



Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

CANDIDATE
NAME

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CENTRE
NUMBER

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CANDIDATE
NUMBER

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6654277899

PHYSICAL EDUCATION

0413/12

Paper 1

October/November 2017

1 hour 45 minutes

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 an HB pencil for any diagrams or graphs.

Do not use staples, paper clips, glue or correction fluid.

DO **NOT** WRITE IN ANY BARCODES.

Section A

Answer **all** questions in this section.

Write your answers in the spaces provided on the Question Paper.

Section B

Answer **all** questions in this section.

Write your answers in the spaces provided on the Question Paper.

Electronic calculators may be used.

You may lose marks if you do not show your working or if you do not use appropriate units.

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.

This document consists of **14** printed pages and **2** blank pages.



Section A

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

1 State **one** type of motivation.

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

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

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

3 Describe **one** benefit of sports events being shown on television for a viewer.

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

4 Name **one** example of a hinge joint from the body.

..... [1]

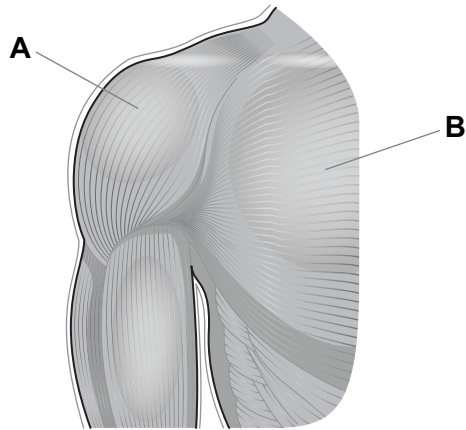
5 Describe **one** long-term effect on the body if energy intake is greater than energy need.

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

6 State **one** example of a physical activity that can take place in a natural environment.

..... [1]

7 Name the **two** muscles labelled **A** and **B**.



A

B [2]

8 State **two** common types of sports injuries and describe a different treatment for each.

injury 1.....

treatment.....

injury 2.....

treatment..... [2]

9 Describe **three** reasons why a coach should regularly test the fitness of a performer.

.....

.....

.....

.....

.....

..... [3]

10 Describe **three** benefits of a cool down.

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

[3]

11 Suggest, using **four** physical activities, different ways that technology helps performers to achieve excellence.

activity 1.....
.....
.....
activity 2.....
.....
.....
activity 3.....
.....
.....
activity 4.....
.....
.....

[4]

[Total: 20]

Section B

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

Unit 1 Factors affecting performance

12 (a) Explain why closed skills are usually easier to learn than open skills.

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

[2]

(b) Describe how arousal can affect performance.

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

[3]

(c) The diagrams, **A** to **C**, show performers from different sports.



A



B



C

For each sport, name a different component of skill-related fitness required and give reasons for your answers.

A

.....

.....

B

.....

.....

C

.....

.....

[3]

(d) Complete the table to show a different type of movement possible at each joint. Give an example of a benefit to a performer of the named type of movement at the shoulder.

joint	type of movement	example of a benefit to a performer
knee		able to kick a ball in football
shoulder		

[3]

(e) (i) Describe gaseous exchange in the lungs.

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

(ii) Describe the long-term effects of regular aerobic training on the respiratory system.

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

(f) (i) Suggest **two** factors a coach should consider when planning a six-week exercise programme for a person who has a low level of fitness.

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

(ii) Describe the short-term improvements that could result from using the exercise programme.

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

(g) Elite athletes often spend periods of time living and training at altitude.

(i) State the component of fitness that is most likely to improve as a result of periods of time spent at altitude.

..... [1]

(ii) Explain the long-term benefits to an athlete of living and training at altitude.

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

(iii) Suggest difficulties an athlete may experience when living and training at altitude.

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

[Total: 25]

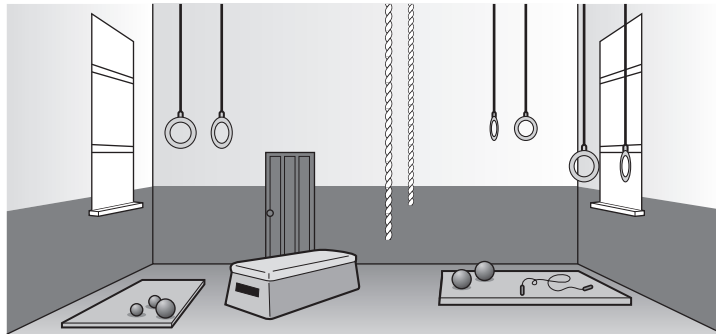
Unit 2 Health, safety and training

13 (a) Describe how playing sports can contribute to a person's mental well-being.

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

[2]

(b) The diagram shows a school gym with different pieces of equipment.



Suggest **three** safety instructions a teacher should give to students when carrying or moving equipment.

instruction 1.....
.....
instruction 2.....
.....
instruction 3.....
.....

[3]

(c) Suggest the main differences in the diet required by an elite sprinter and an elite endurance athlete and give reasons for your answer.

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

[2]

(d) Describe **two** ways that a participant can reduce the risk of injury to themselves.

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

(e) (i) Name a training method that should be used by a person who is preparing for a 5000-metre (5K) charity run and has a low level of fitness.

..... [1]

(ii) State the advantages and disadvantages of using this type of training for the person.

advantages.....
.....
.....
.....
disadvantages.....
.....
..... [4]

(f) Training can involve different types of muscle contraction.

(i) Name **two** types of muscle contraction.

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

(ii) Describe the advantages of using exercises to improve **one** named type of muscle contraction.

type of muscle contraction.....
advantages.....
.....
..... [2]

(iii) Describe, in **two** named sports, a different example that demonstrates the use of **one** type of muscle contraction by a performer.

type of muscle contraction.....
sport 1.....
example.....
.....
sport 2.....
example.....
..... [2]

[Total: 20]

Unit 3 Reasons and opportunities for participation in physical activity

14 (a) Suggest the effects of regular television coverage on sports.

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

[2]

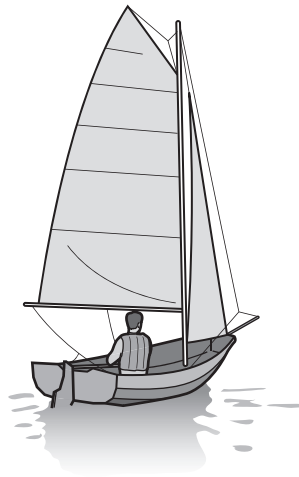
(b) Scout groups are an example of a voluntary organisation providing leisure opportunities for young people.

Explain the benefits of voluntary organisations.

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

[3]

(c) The picture shows a young person sailing.



Suggest reasons why they have chosen to take part in this activity.

.....

.....

.....

.....

.....

.....

.....

.....

.....

[4]

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