Cambridge Assessment International Education

Cambridge IGCSE™

CANDIDATE NAME	

CENTRE NUMBER						CANDIDATE NUMBER				

1298952993

PHYSICAL EDUCATION **0413/11**

Paper 1 Theory **October/November 2023**

1 hour 45 minutes

You must answer on the question paper.

No additional materials are needed.

INSTRUCTIONS

- Answer **all** questions.
- Use a black or dark blue pen. You may use an HB pencil for any diagrams or graphs.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.
- Do **not** use an erasable pen or correction fluid.
- Do **not** write on any bar codes.
- You may use a calculator.
- You should show all your working and use appropriate units.

INFORMATION

- The total mark for this paper is 100.
- The number of marks for each question or part question is shown in brackets [ ].

This document has **16** pages. Any blank pages are indicated.

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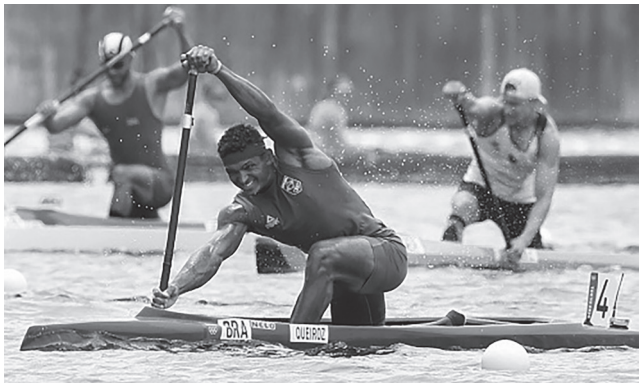
1 **(a)** The photographs show different outdoor and adventurous activities. Photograph **A** shows canoeing and photograph **B** shows rock climbing.



A

B

(i) Describe real risk and perceived risk.

real risk .....

.....

perceived risk .....

.....
[2]

(ii) For each physical activity, suggest a different example of a real risk.

canoeing .....

.....

rock climbing .....

.....
[2]

(iii) For each physical activity, describe how a different piece of protective equipment can reduce the risk of injury.

canoeing

piece of protective equipment .....

how it can reduce the risk of injury .....

.....

rock climbing

piece of protective equipment .....

how it can reduce the risk of injury .....

.....
[4]

(b) Other than the use of protective equipment, suggest **four** strategies that can be used to reduce the risk of injury in physical activities.

1 .....

2 .....

3 .....

4 .....
[4]

[Total: 12]

2 There are three different aspects of health and well-being.

(a) Identify **one** aspect of health and well-being that may be difficult to improve while participating in an individual sport. Justify your answer.

aspect of health and well-being .....

justification .....

.....
[2]

(b) Complete the following definition of fitness.

The ability to cope with (or meet) the demands of the ..... . [1]

(c) Explain how ill health can affect fitness.

.....

.....

.....

..... [2]

[Total: 5]

3 Identify the personality type that is associated with being shy. Other than being shy, describe a characteristic of this personality type.

personality type .....

characteristic .....

.....
[2]

4 **(a)** Identify the main muscle fibre type that is used throughout a long-distance running race. Describe **three** different characteristics of this muscle fibre type.

muscle fibre type .....

characteristic 1 .....

.....

characteristic 2 .....

.....

characteristic 3 .....

.....
[4]

(b) Some long-distance runners use high-altitude training in preparation for a competition.

(i) Describe why long-distance runners may use high-altitude training.

.....

.....

.....

.....

.....

..... [3]

(ii) Suggest **three** reasons why some long-distance runners may find it difficult to use high-altitude training.

1 .....

2 .....

3 .....
[3]

[Total: 10]

5 **(a)** When training a swimmer may complete many lengths of a swimming pool at the same intensity without rest.

Identify this method of training.

..... [1]

(b) Identify the principle of training that can make it difficult for a swimmer to maintain motivation when completing many lengths.

..... [1]

(c) Identify the **two** main types of motivation. Give a practical example of how each type of motivation can be used by a swimmer during a training programme.

type of motivation 1 .....

example .....

.....

type of motivation 2 .....

example .....

.....
[4]

[Total: 6]

6 **(a)** The photograph shows a horse and rider jumping over a fence.

(i) Describe how balance is used by a horse rider when jumping over a fence.

.....

..... [1]

(ii) Describe how each of the following forces act during the jump:

gravity .....

.....

.....

air resistance. .....

.....

.....
[2]

(b) Other than gravity and air resistance, identify a force that affects a sporting object when it is thrown.

..... [1]

[Total: 4]

7 **(a)** The photograph shows a long jumper in the air.

State the names of the muscles located at **A**, **B**, **C** and **D**.

A .....

B .....

C .....

D .....
[4]

(b) **(i)** Identify the type of synovial joint located at the knee.

..... [1]

(ii) State **two** types of movement that do **not** occur at the knee.

1 .....

2 .....
[2]

(iii) State a type of synovial joint in the body that has a wider range of movement than the knee.

..... [1]

(c) Cartilage absorbs shock when landing in the long jump.

Other than cartilage, identify **three** components of a synovial joint. Describe a different role of each component.

component 1 .....

description of role .....

.....

component 2 .....

description of role .....

.....

component 3 .....

description of role .....

.....

[6]

[Total: 14]

8 The photograph shows a badminton performer during a game.

Describe the following components of fitness. Give an example of when each component of fitness is used by a badminton performer during a game.

coordination .....

.....

example .....

.....

reaction time .....

.....

example .....

.....

power .....

.....

example .....

.....

[6]

9 Artistic gymnastics is an activity in the Olympic Games.

(a) **(i)** Suggest why performers such as gymnasts should avoid overtraining when preparing for the Olympic Games.

.....

.....

.....

.....

.....

..... [3]

(ii) Other than for physiological benefits, suggest why performers such as gymnasts may use performance-enhancing drugs (PEDs) during their preparation for the Olympic Games.

.....

.....

.....

.....

.....

..... [2]

(b) Suggest **three** disadvantages of being caught using PEDs for a performer at the Olympic Games.

1 .....

.....

2 .....

.....

3 .....

.....

[3]

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(c) Improved tourism is one advantage of being the host nation of a major sporting event, such as the Olympic Games.

Describe **four** other advantages.

1 .....

.....

2 .....

.....

3 .....

.....

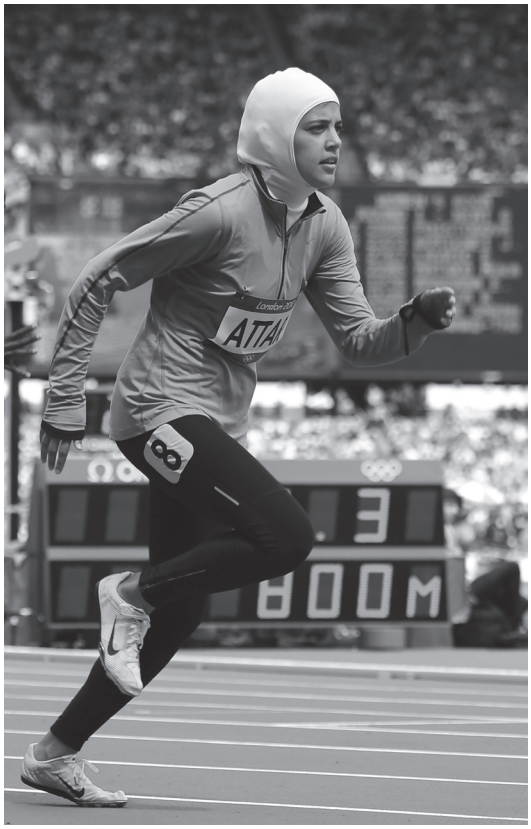
4 .....

.....

[4]

[Total: 12]

10 The photograph shows an athlete who has progressed to the elite level of the sports development pyramid.



(a) Describe **four** characteristics of the elite level of the sports development pyramid.

1 .....

2 .....

3 .....

4 .....
[4]

(b) Other than the elite level, state **three** levels of the sports development pyramid.

1 .....

2 .....

3 .....
[3]

(c) Elite performers may be at the autonomous stage of learning.

Describe **one** characteristic of performers at the autonomous stage of learning.

..... [1]

[Total: 8]

11 **(a)** Describe **two** differences between aerobic respiration and anaerobic respiration.

1 .....

.....

.....

2 .....

.....

.....
[2]

(b) Describe situations in a named physical activity when aerobic respiration and anaerobic respiration may occur.

physical activity .....

aerobic situation .....

.....

anaerobic situation .....

.....
[2]

[Total: 4]

12 Identify **two** types of media coverage that can be used to promote sport and leisure.

1 .....

2 .....
[2]

13 Before a competition, performers may suffer from anxiety and need to relax to control their arousal.

(a) State **two** types of anxiety. Suggest an example of each type of anxiety.

type of anxiety 1 .....

example .....

.....

type of anxiety 2 .....

example .....

.....

[4]

(b) **(i)** State a relaxation technique that a performer may use before a competition.

..... [1]

(ii) Describe how relaxation techniques can help control arousal and anxiety.

.....

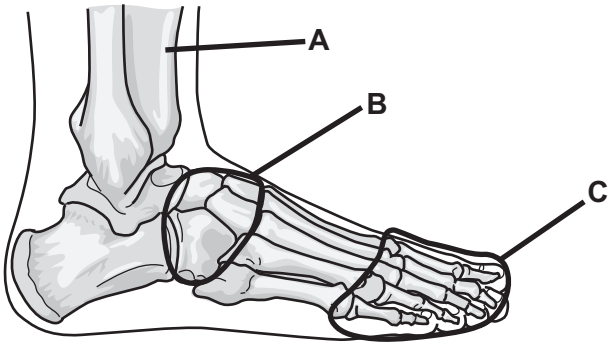
.....

.....

..... [2]

[Total: 7]

14 The diagram shows part of the lower leg and foot.



(a) State the names of the bones at **A**, **B** and **C**.

A .....

B .....

C .....
[3]

(b) **(i)** Identify the classification of the bone at **A**.

..... [1]

(ii) Identify the classification of the bones at **B**.

..... [1]

(c) Suggest **one** minor injury of the foot. Describe a possible cause and treatment of this injury.

minor injury .....

cause .....

.....

treatment .....

.....
[3]

[Total: 8]

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