* 0000800000001 *

Cambridge Assessment International Education

Cambridge IGCSE™

CANDIDATE NAME	

CENTRE NUMBER						CANDIDATE NUMBER				

* 0 6 8 3 5 5 4 4 9 0 *

PHYSICAL EDUCATION **0413/12**

Paper 1 Theory **May/June 2025**

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 **20** pages. Any blank pages are indicated.

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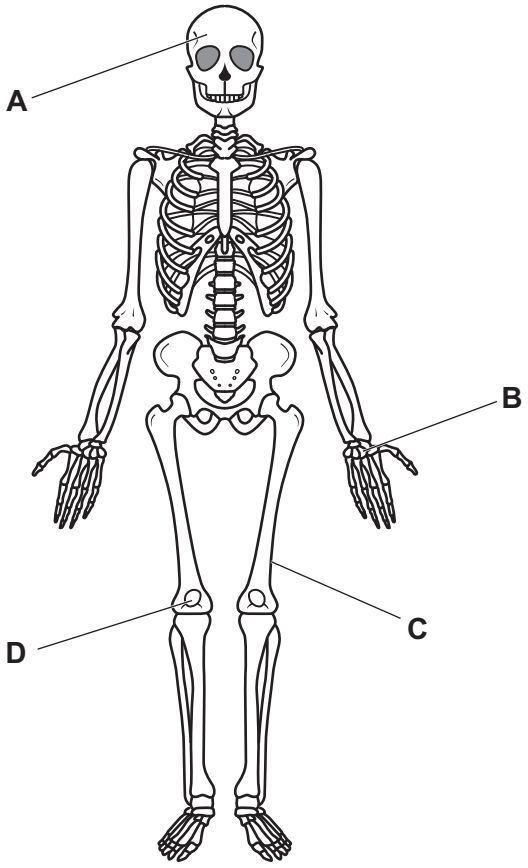
1 Identify **two** types of movement that can occur at the ankle.

1 .....

2 .....

[2]

2 The diagram shows a human skeleton.



(a) Complete the table to identify the bones labelled **A**, **B** and **C** and the classification of each bone.

	bone	classification
A		
B		
C		

[6]

DO NOT WRITE IN THIS MARGIN

(b) **(i)** Identify the type of synovial joint labelled **D**.

..... [1]

(ii) State **two** other named types of joints in the skeleton. Give an example of where each type of joint is located on the body.

type of joint 1 .....

example .....

.....

type of joint 2 .....

example .....

.....
[4]

[Total: 11]

DO NOT WRITE IN THIS MARGIN

3 The photograph shows sprinters getting ready to start a 100-metre race.

(a) Suggest how warming up may help reduce cognitive anxiety for a sprinter.

.....

.....

.....

.....

.....

..... [3]

(b) Other than **not** warming up, suggest **three** sporting factors that could cause cognitive anxiety for a sprinter while waiting to start the race.

1 .....

.....

2 .....

.....

3 .....

.....

[3]

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(c) **(i)** Describe **two** examples of extrinsic motivation that could encourage a sprinter to participate in the sport.

1 .....

.....

2 .....

.....
[2]

(ii) Describe **two** positive effects of intrinsic motivation for a sprinter.

.....

.....

.....

..... [2]

[Total: 10]

DO NOT WRITE IN THIS MARGIN

4 Verbal guidance is often used by coaches.

Describe how **three** other types of guidance could be used by a coach in a named physical activity.

physical activity .....

type of guidance 1 .....

description .....

.....

type of guidance 2 .....

description .....

.....

type of guidance 3 .....

description .....

.....

[6]

DO NOT WRITE IN THIS MARGIN

5 **(a)** Complete the table to identify each nutrient from the description of its function.

nutrient	function
	assists in transporting food and waste products from the body and maintains body temperature
	repairs cells and muscle tissue, helps cells grow
	provides long term energy supply

[3]

(b) **(i)** Complete the statement to explain how energy is derived from carbohydrates.

Carbohydrates are broken down into ....., which releases energy.

Some carbohydrates are converted into ..... and stored in

the ..... .

[3]

(ii) Suggest why the energy needs of males and females may differ.

.....

..... [1]

[Total: 7]

DO NOT WRITE IN THIS MARGIN

6 The photograph shows performers in a sprint hurdle race.

(a) **(i)** Sprint hurdling requires various components of fitness. Describe each of the following:

power .....

.....

muscular endurance. .....

.....

[2]

(ii) Describe how to carry out a named recognised test to measure a performer's muscular endurance.

name of test .....

description .....

.....

.....

.....

.....

.....

[4]

DO NOT WRITE IN THIS MARGIN

(b) Explain why **two** named components of fitness, other than power and muscular endurance, are important for a sprint hurdler.

component of fitness 1 .....

explanation .....

.....

component of fitness 2 .....

explanation .....

.....
[4]

[Total: 10]

DO NOT WRITE IN THIS MARGIN

7 The photograph shows a performer shooting during a wheelchair basketball match.

(a) Shooting in wheelchair basketball can be placed on the open and closed skills classification continua.

Other than the open and closed continuum, justify where shooting in wheelchair basketball would be placed on **two** named skill classification continua.

name of continuum 1 .....

justification .....

.....

name of continuum 2 .....

justification .....

.....

[4]

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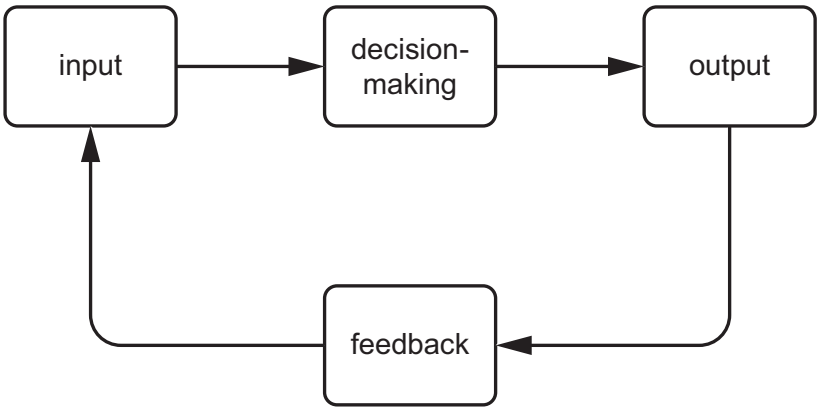
(b) The diagram shows the stages of a basic information processing model.



Explain the role of the following stages when a performer is shooting during a basketball match:

input .....

.....

output .....

.....

feedback. .....

.....

[3]

[Total: 7]

DO NOT WRITE IN THIS MARGIN

8 **(a)** Suggest legacy implications that the host nation of a global event may want to achieve.

.....

.....

.....

.....

.....

.....

.....

..... [4]

(b) Other than legacy implications, describe advantages of being the host nation of a global event.

.....

.....

.....

..... [2]

[Total: 6]

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9 The photograph shows a performer weight training.

(a) Describe **three** physical benefits that a performer could gain from regular weight training.

1 .....

.....

2 .....

.....

3 .....

.....

[3]

(b) Using examples, explain how **three** named principles of overload can be applied to a weight training programme.

principle 1 .....

explanation .....

.....

principle 2 .....

explanation .....

.....

principle 3 .....

explanation .....

.....

[6]

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(c) Carrying weights correctly can reduce the possibility of injury during a weight training session.

Describe **three** other strategies to reduce the risk and severity of injury when weight training.

1 .....

.....

2 .....

.....

3 .....

.....

[3]

[Total: 12]

10 **(a)** Describe **two** features of each of the following aspects of good health and well-being as defined by the World Health Organization (WHO):

mental health and well-being

1 .....

.....

2 .....

.....

social health and well-being.

1 .....

.....

2 .....

.....

[4]

(b) Explain the relationship between health and fitness.

.....

.....

.....

..... [2]

[Total: 6]

DO NOT WRITE IN THIS MARGIN

11 **(a)** Describe VO_2 max.

.....

..... [1]

(b) State **three** factors that affect a performer's VO_2 max levels.

1 .....

.....

2 .....

.....

3 .....

.....

[3]

[Total: 4]

DO NOT WRITE IN THIS MARGIN

12 The photograph shows an athlete performing a shot put.

(a) Identify the main muscle fibre type that would be used during a shot put. Justify your choice.

muscle fibre type .....

justification .....

.....
[2]

(b) Describe why it is important to warm up muscles before taking part in the shot put.

.....

.....

.....

.....

.....

..... [3]

[Total: 5]

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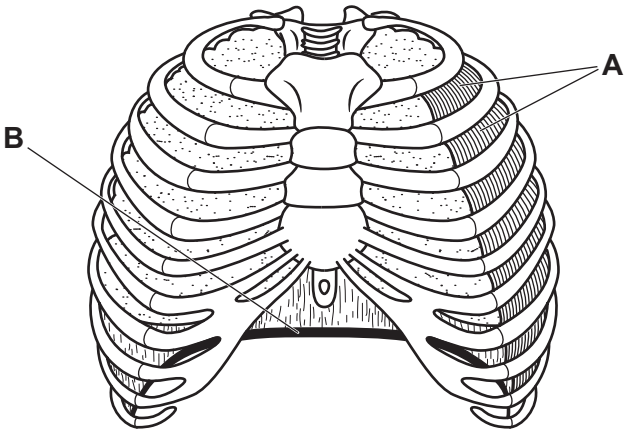
13 The diagram shows the chest cavity.



(a) **(i)** Identify the muscles labelled **A** and **B** that are involved in the mechanics of breathing.

A .....

B .....
[2]

(ii) Describe the function of the muscles labelled **A** and **B** during inhalation (breathing in) and exhalation (breathing out).

muscle **A**

inhalation .....

.....

exhalation .....

.....

muscle **B**

inhalation .....

.....

exhalation .....

.....
[4]

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(b) Identify each breathing volume being described in the table.

description	breathing volume
The volume of air you inhale or exhale with each breath.	
The volume of air you can forcibly breathe out after maximum inhalation.	
The volume of air left in your lungs after maximum exhalation.	

[3]

[Total: 9]

DO NOT WRITE IN THIS MARGIN

14 One long-term effect of regular aerobic exercise on the cardiovascular system is an increase in maximum cardiac output.

(a) Describe **three** other long-term effects of regular aerobic exercise on a performer's cardiovascular system.

1 .....

.....

2 .....

.....

3 .....

.....
[3]

(b) Complete the equation that can be used to calculate cardiac output.

..... × ..... = cardiac output
[2]

[Total: 5]

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