



GCSE



C550U10-1

MONDAY, 19 MAY 2025 – AFTERNOON

Physical Education (full course)

Component 1: Introduction to Physical Education

2 hours plus your additional time allowance

Surname _____

First name(s) _____

Centre Number _____

Candidate Number 0 _____

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

For Examiner's use only		
Question	Maximum Mark	Mark Awarded
4.a	8	
4.b	5	
4.c	6	
4.d	4	
4.e	4	
5.a	1	
5.b	1	
5.c	6	
5.d	12	
Total	120	

INSTRUCTIONS TO CANDIDATES

Use black ink, black ball-point pen or your usual method.

You may use a pencil for graphs and diagrams only.

Write your name, centre number and candidate number in the spaces provided on the front cover.

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

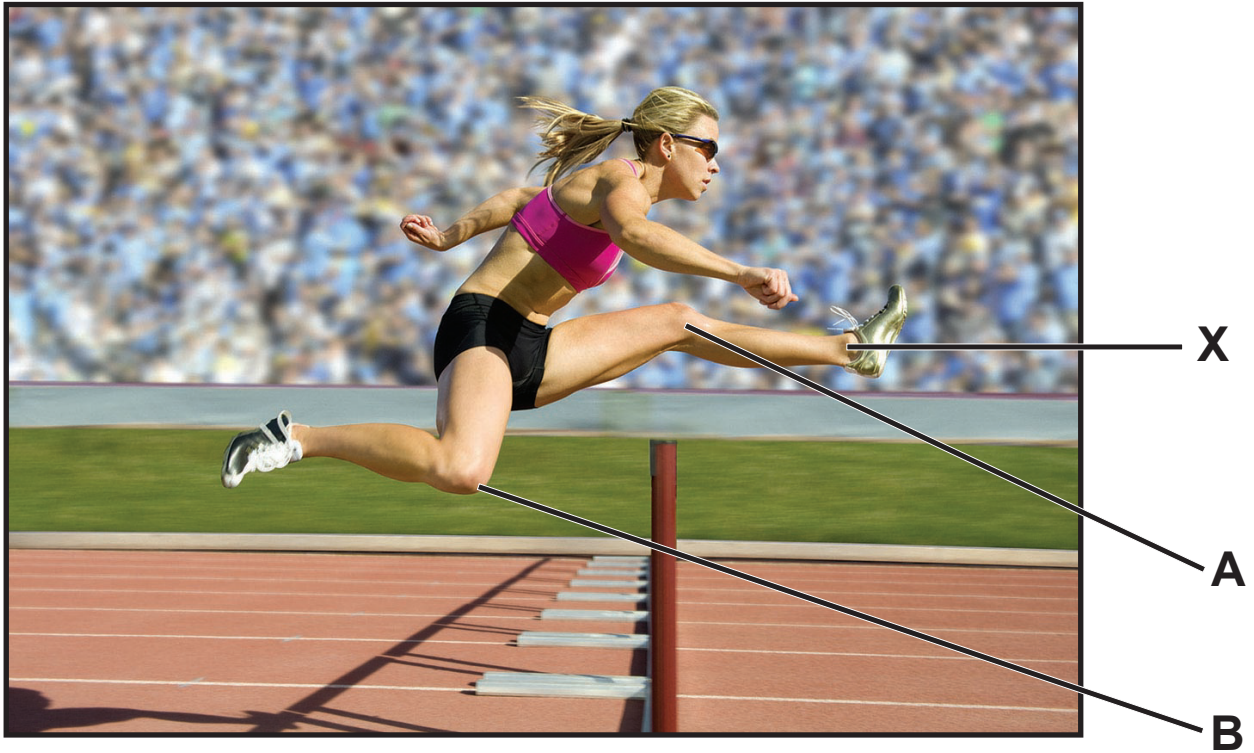
The number of marks is given in brackets at the end of each question or part-question.

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

(Turn over)

Answer ALL questions.

1. FIGURE 1 – sprint hurdler



(Turn over)

1 (a) (i)

Identify the plane of movement at X in FIGURE 1 on page 3. [1 mark]

Tick (✓) ONE box only.

Rotational	☐
Sagittal	☐
Frontal	☐
Transverse	☐

(Turn over)

1 (a) (ii)

Analyse the movement taking place in the hurdler's leg action in FIGURE 1. [4 marks]

Movement at A	
Agonist muscles used	

Movement at B	
Agonist muscles used	

(Turn over)

1 (a) (iii)

Explain the term antagonistic muscle action.

[2 marks]

(iv) Identify the type of joint at **B** in FIGURE 1 on page 3. [1 mark]

Tick (✓) ONE box only.

Pivot	☐
Hinge	☐
Biceps	☐
Ball and socket	☐

(Turn over)

1 (a) (v)

Identify the classification of lever at the knee joint.
[1 mark]

(b) Explain why reaction time is important for a sprint hurdler. [3 marks]

(c) (i) Identify ONE type of flexibility training. [1 mark]

1 (c) (ii)

Analyse the disadvantages of NOT performing a warm up and cool down as part of a training session. [6 marks]

[illegible]

(Turn over)

1 (d) (i)

Explain how an increase in funding can aid an elite level athlete's performance. [3 marks]

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

2. FIGURE 2 – team sports, rugby and netball



- (a) Analyse the importance of the anaerobic and aerobic energy systems in a team sport.

[6 marks]

(Turn over)

2 (b) (i)

**Explain why varied practice is used in team sports.
[2 marks]**

**(ii) Identify ONE type of practice, other than varied.
[1 mark]**

2 (c) Discuss the use of technology for coaches in sport. [4 marks]

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

(Turn over)

2 (d) (ii)

Compare the differences between the anaerobic and aerobic training zones. [4 marks]

	Anaerobic	Aerobic
Intensity		
Duration		

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

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.

☐

(Turn over)

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

3. FIGURE 3 – tennis serve



3 (a) Identify the type movement at the shoulder (A) in FIGURE 3 opposite. [1 mark]

Tick (✓) ONE box only.

Flexion

☐

Dorsiflexion

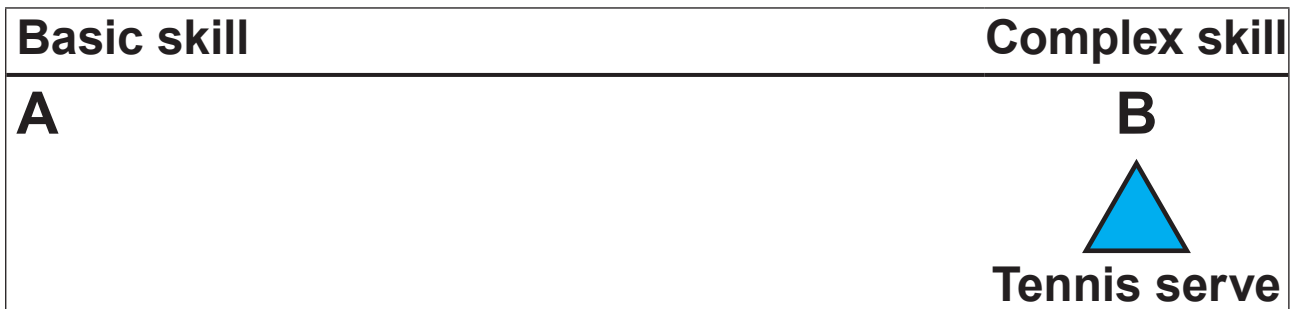
☐

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 marks]

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

Advantages

Disadvantages

3 (d) (i)

The information processing model is important when learning a new skill.

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

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

[6 marks]

(ii) Outline THREE ways effective feedback should be delivered by a coach. [3 marks]

(Turn over)

3 (e) Identify TWO components of SMART targets.

[2 marks]

(f) (i)

Explain, using a sporting example, how the skeleton provides protection. [2 marks]

(ii) Name ONE other function of the skeleton other than protection. [1 mark]

(Turn over)

4. The table below shows levels of activity by adults of at least moderate intensity or higher. (Sport England)

Levels of activity in adults	2017	2020
Less than 30 mins a week	26·6%	27·1%
150 mins and above per week	60·7%	61·4%

4 (a) Evaluate, using the data above, factors that may have affected activity levels. [8 marks]

4 (b) (i)

Identify the main nutrient used during aerobic exercise. [1 mark]

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

(iii) Draw a line to identify the correct outcome to each of the energy balance equations on the page opposite.. [3 marks]

(c) Compare the characteristics of muscle fibres in the table below. [6 marks]

Fast twitch	Slow twitch

(Turn over)

- 4 (d) Draw a line to identify the cardiovascular term to the correct value at rest. [4 marks]

**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 in the table opposite.

[4 marks]

(Turn over)

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 on the page opposite. [1 mark]**

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

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

5 (d) (i)

Define the components of fitness shown in the table opposite, and give a sporting example for each. [4 marks]

Component of fitness	Definition	Sporting example
Power		
Muscular endurance		

5 (d) (ii)

Name and describe a recognised fitness test used for each of the components of fitness listed in the table opposite. [6 marks]

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

(Turn over)

Improving motivation is one reason for fitness testing.

5 (d) (iii)

Identify TWO other reasons for fitness testing.

[2 marks]

END OF PAPER

(Turn over)

Question number	Additional page, if required. Write the question numbers in the left-hand margin.

INPUT

Explanation _____

Sporting example _____



DECISION MAKING

Explanation _____

Sporting example _____



FEEDBACK

Explanation
Will provide information to the performer on
aspects of their performance.

Sporting example
The goal was scored



OUTPUT

Explanation _____

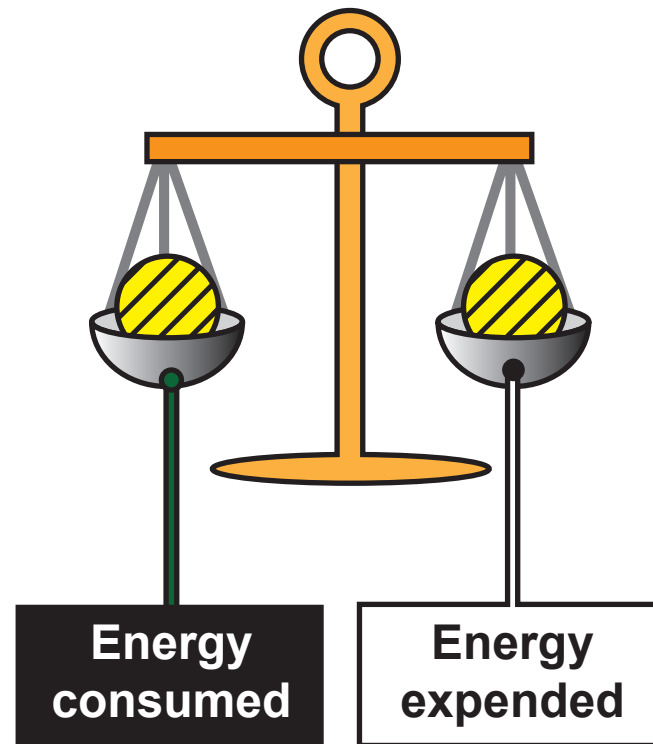
Sporting example _____



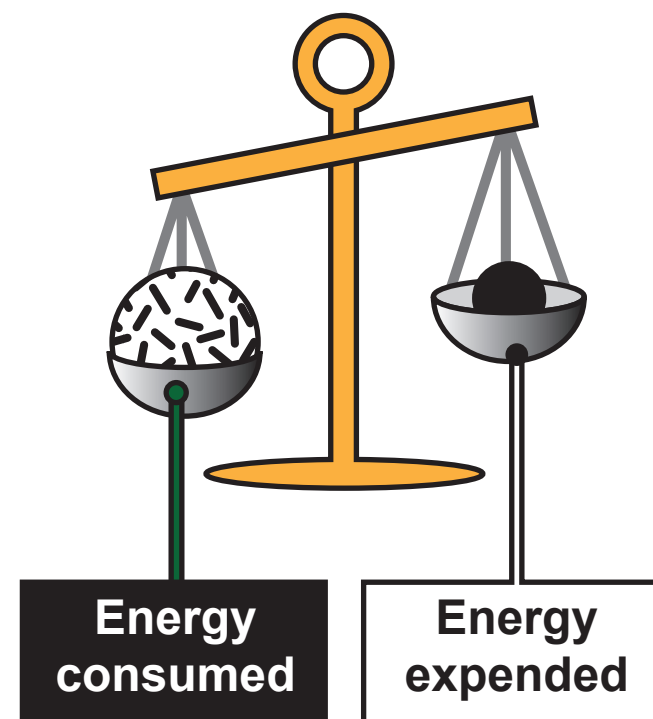
CORRECT OUTCOME

Weight gain

ENERGY BALANCE EQUATION



Weight loss



Balanced weight

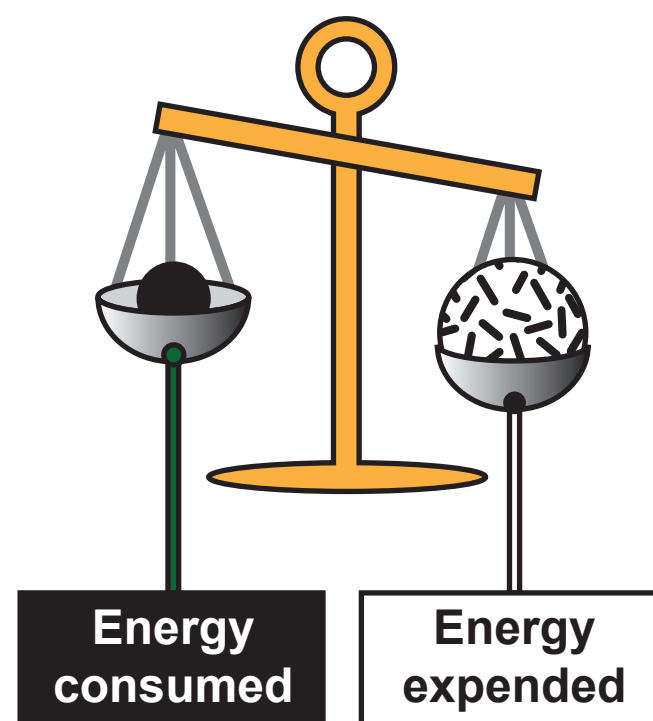


FIGURE 5

