



Please write clearly in block capitals.

Centre number

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Candidate number

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Surname

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Forename(s)

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Candidate signature

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# A-level PHYSICAL EDUCATION

Paper 2 Factors affecting optimal performance in physical activity  
and sport

Wednesday 5 June 2019

Afternoon

Time allowed: 2 hours

## Materials

For this paper you may have:

- a calculator.

## Instructions

- Use black ink or black ball-point pen. Pencil should only be used for drawing.
- Fill in the boxes at the top of the page.
- Answer **all** questions. You must answer the questions in the spaces provided. Do **not** write on blank pages.
- Do all rough work in this book. Cross through any work you do not want to be marked.

## Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 105.
- Questions should be answered in continuous prose. You will be assessed on your ability to:
  - use good English
  - organise information clearly
  - use specialist vocabulary where appropriate.

For Examiner's Use	
Section	Mark
A	
B	
C	
<b>TOTAL</b>	



J U N 1 9 7 5 8 2 2 0 1

IB/M/Jun19/E13

**7582/2**

## Section A

## Exercise physiology and biomechanics

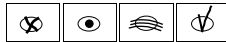
Answer **all** questions in this section.Only **one** answer per question is allowed.

For each question completely fill in the circle alongside the appropriate answer.

CORRECT METHOD



WRONG METHODS



If you want to change your answer you must cross out your original answer as shown.

If you wish to return to an answer previously crossed out, ring the answer you now wish to select as shown.

0 1

A runner completes 400m at an average speed of 5 m/s.

How long does it take the runner to complete 400m?

A 1 minute 10 seconds

B 1 minute 20 seconds

C 1 minute 30 seconds

D 1 minute 40 seconds

[1 mark]

0 2

Which **one** of these is an exercise-related function of sodium?

A Helps regulate body fluid levels

B Important for strong bones

C Needed for the formation of haemoglobin

[1 mark]



**0 3**

When conducting field tests, data can be objective or subjective.

What is subjective data? Identify **one** way that it can be collected.

**[2 marks]**

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**0 4**

As a sprinter accelerates along the track at the start of a 100m race, an impulse is generated.

**0 4 . 1**

Define impulse. State the units of measurement.

**[2 marks]**

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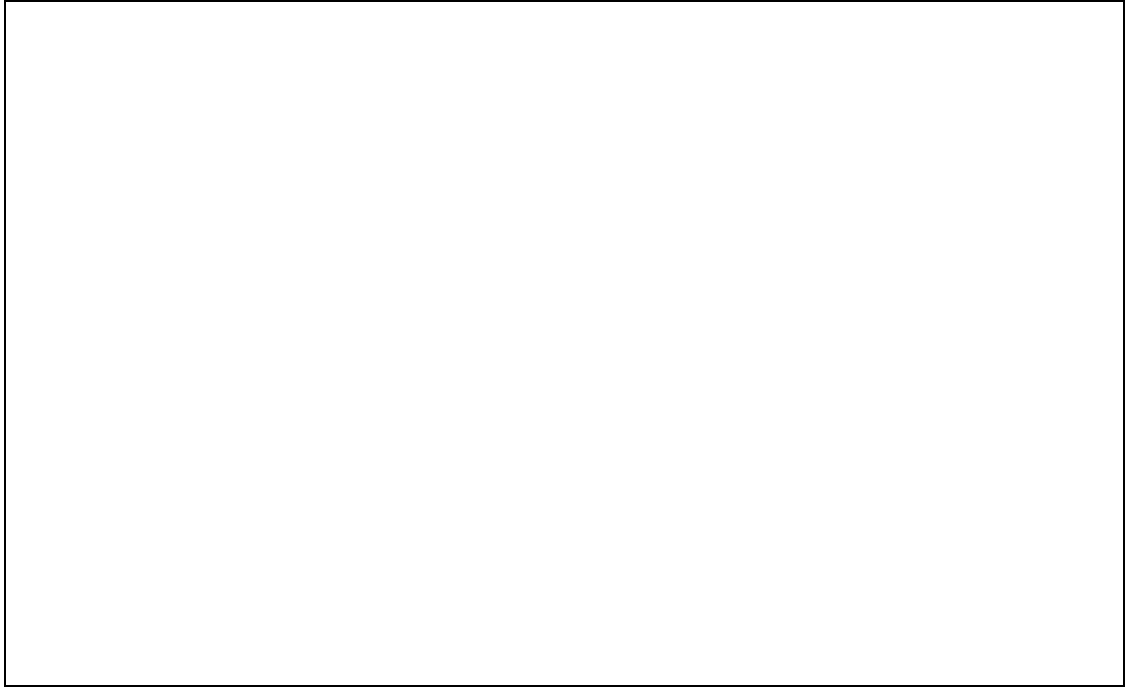
**Question 4 continues on the next page**

**Turn over ►**

0	4	.	2
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Sketch **and** label a graph to show the impulse generated at the start of a 100m race.

**[3 marks]**



0	5
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Screening elite performers is a technique used by coaches for a variety of reasons.

Outline **three** purposes of screening.

**[3 marks]**

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3 \_\_\_\_\_

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**Turn over for the next question**

**Turn over ►**



0 6

**Figure 1** shows an athlete taking part in one type of strength training as part of his injury rehabilitation.

**Figure 1**



Evaluate the use of different types of strength training during injury rehabilitation.

**[8 marks]**

You may use this space to plan your answer.

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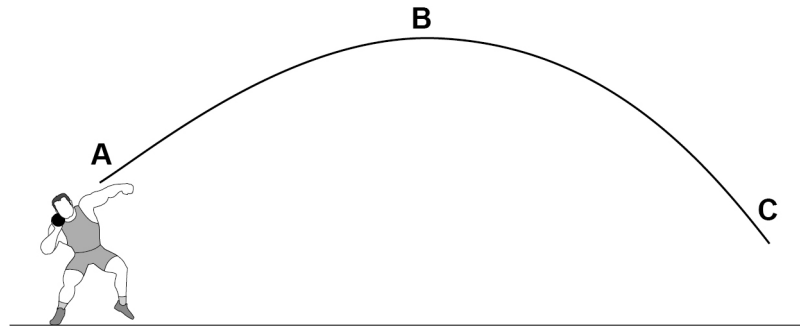




0 7

Figure 2 shows the flight path of a shot put.

Figure 2



Analyse the factors affecting the flight path of the shot put and how an athlete can maximise horizontal displacement.

[15 marks]

You may use this space to plan your answer.

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**Section B****Sports psychology**Answer **all** questions in this section.**0 8**

'A nervous response to a specific sporting situation.'

Which type of anxiety does this statement best describe?

**A** Cognitive anxiety**B** Competitive state anxiety**C** Competitive trait anxiety**D** Somatic anxiety**[1 mark]****0 9**Which **one** of these is an example of an intangible reward?**A** Certificate**B** Money**C** Praise**D** Trophy**[1 mark]**



1 0

Zajonc developed a model to show the effect of the presence of others on performance.

1 0 . 1

Explain the possible impact of an audience on a performer in the cognitive stage of learning.

[3 marks]

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1 0 . 2

Explain the strategies a coach may use to reduce the negative effects of the presence of others on performance.

[4 marks]

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Turn over for the next question

Turn over ►



1 1 . 1 Describe an outcome-orientated goal.

[1 mark]

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1 1 . 2 Evaluate the impact of an outcome-orientated goal on the confidence of a 100m sprinter.

[2 marks]

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**Section C****Sport and society and technology in sport**Answer **all** questions in this section.**1 4**

Which organisation is responsible for creating the World Class Performance Programme?

**A** National Institute of Sport**B** National Governing Body**C** Sport England**D** UK Sport**[1 mark]****1 5**

Which athlete would benefit the most from taking beta blockers?

**A** 100m sprinter**B** Golfer**C** Road cyclist**D** Weight lifter**[1 mark]**

1	6
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State **four** reasons why sports legislation is important for performers.**[4 marks]**

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State **two** forms of technology a coach could use in sports analytics.**[2 marks]**

1 \_\_\_\_\_

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2 \_\_\_\_\_

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**Turn over for the next question****Turn over ►**













1 9

Russia did not compete in the 2018 Winter Olympic Games due to allegations of drug taking.

Analyse the social, physiological **and** psychological reasons for an athlete to take drugs and the short term and long term implications this could have.

**[15 marks]**

You may use this space to plan your answer.

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**Turn over ►**











