



Cambridge International AS Level

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SPORT & PHYSICAL EDUCATION**8386/12**

Paper 1 Theory

October/November 2025**1 hour 45 minutes**

You must answer on the question paper.

No additional materials are needed.

INSTRUCTIONS

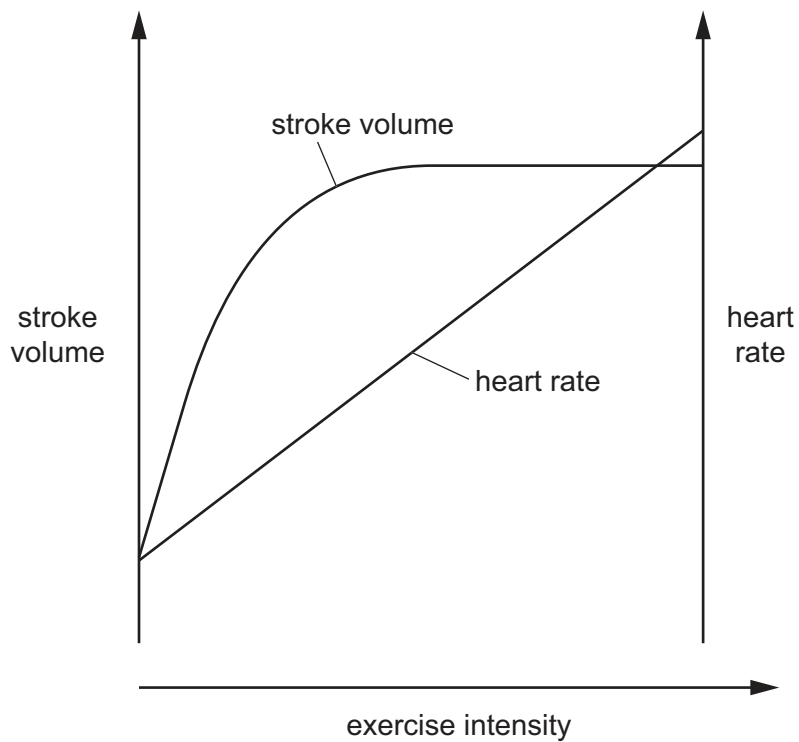
- Answer **all** questions.
- Use a black or dark blue pen. You may use an HB pencil for any diagrams or graphs.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.
- Do **not** use an erasable pen or correction 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 70.
- The number of marks for each question or part question is shown in brackets [].

This document has **12** pages.

1 The diagram shows responses of the heart to exercise.



(a) Use the diagram to describe the changes to stroke volume and heart rate as exercise intensity increases.

.....

.....

.....

.....

.....

.....

.....

.....

..... [4]





(b) Explain the changes to stroke volume shown in the diagram.

.....

.....

.....

.....

.....

.....

.....

.....

..... [3]



- 2 The photograph shows a performance of a handstand balance.



- (a) (i) Performing a handstand balance may involve extension at the hips and plantar flexion at the ankles.

State the main agonist for:

extension at the hips

plantar flexion at the ankles.

[2]

- (ii) State the **two** bones that articulate at the hip joint.

1

2

[1]

- (b) (i) A handstand balance uses isometric muscle contractions.

Explain what isometric means.

.....

..... [1]





(ii) Describe factors affecting the stability of a performer during a handstand balance.

[4]

3 Describe the role of the memory process that is used in the learning of a skill.

[5]



- 4 (a) Swimming can be a competitive sport.

Describe **four** other characteristics of sport.

- 1
- 2
- 3
- 4
- [4]

- (b) Determine the distance travelled and the displacement of a swimmer who completes 12 lengths of a 50-metre pool.

distance travelled = ... metres

displacement = ... metres
[2]

- (c) Explain each of the following pathways to excellence for a swimmer:

clubs

scholarships.

[2]



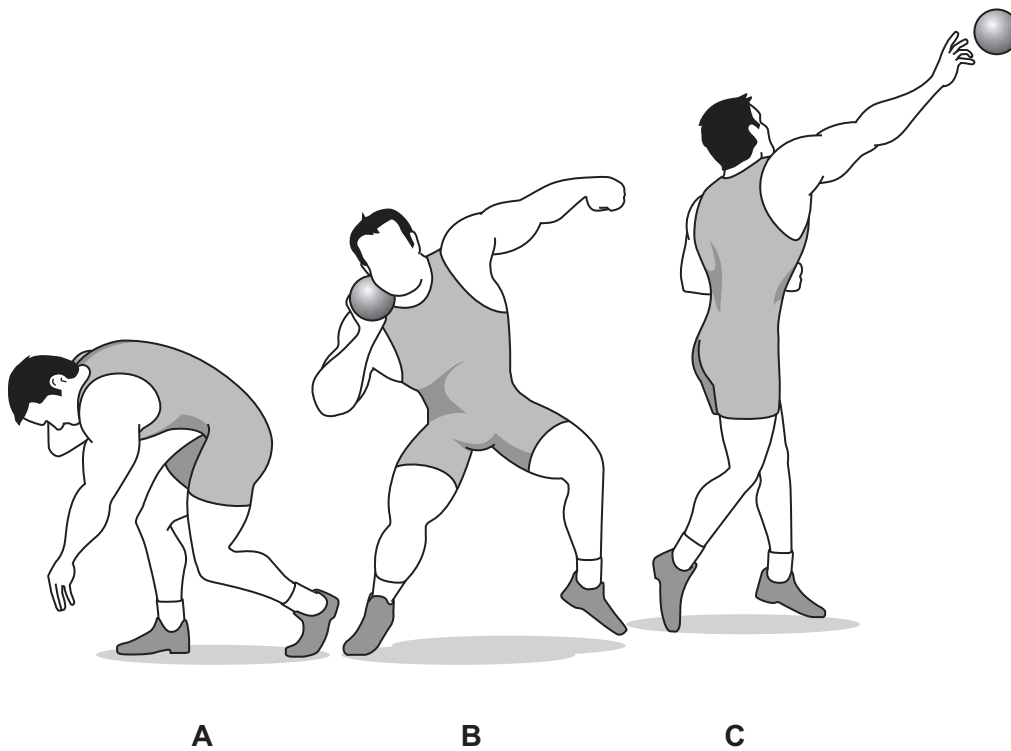


(d) Suggest the advantages and disadvantages of using visual guidance to try to improve the swimming skills of a performer in the cognitive stage of learning.

[6]



5 (a) The diagrams show a performance of a shot put.



Complete the table for the performer's movement at each of the joints.

joint	type of movement	main agonist	antagonist
performer's left knee from A to C			
performer's right elbow from B to C			
performer's right shoulder from B to C			

[9]





(b) Discuss how Newton's third law of motion applies when performing a shot put.

[5]

(c) Explain how the height of release and the angle of release affect the horizontal displacement of a shot put.

[4]





(d) Skill continua are used to classify skills such as the shot put.

(i) Explain the pacing continuum (externally paced to internally paced).

[2]

(ii) Use specific examples from the shot put to justify its classification as:

a gross skill

.....

a discrete skill.

.....

[2]

(e) Suggest strategies to reduce the use of prohibited performance-enhancing drugs (PEDs) in a throwing event such as the shot put.

..... [6]

[6]



6 The table shows the tidal volume of seven students.

student	tidal volume / millilitres
A	480
B	590
C	480
D	580
E	490
F	520
G	500

(a) Determine the following for students **A** to **G**:

(i) the mean tidal volume

mean = ... millilitres [1]

(ii) the median tidal volume.

median = ... millilitres [1]

(b) Explain how a student could determine their minute ventilation from their tidal volume.

.....

.....

.....

.....

.....

..... [2]





7 (a) State the **two** rules of recall schema.

- 1
- 2 [2]

(b) State the **two** rules of recognition schema.

- 1
- 2 [2]

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