



Cambridge International AS Level

CANDIDATE
NAME

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CENTRE
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SPORT & PHYSICAL EDUCATION

8386/01

Paper 1 Theory

For examination from 2024

SPECIMEN PAPER

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 70.
- The number of marks for each question or part question is shown in brackets [].

This document has **14** pages. Any blank pages are indicated.

1 (a) Association football (soccer) is a popular sport and often forms part of a physical education programme.

(i) Describe **two** similarities between sport and physical education.

1

.....

2

.....

[2]

(ii) The table describes one difference between sport and physical education.

Complete the table to describe **two** other differences between sport and physical education.

sport	physical education
is voluntary	is compulsory

[2]

(b) The diagram shows a performer kicking a football.



A



B

Describe a function of antagonists and a function of fixators. Identify an example of an antagonist and an example of a fixator during the movement of the kicking leg from **A** to **B**.

antagonist function

.....

example of antagonist

fixator function

.....

example of fixator

[4]

(d) In association football (soccer) a performer may kick the ball into the air.

Explain how forces act on the ball during its flight.

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..... [3]

2 During activities such as gymnastics a performer may use their fast oxidative glycolytic (FOG) muscle fibres.

(a) Describe the characteristics of fast oxidative glycolytic (FOG) muscle fibres.

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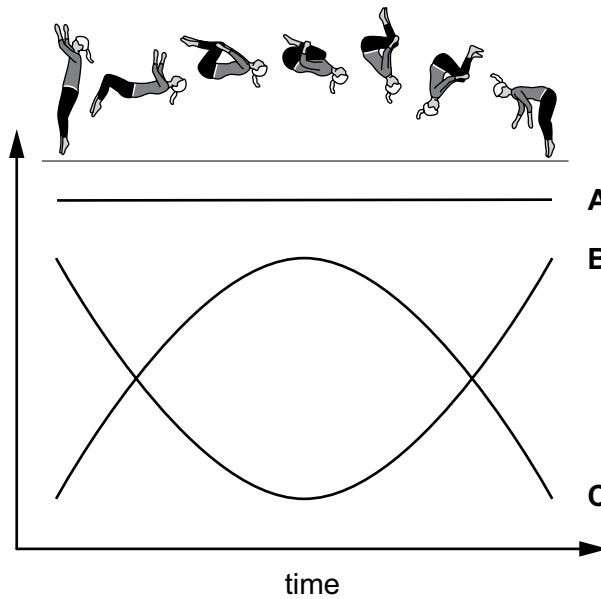
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..... [4]

(b) The diagram shows a gymnast completing a tucked back somersault and the effects that this rotational movement has on **three** biomechanical quantities labelled **A** to **C**.



Identify the **three** biomechanical quantities. State the equation linking them.

A

B

C

equation

.....

[4]

(e) During activities such as gymnastics the effect of gravity and the action of valves are mechanisms that help to increase venous return.

Identify **two** other venous return mechanisms. Describe how each mechanism helps to increase venous return during exercise.

mechanism 1

description

.....

.....

.....

mechanism 2

description

.....

.....

.....

[4]

3 (a) In a racket sport such as tennis, serving can be classified using various skill continua.

Justify a classification of serving in tennis using each of the following **three** skill continua:

externally paced—internally paced

.....

.....

.....

discrete—serial—continuous

.....

.....

.....

high organisation—low organisation.

.....

.....

.....

[3]

(b) A tennis player’s resting heart rate is 70 beats per minute.
Their resting stroke volume is 80 millilitres.

Calculate the exercising cardiac output of the tennis player if their heart rate and their stroke volume increase by 20% during the match.

Show your working.

exercising cardiac output = millilitres per minute [3]

- 4 Explain how the mechanics of breathing change during exercise to enable a performer to ventilate more air.

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..... [5]

- 5 Outline the possible causes of violence by performers during a sporting event.

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..... [6]

6 When learning a new skill, transfer of learning may occur.

(a) Describe what is meant by positive transfer and negative transfer when learning a new sports skill.

positive transfer

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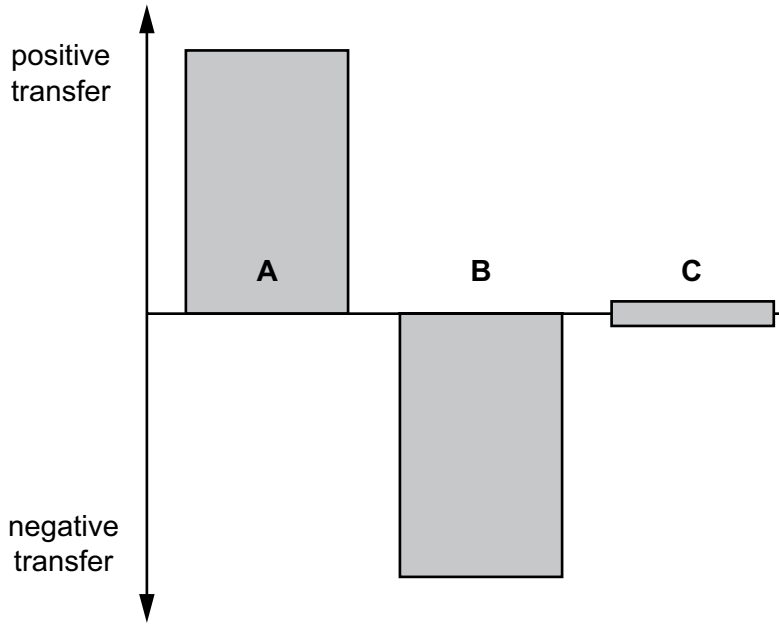
negative transfer

.....

.....

[2]

(b) The diagram shows the transfer of learning between skills in different situations **A**, **B** and **C**.



Suggest **two** skills for each situation, **A**, **B** and **C**. Justify each of your answers.

situation **A**

skill 1

skill 2

justification

.....

situation **B**

skill 1

skill 2

justification

.....

situation **C**

skill 1

skill 2

justification

.....

[6]

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