



CANDIDATE
NAME

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CENTRE
NUMBER

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CANDIDATE
NUMBER

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8386/11

May/June 2024

1 hour 45 minutes

No additional materials are needed.

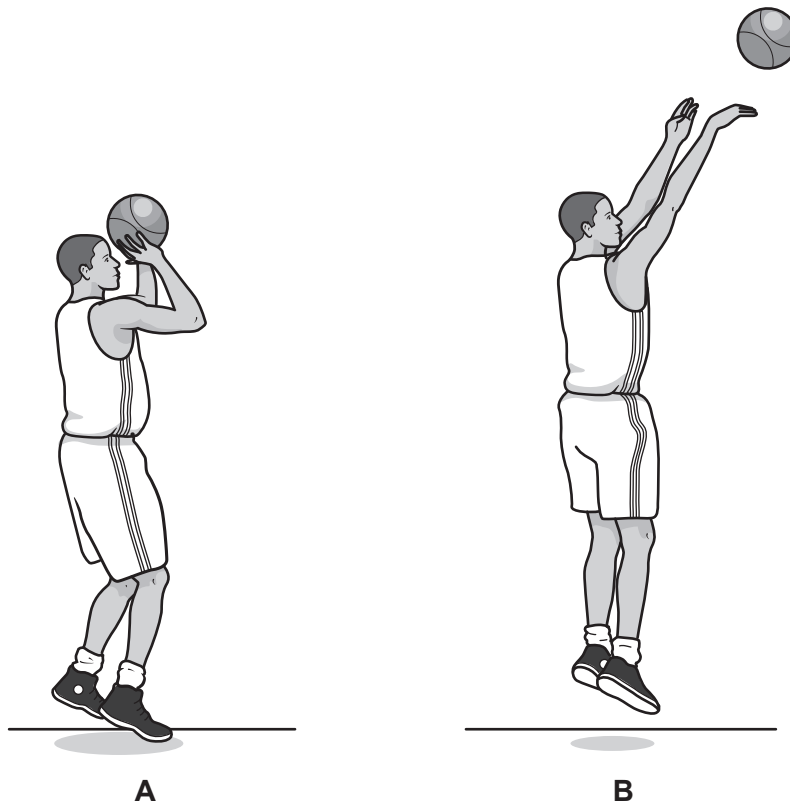
- Answer **all** questions.
- Use a black or dark blue pen. You may use an HB pencil for any diagrams or graphs.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.
- Do **not** use an erasable pen or correction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

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

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[Turn over

- 1 (a) The diagrams show a basketball player performing a jump shot.



Complete the table for the player's movement from position **A** to position **B**.

joint	type of movement	main agonist
player's right shoulder joint		
player's right wrist joint		

[4]

- (b) Basketball is often played as part of a physical education lesson.

Describe **three** characteristics of physical education.

- 1
- 2
- 3

[3]

- (c)** Elite basketball is highly commercialised and can be seen as a form of entertainment.

Evaluate the commercialisation of sports such as basketball.

[5]

- (d) (i) Calculate the cardiac output of a basketball player who has a resting heart rate of 70 beats per minute and a resting stroke volume of 80 millilitres.

Show your working and include appropriate units.

cardiac output = [2]

- (ii) Playing basketball will usually cause an increase in cardiac output.

Explain how the vascular shunt mechanism affects the distribution of cardiac output during exercise.

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..... [4]

- 2 (a) Students can learn badminton skills through observational learning.

The diagram shows parts of a model of Bandura's observational learning theory.



- (i) Identify **A** and **B** from the model.

A

B [2]

- (ii) Suggest how a coach could improve the retention of a student who is learning a skill.

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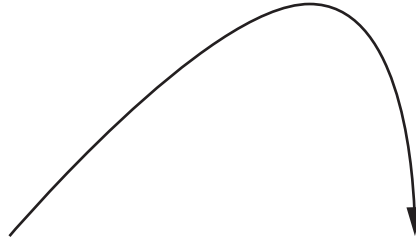
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..... [4]

- (b) (i) The diagram shows the non-parabolic flight path of a badminton shuttlecock after being hit.



Explain this flight path of the shuttlecock in terms of the effect of air resistance and gravity.

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..... [4]

- (ii) A shuttlecock moves in one direction from point **A** to point **B**.

The velocity of the shuttlecock at point **A** was 70 metres per second.
 The velocity of the shuttlecock at point **B** was 10 metres per second.
 The shuttlecock took 0.50 seconds to travel from point **A** to point **B**.

Calculate the average acceleration of the shuttlecock between points **A** and **B**.

Show your working and include appropriate units.

average acceleration = [3]

(c) Evaluate the advantages of the use of technology for performers in badminton.

[6]

3 (a) Abilities are needed to perform skills in sport.

(i) Describe the following characteristics of abilities:

enduring

.....

underpinning.

.....

[2]

(ii) Justify the following classifications of the skill of serving in tennis:

closed

.....

internally paced

.....

high organisation

.....

discrete.

.....

[4]

(b) Sport has complex rules.

State **three** other characteristics of sport.

1

.....

2

.....

3

.....

[3]

- (c) Motivation is needed to perform well in sport.

Describe the following:

intrinsic motivation

.....

extrinsic motivation

.....

tangible rewards

.....

intangible rewards.

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[4]

- (d) A sports performer may use prohibited performance-enhancing drugs (PEDs) because of the pressure to win.

Suggest other reasons why some sports performers may use PEDs.

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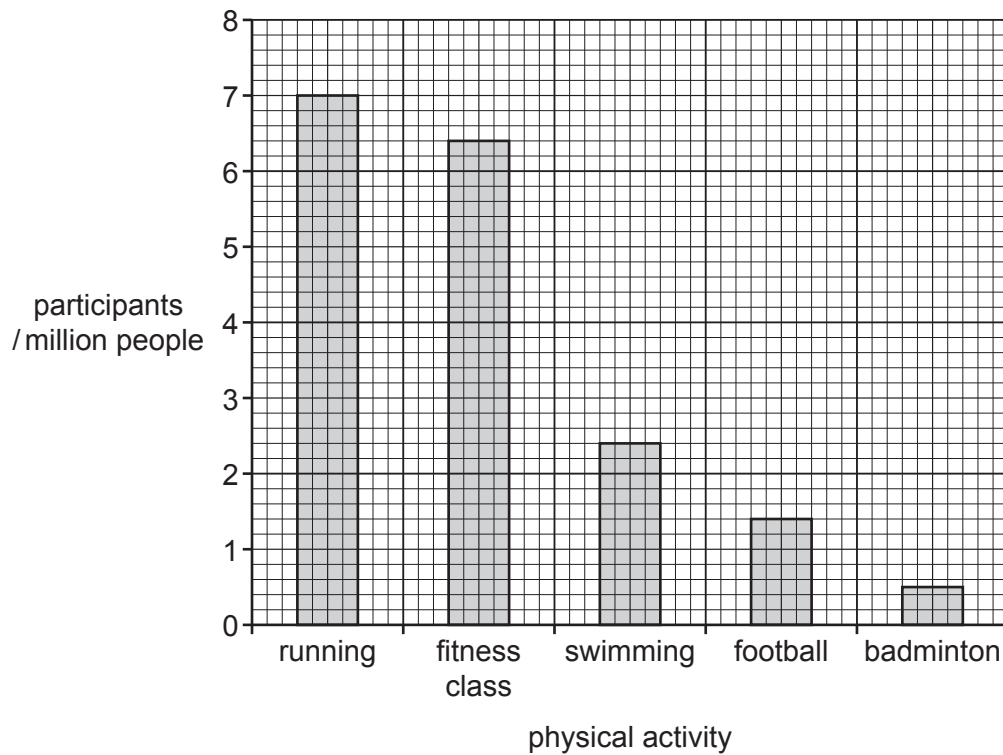
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..... [5]

- 4 (a) The bar chart shows the number of participants in different physical activities for one country during a year.



- (i) Use the bar chart to calculate the difference between the number of swimming participants and the number of badminton participants.

difference = [1]

- (ii) Suggest **four** different benefits for an individual of regularly participating in a physical activity such as swimming.

1

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2

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4

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[4]

- (b)** When a swimmer starts to exercise the mechanics of inspiration will change.

Explain these changes.

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..... [6]

[6]

