Cambridge Assessment International Education

Cambridge IGCSE™

CANDIDATE NAME

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6354748079

PHYSICAL EDUCATION **0413/11**

Paper 1 Theory **May/June 2021**

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 State **two** classifications of bones.

1 .....

2 .....

[2]

2 **(a)** Describe **two** requirements for each of the following:

good mental health and well-being

1 .....

.....

2 .....

.....

good social health and well-being.

1 .....

.....

2 .....

.....

[4]

(b) Carbohydrates are an important nutrient in a balanced diet.

(i) State **two** other nutrients and describe a different function of each nutrient.

nutrient 1 .....

function .....

.....

nutrient 2 .....

function .....

.....

[4]

(ii) Explain why different people may have different energy needs.

.....

.....

.....

..... [2]

[Total: 10]

3 The photograph shows a volleyball match. Volleyball players require coordination, power and cardiovascular endurance / stamina.



(a) Identify **three** components of fitness, other than coordination, power and cardiovascular endurance / stamina, that would benefit a volleyball player.

Describe an example of how each component is used in a volleyball match.

component of fitness 1 .....

example .....

.....

component of fitness 2 .....

example .....

.....

component of fitness 3 .....

example .....

.....

[6]

(b) **(i)** State a type of prohibited performance-enhancing drug (PED) that a volleyball player may choose to take and describe how this may enhance performance.

type of PED .....

description .....

.....

[2]

(ii) State **two** possible disadvantages for a performer, other than health implications, of taking prohibited performance-enhancing drugs (PEDs).

1 .....

.....

2 .....

.....

[2]

[Total: 10]

4 Skills can be classified on different continua. One example of a continuum is fine and gross.

(a) (i) State **two** other continua used to classify skills.

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

2 ..... and .....

[2]

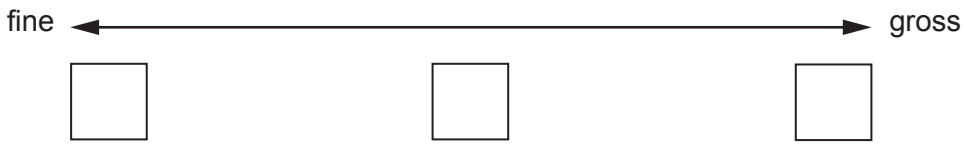
(ii) The boxes show the positions of three different skills on the fine and gross continuum.

Using the letters **A**, **B** and **C** identify the box representing each of the following skills on the fine and gross continuum:

A chest-pass in basketball

B shot-put throw in athletics

C short putt in golf.



[2]

(b) Explain why some skills are classified as fine skills.

.....

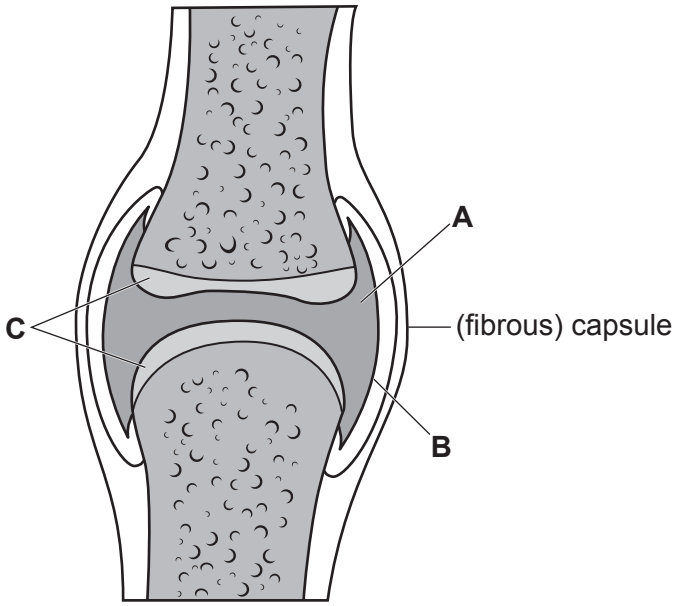
.....

.....

..... [2]

[Total: 6]

5 **(a)** The diagram shows a typical synovial joint.



Identify the components labelled **A**, **B** and **C**.

A .....

B .....

C .....

[3]

(b) Describe a named type of movement, other than rotation, that can occur at a ball and socket joint.

type of movement .....

description .....

.....

[2]

[Total: 5]

6 **(a)** Complete the table to compare the lumen size and wall thickness for the named blood vessels.

	lumen size	wall thickness
arteries		
capillaries		

[4]

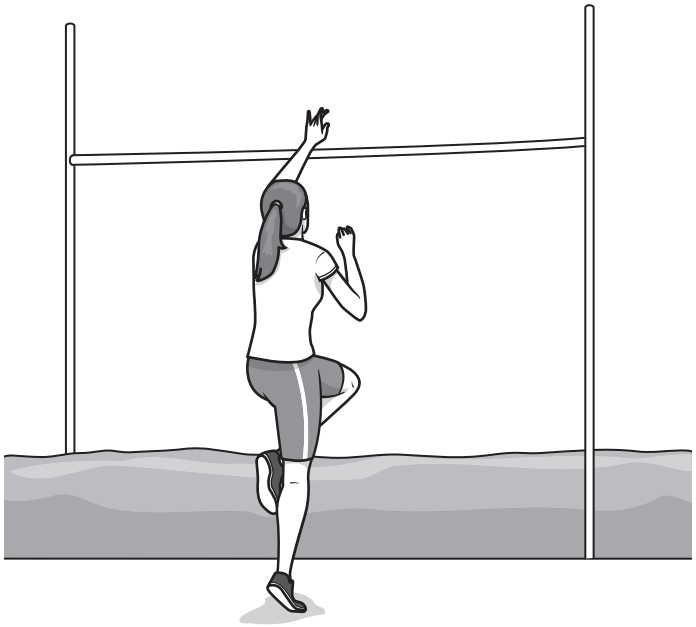
(b) Describe **one** function of valves in the heart.

.....

..... [1]

[Total: 5]

7 **(a)** The diagram shows an athlete performing a high jump. This requires power to be generated in the legs.



(i) Define *power*.

.....

..... [1]

(ii) Describe **one** named plyometric exercise that can be used to develop power in the legs.

name of exercise .....

description .....

.....

[2]

(iii) Describe how to carry out a named fitness test for power.

name of test .....

description .....

.....

.....

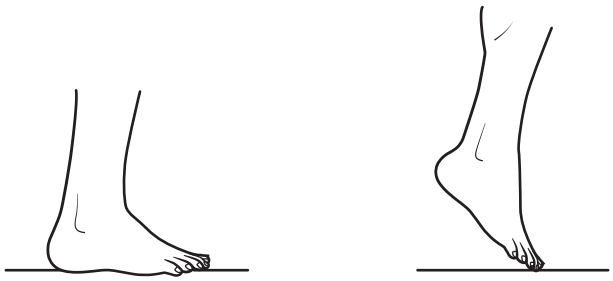
.....

.....

.....

[4]

(b) The diagrams show the movement at the ankle and the position of the foot at the point of take-off.



A **B**

(i) State the type of movement occurring at the ankle from **A** to **B**.

..... [1]

(ii) Name the agonist muscle and the antagonist muscle involved in the movement from **A** to **B**.

agonist .....

antagonist .....

[2]

(iii) Name a different type of movement that can occur at the ankle. Describe an example from a named physical activity when this movement would take place.

type of movement .....

physical activity .....

example .....

.....

[2]

(iv) Describe how a ligament injury could be caused at the ankle. Explain a named treatment for this injury.

cause of injury .....

.....

treatment .....

explanation .....

.....

[3]

[Total: 15]

8 Describe, using examples from a named physical activity, how technology has had a different positive effect on officials, performers and the audience / spectators.

physical activity .....

officials .....

.....

performers .....

.....

the audience / spectators .....

.....

[3]

9 **(a)** Knowledge of performance is a type of feedback that can improve performance.

Describe **two** other advantages for a performer of knowledge of performance.

advantage 1 .....

.....

advantage 2 .....

.....

[2]

(b) Suggest why extrinsic feedback may be of greater benefit than intrinsic feedback for a performer trying to learn a skill during the cognitive stage of learning.

.....

.....

.....

..... [2]

[Total: 4]

10 Suggest advantages and disadvantages for sport of increased income from television.

advantages .....

.....

.....

.....

.....

.....

disadvantages .....

.....

.....

.....

.....

.....

[6]

11 Sketch and label a third-class lever.

[2]

12 **(a)** Complete the table to identify **two** types of guidance and describe a different benefit of each type of guidance for a learner.

type of guidance	benefit

[4]

(b) A performer decides to set the following target:

- improving their 100-metre time.

Identify **three** principles of SMARTER goal-setting that are **not** met by this target. Justify each of your answers.

principle 1 .....

justification .....

.....

principle 2 .....

justification .....

.....

principle 3 .....

justification .....

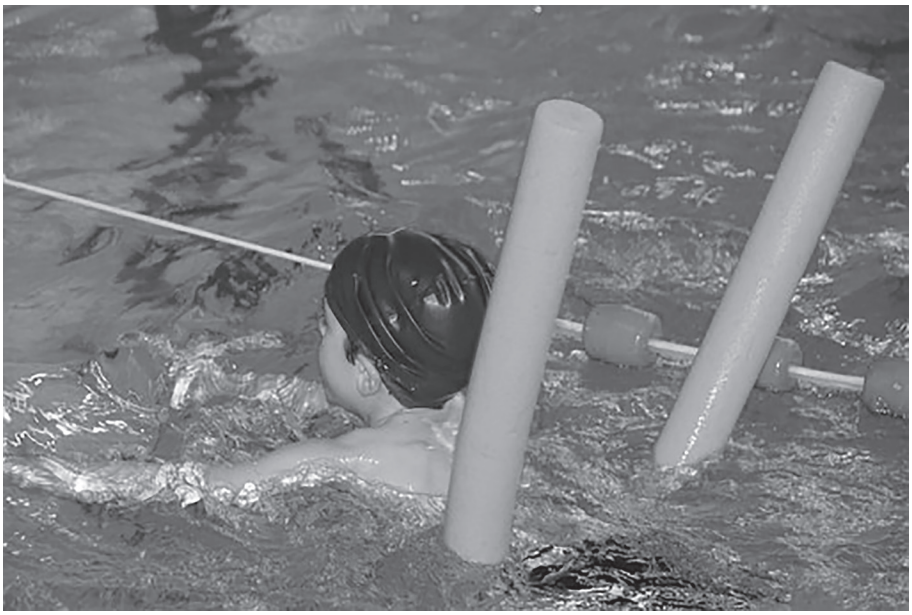
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[6]

[Total: 10]

13 The photograph shows a person learning to swim in a swimming pool.

learning to swim



(a) Describe **two** possible perceived risks for the person learning to swim.

perceived risk 1 .....

.....

perceived risk 2 .....

.....

[2]

(b) Describe **two** real risks for swimmers at a swimming pool and describe a strategy to reduce each risk.

real risk 1 .....

.....

strategy .....

.....

real risk 2 .....

.....

strategy .....

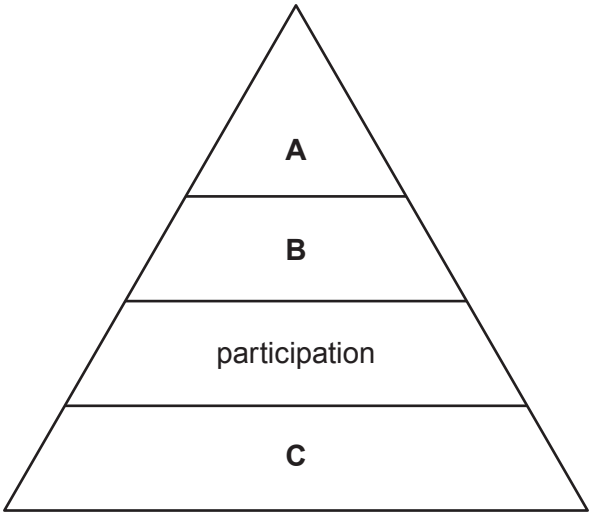
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[4]

[Total: 6]

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14 The diagram shows a sports development pyramid.



(a) Identify the levels labelled **A**, **B** and **C**.

A .....

B .....

C .....

[3]

(b) Describe **three** characteristics of the participation level of the sports development pyramid.

1 .....

.....

2 .....

.....

3 .....

.....

[3]

[Total: 6]

15 (a) Describe **four** short-term effects of exercise.

1 .....

2 .....

3 .....

4 .....

[4]

(b) (i) Describe **two** different examples from a named games activity when a performer's energy demand is mainly anaerobic.

games activity .....

example 1 .....

.....

example 2 .....

.....

[2]

(ii) Outline how energy is released during anaerobic respiration.

.....

..... [2]

(c) Describe how **two** factors may affect recovery after exercise.

1 .....

.....

2 .....

.....

[2]

[Total: 10]

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