



Cambridge International AS & A Level

PHYSICAL EDUCATION

9396/11

Paper 1

October/November 2020

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. Blank pages are indicated.

Answer **all** questions.

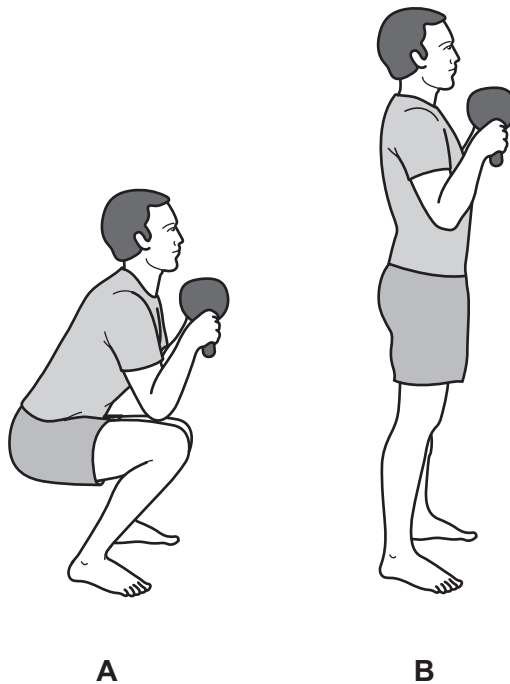
Section A: Applied anatomy and physiology

- 1 (a) Describe the following types of movement that can occur at the shoulder joint and identify a main agonist involved in each type of movement at the shoulder.

- abduction
- rotation

[4]

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



Identify the items 1–5 in the table to describe a movement analysis of the ankle joints and hip joints 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
ankle joints	1	2	3
hip joints	4	5	

[5]

- (c) Explain the route taken when blood travels from the lungs, through the chambers and valves of the heart, to the aorta. [5]

- (d) (i) Define the term *stroke volume*. State a unit for stroke volume. [2]

- (ii) Explain how an increase in venous return causes an increase in stroke volume. [4]

- (e) Explain the different roles of haemoglobin and myoglobin in the transport of oxygen. [3]
- (f) Describe the processes of inspiration and expiration during exercise. [4]
- (g) Describe **three** structural features of alveoli that assist gaseous exchange. [3]

[Total: 30]

Section B: Acquiring, developing and performing movement skills

- 2 (a) Skilful performances are learned, efficient and goal directed.

Identify **three** other characteristics of skilful performances. [3]

- (b) The photograph shows elite swimmers on their starting blocks waiting for the start of the race.



- (i) Classify an elite swimming start according to the following **three** continua. Justify each of your answers.

- open–closed
- externally–internally paced
- high–low organisation

[3]

- (ii) Explain how **two** of these classifications may change when performing the swimming stroke during the race. [2]

- (c) During a match games players receive different forms of reinforcement.

- (i) Explain the terms *negative reinforcement* and *punishment*, giving examples of each from a game. [4]

- (ii) Describe, using examples, different ways a coach could use positive reinforcement to improve the performance of their players. [3]

- (d) Schmidt's schema theory is based on various sources of information that are used to modify and evaluate motor programmes.

- (i) Identify and explain the functions of recall schema. [3]

- (ii) Suggest how a coach may use schema theory to develop a performer's skills. [4]

- (e) During the development of skills a performer will progress through various phases of learning.

Name the final phase of learning and explain how a coach can maximise learning during this phase. [4]

- (f) Describe the terms *intrinsic motivation* and *extrinsic motivation*. Suggest why intrinsic motivation is often thought to be more important. [4]

[Total: 30]

Section C: Contemporary studies in physical education and sport

- 3 (a) Hill walking and sailing are examples of outdoor recreation activities.
Suggest benefits for an individual of participating in outdoor recreation activities. [4]
- (b) Sport is competitive.
Identify **three** other characteristics of sport. [3]
- (c) (i) Describe what is meant by elite sport. [3]
(ii) Suggest the provision required for a performer to reach an elite level in sport. [3]
- (d) Suggest how a community could benefit from regular participation in physical activity. [5]
- (e) Suggest how racial and religious factors may reduce participation in sport. [6]
- (f) Explain how sponsorship of sport is closely linked to the media. [6]

[Total: 30]

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