



GCSE

3555U10-1

TUESDAY, 24 MAY 2022 – AFTERNOON

PHYSICAL EDUCATION (Short Course)

Unit 1: Introduction to Physical Education

1 hour plus your additional time allowance

Surname _____

First name(s) _____

Centre Number _____

Candidate Number 0 _____

For Examiner's use only		
Question	Maximum Mark	Mark Awarded
1a	5	
1b	8	
1c	4	
2a	6	
2b	5	
2c	8	
3a	5	
3b	5	
3c	4	
Total	50	

INSTRUCTIONS TO CANDIDATES

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

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 continuation page 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. Read the following training information for two 16-year-old middle distance runners.**

	SCHEDULE A	SCHEDULE B
Monday	Rest day.	Rest day.
Tuesday	6 minute easy run, 6 minute faster run, 6 minute easy run with rest intervals in between runs.	6 minute easy run followed by a 15 minute fast run with a 6 minute easy run to warm down.
Wednesday	Rest day.	25 minute run varying speed of running and changing terrain.
Thursday	Easy run, walk and jog followed by 4 x 4 minute runs at speed with 3 minute recovery between each run. Easy run, walk and jog to finish.	6 x 4 minute runs at speed with 2 minute rest between each run.
Friday	Rest day.	Rest day.
Saturday	15 minute run low to medium intensity.	20 minute run medium to high intensity.
Sunday	10 minute easy run.	20 minute easy run.

(Turn over)

Cardio-vascular endurance is an important fitness component needed by middle distance runners.

1 (a) (i)

Give a definition of cardio-vascular endurance.

[1 mark]

(ii) Name ONE recognised fitness test of cardio-vascular endurance. [1 mark]

(Turn over)

1 (a) (iii)

Explain how the test of cardio-vascular endurance identified in 1 (a) (ii) above is carried out.

[3 marks]

[illegible]

(Turn over)

1 (b) Discuss the possible reasons for the differences in the content of training SCHEDULE A and SCHEDULE B (page 3). [8 marks]

[illegible]

(Turn over)

1 (c) (i)

State what is meant by the definition; “the complete mental, social and physical well-being of an individual”. [1 mark]

1 (c) (ii)

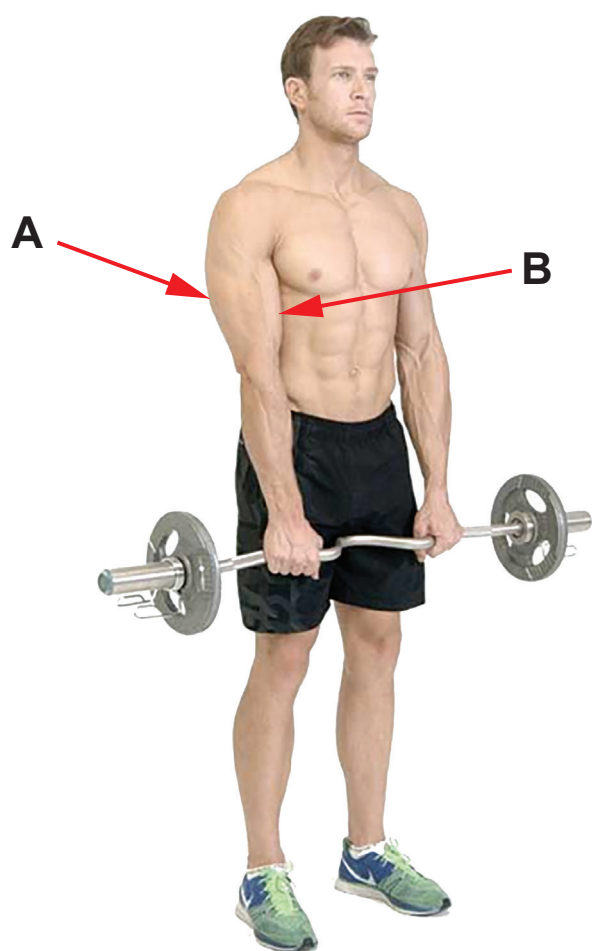
Explain how taking part in sport and physical activity can help a person's mental well-being.

[3 marks]

This image shows a full page of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page, leaving small margins at the top and bottom. There are no vertical margin lines, text, or other markings present.

(Turn over)

“Successful sporting actions depends on our muscles working together to produce movement.”

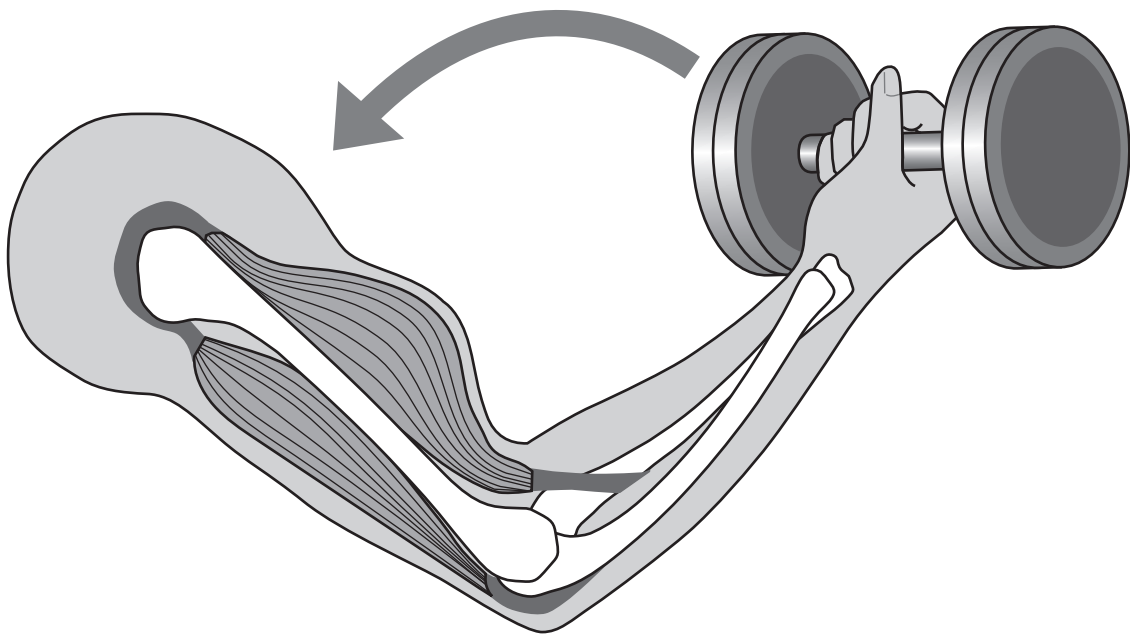


2 (a) (i)

Identify the muscle groups shown at **A and **B** in the diagram opposite. [2 marks]**

Muscle Group **A = _____**

Muscle Group **B = _____**



2 (a) (ii)

Our muscles use bones as levers.

Study the image of a bicep curl to identify the order of lever shown.

Tick (✓) ONE box only. [1 mark]

First order lever

☐

Second order lever

☐

Third order lever

☐

Fourth order lever

☐

(Turn over)

2 (a) (iii)

Using the terms; load/resistance, force/effort and pivot/fulcrum, justify your answer to 2 (a) (ii).

[3 marks]

(Turn over)

2 (b) (i)

Draw lines to match the type of muscular contraction to the correct definition. [3 marks]

MUSCULAR CONTRACTION

DEFINITION

Isotonic/Concentric

The ends of the muscle move further apart

Isometric

The ends of the muscle move closer together

Isotonic/Eccentric

There is no movement

(ii) Name the fibrous tissue which joins bone to bone. [1 mark]

(iii) Name the fibrous tissue which joins muscle to bone. [1 mark]

(Turn over)

2 (c) Taking part in regular physical activity can lead to changes in a sportsperson's circulatory system such as:

- **the heart contracts more powerfully**
- **heart rate increases**
- **stroke volume increases**
- **blood is diverted more effectively to different areas of the body during activity.**

Analyse how these changes can be of help to a sportsperson when performing in physical activity. [8 marks]

Rowers need power and muscular endurance in order to perform effectively.



3 (a) (i)

Name a recognised training method that rowers could use in order to improve power. [1 mark]

(ii) Identify ONE recognised fitness test that measures power. [1 mark]

(iii) Identify ONE recognised fitness test that measures muscular endurance. [1 mark]

3 (a) (iv)

Explain why fitness tests must be valid and reliable. [2 marks]

3 (b) Evaluate how improvements to power and muscular endurance could improve the performance of a rower. [5 marks]

[illegible]

(Turn over)

3 (c) Explain why rowers should train using correct techniques. [4 marks]

[illegible]

(Turn over)

END OF PAPER

FOR CONTINUATION ONLY.

[illegible]

(Turn over)

FOR CONTINUATION ONLY.

[illegible]