

Surname	Centre Number	Candidate Number
First name(s)		0



GCSE

C550U10-1



S24-C550U10-1



WEDNESDAY, 22 MAY 2024 – 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)	3	
1(b)	6	
1(c)	2	
1(d)	2	
1(e)	2	
1(f)	6	
2(a)	9	
2(b)	4	
2(c)	8	
2(d)	4	
3(a)	11	
3(b)	4	
3(c)	4	
3(d)	4	
3(e)	2	
4(a)	8	
4(b)	3	
4(c)	14	
5(a)	5	
5(b)	5	
5(c)	6	
5(d)	8	
Total	120	

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Answer **all** questions.

1. **Figure 1** – Long jumper



(a) Analyse **Figure 1** and complete the table below.

[3]

	Analysis
Type of joint at A	
Type of joint at B	
Type of movement from B to C	

(b) (i) Justify using fixed practice for a long jumper.

[2]

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(ii) Explain, using sporting examples, the characteristics of a skilled performer. [4]

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(c) Identify **two** bones found in the arm. [2]

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(d) Explain why it is important to warm up before performing. [2]

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(e) Contrast the main difference between an eccentric and concentric muscular contraction. [2]

Eccentric	Concentric
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(f) Analyse the role technology has in developing elite performance.

[6]

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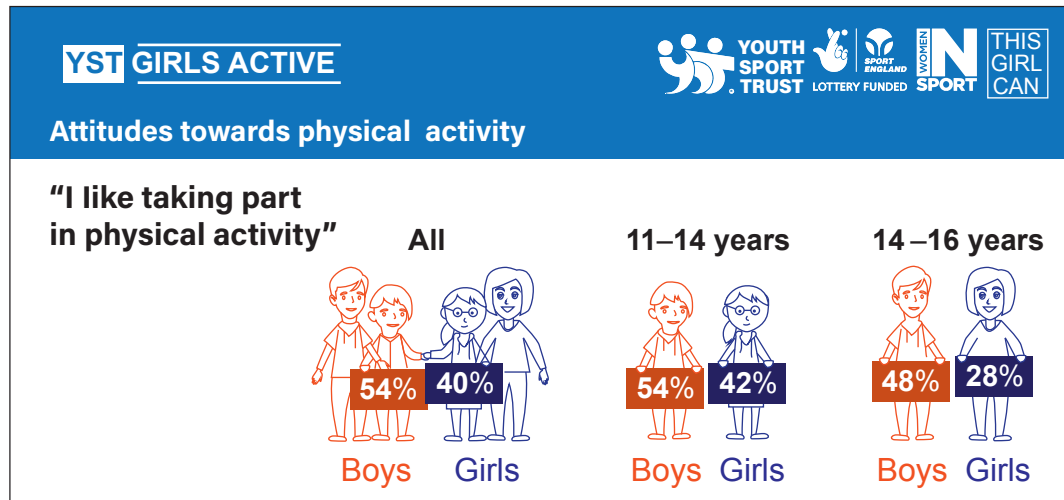


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2. Figure 2 – Participation survey



- (a) (i) Analyse, using **Figure 2**, the factors that affect participation of young people in physical activity.

[6]



- (ii) Identify **three** negative mental health consequences of being a sedentary individual.

[3]

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- (b) Analyse **two** ways commercialisation of sport has helped improve performance.

[4]

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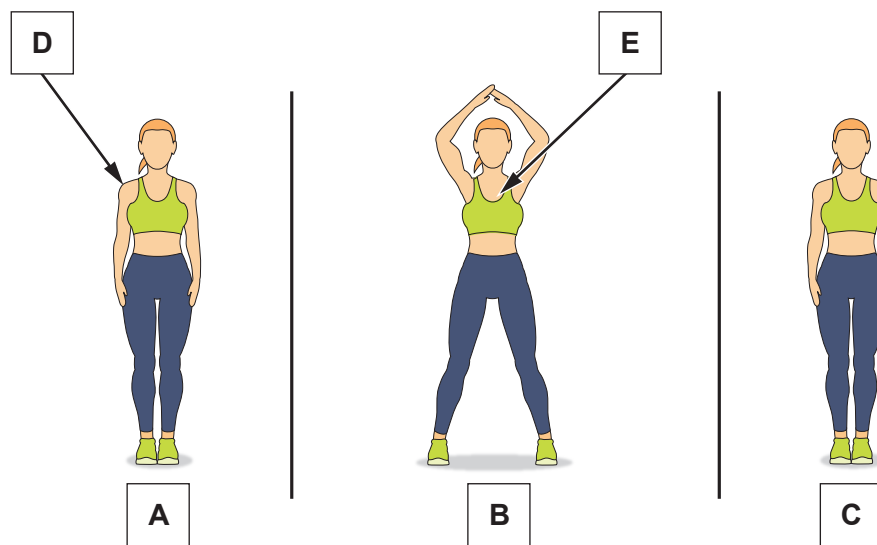
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(c) **Figure 3 – Jumping jacks**

- (i) Analyse the movements taking place at the shoulder in **Figure 3**. Complete the table below. [4]

	Analysis
Movement from A to B (hips)	
Movement from B to C (hips)	
Muscle at D	
Plane of movement	

- (ii) Identify the flat bone found at **E**. [1]

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- (iii) Outline the function of flat bone **E**. [1]

.....



(iv) Compare the functions of tendons and ligaments.

[2]

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(d) Identify **two** short term effects of exercise on each of the following systems.

[4]

Muscular-skeletal system	1. 2.
Cardio-respiratory and vascular systems	1. 2.



3. Figure 4 – Multi stage fitness test (MSFT) normative data table and test results for females

Normative data table for MSFT

Age	Excellent	Above Average	Average	Below Average	Poor
14–16	L10 S9	L9 S1	L6 S7	L5 S1	< L4 S7

Test results for MSFT

Females aged 14–16	MSFT	Resting Heart Rate (RHR)
Athlete A	L6 S8	70
Athlete B	L10 S10	60
Athlete C	L4 S6	75

3. (a) (i) Analyse, using the data in **Figure 4**, the athlete who has the lowest level of fitness, giving the reasons for your answer. [3]

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- (ii) Identify the main component of fitness that the multi stage fitness test (MSFT) measures. [1]

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(c) Justify the need to be both fit and healthy.

[4]

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(d) (i) Name **two** types of stretching.

[2]

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(ii) Identify **two** other methods, apart from stretching, that can be used to aid recovery.

[2]

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(e) Explain the function of the following nutrients.

[2]

Nutrient	Function
Carbohydrate	
Protein	



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4. **Figure 5** – The actions of jogging and a goalkeeping save



- (a) (i) Identify, using **Figure 5**, the following classification of skills.

[2]

Tick (✓) **one** box only for each classification.

Classification	
Action	Self-paced skill
Jogging	
Goalkeeping save	

Classification	
Action	Externally paced skill
Jogging	
Goalkeeping save	

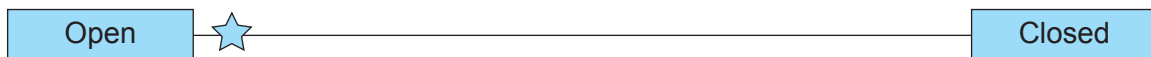


- (ii) Identify the types of muscle fibre that would be predominantly used for jogging and a goalkeeping save. [2]

Action	Muscle fibre type
Jogging	
Goalkeeping save	

- (iii) Skills can also be classified on the open/closed continuum.

Justify, using a specific skill, the reason why it is placed at the open end of the continuum. [2]



Classification	Specific Skill	Justification
Open		

- (iv) Justify, using a specific skill, the reason why it is placed at the closed end of the continuum. [2]



Classification	Specific Skill	Justification
Closed		



- (b) (i) Identify the component of fitness defined below: [1]

The ability to use different (two or more) parts of the body together smoothly and efficiently.

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- (ii) Justify, using a sporting example, the importance of the component of fitness defined in 4(b)(i). [2]

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- (c) (i) Define each component of fitness and provide a relevant sporting example in the table below. [4]

Component of fitness	Definition	Sporting example
Balance		
Agility		



- (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	Brief description of test
Balance		
Agility		

- (iii) Identify the fitness test that measures the correct component of fitness. [4]

Draw a line to match the fitness test with the correct component of fitness.

Fitness test

Alternate hand throw

Ruler drop test

1 rep max

Sit and reach

Component of fitness

Strength

Flexibility

Co-ordination

Reaction time



5. The leverage system requires the relationship between the load, effort and fulcrum.

- (a) (i) Identify the effort and fulcrum in **Figure 6**. [2]

Place the terms listed below into the correct boxes.

Fulcrum

Effort

Figure 6 – Ballet dancer



A

B

- (ii) Explain, using **Figure 6**, the term 'load'. [2]

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- (iii) Identify the muscle used at **A**. [1]

Tick (✓) **one** box only.

Biceps

☐

Quadriceps

☐

Hamstrings

☐

Gastrocnemius

☐


Guidance can be used to improve learning of skills.

- (b) (i) Visual guidance can be described as:

[1]

Tick (✓) **one** box only.

When a performer is physically guided or supported by the coach

☐

When a performer can see the skill being performed as a model to copy

☐

When a performer is told how to improve a skill

☐

When equipment supports the learner whilst practising

☐

- (ii) Justify the use of mechanical guidance when learning a new skill.

[4]

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(c) Evaluate the types of feedback used in the three stages of learning.

[6]

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(d) (i) Explain the functions of the cardio-respiratory and vascular systems.

[6]

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(ii) Identify the average tidal volume at rest.

[1]

Tick (✓) **one** box only.

3 litres

☐

0.5 litres

☐

5 litres

☐

(iii) Identify the systolic blood pressure value at rest.

[1]

Tick (✓) **one** box only.

120 mmHg

☐

220 mmHg

☐

80 mmHg

☐

END OF PAPER



[illegible]

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