



Cambridge International AS & A Level

PHYSICAL EDUCATION

9396/11

Paper 1

May/June 2021

2 hours 30 minutes

You must answer on the enclosed answer booklet.

You will need: Answer booklet (enclosed)

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 [].

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



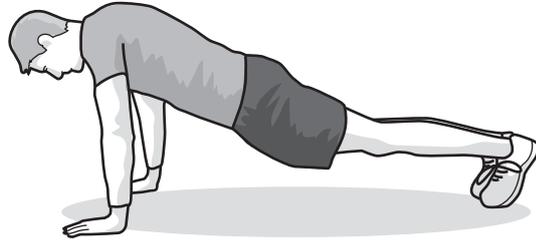
Answer **all** questions.

Section A: Applied anatomy and physiology

- 1 (a) The diagrams show a performer exercising.



A



B

- (i) Identify the items 1–4 in the table to describe a movement analysis of the hip joint from position **A** to position **B**. Your analysis should include the type of synovial joint, the bones forming the joint, the type of movement occurring and the main agonist.

	type of synovial joint	bones forming the joint	type of movement occurring	main agonist
hip joint from A to B	1	2	3	4

[4]

- (ii) During the movement shown in the diagrams the rotator cuff muscles help to stabilise the shoulder.

Identify **two** rotator cuff muscles.

[2]

- (iii) State the type of muscle contraction taking place in the rotator cuff muscles during the exercise shown in the diagrams.

[1]

- (b) Muscles contain different types of muscle fibre.

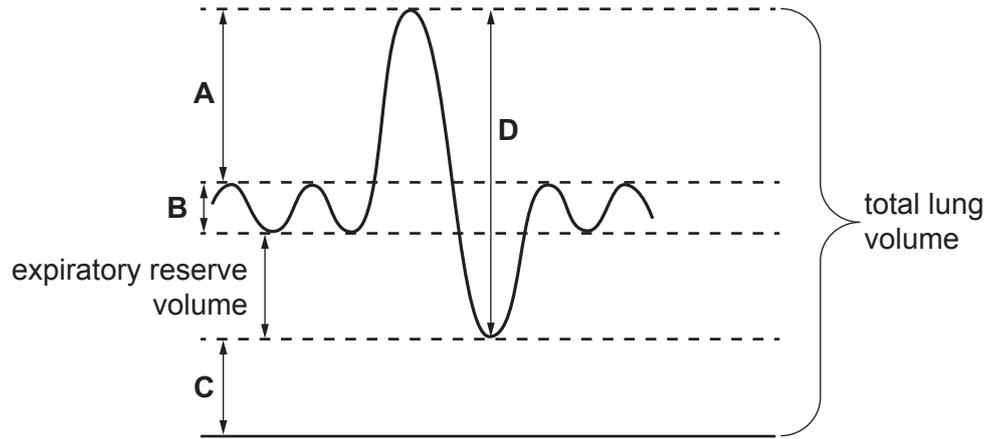
Identify **two** structural and **two** functional characteristics of slow oxidative muscle fibres. [4]

- (c) Describe how neural factors regulate heart rate during recovery after physical activity. [5]

- (d) Explain how the vascular shunt mechanism affects the distribution of blood during exercise. [4]

[4]

(e) The diagram shows a trace of various respiratory volumes.



- (i) Identify respiratory volumes **A**, **C** and **D**. [3]
- (ii) Describe the immediate effects of exercise on respiratory volume **B** and expiratory reserve volume. [2]
- (f) Explain the effects of being at high altitude on the respiratory system. [5]

[Total: 30]

Section B: Acquiring, developing and performing movement skills

- 2 (a) Describe, using a different practical example for each, what is meant by the following:
- a simple skill
 - a complex skill.
- [4]
- (b) (i) Explain the theory of operant conditioning. [5]
- (ii) Outline benefits of using operant conditioning to develop skills. [2]
- (c) Describe open-loop control. Explain why it is often linked with the autonomous phase of learning. [5]
- (d) Information processing includes the concept of perception.
- Explain how perception can affect the performance of physical activities. [4]
- (e) (i) Describe what is meant by response time when performing a movement skill. [1]
- (ii) Anticipation can decrease response time.
- Explain how other factors can affect response time. [5]
- (f) Describe, using a practical example for each, what is meant by the following types of transfer:
- positive
 - negative
 - proactive
 - retroactive.
- [4]

[Total: 30]

Section C: Contemporary studies in physical education and sport

- 3 (a) (i) Outline differences between outdoor recreation and outdoor education. [2]
- (ii) Suggest why some young people do **not** participate regularly in outdoor education. [3]
- (iii) Describe benefits that can be gained through participation in outdoor education. [3]
- (b) (i) State the forms of funding available to elite performers. [3]
- (ii) Other than funding, describe how a country may support excellence in sport. [5]
- (c) Suggest reasons why Olympic success is important to many countries. [5]
- (d) Outline possible barriers to participation faced by young people. [6]
- (e) Compare the possible effects of sportsmanship in sport with the possible effects of gamesmanship in sport. [3]

[Total: 30]

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