

Surname	Centre Number	Candidate Number
First name(s)		0



GCSE

C550U10-1



S23-C550U10-1



WEDNESDAY, 17 MAY 2023 – 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 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
1.a	4	
1.b	2	
1.c	3	
1.d	6	
1.e	7	
1.f	7	
1.g	2	
2.a	13	
2.b	2	
2.c	2	
2.d	6	
3.a	3	
3.b	7	
3.c	6	
3.d	6	
4.a	12	
4.b	3	
4.c	4	
4.d	5	
5.a	7	
5.b	5	
5.c	6	
5.d	2	
Total	120	



JUN23C550U10101

Answer **all** questions.

1. Sport England's 2019 survey states, 'More women, disabled people and those with long-term health conditions are getting active'.

(a) Explain **two** factors that have affected participation rates of these target groups. [4]

1.

.....

2.

.....

(b) Identify **two** long-term health conditions associated with a sedentary lifestyle. [2]

1.

2.

(c) Explain the relationship between health, fitness and well-being. [3]

.....

.....

.....

.....

.....

.....



C550U101
03

- [6]

- [4]

	Rest	Increases or decreases during exercise
Stroke volume	0.7 L	
Blood pressure	120 mmHg systolic	
Breathing frequency	12 breaths per min	
Tidal volume	0.5 L	



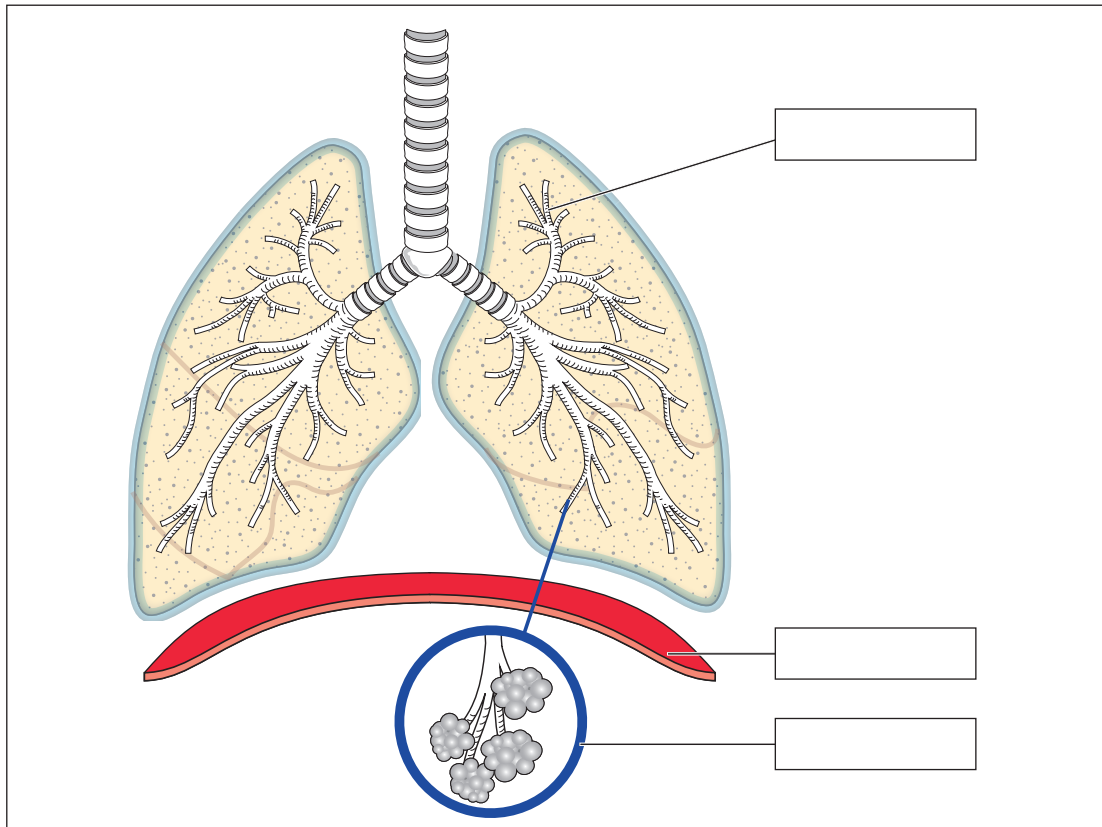
- (ii) Identify the components of the respiratory system.

[3]

Place **one** letter into each box.

- A. Diaphragm
B. Alveoli
C. Bronchioles

Figure 1 – a diagram of part of the respiratory system.



- (f) (i) Explain why it is important for a sportsperson to work within the aerobic training zone. [4]

.....

.....

.....

.....

.....

.....

.....

.....



- (ii) Explain why continuous training would be used to develop the aerobic energy system. [3]

.....

.....

.....

.....

- (g) Explain the function of carbohydrates and fats during aerobic exercise. [2]

.....

.....

.....

.....



- [3]

Fitness test	Result	Component of fitness
Vertical jump test	60 cm (excellent)	
Ruler drop test	7.5 cm (excellent)	
30 m sprint test	4.9 sec (average)	

- [6]

SMART target:

- [2]



- (iv) Apart from fitness testing, identify **two** other measurement tools that could be used to assess the physical fitness and health of the sprinter. [2]

1.

.....

2.

.....

- (b) Explain how a sprinter could apply the principle of overload to their training. [2]

.....

.....

.....

.....

- (c) Explain how schools may have influenced the participation of the sprinter. [2]

.....

.....

.....

.....



- (d) (i) Explain the differences between an open and closed skill.
Use sporting examples to support your answer.

[4]

.....

.....

.....

.....

.....

.....

.....

.....

- (ii) Explain the most appropriate type of practice to develop a closed skill.

[2]

.....

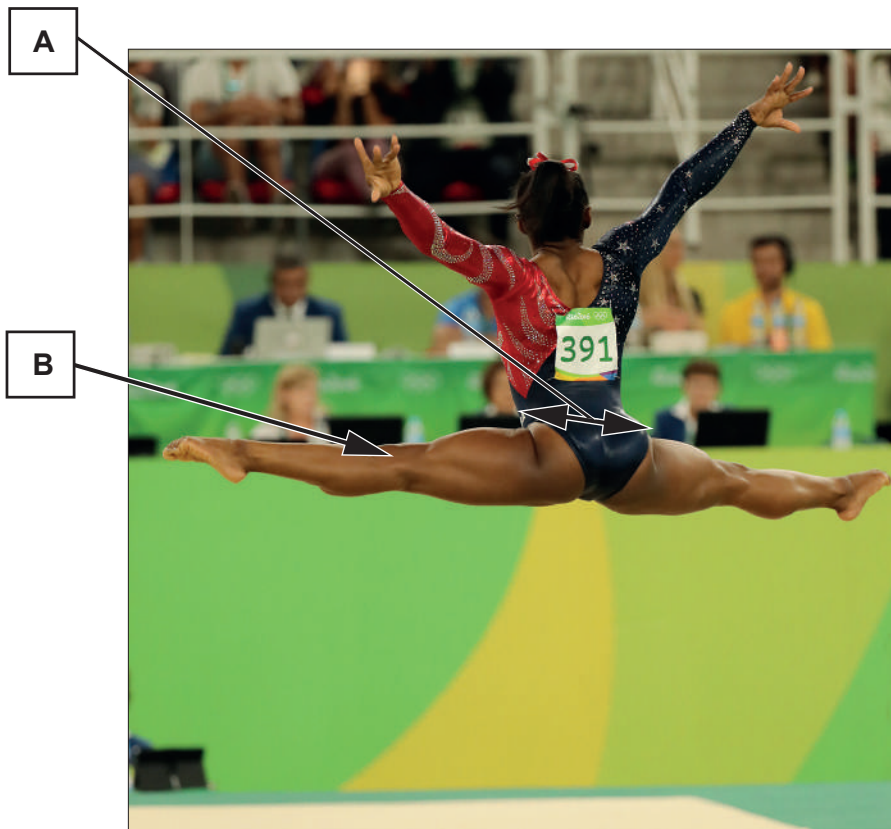
.....

.....

.....



3. **Figure 2** – a gymnast performing a split leap.



- (a) Analyse, using **Figure 2**, the movement taking place at the hips (**A**) and knee (**B**) of the gymnast. [3]

Type of movement at A (Hip)	Type of movement at B (Knee)	Plane of movement at A (Hip)



(b) Flexibility is an essential physical fitness component of a gymnast.

(i) Define flexibility. [1]

.....

(ii) Justify why flexibility is needed by a gymnast. [2]

.....

.....

.....

.....

(iii) Explain how **one** method of training could be used to develop flexibility. [3]

Method of training:

Explanation:

.....

.....

(iv) Identify **one** principle of training from the list below. [1]

Tick (✓) **one** box only.

Speed ☐

Specificity ☐

Minerals ☐

Measurable ☐



- (c) (i) Describe how each of the following components of fitness are needed by a gymnast. [2]

Balance:

.....

.....

.....

Co-ordination:

.....

.....

.....

- (ii) Identify a recognised fitness test for each of the components of fitness below. [3]

Component of fitness	Test
Balance	
Co-ordination	
Flexibility	



- [1]

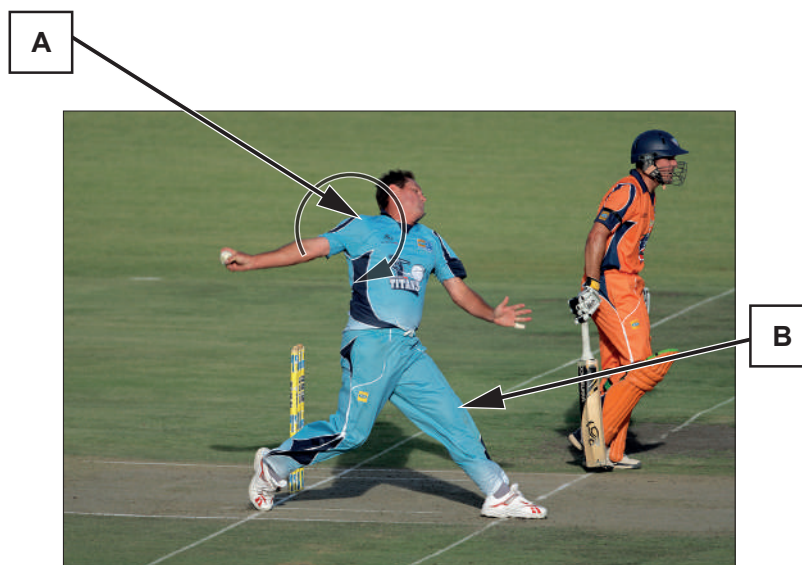
10

10

10

- [6]



4. **Figure 3** – a bowler in cricket.

- (a) (i) Analyse the correct movement and agonist muscle at **A** and **B** in **Figure 3**. [4]

	Movement	Agonist
A (shoulder)		
B (knee)		

- (ii) Explain **two** movements, other than those stated in 4(a)(i), that can occur at the shoulder joint. [4]

Movement	Explanation
.....	
.....	
.....	
.....	
.....	
.....	
.....	
.....	
.....	



(iii) Explain, using sporting examples, the terms 'prime mover' and 'antagonist'. [4]

.....

.....

.....

.....

.....

.....

.....

.....

(b) (i) Identify **one** flat bone that provides protection in a game such as cricket. [1]

.....

(ii) Describe **two** ways that a player can assist their recovery after exercise. [2]

.....

.....

.....

.....



- (c) Assess how intrinsic and extrinsic feedback could influence the performance of a sportsperson such as a cricketer.

[4]

.....

.....

.....

.....

.....

.....

.....

.....

- (d) Evaluate how the use of mental preparation could benefit a sportsperson.

[5]

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....



5. **Figure 4** – a long distance runner.



- (a) (i) Using **Figure 4**, identify the type of synovial joint shown at **A**.

[1]

Tick (✓) **one** box only.

Ball and socket

☐

Pivot

☐

Hinge

☐

Gliding

☐

- (ii) Identify the plane of movement taking place at **A**.

[1]

Tick (✓) **one** box only.

Frontal

☐

Sagittal

☐

Vertical

☐

Transverse

☐


(iii) Identify the **three** bones found in the arm.

[3]

1.

2.

3.

(iv) Assess the need for a long-distance runner to have a high proportion of slow-twitch muscle fibres to be successful.

[2]

.....

.....

.....

.....

(b) (i) Outline **three** physical short-term effects of aerobic exercise on the body.

[3]

1.

2.

3.

(ii) Explain the characteristics of anaerobic exercise.

[2]

.....

.....

.....

.....



- (c) Sponsorship and the media play a major part in financing sport. Discuss this relationship.

[6]

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

- (d) Explain **two possible** negative consequences of the use of technology to analyse sporting performance.

[2]

.....

.....

.....

.....

.....

END OF PAPER

20



[illegible]

BLANK PAGE

**PLEASE DO NOT WRITE
ON THIS PAGE**

