



General Certificate of Education
Advanced Subsidiary Examination
January 2010

Physical Education

PHED1

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

Tuesday 19 January 2010 9.00 am to 11.00 am

For this paper you must have:

- a 12-page answer book.

Time allowed

- 2 hours

Instructions

- Use black ink or black ball-point pen.
- Write the information required on the front of your answer book. The **Examining Body** for this paper is AQA. The **Paper Reference** is PHED1.
- Answer **all** questions.
- Do all rough work in your answer book. Cross through any work that 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 will be marked on your ability to:
 - use good English
 - organise information clearly
 - use specialist vocabulary where appropriate.

PHED1

SECTION A

Answer **all** questions.

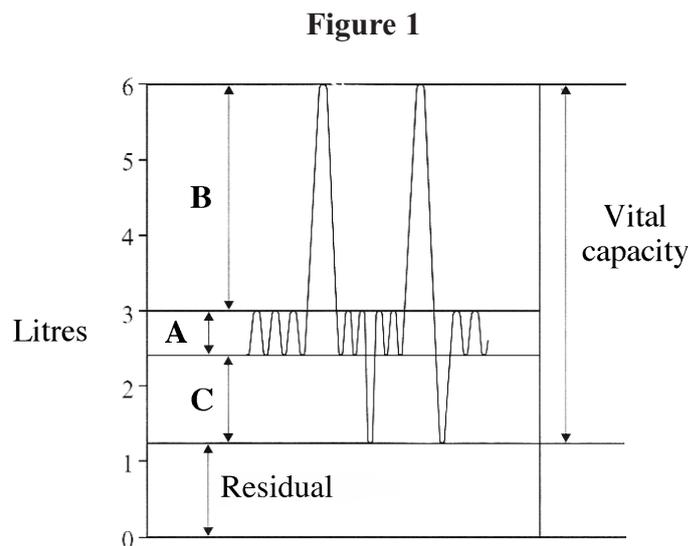
There are 12 marks for each question.

1 We eat different classes of food. One of these classes of food is fat.

- (a) (i) Describe **two** benefits to athletes of including ‘fat’ in their diet. *(2 marks)*
- (ii) Too much dietary fat may cause obesity. Which diseases are associated with ‘obesity’? *(3 marks)*

Athletes usually need to have an efficient cardio-respiratory system to enable them to meet the demands of an activity.

(b) **Figure 1** shows the spirometer reading of an athlete.



- (i) Which ‘lung volume’ is represented by the letter **B**? *(1 mark)*
- (ii) What would be the effect on the spirometer trace for lung volume **A** of a period of continuous running? *(2 marks)*
- (iii) How is ‘breathing rate’ controlled to meet the demands of changing levels of exercise? *(4 marks)*

2 Games players require a good level of stamina if they are to be successful.

- (a) (i) What do you understand by the term ‘stamina’ **and** why is it an important component of fitness for games players? *(1 mark)*
- (ii) Explain how different lifestyle choices can positively **and** negatively affect a games player’s stamina. *(4 marks)*
- (b) **Figure 2** shows a games player running.

Figure 2



www.sporting-heroes.net

The player’s left leg is driving him forward. For the movement occurring at the **knee joint** of the drive leg, name:

- (i) the ‘axis’ about which the movement is taking place *(1 mark)*
- (ii) the main ‘agonist’ causing the movement *(1 mark)*
- (iii) the ‘joint action’ taking place. *(1 mark)*
- (c) During a game, a player’s work rate will vary. Describe how the ‘parasympathetic’ **and** the ‘sympathetic’ nerve pathways control heart rate during a game. *(4 marks)*

Turn over for the next question

3 A badminton coach may observe players in matches to see whether they are skilful.

(a) What are the characteristics of a skilful performance? *(3 marks)*

In order to improve their performance, badminton players need motivation.

(b) (i) Explain the meaning of the term 'motivation'. *(2 marks)*

(ii) How could a coach motivate a badminton player to improve? *(3 marks)*

(c) One form of learning is through schema. 'Schmidt's schema theory' (1975) is based on the concept that every time athletes make a movement, they gather information from four sources.

Explain how athletes use these **four** sources of information to make a movement.

(4 marks)

4 In order to learn gymnastic skills, gymnasts need to remember important instructions and use selective attention.

(a) What are the characteristics and functions of 'short-term memory'? *(3 marks)*

(b) How can a coach ensure that important information is stored in the gymnast's 'long-term memory'? *(4 marks)*

(c) (i) Explain the meaning of the term 'operant conditioning'. *(2 marks)*

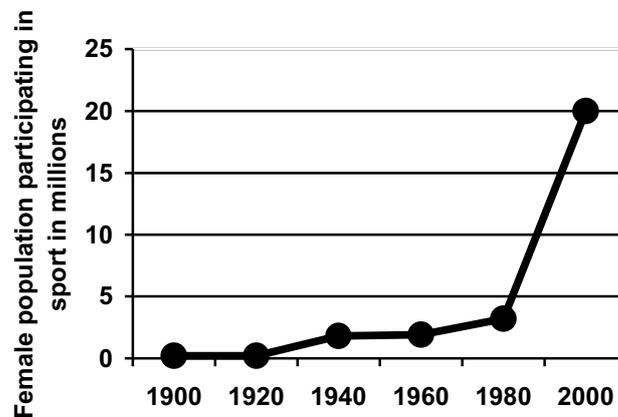
(ii) How can a coach use operant conditioning to develop a gymnast's skills?

(3 marks)

5 Early forms of modern sports were primarily developed by men for men. It is only since the start of the 20th century that women have become more actively involved in sport.

- (a) (i) How did 19th century public schools contribute to the technical development of 'rational recreation'? (3 marks)
- (ii) How did 19th century public schools and universities help to spread rational recreation into wider society? (3 marks)
- (b) **Figure 3** shows the increase in the number of women participating in sport and physical activity in the United Kingdom (UK) over the past 100 years.

Figure 3



The participation of women in physical activities often depends on whether the opportunities are available to them.

- (i) Explain the term 'discrimination'. (2 marks)
- (ii) Discuss whether current opportunities for women to take part in sport and physical activity are the same as for men. (4 marks)

6 The National Curriculum for Physical Education is now compulsory in state schools.

- (a) (i) List the **six** sport classifications in the National Curriculum for Physical Education. (2 marks)
- (ii) What roles, other than 'performer', does the National Curriculum for Physical Education encourage children to develop? (3 marks)
- (b) (i) In what ways are the characteristics of physical education and those of sport different? (3 marks)
- (ii) Describe how schools can provide extra-curricular opportunities to increase participation rates for their pupils. (4 marks)

SECTION B

Answer this question.

There are 12 marks for this question. In order to maximise your marks you are required to give equal weighting to all areas of the question.

- 7 You have been asked to develop the flexibility of a group of AS level Physical Education students.

Describe the different 'types of stretching' that could be safely used with the group **and** describe how you can use visual and manual 'guidance' effectively with the students.

(12 marks)

END OF QUESTIONS

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