



Cambridge International AS Level

CANDIDATE
NAME



CENTRE
NUMBER

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CANDIDATE
NUMBER

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SPORT & PHYSICAL EDUCATION

8386/13

Paper 1 Theory

October/November 2024

1 hour 45 minutes

You must answer on the question paper.

No additional materials are needed.

INSTRUCTIONS

- Answer **all** questions.
- Use a black or dark blue pen. You may use an HB pencil for any diagrams or graphs.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.
- Do **not** use an erasable pen or correction fluid.
- Do **not** write on any bar codes.
- You may use a calculator.
- You should show all your working and use appropriate units.

INFORMATION

- The total mark for this paper is 70.
- The number of marks for each question or part question is shown in brackets [].

This document has **16** pages. Any blank pages are indicated.



- 1 (a) Cricket is a sport with predetermined roles for players.

Outline **four** other characteristics of sport.

- 1
.....
- 2
.....
- 3
.....
- 4
.....
- [4]

- (b) Competition manipulation is a form of cheating that has happened in cricket.

- (i) State **two** forms of competition manipulation.

- 1
.....
- 2
.....
- [2]

- (ii) Suggest strategies to reduce competition manipulation in sport.

-
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
- [5]





- (c) Use specific examples from cricket to explain how skills can be learned through the following components of Bandura's observational learning theory:

attention

.....

.....

retention

.....

.....

motor reproduction

.....

.....

motivation.

.....

.....

[4]

- (d) Describe how Newton's third law of motion applies to a batter hitting a ball in cricket.

.....

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.....

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..... [3]





2 Compare the shoulder joint with the elbow joint.

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.....

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..... [5]

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- 3 (a) During an association football match, the cardiac output of a player increases. Blood flow is distributed by the vascular shunt mechanism.

The table shows blood flow at rest and during exercise.

	at rest		during exercise	
	blood flow / millilitres per minute	percentage blood flow	blood flow / millilitres per minute	percentage blood flow
brain	750	15	750	
coronary blood vessels	250	5		8
kidneys		20	300	2
liver and gut	1 250	25	300	2
skeletal muscle	1 000	20	11 100	74
skin	500	10	1 050	7
other organs	250		300	2
whole body	5 000	100	15 000	100

Calculate the following:

- (i) the blood flow to the kidneys at rest

..... millilitres per minute [1]

- (ii) the percentage of blood flow to other organs at rest

.....% [1]

- (iii) the blood flow to the coronary blood vessels during exercise

..... millilitres per minute [1]

- (iv) the percentage of blood flow to the brain during exercise.

.....% [1]





(b) Explain the role of the precapillary sphincters in the distribution of blood during exercise.

.....

.....

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.....

.....

..... [3]

(c) State a typical value for a trained footballer during sub-maximal exercise for:

breathing rate breaths per minute

tidal volume litres

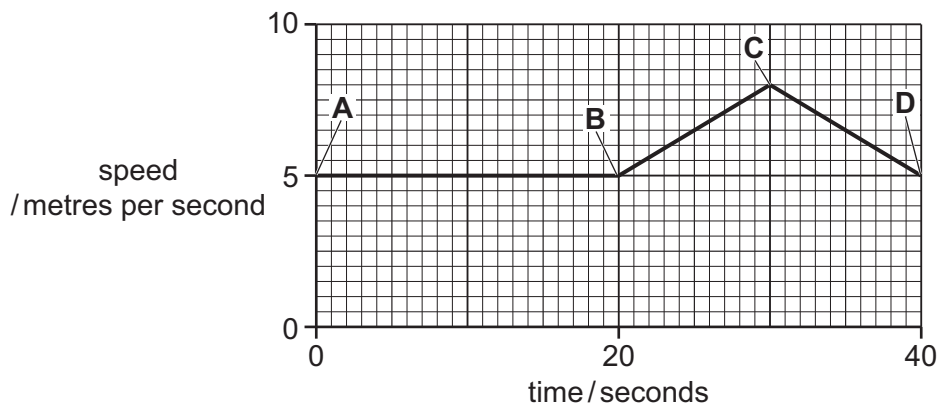
minute ventilation. litres per minute

[3]





(d) The simplified speed–time graph shows a footballer in motion during part of a match.



(i) Describe the different states of linear motion of the footballer:

from **A** to **B**

from **B** to **C**

from **C** to **D**.

[3]

(ii) Calculate the distance travelled by the footballer from **A** to **B**.

distance = metres [1]

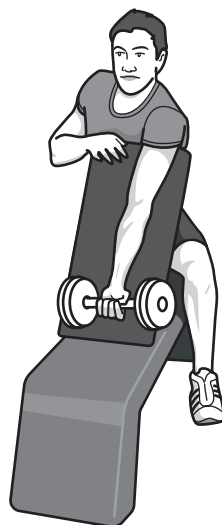




..... [7]



4 The diagrams show the performance of a weight-training exercise.



A



B

(a) State the type of movement at the elbow joint during the movement from:

A to B

B to A.

[2]

(b) Identify the main agonist muscle for the movement from B to A.

..... [1]

(c) State the name of the antagonist muscle and a fixator muscle during the movement from A to B. Explain the role of antagonists and fixators.

antagonist

fixator

role of antagonists

.....

.....

role of fixators

.....

.....

[4]





[6]

..... [7]

[7]



6 Outline the following characteristics of abilities:

innate

.....

enduring.

.....

[2]

7 Describe **four** factors that have increased the commercialisation of sport.

1

.....

.....

2

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3

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4

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[4]







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