



Please write clearly in block capitals.

Centre number

--	--	--	--	--

Candidate number

--	--	--	--

Surname

---

Forename(s)

---

Candidate signature

---

# AS

## PHYSICAL EDUCATION

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

Tuesday 24 May 2016

Morning

Time allowed: 2 hours

#### Materials

You will need no other materials.

#### 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.



J U N 1 6 P H E D 1 0 1

PB/Jun16/E2

**PHED1**

**Section A**

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

There are 12 marks for each question.

**Applied Exercise Physiology**

1 (a) (i) Body Mass Index (BMI) can be used as a measure of nutritional suitability.

Which **one** of the following statements is correct?

[1 mark]

(Tick the correct box.)

**A** BMI measures body composition

**B** BMI measures body fat

**C** BMI measures bone density

**D** BMI measures muscle mass

1 (a) (ii) A high percentage of body fat can have a negative impact on health and fitness.

Define the terms health **and** fitness.

[2 marks]

---

---

---

---



1 (a) (iii) Other than diet, explain how **two** different lifestyle choices can have a negative impact on health.

[2 marks]

---

---

---

---

---

---

1 (b) Gaseous exchange occurs between the capillaries and tissues and the capillaries and alveoli.

Outline how the following characteristics of capillaries allow for efficient gaseous exchange:

- one cell thick
- large surface area
- narrow diameter.

[3 marks]

One cell thick: \_\_\_\_\_

---

Large surface area: \_\_\_\_\_

---

Narrow diameter: \_\_\_\_\_

---

Question 1 continues on next page

Turn over ►



- 1 (c) **Table 1** shows the partial pressure of oxygen ( $\text{PO}_2$ ) and carbon dioxide ( $\text{PCO}_2$ ) in a blood capillary and a muscle.

**Table 1**

	$\text{PO}_2$ (mmHg)	$\text{PCO}_2$ (mmHg)
Blood capillary	100	40
Muscle	40	46

Using **Table 1**, describe how oxygen **and** carbon dioxide move between the blood and the muscles.

**[4 marks]**

---

---

---

---

---

---

---

---

---

---



**Turn over for the next question**

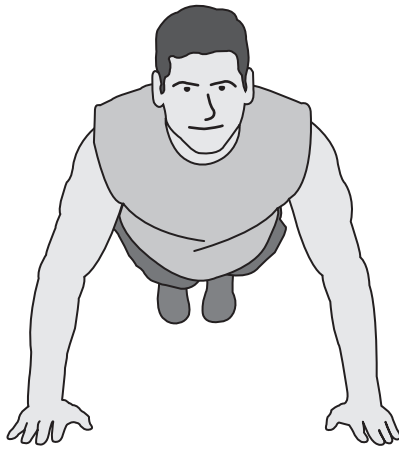
**DO NOT WRITE ON THIS PAGE  
ANSWER IN THE SPACES PROVIDED**

**Turn over ►**

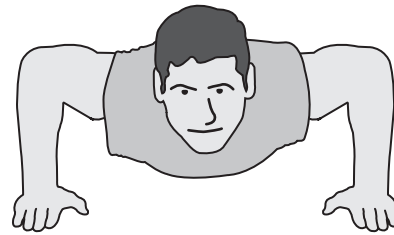


2 **Figure 1** shows a performer completing a press up.

**Figure 1**



Position A



Position B

2 (a) Using **Figure 1**, complete **Table 2** to identify the joint action, the main agonist and type of isotonic contraction at the **elbow** from position **A** to position **B**.

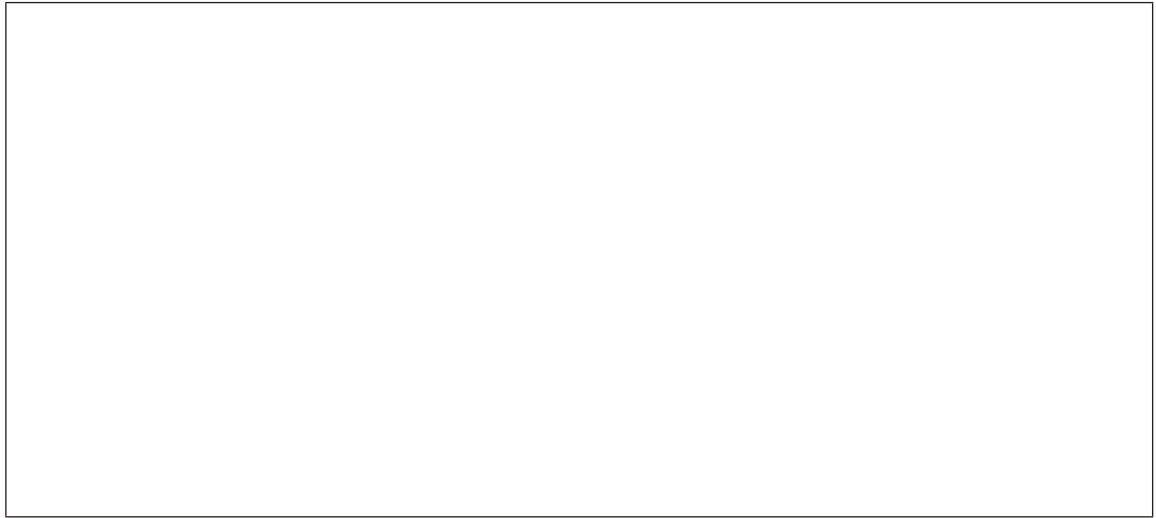
[3 marks]

**Table 2**

Elbow movement from position A to position B		
Joint action	Main agonist	Type of isotonic contraction



- 2 (b)** Lever systems allow movement at joints. Sketch and label a third class lever system. **[2 marks]**



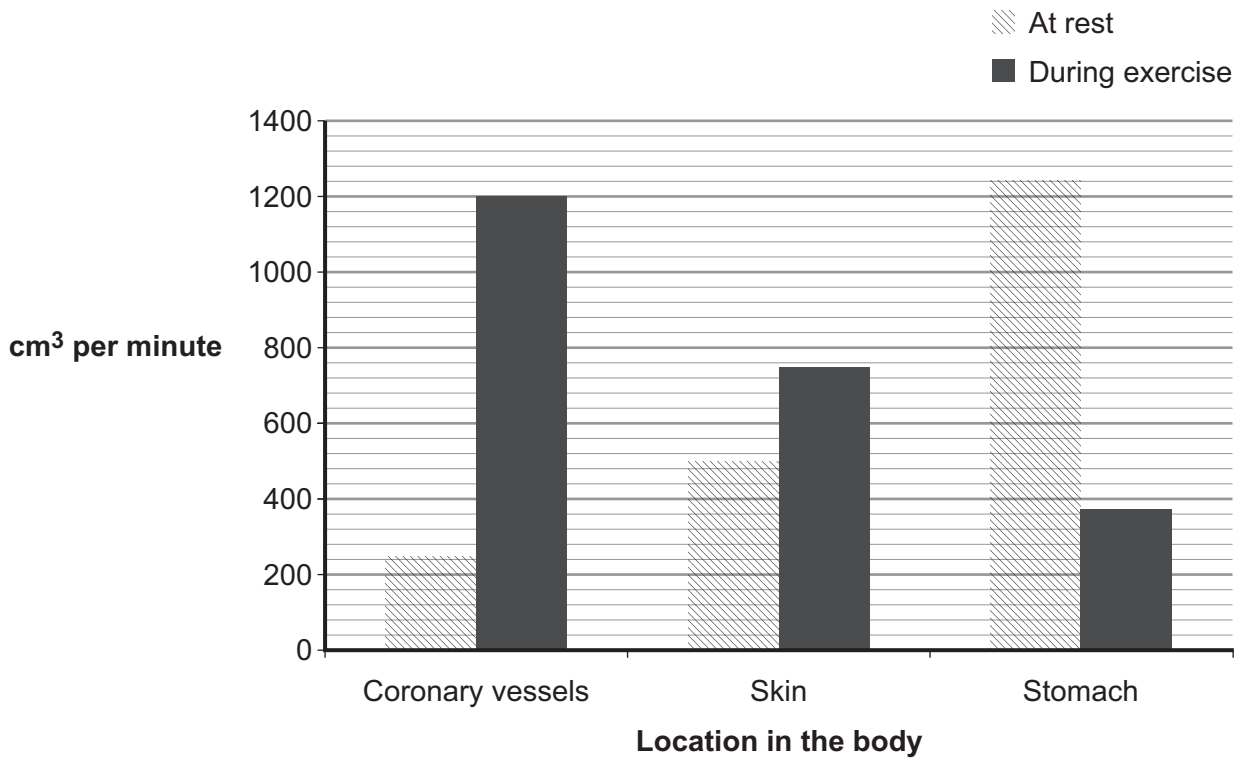
**Question 2 continues on next page**

**Turn over ►**



- 2 (c) When a performer exercises for a continuous period, blood is redistributed around the body as shown in **Figure 2**.

**Figure 2**



- 2 (c) (i) Identify and explain the change in blood flow during exercise at **two** different locations shown in **Figure 2**.

**[4 marks]**

---



---



---



---



---



---



---



---





2 (c) (ii) Explain how redistribution of blood is achieved during exercise.

[3 marks]

---



---



---



---



---



---

12

### Skill Acquisition

3 Skills are classified using different continua.

3 (a) (i) A tennis player starts the rally with a serve.

Which **one** of the following options accurately classifies the tennis serve?

[1 mark]

(Tick the correct box.)

A self-paced – discrete – gross

B externally paced – continuous – fine

C externally paced – discrete – gross

D self-paced – serial – fine

3 (a) (ii) Justify your classification on the gross – fine continuum.

[1 mark]

---



---

Turn over ►



3 (b) (i) The memory process is important to a tennis player.

Describe the functions of a tennis player's short term sensory store (STSS) during a rally.

[3 marks]

---

---

---

---

---

---

---

3 (b) (ii) Define simple reaction time **and** choice reaction time, **and** explain which is more common in the game of tennis.

[4 marks]

---

---

---

---

---

---

---

---

---



**3 (c)** Motivation is important for tennis players.

Name and describe different forms of motivation.

**[3 marks]**

---

---

---

---

---

---

---

12

**4** There are three stages of learning.

**4 (a)** Identify the first stage of learning **and** justify the use of demonstrations at this stage.

**[2 marks]**

---

---

---

---

**4 (b) (i)** When a performer moves from the first stage of learning to the final stage of learning, they may experience a learning plateau.

Identify the possible causes of a learning plateau.

**[3 marks]**

---

---

---

---

---

---

---

**Turn over ►**



4 (b) (ii) Suggest strategies a coach may use to help a performer to overcome a learning plateau.

[4 marks]

---

---

---

---

---

---

---

---

---

---

4 (c) Schmidt's (1975) schema theory states that learning occurs through the development of schema.

Recall schema is responsible for initiating movement.

Identify and explain the elements of recall schema.

[3 marks]

---

---

---

---

---

---

---

---

12



**Opportunities for Participation**

**5** Sport England aims to increase the number of people who regularly participate in sport and physical activity.

**5 (a)** Identify the characteristics of sport. **[3 marks]**

---

---

---

---

---

---

**5 (b)** Sportivate is a London 2012 legacy project. Its aim is to increase participation in sport. Describe the features of a Sportivate project. **[2 marks]**

---

---

---

---

**5 (c)** Sport England research shows that women are less likely to take part in sport than men. Explain how the following act as barriers resulting in lower participation rates amongst women:

- stereotyping
- discrimination.

**[2 marks]**

Stereotyping \_\_\_\_\_

---

Discrimination \_\_\_\_\_

---

**Turn over ►**



**5 (d)** Suggest how schools can improve participation rates of girls.

**[5 marks]**

---

---

---

---

---

---

---

---

---

---

---

---

12

**6** Participation in sport and physical activity can depend upon the opportunities available to individuals within society.

**6 (a)** Define the term equal opportunity.

**[2 marks]**

---

---

---

---



**6 (b) (i)** Opportunities to participate in sport and physical activity are provided by the voluntary sector, public sector or private sector.

Identify the characteristics and goals of the voluntary sector.

**[3 marks]**

---

---

---

---

---

---

---

**6 (b) (ii)** Suggest how the public sector supports participation in sport and physical activity for those from a lower socio-economic class.

**[2 marks]**

---

---

---

---

**Question 6 continues on the next page**

**Turn over ►**



**6 (c)** The publication *Moving and Growing* (1952) encouraged a movement approach in school physical education programmes.

Describe the content **and** delivery of the movement approach in school physical education programmes.

**[5 marks]**

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

12





**Section B**

Answer this question.

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 plan and deliver a six week training programme for a group of performers, and provide extrinsic feedback.

Explain how the FITT principles can be applied to the training programme **and** outline the advantages and disadvantages of using extrinsic feedback.

**[12 marks]**

You may use this space to plan your answer.

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

**Turn over ►**











**There are no questions printed on this page**

**DO NOT WRITE ON THIS PAGE  
ANSWER IN THE SPACES PROVIDED**



**There are no questions printed on this page**

**DO NOT WRITE ON THIS PAGE  
ANSWER IN THE SPACES PROVIDED**



**There are no questions printed on this page**

**DO NOT WRITE ON THIS PAGE  
ANSWER IN THE SPACES PROVIDED**

**Copyright information**

For confidentiality purposes, from the November 2015 examination series, acknowledgements of third party copyright material will be published in a separate booklet rather than including them on the examination paper or support materials. This booklet is published after each examination series and is available for free download from [www.aqa.org.uk](http://www.aqa.org.uk) after the live examination series.

Permission to reproduce all copyright material has been applied for. In some cases, efforts to contact copyright-holders may have been unsuccessful and AQA will be happy to rectify any omissions of acknowledgements. If you have any queries please contact the Copyright Team, AQA, Stag Hill House, Guildford, GU2 7XJ.

Copyright © 2016 AQA and its licensors. All rights reserved.

