

Surname	Centre Number	Candidate Number
First name(s)		2



GCE A LEVEL

A550U10-1



O21-A550U10-1



WEDNESDAY, 6 OCTOBER 2021 – MORNING

PHYSICAL EDUCATION – A level component 1
Exploring Concepts in Physical Education

2 hours

INSTRUCTIONS TO CANDIDATES

Use black ink or black ball-point pen. Do not use gel pen.
Do not use correction fluid.

You may use a pencil for graphs and diagrams only.

Write your name, centre number and candidate number
in the spaces at the top of this page.

Answer **all** questions.

Write your answers in the spaces provided in this booklet. If
you run out of space, use the additional page(s) at the back
of the booklet, taking care to number the question(s) correctly.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets at the end of each
question or part-question.

You are reminded of the necessity for good English and orderly
presentation in your answers.

Diagrams, charts and graphs can be used to support answers
when they are appropriate.

For Examiner's use only		
Question	Maximum Mark	Mark Awarded
1.a	3	
1.b	4	
1.c	4	
1.d	6	
2.a (i)	1	
2.a (ii)	8	
2.b	2	
2.c	4	
2.d	8	
3.a	6	
3.b	4	
3.c	4	
3.d	4	
4.a	1	
4.b	6	
4.c	12	
5.a	4	
5.b	6	
5.c	8	
5.d	10	
Total	105	



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Answer **all** questions.

1. **Figure 1** – the flight path of a shot.



(a) Identify **three** factors that affect the horizontal distance travelled by the shot.

[3]

1.

2.

3.



- (b) Explain why a spin technique could allow the athlete to throw the shot further than from standing. [4]

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Figure 2 – an athlete participating in the javelin event.



- (c) Explain, using **Figure 2**, how the centre of mass and base of support affect the stability of the athlete during the javelin event. [4]

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- (d) Explain how an understanding of Newton's Laws of Motion could aid the performance of an athlete when leaving the starting blocks and during a sprint event. [6]

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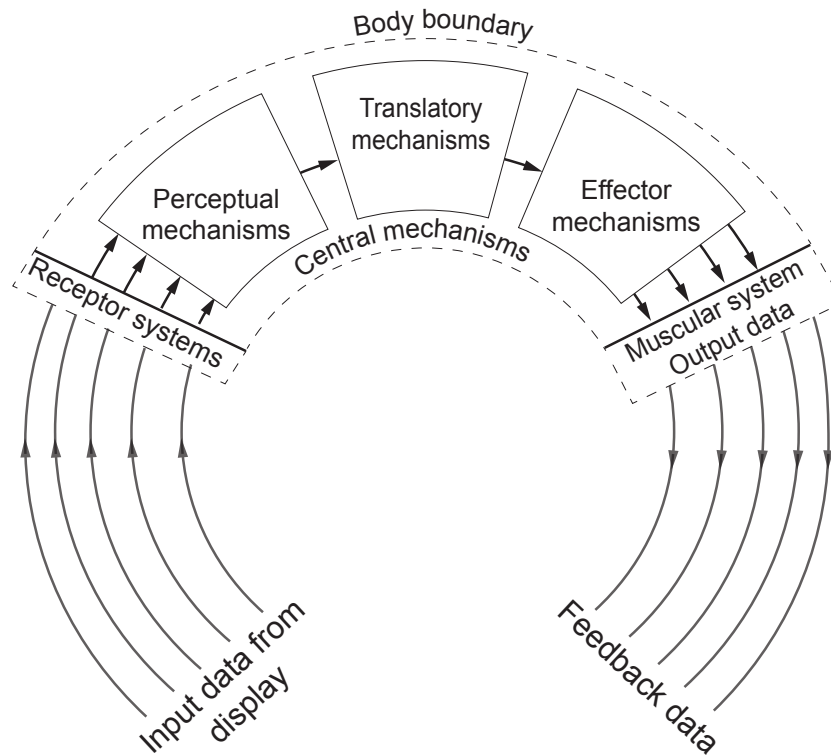
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2. When sports people perform, learn and develop new skills, they have to process vast amounts of information.

Figure 3 – Whiting's model of information processing.



- (a) (i) Identify, using **Figure 3**, the part of the model that is responsible for selective attention. [1]

- (ii) Explain, using sporting examples, Whiting's model of information processing. [8]



- (b) Outline **two** types of feedback that a performer could receive following an activity to reinforce the learning of a skill. [2]

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- (c) Describe the strategies that a coach could use to improve a performer's retention of information when learning a skill. [4]

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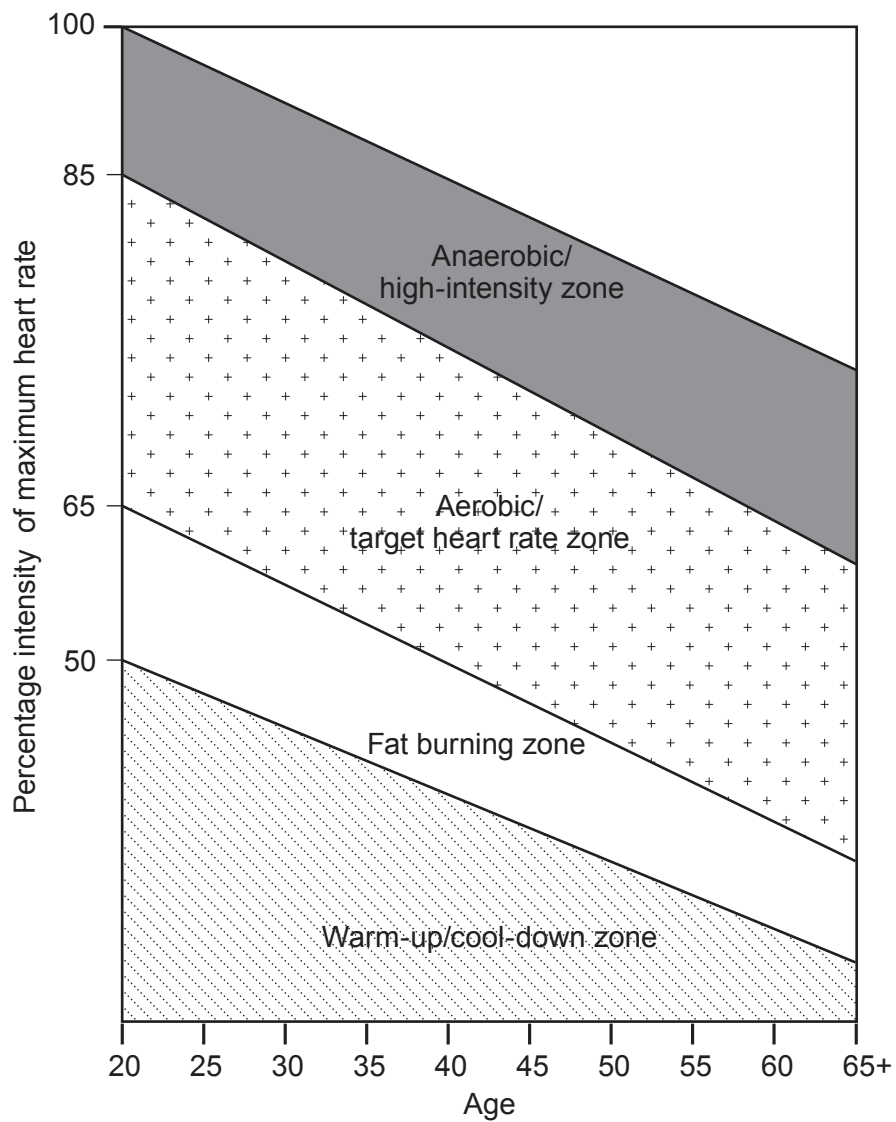
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3. **Figure 4** – a graphical representation of the training zone.



- (a) Explain, using **Figure 4**, why knowledge of training zones and the anaerobic threshold are important when developing an exercise programme. [6]

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(b) An effective warm-up is an essential part of any training programme.

Explain the impact on performance of the physiological changes that occur as a result of a warm-up. [4]

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(c) During prolonged physical activity athletes become fatigued.

Explain the physiological effects of dehydration on performance. [4]

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(d) Analyse how legal nutritional supplements and ergogenic aids can benefit performance. [4]

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5. **Figure 5** – Weiner's model of attribution. Weiner's model of attribution identifies the reasons given by performers to explain their success or failure.

		Locus of causality	
		Internal	External
Stability dimension	Stable	Ability	Task difficulty
	Unstable	Effort	Luck

- (a) Describe the stable and unstable characteristics of Weiner's model.

[4]

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- (b) Self-efficacy can be defined as 'the strength of an individual's belief that he or she can successfully perform a given activity'. (Bandura, 1977).

Explain strategies that a coach may use to increase the self-efficacy of a performer. [6]

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- (c) Evaluate, using sporting examples, the effectiveness of the different types of goals that a coach could set to motivate performers. [8]



