

Surname	Centre Number	Candidate Number
First name(s)		0



GCSE

C550U10-1



S25-C550U10-1



MONDAY, 19 MAY 2025 – AFTERNOON

PHYSICAL EDUCATION (full course)

Component 1: Introduction to Physical Education

2 hours

INSTRUCTIONS TO CANDIDATES

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

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

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.

For Examiner's use only					
Question	Maximum Mark	Mark Awarded	Question	Maximum Mark	Mark Awarded
1.a	9		3.d	9	
1.b	3		3.e	2	
1.c	7		3.f	3	
1.d	5		4.a	8	
2.a	6		4.b	5	
2.b	3		4.c	6	
2.c	4		4.d	4	
2.d	7		4.e	4	
2.e	1		5.a	1	
2.f	6		5.b	1	
3.a	1		5.c	6	
3.b	3		5.d	12	
3.c	4				

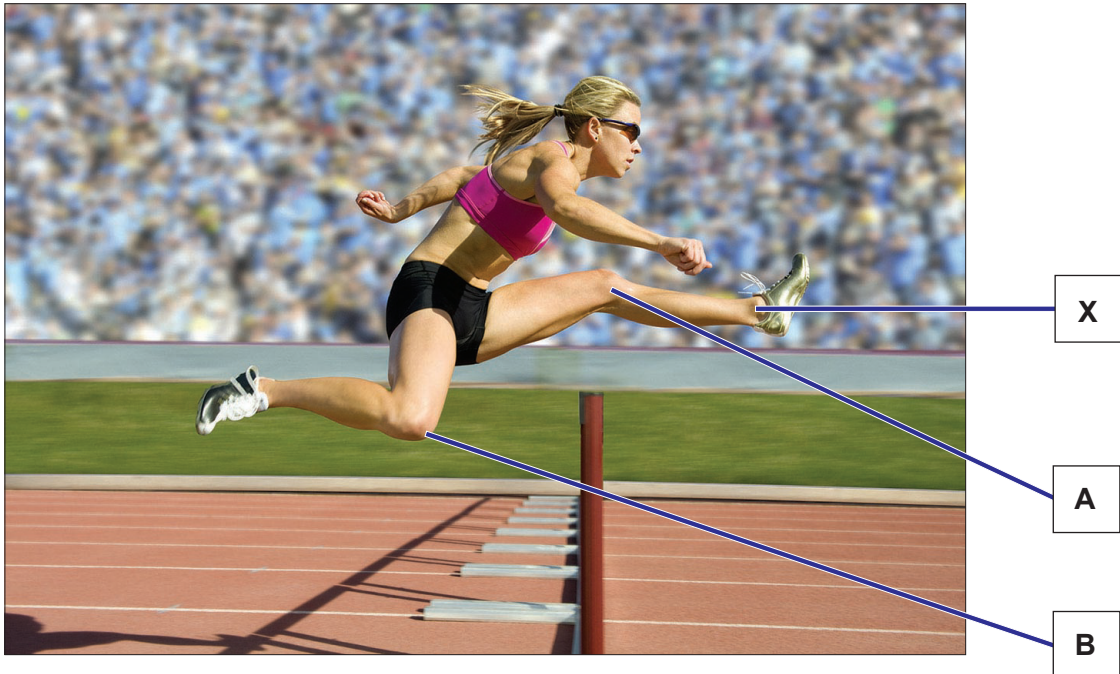
Total	120	
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JUN25C550U10101

Answer **all** questions.

1. **Figure 1** – sprint hurdler



- (a) (i) Identify the plane of movement at **X** in **Figure 1**.

[1]

Tick (✓) **one** box only.

Rotational

☐

Sagittal

☐

Frontal

☐

Transverse

☐


- (ii) Analyse the movement taking place in the hurdler's leg action in **Figure 1**. [4]

Movement at A	
Agonist muscles used	

Movement at B	
Agonist muscles used	

- (iii) Explain the term antagonistic muscle action. [2]

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- (iv) Identify the type of joint at **B** in **Figure 1**. [1]

Tick (✓) **one** box only.

Pivot

☐

Hinge

☐

Biceps

☐

Ball and socket

☐

- (v) Identify the classification of lever at the knee joint. [1]

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(b) Explain why reaction time is important for a sprint hurdler.

[3]

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(c) (i) Identify **one** type of flexibility training.

[1]

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(ii) Analyse the disadvantages of **not** performing a warm up and cool down as part of a training session.

[6]

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- (d) (i) Explain how an increase in funding can aid an elite level athlete's performance. [3]

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- (ii) Outline **two** disadvantages of the media's influence on sport. [2]

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- [6]

- [2]

- [1]



(c) Discuss the use of technology for coaches in sport.

[4]

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(d) (i) Explain how resting heart rate can be used to assess an athlete's fitness level. [3]

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(ii) Compare the differences between the anaerobic and aerobic training zones. [4]

	Anaerobic	Aerobic
Intensity		
Duration		



- (e) Identify the pulmonary circulatory system from the descriptions below. [1]

Tick (✓) **one** box only.

Carries blood to the lungs to be oxygenated
and then back to the heart.

☐

Prevents blood flowing backwards.

☐

Carries blood around the body to deliver oxygen
and returns de-oxygenated blood to the heart.

☐

Volume of air breathed in or out.

☐

- (f) Discuss the impact of a sedentary lifestyle on an individual's physical, mental and social health and well-being. [6]

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3. Figure 3 – tennis serve



(a) Identify the type movement at the shoulder (**A**).

[1]

Tick (✓) **one** box only.

Flexion

☐

Dorsiflexion

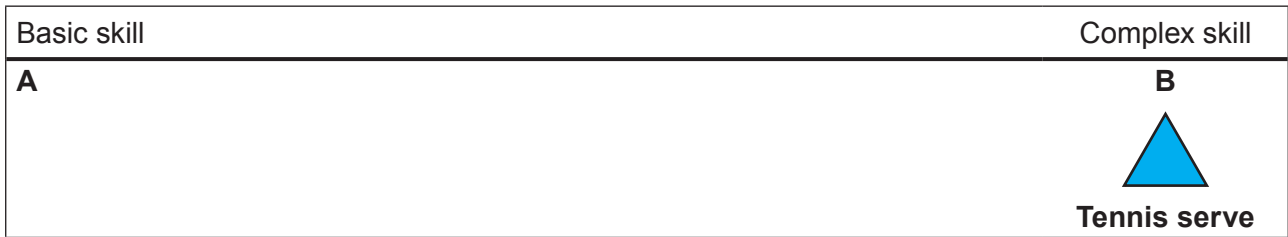
☐

Circumduction

☐

Adduction

☐


Figure 4 – the basic/complex skill continuum

- (b) Justify why the tennis serve is placed at point **B** on the continuum above. [3]

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- (c) Discuss the advantages and disadvantages of the use of verbal guidance when teaching a tennis serve. [4]

Advantages

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Disadvantages

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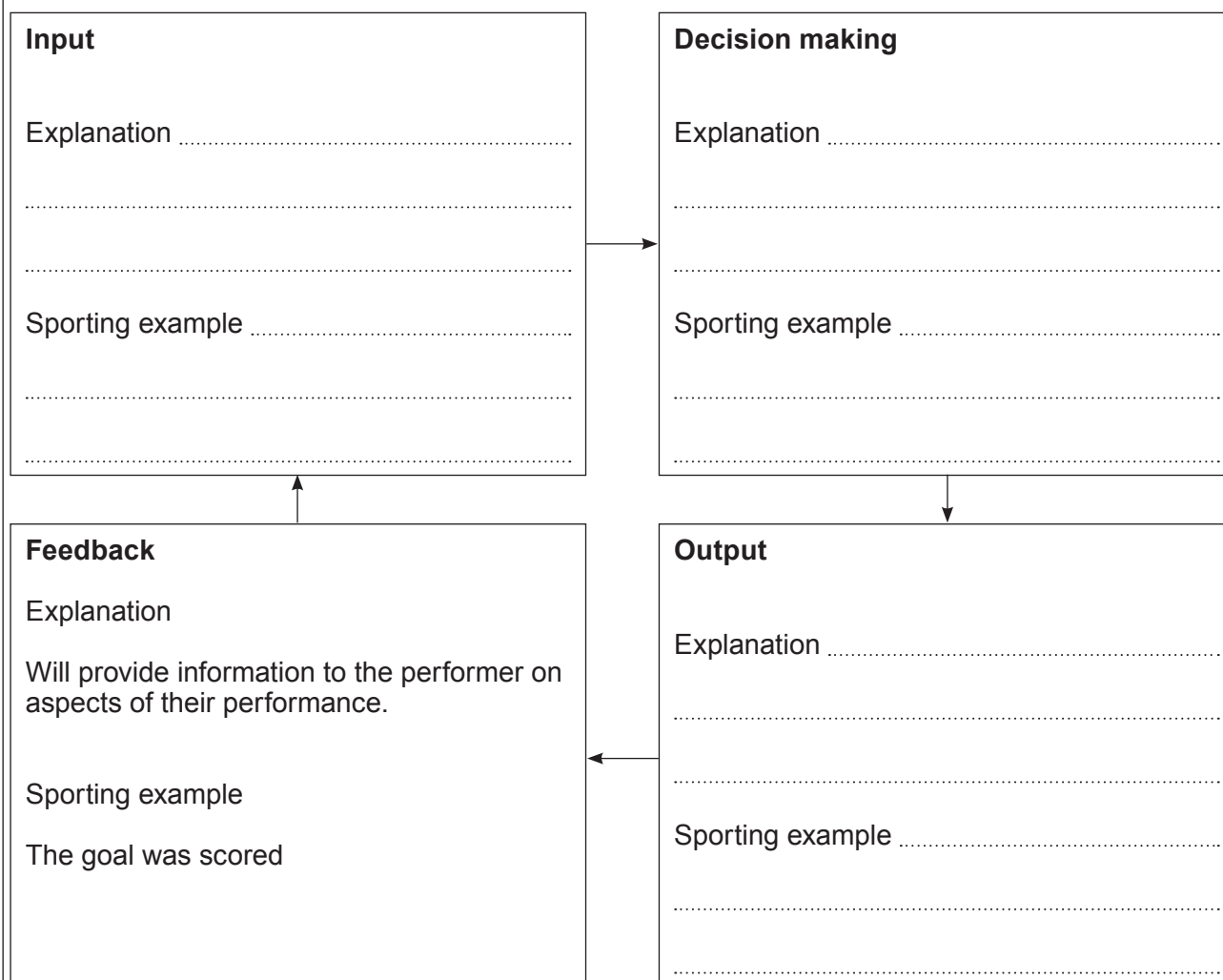


- (d) (i) The information processing model is important when learning a new skill.

Explain, using sporting examples, the stages of information processing below.

An explanation and example have been provided for the feedback stage.

[6]



- (ii) Outline **three** ways effective feedback should be delivered by a coach.

[3]

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(e) Identify **two** components of SMART targets.

[2]

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(f) (i) Explain, using a sporting example, how the skeleton provides protection.

[2]

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(ii) Name **one** other function of the skeleton other than protection.

[1]

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- (b) (i) Identify the main nutrient used during aerobic exercise. [1]

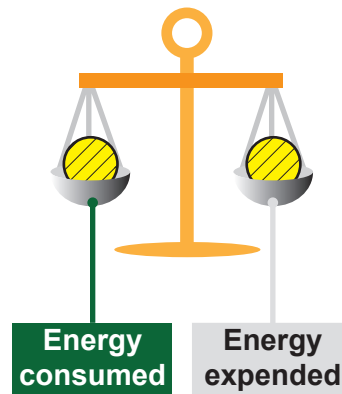
- (ii) Name the nutrient which aids development of muscle tissue for muscular strength. [1]

- (iii) Draw a line to identify the correct outcome to each of the energy balance equations below. [3]

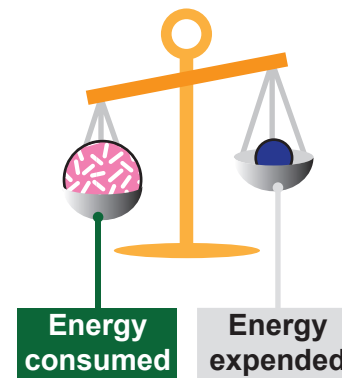
Correct outcome

Energy Balance Equation

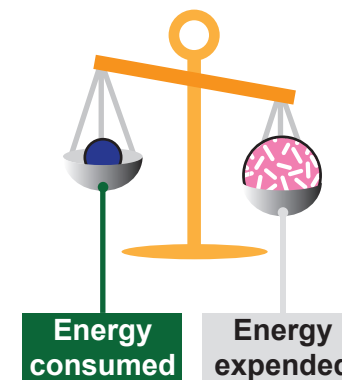
Weight gain



Weight loss



Balanced weight



(c) Compare the characteristics of muscle fibres in the table below.

[6]

Fast twitch	Slow twitch

(d) Draw a line to identify the cardiovascular term to the correct value at rest.

[4]

Cardiovascular Term

Value

Blood pressure

80 (ml)

Stroke volume

120/80 (mmHg)

Cardiac output

70 (bpm)

Heart rate

5.6 (L/min)

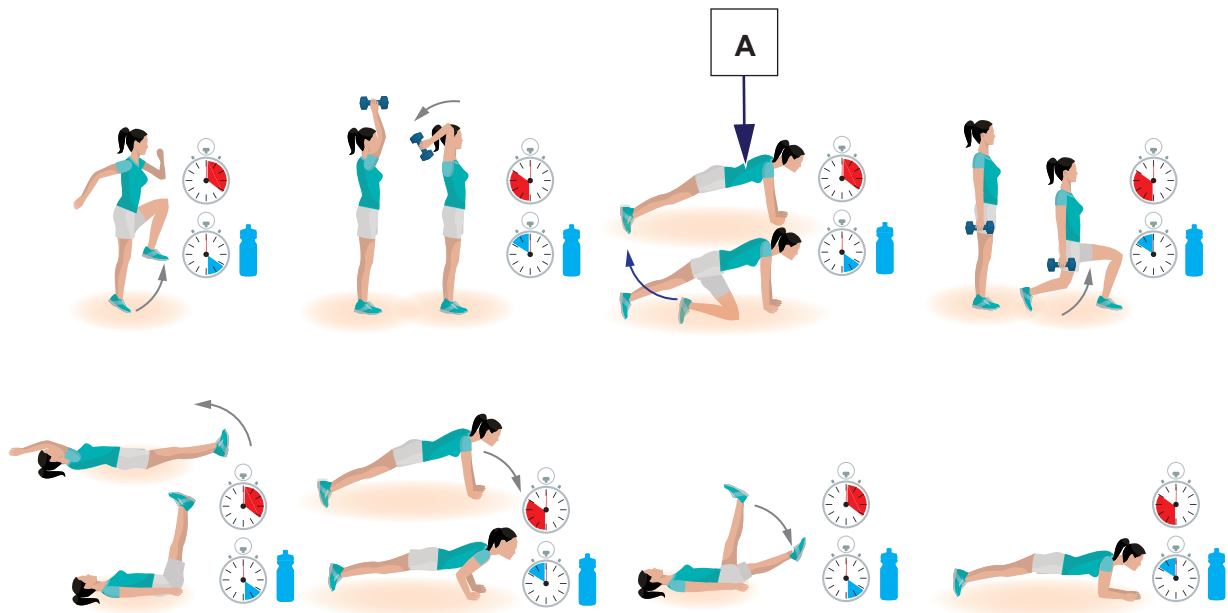
(e) Identify **two** long term effects of exercise on each of the following systems.

[4]

Muscular-skeletal	1. 2.
Cardiovascular and respiratory	1. 2.



5. **Figure 5** – exercises in a method of training



(a) Name the method of training that is taking place in **Figure 5**. [1]

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(b) Identify the type of muscular contraction at **A** when the position is being held. [1]

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(c) Explain how the principles of specificity and overload could be applied to the training method in **Figure 5**. [6]

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- (d) (i) Define the components of fitness shown in the table below, and give a sporting example for each. [4]

Component of fitness	Definition	Sporting example
Power		
Muscular endurance		

- (ii) Name and describe a recognised fitness test used for each of the components of fitness listed in the table below. [6]

Component of fitness	Name of the test	Description of the test
Power		
Muscular endurance		

Improving motivation is one reason for fitness testing.

- (iii) Identify **two** other reasons for fitness testing. [2]

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