

# A-level PHYSICAL EDUCATION

## Paper 1 Factors affecting participation in physical activity and sport

Specimen 2018

Morning

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 bottom of this 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.

Please write clearly, in block capitals, to allow character computer recognition.

Centre number

Candidate number

Surname

Forename(s)

Candidate signature \_\_\_\_\_

## Section A

### Applied anatomy and physiology

Answer **all** questions in this section.

For questions with four responses only **one** answer per question is allowed.


For each answer 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**

Identify which **one** of the following statements defines expiratory reserve volume.

**A** The amount of air breathed in or out per breath

☐

**B** The amount of air left in the lungs after maximal expiration has occurred

☐

**C** The amount of air that can be forcibly expelled after a normal breath

☐

**D** The amount of air that can be forcibly inspired at the end of a breath

☐

[1 mark]

**0 | 2**

Identify **two** functions of the fast component of Excess Post-Exercise Oxygen Consumption (EPOC).

**A** Break down lactic acid and normalise body temperature

☐

**B** Resaturate myoglobin with oxygen and normalise body temperature

☐

**C** Restore phosphocreatine (PC) and break down lactic acid

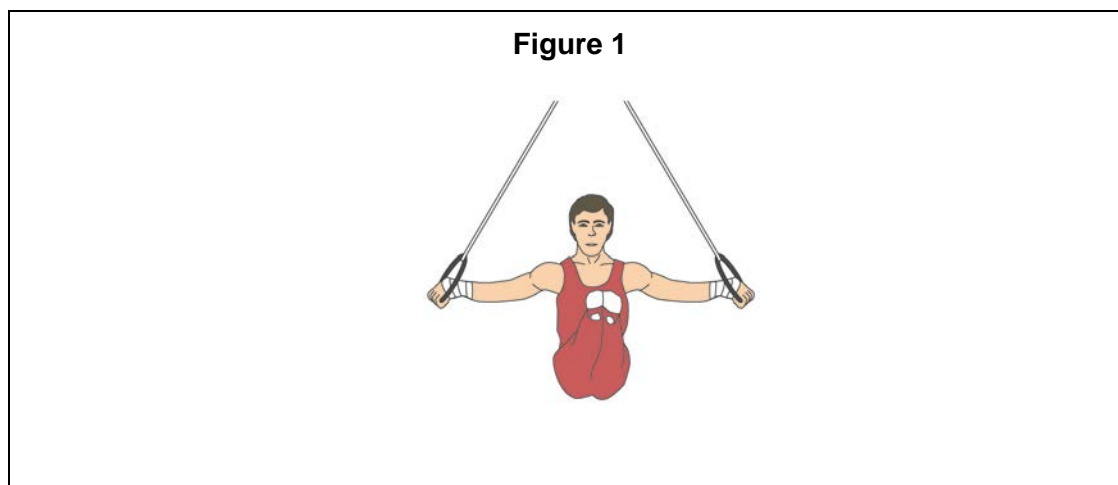
☐

**D** Restore phosphocreatine (PC) and resaturate myoglobin with oxygen

☐

[1 mark]

- 0 3 . 1** **Figure 1** shows a gymnast in a crucifix position on the rings.



Complete **Table 1** to identify the type of joint, the main agonist and the joint action at the gymnast's shoulder when in the crucifix position.

**[3 marks]**

**Table 1**

Type of joint	Main agonist	Joint action

- 0 3 . 2** Explain how wave summation allows a gymnast to gain the required height in a floor routine.

**[3 marks]**

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- 0 4 . 1** Fast twitch glycolytic muscle fibres (type IIx) are used to produce powerful contractions.

Identify **two** characteristics of fast twitch glycolytic muscle fibres (type IIx).

**[2 marks]**

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- 0 4 . 2** Explain how the characteristics of fast twitch glycolytic muscle fibres (type IIx) you identified in **question 04.1** are suited to producing ATP anaerobically during powerful contractions.

**[2 marks]**

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**[8 marks]**

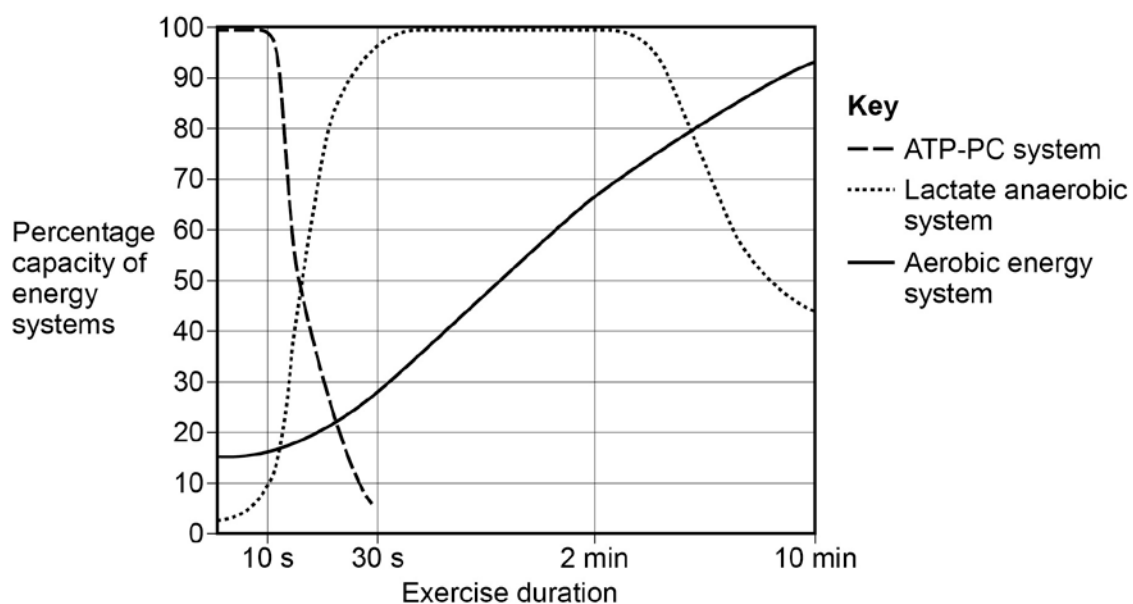
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**0 6**

**Table 2** shows the times of an elite athlete for a 100m, 400m and 3000m race. **Figure 2** shows the relative contribution of the energy systems on the energy continuum.

**Table 2**

Event	100m	400m	3000m
Time	10.49 secs	47.40 secs	8:06.11

**Figure 2**

Using **Figure 2**, analyse **and** evaluate the contribution of each energy system for each event identified in **Table 2**.

**[15 marks]**

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Extra space

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**Section B****Skill acquisition**

Answer **all** questions in this section.

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**0 7**

Which **one** of the following classifications accurately describes the skills of a dive at the start of a swimming race?

**A** Closed, externally-paced, complex and discrete

☐

**B** Closed, externally-paced, simple and discrete

☐

**C** Closed, self-paced, complex and discrete

☐

**D** Closed, self-paced, simple and discrete

☐

[1 mark]

**0 8**

Which **one** of the following statements describes the term 'response time'?

**A** The time taken from the onset of the stimulus to the end of the movement

☐

**B** The time taken from the onset of the stimulus to the start of the movement

☐

**C** The time taken from the start of the movement to the end of the movement

☐

**D** The time taken from the start of the movement to the onset of the stimulus

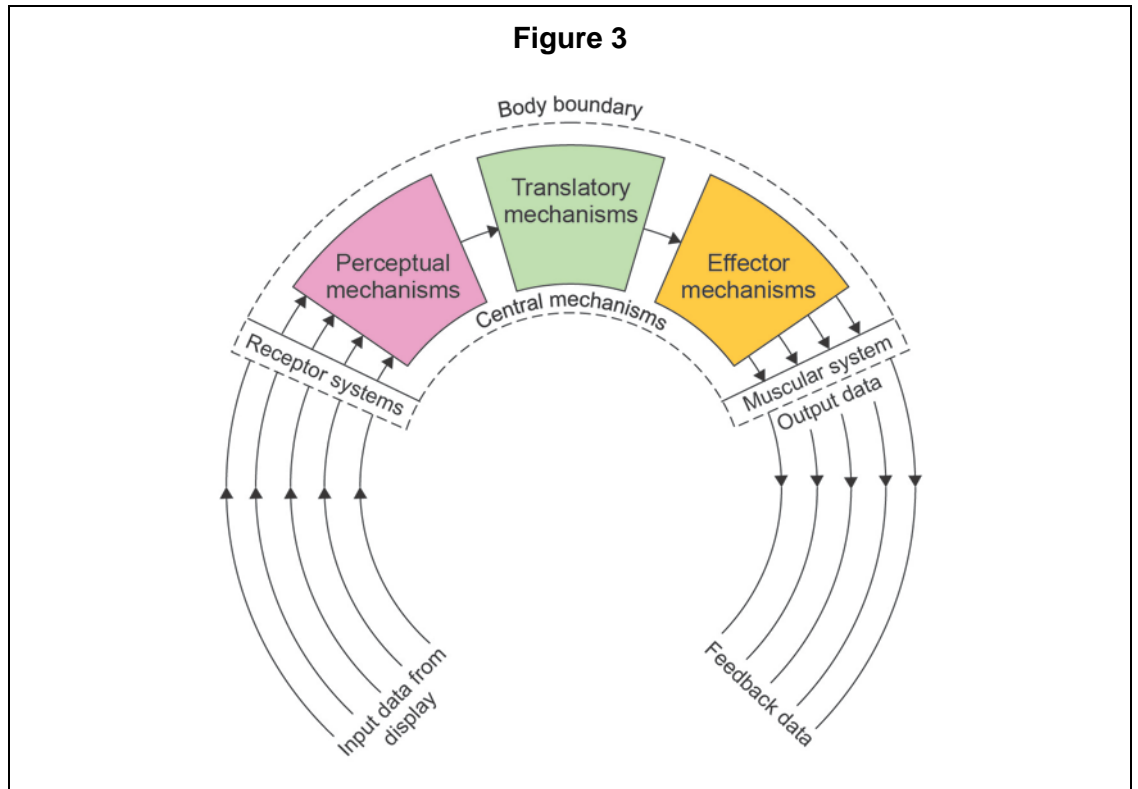
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[1 mark]

**Turn over for the next question**

**0 9**

**Figure 3** shows Whiting's information processing model.



State the function of each of the central mechanisms during a game situation.

**[3 marks]**

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Selective attention allows the performer to detect relevant cues from the display.

Suggest **three** strategies that can be used to improve selective attention.

**[3 marks]**

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Effective decision making is an important factor in the execution of skills.

Outline the terms chunking and chaining **and** explain how they can improve the decision making process. Use examples to support your answer.

**[4 marks]**

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**Turn over for the next question**

A coach may use different approaches to improve the team's performance.

**[8 marks]**

[illegible]

**[15 marks]**

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**Section C****Sport and society**

Answer **all** questions in this section.

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**1 4**

Which **one** of the following definitions best describes the term socialisation?

- A** A collection of people living in a defined geographical area ☐
- B** Studying how the social groups people belong to influence their actions and beliefs ☐
- C** The learning of cultural values in society ☐
- D** The learning of society's social norms and values ☐

**[1 mark]**

**1 5**

Which **one** of the following terms best describes a professional performer?

- A** One who believes 'the end justifies the means' ☐
- B** One who participates in sport 'for the love of it' ☐
- C** One who receives direct payment for their participation in sporting activities ☐
- D** One who receives no payment for competing in sport ☐

**[1 mark]**

**Turn over for the next question**

**1 6**Explain **two** characteristics of nineteenth century lawn tennis.**[4 marks]**

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**1 7**

Using an example from sport, describe the term 'social change'.

**[3 marks]**

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**1 8**

'Kick it out' was established as a campaign with the brand name 'Lets Kick Racism Out of Football'.

Explain the impact of this type of campaign on society.

**[3 marks]**

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**[8 marks]**

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Raising participation in physical activity should deliver both individual health benefits and a positive impact on society.

**[15 marks]**

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This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There is no text or other markings on the paper.[illegible]

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