Cambridge Assessment International Education

Cambridge IGCSE™

CANDIDATE NAME									
CENTRE NUMBER						CANDIDATE NUMBER			

7836330119

PHYSICAL EDUCATION **0413/13**

Paper 1 Theory **October/November 2022**

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.

© UCLES 2022

1 **(a)** Complete the table to identify the type of synovial joint and some possible types of movement at the named joints.

joint	type of synovial joint	some possible types of movement	
ankle	hinge		
knee		flexion	extension
hip		flexion	extension

[6]

(b) Describe how a pair of named muscles work together to cause flexion and extension at the hip joint.

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [5]

[Total: 11]

© UCLES 2022

2 **(a)** Identify a function of each of the following in maintaining performance during a long-distance race:

(i) carbohydrates

.....

..... [1]

(ii) water.

.....

..... [1]

(b) State **two** carbohydrate-rich food sources.

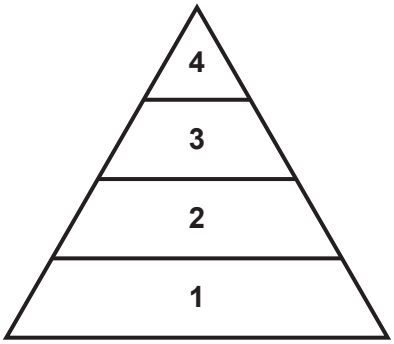
1 .....

2 .....

[2]

[Total: 4]

3 The diagram shows the sports development pyramid.



(a) Identify the levels in the sports development pyramid labelled **4** to **1**.

4 .....

3 .....

2 .....

1 .....

[4]

(b) Suggest **four** characteristics of the level labelled **4** in the sports development pyramid.

1 .....

.....

2 .....

.....

3 .....

.....

4 .....

.....

[4]

© UCLES 2022

(c) Suggest ways that schools can affect the number of performers at the levels labelled **1** and **2** in the sports development pyramid.

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [5]

[Total: 13]

4 **(a)** Describe **three** short-term effects of exercise on a performer.

1 .....

.....

2 .....

.....

3 .....

.....

[3]

(b) Explain how EPOC allows the body to recover after intense exercise.

.....

.....

.....

.....

.....

..... [3]

[Total: 6]

5 **(a)** Define fitness.

.....

..... [1]

(b) The photograph shows performers in taekwondo.



Speed is one component of fitness that a taekwondo performer requires to kick their opponent.

Other than speed, describe how **three** named components of fitness can benefit a performer in taekwondo.

component of fitness 1 .....

benefit .....

.....

component of fitness 2 .....

benefit .....

.....

component of fitness 3 .....

benefit .....

.....

[6]

(c) Describe how to carry out a named test to measure speed.

name of test .....

description .....

.....

.....

.....

.....

.....

.....

.....

[4]

(d) Suggest reasons why a coach would carry out fitness testing on a performer.

.....

.....

.....

.....

.....

.....

.....

..... [4]

[Total: 15]

6 Complete the table to identify **two** other types of guidance. Describe a different advantage of each type of guidance for a performer in the cognitive stage of learning.

type of guidance	advantage
visual	performer can form a mental picture of the skill

[4]

7 Success in sport requires performers to have high levels of motivation.

(a) Describe what is meant by motivation.

.....

..... [1]

(b) Explain how **two** named types of motivation can affect a performer's training.

type of motivation 1 .....

explanation .....

.....

type of motivation 2 .....

explanation .....

.....

[4]

[Total: 5]

© UCLES 2022

8 **(a)** Identify **three** types of performance-enhancing drug (PED). Explain how each type of PED can benefit performance in different named physical activities.

type of PED 1 .....

physical activity 1 .....

explanation .....

.....

type of PED 2 .....

physical activity 2 .....

explanation .....

.....

type of PED 3 .....

physical activity 3 .....

explanation .....

.....

[6]

(b) Suggest **two** reasons, other than benefits to performance, why a performer might take prohibited PEDs.

1 .....

.....

2 .....

.....

[2]

(c) Suggest **two** different health risks for a performer from taking prohibited PEDs.

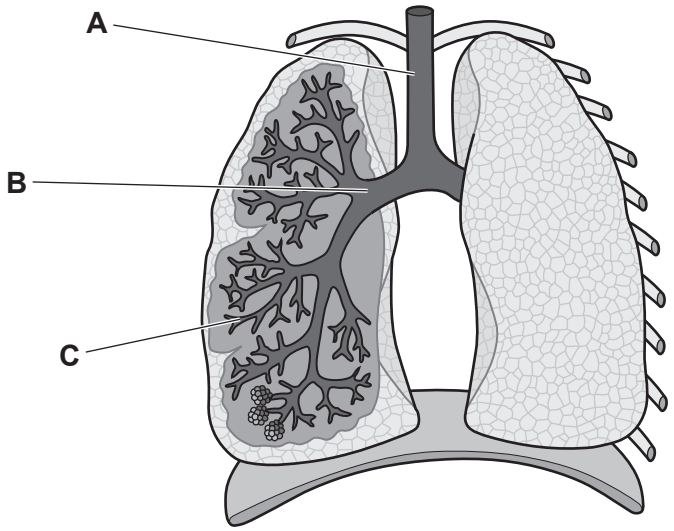
1 .....

2 .....

[2]

[Total: 10]

9 **(a)** The diagram shows the structure of the respiratory system.



Identify **A**, **B** and **C**.

A .....

B .....

C .....

[3]

(b) Explain how **three** characteristics of the alveoli assist gaseous exchange.

characteristic 1 .....

explanation .....

.....

characteristic 2 .....

explanation .....

.....

characteristic 3 .....

explanation .....

.....

[6]

(c) Complete the table to describe the function of the intercostal muscles and the function of the diaphragm during inhalation (breathing in) and during exhalation (breathing out).

	function during inhalation (breathing in)	function during exhalation (breathing out)
intercostal muscles		
diaphragm		

[4]

[Total: 13]

10 Complete the table to:

- identify the **two** main muscle fibre types
- state the type of respiration used to release energy for each muscle fibre type
- describe an example of how each muscle fibre type may benefit performance in **one** named physical activity.

main muscle fibre type	type of respiration used to release energy	example of how each muscle fibre type may benefit performance in **one** named physical activity
		physical activity .....

[6]

11 Fartlek training is one method of training.

(a) Describe fartlek training.

.....

.....

.....

..... [2]

(b) **(i)** Suggest **two** advantages of using fartlek training.

1 .....

.....

2 .....

..... [2]

(ii) Suggest **one** disadvantage of using fartlek training.

.....

..... [1]

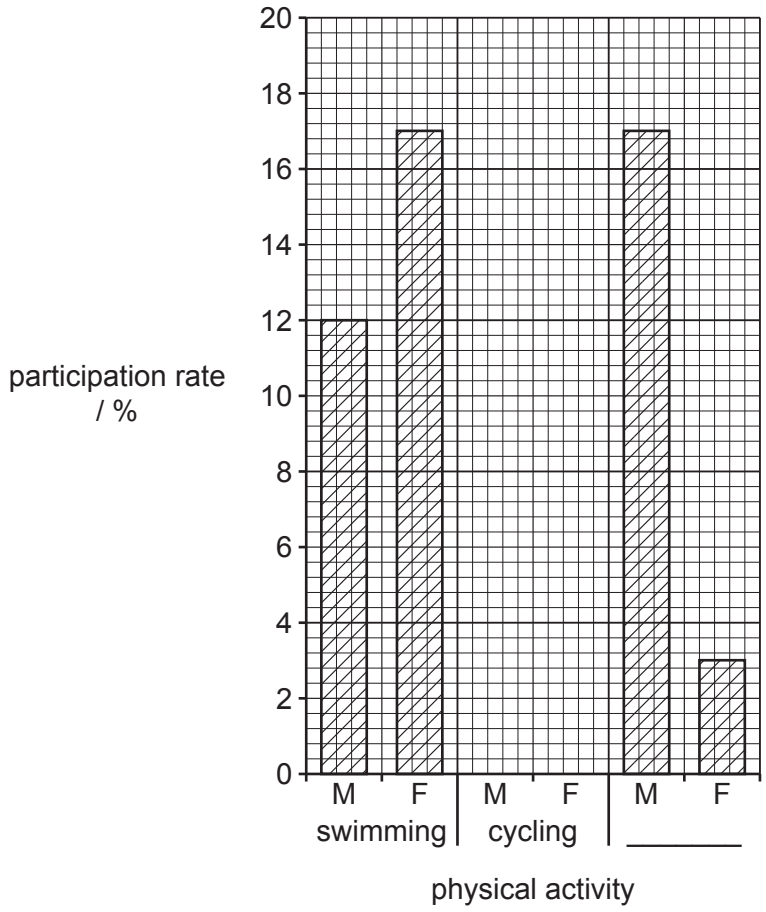
[Total: 5]

12 (a) The table shows the percentage of males and females in an area who participate in different physical activities.

physical activity	male / %	female / %
swimming	12	17
golf	17	3
football	13	2
cycling	6	3

Use the data in the table to complete parts of the bar chart by:

- drawing the missing bars for cycling
- adding the missing physical activity label for which the bars have already been drawn.



[2]

(b) Gender can affect access to physical activity.

Explain how **two** other factors can affect participation rate.

factor 1 .....

explanation .....

.....

factor 2 .....

explanation .....

.....

[4]

[Total: 6]

13 Skills can be classified using the fine and gross skill continuum.

Identify **two** other skill continua.

continuum 1 ..... and .....

continuum 2 ..... and .....

[2]

BLANK PAGE

BLANK PAGE

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (UCLES) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced online in the Cambridge Assessment International Education Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download at www.cambridgeinternational.org after the live examination series.

Cambridge Assessment International Education is part of Cambridge Assessment. Cambridge Assessment is the brand name of the University of Cambridge Local Examinations Syndicate (UCLES), which is a department of the University of Cambridge.

© UCLES 2022