



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
International General Certificate of Secondary Education

CANDIDATE
NAME

CENTRE
NUMBER

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CANDIDATE
NUMBER

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PHYSICAL EDUCATION

0413/01

Paper 1

May/June 2007

2 hours

Candidates answer on the Question Paper.

No Additional Materials are required.

READ THESE INSTRUCTIONS FIRST

Write your Centre number, candidate number and name on all the work you hand in.
Write in dark blue or black pen.
You may use a soft pencil for any diagrams, graphs or rough working.
Do not use staples, paper clips, highlighters, glue or correction fluid.
DO NOT WRITE IN ANY BARCODES.

Answer **all** questions.

At the end of the examination, fasten all your work securely together.
The number of marks is given in brackets [] at the end of each question or part question.

For Examiner's Use	
Section A	
B1	
B2	
B3	
Total	

This document consists of **12** printed pages.



Section A

Answer **all** questions in this section.

For
Examiner's
Use

1 What is meant by the term *somatotyping*?

..... [1]

2 Give **one** reason why there has been a steady increase in the number of leisure facilities built in recent years.

.....
..... [1]

3 Name **one** activity that would be suitable for an extreme ectomorph.

.....
..... [1]

4 Describe **one** feature of physical well-being.

.....
..... [1]

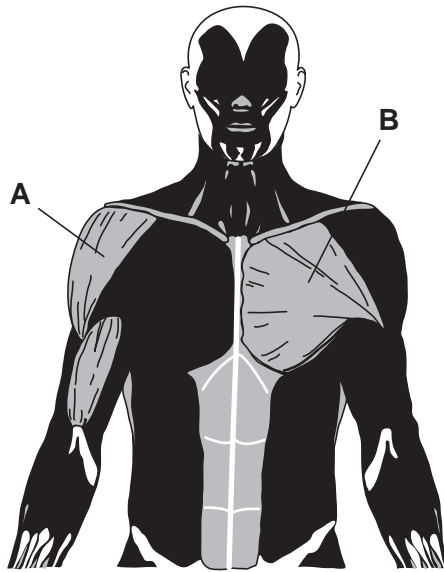
5 Describe **one** effect that lactic acid has on a performer's muscles.

.....
..... [1]

6 Private companies find it difficult to make a profit from running swimming pools. Give **two** reasons why this is the case.

.....
.....
..... [2]

7 Name the muscles marked **A** and **B** in the diagram below.



A

B

[2]

8 Describe **two** actions that you could take when applying first aid treatment to someone suffering with a blister.

.....
.....
.....
..... [2]

9 A balanced diet is essential for a healthy lifestyle.

(a) What is the benefit of fibre as part of a diet?

.....
..... [1]

(b) Name a food that is high in fibre.

.....
..... [1]

10 Give **two** harmful effects of consuming large quantities of alcohol on the health of an individual.

.....
.....
.....
..... [2]

11 Name an indoor sporting activity.

(a) Describe **one** potential danger that could occur when playing the activity.

.....
..... [1]

(b) Describe how you would overcome this danger.

.....
..... [1]

12 Some performers hope to play at the highest level. Describe **three** external factors that could determine if a performer plays at the highest level in their sport.

.....
.....
.....
.....
..... [3]

[Total: 20]

Section B

Answer **all** questions in this section.

For
Examiner's
Use

Factors Affecting Performance

B1 (a) What is meant by the term *motivation*?

.....
..... [1]

(b) Anxiety can cause a reduction in the level of performance. Describe **two** ways in which a performer can overcome this difficulty.

.....
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.....
..... [2]

(c) Many activities are made up of a range of open and closed skills. In a named activity, describe **one** skill that is near the open and **one** near the closed extremes of the continuum.

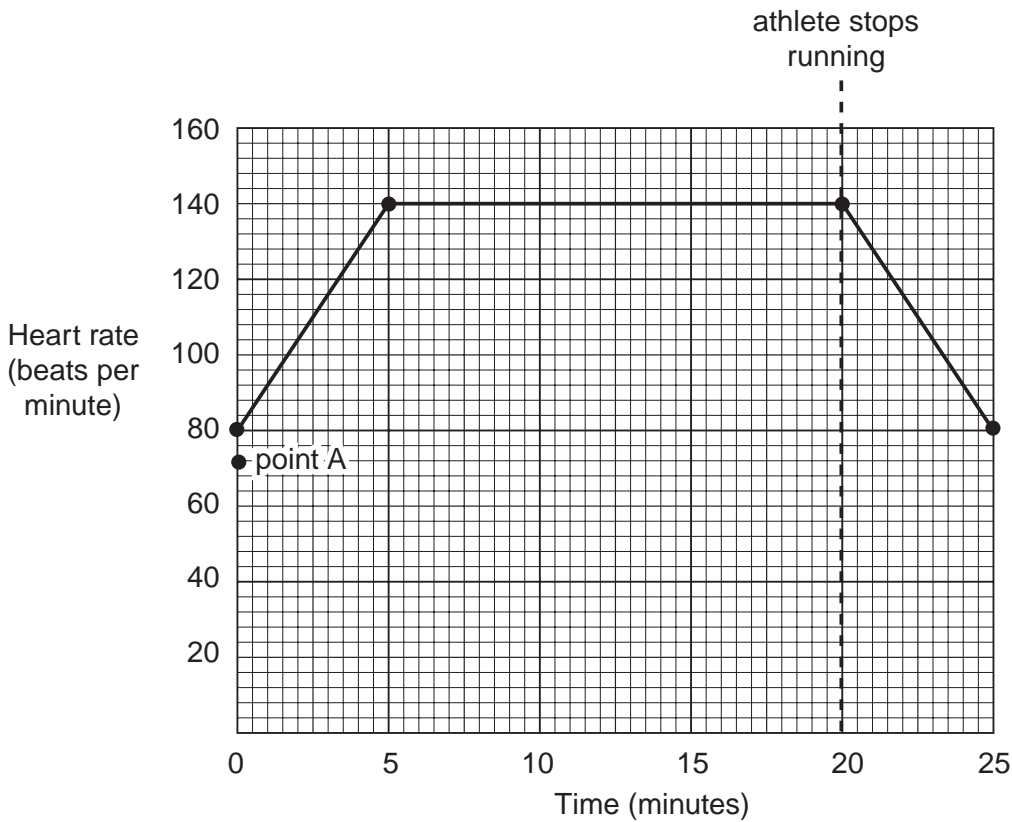
Activity

open skill

closed skill [2]

(d) The graph below shows the heart rate of a young performer running on a flat track.

For
Examiner's
Use



(i) What is the performer's resting heart rate?

..... [1]

(ii) After training, the performer improves his fitness and lowers his resting heart rate (point A). Complete the graph, from point A, showing the improved level of fitness if he repeated the same run. [2]

(iii) Give **one** reason why these changes have taken place.

.....
 [1]

(e) The table below shows types of movement, a key feature and where the type of movement might occur. Some information has been completed in the table. Complete the table by writing in the missing details.

Types of movement	Key features	Joint
Flexion		Knee Elbow
	Movement of a limb away from the central axis of the body	
Extension		Knee Elbow

[4]

(f) (i) What does the multi-stage fitness test measure?

.....
 [1]

(ii) Describe how you would carry out this test. Include details of any equipment used.

.....

 [3]

(iii) Describe another test which will assess the same component of fitness.

.....

 [3]

[Total: 20]

Health, Safety and Training

B2 (a) An athlete takes part in a sprinting event. What will happen to the athlete when an Oxygen Debt occurs?

.....
..... [1]

(b) An athlete takes part in a regular training programme for a number of months. He finds that his performances during training decreases. Describe **two** reasons why this might happen.

.....
.....
..... [2]

(c) Complete the following equation.



Name which respiration system this equation describes and explain **one** key feature of it.

.....
.....
..... [1]

(d) (i) Describe **two** factors that determine how much energy a person needs in their daily life.

.....
.....
..... [2]

(ii) An athlete preparing for a long distance running event will often use his/her diet to increase energy levels immediately before the event. Name and describe this process.

.....
.....
..... [1]

(e) When a performer takes part in exercise the body generates heat which is lost through evaporation and radiation.

(i) Explain how these **two** processes take place.

Evaporation

.....
.....
.....

Radiation

.....
.....
.....

[3]

(ii) Some outdoor sports take place in cold, wet conditions and in such cases a performer's body temperature can drop. Explain how the body reduces the effect of playing in such cold conditions.

.....
.....
.....
.....

[2]

(f) An athlete wants to improve his physical fitness in preparation for a long distance running event. He decides to use a Circuit Training programme to help him prepare.

(i) Describe **two** key elements of Circuit Training.

.....
.....
..... [2]

(ii) Choose **two** of the principles of training and describe how they would affect the planning of the Circuit Training.

.....
.....
..... [2]

(iii) What are the advantages of using a Circuit Training programme?

.....
.....
..... [2]

(iv) What alternative training method could the athlete use to get ready for the event?

.....
..... [1]

[Total: 20]

Reasons and Opportunities for Participation in Physical Activity

For
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B3 (a) Define the term *physical recreation*.

..... [1]

(b) Give **two** reasons why where you live can influence the types of activities in which you participate.

.....
.....
..... [2]

(c) Describe **two** ways that sporting opportunities, for young people, can be improved through links between schools and clubs.

.....
.....
.....
..... [2]

(d) There has been an increase in the number of sportsmen and women becoming professional performers. Describe some of the factors that have allowed this increase to arise.

.....
.....
.....
..... [3]

(e) The amount of sport shown on television has increased greatly in recent years. Give reasons why this high level of exposure can have a negative effect on a sport.

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..... [5]

(f) There has been an increase in the number of women participating in sport in recent years.

(i) What factors have contributed to this increase in participation?

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..... [5]

(ii) Despite the increase in female participation, more girls than boys stop taking part in sport immediately after they leave school. What reasons can you give for this?

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..... [2]

[Total: 20]

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