

Centre Number						Candidate Number				
Surname										
Other Names										
Candidate Signature										



General Certificate of Education  
Advanced Subsidiary Examination  
June 2011

# Physical Education

**PHED1**

## Unit 1 Opportunities for and the Effects of Leading a Healthy and Active Lifestyle

**Friday 20 May 2011 9.00 am to 11.00 am**

You will need no other materials.

### Time allowed

- 2 hours

### Instructions

- Use black ink or black ball-point pen. Pencil should only be used for drawing.
- Fill in the boxes at the top of this page.
- Answer **all** questions.
- You must answer the questions in the spaces provided. Do not write outside the box around each page or 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 part questions are shown in brackets.
- The maximum mark for this paper is 84.
- In **Section B**, you should answer in continuous prose.
- In **Section B**, you will be marked on your ability to:
  - use good English
  - organise information clearly
  - use specialist vocabulary where appropriate.

For Examiner's Use	
Examiner's Initials	
Question	Mark
1	
2	
3	
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5	
6	
7	
TOTAL	



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**PHED1**

## Section A

Answer **all** questions in the spaces provided.

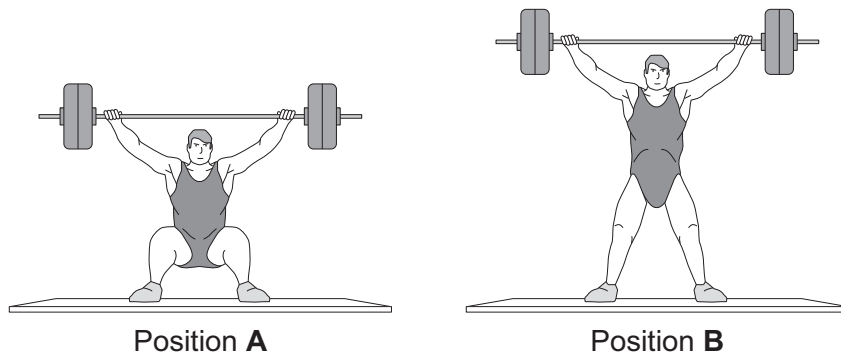
There are 12 marks for each question.

### Applied Exercise Physiology

- 1** Weightlifters will follow a strength training programme to ensure that they perform their best in a competition.

**Figure 1** shows a weightlifter performing a squat.

**Figure 1**



- 1 (a)** Using **Figure 1**, identify the 'joint action', 'main agonist' and the 'type of muscle contraction' occurring at the hip **and** ankle joints as the weightlifter moves from Position **A** to Position **B**.

	Hip	Ankle
Joint action		
Main agonist		
Type of muscle contraction		

(5 marks)



**1 (b)** Weightlifting requires different types of strength.

Name **and** describe the different types of strength used during weightlifting.

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(2 marks)

**1 (c)** Apart from strength, name **and** describe another component of fitness that is needed for weightlifting.

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(1 mark)

**1 (d)** Explain how **and** why the diet of a competitive weightlifter may need to differ from that of an untrained individual.

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(4 marks)



**2** Performers will often use running as part of their training programme.

**2 (a)** Both heart rate and stroke volume increase when running.

**2 (a) (i)** Use 'Starling's law of the heart' to explain how stroke volume increases when running.

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(3 marks)

**2 (a) (ii)** Explain how the heart controls the rate at which it beats.

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(4 marks)



**2 (b)** Running helps the 'venous return' mechanism.

Explain how the venous return mechanism works.

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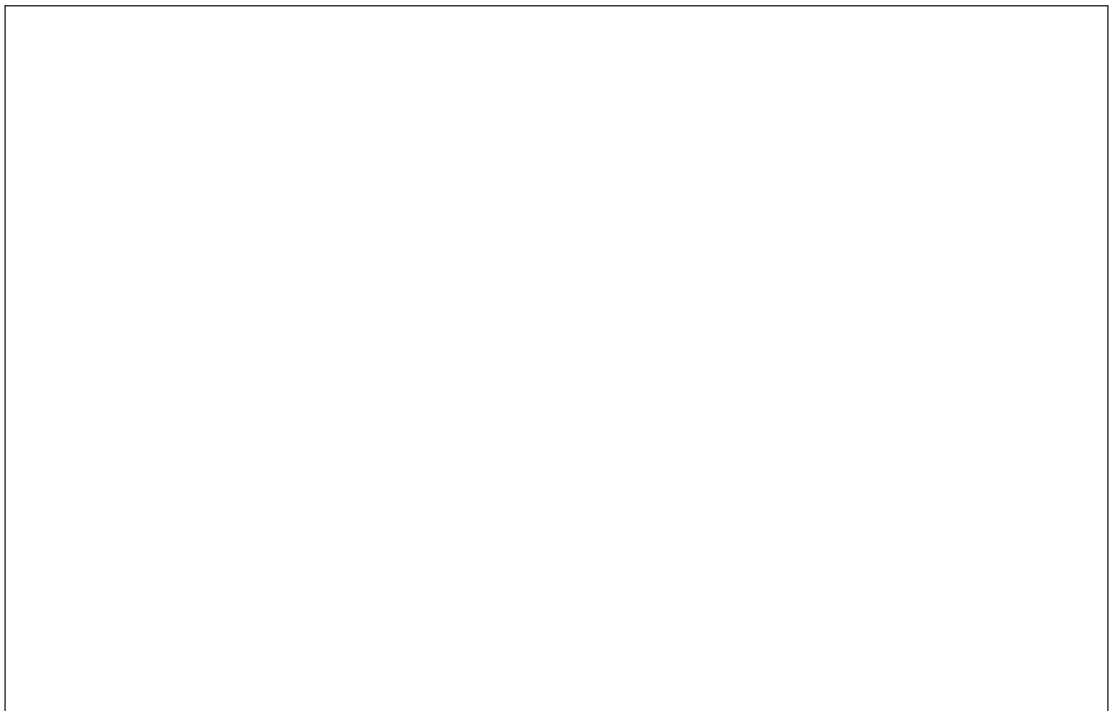
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(3 marks)

**2 (c)** When a person is running, the knee joint works as a lever system.

Name, sketch and label the lever system operating at the knee during running.

Lever system: .....



(2 marks)

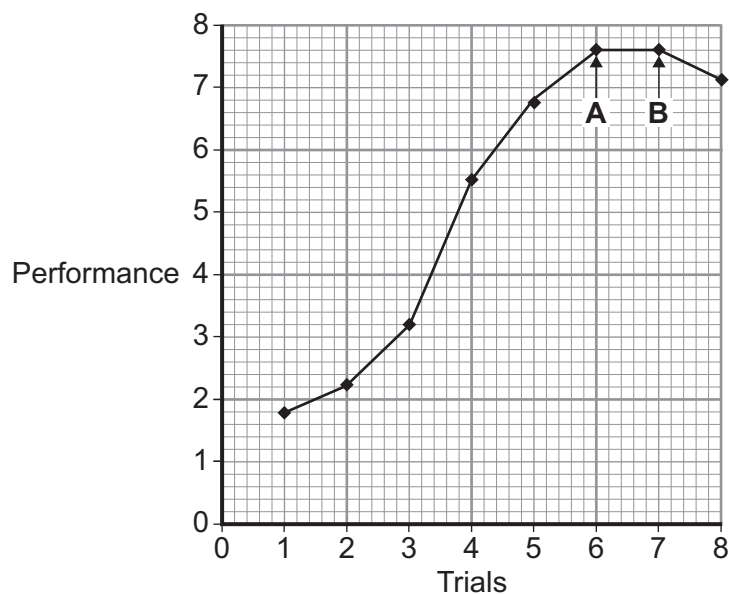


### Skill Acquisition

- 3** Games players practise to improve their skills. Improvements in skill performance may be identified through repeated attempts at the skill over a period of time.

**Figure 2** shows a typical performance curve, where skill performance is recorded over time.

**Figure 2**



- 3 (a) (i)** Using **Figure 2**, explain what is happening in relation to skilled performance between point **A** and point **B**.

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(2 marks)



- 3 (a) (ii)** Suggest possible solutions to limit what is happening between point **A** and point **B** in **Figure 2**.

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(4 marks)

- 3 (b) (i)** To be effective, games players will need to use 'selective attention'.  
Using an example from a game, explain the term selective attention.

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(3 marks)

- 3 (b) (ii)** How can a coach improve a player's selective attention?

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(3 marks)



**4** In order to learn a skill, a performer needs to be motivated.

**4 (a) (i)** What do you understand by the term 'intrinsic' motivation?

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(2 marks)

**4 (a) (ii)** Explain the disadvantages of using 'extrinsic' motivation to motivate an individual.

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(2 marks)

**4 (a) (iii)** How could a coach motivate a group of performers, of differing abilities, who regularly practise together?

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(4 marks)





- 4 (b)** 'Schmidt's schema theory' is based on various sources of information which are used to modify motor programmes.

Explain the functions of 'recall schema'.

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(4 marks)

12
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**Turn over for the next question**

**Turn over ►**



**Opportunities for Participation**

**5** Physical activity can be subdivided into the categories of 'play', 'physical recreation' and 'sport'.

**5 (a)** Play has been defined as 'an activity from which you get immediate pleasure without ulterior motive' (Spencer).

**5 (a) (i)** Explain this definition of play.

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(2 marks)

**5 (a) (ii)** State **three** ways in which sport differs from play.

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(3 marks)



- 5 (b)** Many organisations, such as 'Sport England', are involved in the provision of sporting and physical recreational activities in the United Kingdom.

Identify some of the **initiatives** that Sport England has developed in order to achieve its objectives of "Grow, Sustain, Excel".

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(4 marks)

- 5 (c)** How does the 'Youth Sports Trust' help to develop Physical Education and school sport opportunities?

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(3 marks)

12
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**Turn over for the next question**

**Turn over ►**



**6** There have been many developments in state school Physical Education since 1900.

**6 (a)** Identify the similarities **and** differences between the state school (1904–1918) Syllabuses of Physical Training and the current 'National Curriculum for Physical Education'.

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(5 marks)

**6 (b)** How can schools encourage more females to take part in physical activity?

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(4 marks)



- 6 (c)** Current provision for physical activities may be provided by the voluntary sector, the public sector or the private sector.

What are the characteristics of the 'private sector'?

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(3 marks)

12

**Turn over for the next Section**

**Turn over ►**



**Section B**

Answer this question in continuous prose. There are 12 marks for this question.

In order to maximise your marks, you are advised to  
give equal weighting to all areas of the question.

**7**

You have been asked to improve the fitness and skills of a group of AS Level Physical Education students.

Explain how you could calculate individual workload intensities for a continuous training programme.

In addition, explain the different methods of guidance **and** the factors that you should consider when deciding on the most appropriate method to use.

*You may use this space to plan your answer*

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12



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