* 0000800000001 *

Cambridge Assessment International Education

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CANDIDATE NAME	

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PHYSICAL EDUCATION **0413/13**

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 **16** pages. Any blank pages are indicated.

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1 Describe each of the following:

physical recreation .....

.....

leisure time. .....

.....
[2]

2 Identify the **three** aspects of health, according to the World Health Organization (WHO).

1 .....

2 .....

3 .....
[3]

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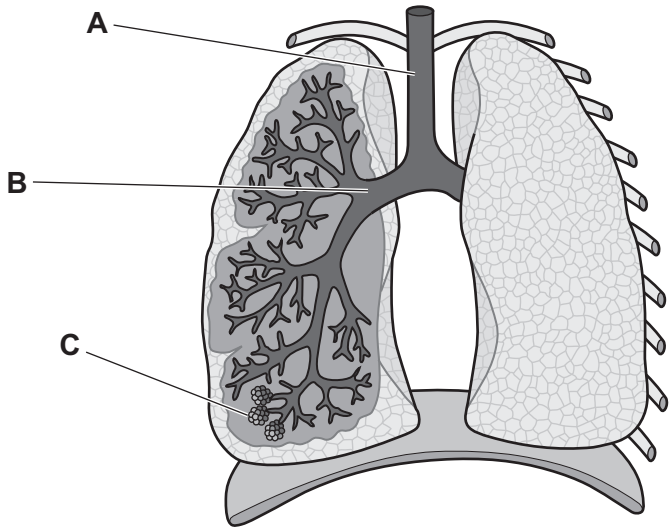
3 The diagram shows the structure of the respiratory system.



(a) Identify each of the following structures:

A .....

B .....

C. .....

[3]

(b) Describe each of the following breathing volumes and the effect of exercise on each of them:

tidal volume .....

.....

effect of exercise .....

vital capacity .....

.....

effect of exercise .....

residual volume .....

.....

effect of exercise. .....

[6]

[Total: 9]

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4 The sports development pyramid represents how people can start, stay and succeed in sport.

(a) Identify the level of the sports development pyramid described by each of the following:

involves performers who are at the highest level

.....

involves performers who are playing sport for enjoyment and to learn basic skills

.....

involves performers who train and compete regularly in one or two sports.

.....

[3]

(b) Access to clubs and facilities is one factor that may affect participation.

Explain how **three** other named factors can affect participation.

factor 1 .....

explanation .....

.....

.....

factor 2 .....

explanation .....

.....

.....

factor 3 .....

explanation .....

.....

.....

[6]

[Total: 9]

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5 The photograph shows performers in a game of rugby union.

(a) Describe how each of the following components of fitness benefits performance in rugby union:

cardiovascular endurance / stamina .....

.....

strength .....

.....

coordination .....

.....

speed. .....

.....

[4]

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(b) VO_2 max is often used as a measure of cardiovascular endurance / stamina.

(i) Describe VO_2 max.

.....

..... [2]

(ii) Explain how each of the following factors may affect a person's VO_2 max:

gender .....

.....

genetics .....

.....

lifestyle. .....

.....
[3]

(c) Describe how a named recognised test is carried out to measure cardiovascular endurance.

name of test .....

description .....

.....

.....

.....

.....

.....
[4]

[Total: 13]

DO NOT WRITE IN THIS MARGIN

6 The principles of training are used to create high-quality training programmes.

(a) Describe examples from a named physical activity of how each of the following principles of training can be applied.

physical activity .....

specificity .....

.....

progression .....

.....

overload .....

.....

reversibility .....

.....

tedium .....

.....

[5]

(b) Suggest **two** dangers of overtraining.

1 .....

2 .....

[2]

[Total: 7]

DO NOT WRITE IN THIS MARGIN

7 The open and closed continuum is used to classify skills.

(a) Identify **two** other skill classification continua.

1 ..... and .....

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

(b) Identify an open skill and a closed skill from a named physical activity. Justify your classification of each skill.

physical activity .....

open skill .....

justification .....

.....

closed skill .....

justification .....

.....
[4]

[Total: 6]

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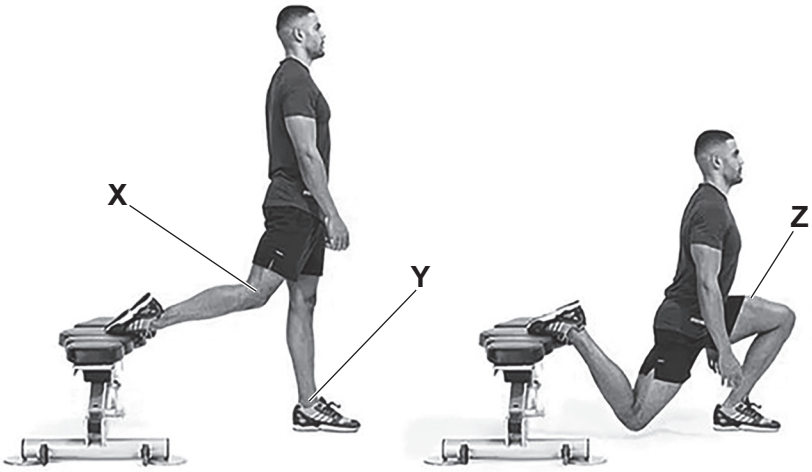
8 The photographs show the performance of an exercise from position **A** to position **B**.



position **A** position **B**

(a) Identify each of the following:

type of synovial joint labelled **X** .....

type of movement at joint **X** from position **A** to position **B** .....

type of movement at joint **Y** from position **A** to position **B** .....

name of muscle labelled **Z** .....

type of muscle contraction at **Z** from position **A** to position **B**. .....

[5]

(b) The joint capsule is one component of a synovial joint.

Identify **three** other components of a synovial joint. Describe a different function for each component.

component 1 .....

function .....

.....

component 2 .....

function .....

.....

component 3 .....

function .....

.....

[6]

[Total: 11]

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9 Prohibited performance-enhancing drugs (PEDs) are sometimes taken by sports performers.

(a) Explain how a different named PED taken before competition may enhance performance in each of the following situations:

a golfer taking a putt to win

type of PED .....

explanation .....

.....

a sprinter on the starting blocks at the beginning of a race

type of PED .....

explanation .....

.....

a shot putter throwing a shot.

type of PED .....

explanation .....

.....

[6]

(b) Suggest **three** disadvantages for a performer of using PEDs.

1 .....

2 .....

3 .....

[3]

[Total: 9]

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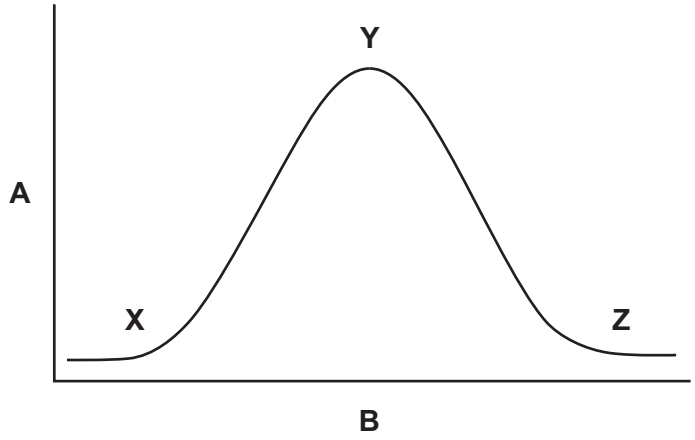
10 The diagram shows a representation of the Inverted-U theory.



(a) Identify each of the following:

the axis labelled **A** .....

the axis labelled **B**. .....

[2]

(b) Identify the parts of the Inverted-U labelled **X**, **Y** and **Z**.

X .....

Y .....

Z .....

[3]

(c) Using specific examples from a named physical activity, explain why performance would differ at the following points on the curve:

physical activity .....

point **X** .....

.....

point **Y** .....

.....

point **Z**. .....

.....

[3]

[Total: 8]

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11 **(a)** State **three** ways that sponsorship may be provided for a performer.

1 .....

2 .....

3 .....

[3]

(b) Describe **one** disadvantage of sponsorship to each of the following:

the performer / team .....

.....

the sponsor .....

.....

the sport / event .....

.....

the audience / spectators. .....

.....

[4]

[Total: 7]

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12 The photographs show two performers: **A**, a shot putter and **B**, a long-distance runner.

A shot putter

B long-distance runner

(a) **(i)** Identify the main type of respiration being used by each performer. Justify your answers.

performer **A** .....

justification .....

.....

performer **B** .....

justification .....

.....
[4]

(ii) Identify the main type of muscle fibre being used by each performer.

performer **A** .....

performer **B** .....
[2]

(iii) Other than the type of respiration used by each muscle fibre type, describe **two** differences between the muscle fibre types identified in **(a)(ii)**.

1 .....

.....

2 .....

.....
[2]

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(b) Both performers **A** and **B** may suffer injuries during their activities.

Suggest a different injury that may be suffered by each performer and describe a different simple treatment for each injury.

performer **A** injury .....

treatment .....

.....

performer **B** injury .....

treatment .....

.....

[4]

(c) Performing a warm up and cool down is a strategy that can be used to reduce the risk and severity of injury.

Describe **four** other strategies that performers **A** and **B** can use to reduce the risk and severity of injury.

1 .....

.....

2 .....

.....

3 .....

.....

4 .....

.....

[4]

[Total: 16]

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