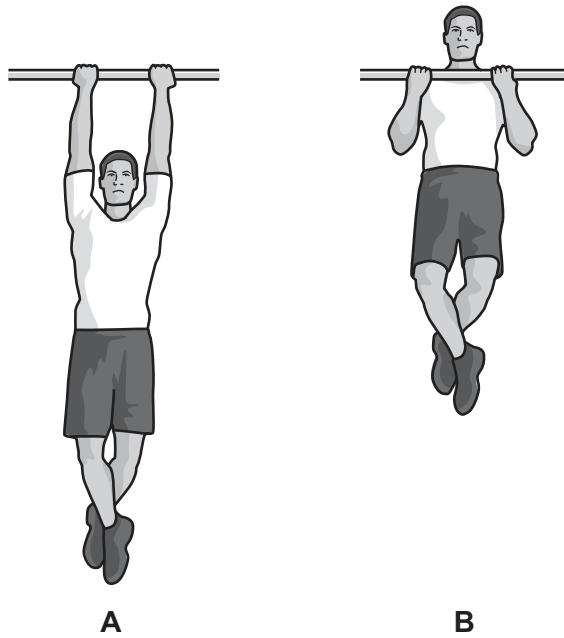
(b) Suggest structures and features of the elbow joint that limit its range of movement. [4]

**(c) (i)** Describe the function of each of the following:

- antagonists
- fixators.

[2]

(ii) The diagrams show a performance of a pull-up.

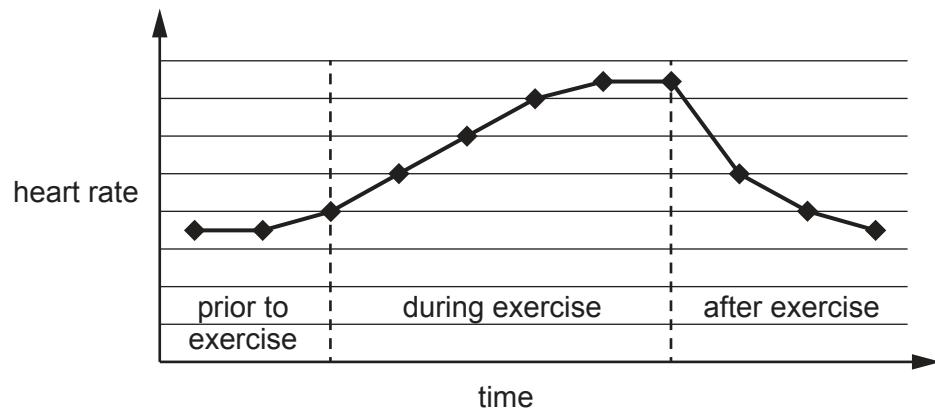


Identify an example of each of the following during the performance from **A** to **B**:

- an antagonist
- a fixator.

[2]

(d) The graph shows heart rate prior to, during and after exercise.



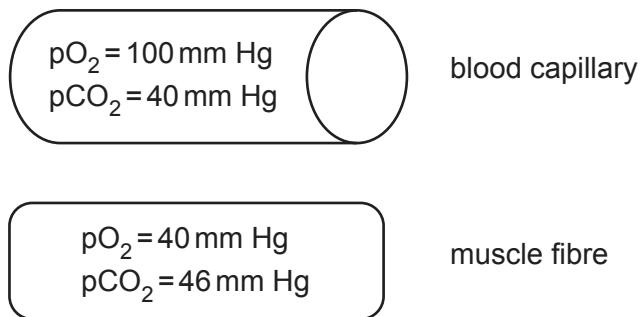
Explain how the heart rate is regulated prior to, during and after exercise.

[6]

(e) Explain how the velocity of the blood changes as it flows through the systemic circulatory system. [4]

(f) Describe how structures within the bronchi assist the movement of air into and out of the lungs. [4]

(g) The diagram shows values for the partial pressures of oxygen and the partial pressures of carbon dioxide at a muscle.



Use the diagram to explain tissue respiration at the muscle.

[3]

[Total: 30]

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

2 (a) (i) State a characteristic of ability. [1]

(ii) Identify an example of each of the following:

- gross motor ability
- psychomotor ability.

[2]

(b) When learning skills, performers progress from motor abilities through fundamental motor skills to sport-specific skills.

Explain this progression using a practical example. [4]

(c) (i) Explain the cognitive theory of learning. [2]

(ii) Outline benefits of using cognitive theory to develop skilful performers. [2]

(d) (i) Identify the **four** elements of Bandura's model of observational learning. [1]

(ii) Describe **three** ways that a demonstration could be made more effective when teaching a movement skill. [3]

(e) Explain, using a practical example, what is meant by a motor programme. [4]

(f) Describe the basic model of the memory process that is used when acquiring and performing movement skills. [4]

(g) Describe, using an example for each, the following types of feedback that may be available to a performer:

- extrinsic
- knowledge of performance
- negative.

[3]

(h) Describe how drive theory may be used to explain the effects of arousal on performance. [4]

[Total: 30]

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

3 (a) During leisure time people can take part in a wide range of physical activities.

(i) Explain why active leisure is considered important for each of the following:

- individuals
- society.

[4]

(ii) Suggest how physical education in schools may help prepare children to use their leisure time effectively. [3]

(b) (i) Describe the characteristics of play. [3]

(ii) Describe benefits of play for children. [3]

(c) Suggest why many countries invest heavily to achieve Olympic success. [5]

(d) Suggest how National Governing Bodies could encourage mass participation. [5]

(e) Suggest reasons why some people with disabilities do **not** take part in physical activity. [4]

(f) Describe measures that have been put in place to reduce the use of illegal drugs in sport. [3]

[Total: 30]

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