Cambridge Assessment International Education

# Cambridge IGCSE™

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*8037550150*

**PHYSICAL EDUCATION** **0413/12**

Paper 1 Theory **May/June 2020**

**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. Blank pages are indicated.


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**1** Name the muscle group that causes each of the following types of movement at the knee:

flexion .....

extension. .....

[2]

**2** The photograph shows elite performers in a cycle race that lasted several hours. These performers need high levels of cardiovascular endurance.



**(a)** Name **two** other components of fitness needed by the performers shown in the photograph. Describe an example of when each component might be used during the race.

component of fitness 1 .....

example .....

.....

component of fitness 2 .....

example .....

.....

[4]

**(b)** Before taking part in a physical activity a performer should complete a warm up.

Name **three** phases of a warm up and describe a different benefit of each phase for a performer.

phase 1 .....

benefit .....

.....

phase 2 .....

benefit .....

.....

phase 3 .....

benefit .....

.....

[6]

[Total: 10]

**3** **(a)** Describe, using examples from a named physical activity, **one** open and **one** closed skill. Justify your answers.

physical activity .....

open skill .....

justification .....

.....

closed skill .....

justification .....

.....

[4]

**(b)** Name **two** other continua that can be used to classify skills.

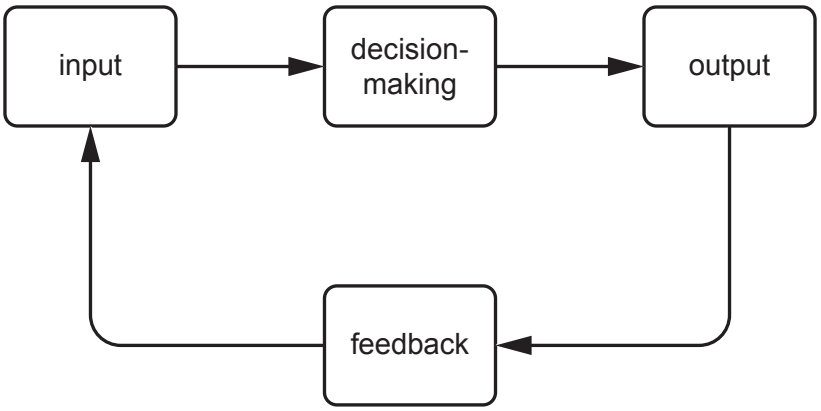
continua 1 ..... and .....

continua 2 ..... and .....

[2]

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**(c)** The diagram shows the stages of a basic information-processing model.




Describe how each of the **four** stages of the model are used by a performer shooting in either netball or basketball.

input .....

.....

decision-making .....

.....

output .....

.....

feedback .....

.....

[4]

[Total: 10]

**4** Explain how **three** factors can affect participation in physical activities for young people.

factor 1 .....

explanation .....

.....

factor 2 .....

explanation .....

.....

factor 3 .....

explanation .....

.....

[6]

**5** One feature of social health and well-being is that essential human needs are met.

Name **two** other features of a person's social health and well-being and describe how each feature can benefit a performer.

feature 1 .....

benefit .....

.....

feature 2 .....

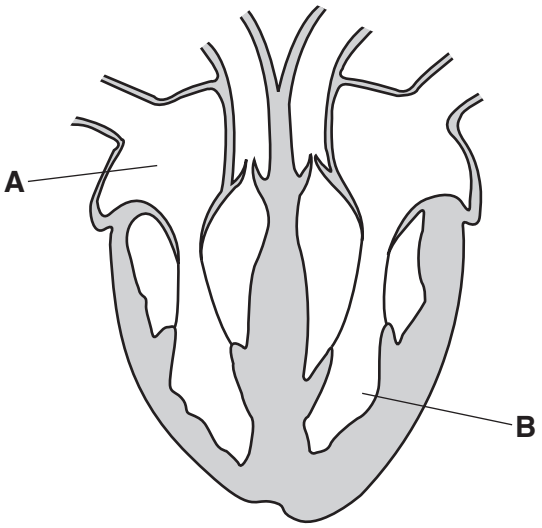
benefit .....

.....

[4]

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**6** The diagram shows the heart with structures labelled **A** and **B**.




**(a)** Name the structures labelled **A** and **B** and describe a different function of each structure.

structure **A** .....

function .....

.....

structure **B** .....

function .....

.....

[4]

**(b)** Describe the long-term effects of exercise on the heart.

.....

.....

.....

.....

.....

..... [3]

[Total: 7]

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**7** **(a)** Identify the joint type at each of the following locations in the human skeleton:

the cranium .....

the elbow. .....

[2]

**(b)** **(i)** Name the type of synovial joint found at the hip.

..... [1]

**(ii)** Describe different functions of each of the following components of the hip joint:

joint (fibrous) capsule

function .....

.....

cartilage

function .....

.....

ligament.

function .....

.....

[3]

**(c) (i)** One function of the skeleton is protection.

State **two** other functions of the skeleton.

1 .....

2 .....
[2]

**(ii)** Describe **two** examples of the skeleton providing protection when performing different skills in a named physical activity.

physical activity .....

skill 1 .....

.....

.....

skill 2 .....

.....

.....
[2]

[Total: 10]

**8** Suggest a different cause and describe a different treatment to aid recovery for each of the following:

winding

cause .....

.....

treatment .....

.....

muscle strain

cause .....

.....

treatment .....

.....

blister.

cause .....

.....

treatment .....

.....

[6]

**9** An inexperienced and unfit performer is training in preparation to run in a long-distance charity race.

The performer starts by running at a steady pace for twenty minutes once per week.

**(a) (i)** State the method of training being used.

..... [1]

**(ii)** State a suitable intensity for this method of training.

..... [1]

**(iii)** Suggest advantages and disadvantages of this method of training.

.....

.....

.....

.....

.....

.....

.....

..... [4]

**(b)** Name **three** of the principles of overload and describe how each principle could be applied to the method of training.

principle 1 .....

application .....

.....

.....

principle 2 .....

application .....

.....

.....

principle 3 .....

application .....

.....

.....

[6]

[Total: 12]

**10 (a)** Describe **two** different types of feedback.

1 .....

.....

2 .....

.....
[2]

**(b)** Explain the importance of receiving feedback.

.....

.....

.....

..... [2]

**(c)** Explain, using examples from a named physical activity, how **two** types of guidance can be used by a coach.

physical activity .....

type of guidance 1 .....

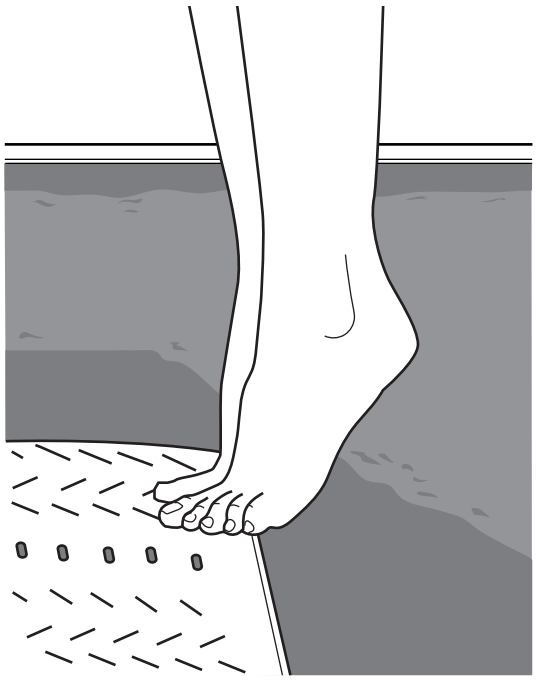
.....

type of guidance 2 .....

.....
[2]

[Total: 6]

**11** **(a)** The diagram shows a performer standing on their toes ready to dive from a diving board.



**(i)** Name the type of movement at the ankle used by the performer to achieve the position shown in the diagram.

..... [1]

**(ii)** State the class of lever used to achieve this position.
Draw a labelled diagram of this class of lever.

class of lever .....

[3]

**(b)** Explain how **two** named forces act on the performer during their dive.

force 1 .....

explanation .....

.....

force 2 .....

explanation .....

.....

[4]

[Total: 8]

**12** Name **two** components of blood and describe a different function of each component.

component 1 .....

function .....

.....

component 2 .....

function .....

.....

[4]

**13 (a)** Complete the following pathway of air into the body:

1. nose or mouth

2. trachea

3. .....

4. .....

5. alveoli.

[2]

**(b)** Name **two** characteristics of the alveoli. Explain how each characteristic enables gaseous exchange to occur.

characteristic 1 .....

.....

explanation .....

.....

characteristic 2 .....

.....

explanation .....

.....

[4]

**(c)** Suggest the benefits for a performer of efficient gaseous exchange.

.....

.....

.....

..... [2]

[Total: 8]

**14** The table shows different types of prohibited performance-enhancing drug (PED).

Complete the table to describe an effect on performance for each type of PED in a named physical activity.

| type of PED | effect on performance in a named physical activity |
|---|---|
| stimulants | increases alertness in a 100-metre sprint in athletics to achieve a faster start |
| diuretics | |
| anabolic steroids | |
| beta blockers | |

[3]

**15** **(a)** Define what is meant by each of the following terms:

sportsmanship .....

.....

gamesmanship. .....

.....

[2]

**(b)** Describe, in a named physical activity, **one** example of each of the following:

sportsmanship .....

.....

gamesmanship. .....

.....

[2]

[Total: 4]

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