



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.



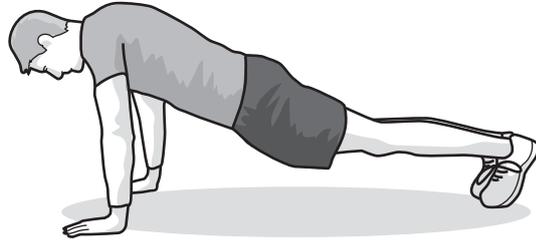
Answer **all** questions.

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.

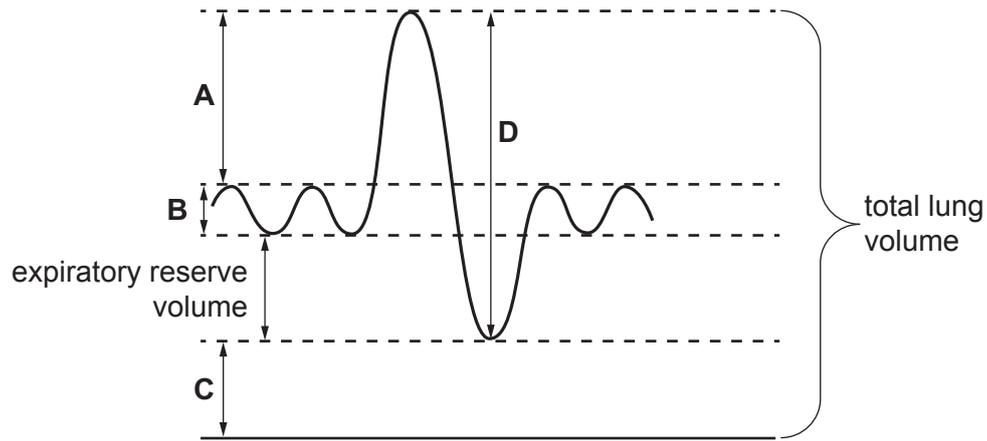
Identify **two** structural and **two** functional characteristics of slow oxidative muscle fibres. [4]

- (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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