



Surname _____

Other Names _____

Centre Number _____

Candidate Number _____

Candidate Signature _____

I declare this is my own work.

GCSE

PHYSICAL EDUCATION

**Paper 1 The human body and movement in physical
activity and sport**

8582/1

Time allowed: 1 hour 15 minutes

**At the top of the page, write your surname and other
names, your centre number, your candidate number
and add your signature.**

[Turn over]



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For this paper you must have:

- a calculator.

INSTRUCTIONS

- Use black ink or black ball-point pen. Pencil should only be used for drawing.
- Answer ALL questions.
- You must answer questions in the spaces provided. Do not write on blank pages.
- If you need extra space for your answer(s), use the lined pages at the end of this book. Write the question number against your answer(s).
- Do all rough work in this book. Cross through any work you do not want to be marked.

INFORMATION

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 78.
- Questions should be answered in continuous prose. You will be assessed on your ability to:
 - use good English
 - organise information clearly
 - use specialist vocabulary where appropriate.

DO NOT TURN OVER UNTIL TOLD TO DO SO

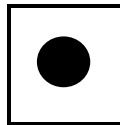


Answer ALL questions.

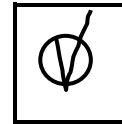
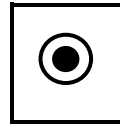
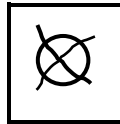
Only ONE answer per question is allowed.

For each question completely fill in the circle alongside the appropriate answer.

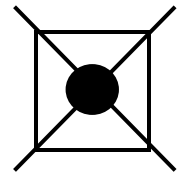
CORRECT METHOD



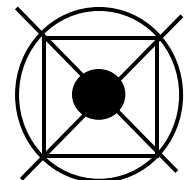
WRONG METHODS



If you want to change your answer you must cross out your original answer as shown.



If you wish to return to an answer previously crossed out, ring the answer you now wish to select as shown.



0	1
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Which **ONE** of these components of fitness is the **MOST** important when dribbling a ball around a defender in basketball? [1 mark]

A Agility

B Muscular endurance

C Reaction time

D Strength

[Turn over]



0 2

Which ONE of these is the correct pathway of the blood in the cardiac cycle as it returns to the heart from the vena cava? [1 mark]

A Left atrium – right atrium – right ventricle – left ventricle

B Left ventricle – left atrium – right ventricle – right atrium

C Right atrium – right ventricle – left atrium – left ventricle

D Right ventricle – right atrium – left ventricle – left atrium



0	3
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Which **ONE** of these bones is located at the shoulder joint? [1 mark]

A Radius

B Scapula

C Talus

D Ulna

[Turn over]



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0	4
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A sprinter includes speed work in their training.

Which ONE of these principles of training are they using? [1 mark]

A Progressive overload

B Reversibility

C Specificity

[Turn over]



05

TABLE 1 shows the ratings of a GCSE PE class for the Vertical Jump Test.

TABLE 1

Rating	Class jump height range in cm	
	Male	Female
Excellent	Jump ≥ 65	Jump ≥ 58
Above average	$50 \leq \text{Jump} < 65$	$46 \leq \text{Jump} < 58$
Average	$40 \leq \text{Jump} < 50$	$35 \leq \text{Jump} < 46$
Below average	$30 \leq \text{Jump} < 40$	$26 \leq \text{Jump} < 35$
Poor	Jump < 30	Jump < 26



Mark is a male student who jumps 59 cm

What rating is this according to TABLE 1? [1 mark]

A Excellent

B Above average

C Average

D Below average

E Poor

[Turn over]



06

Which ONE of these describes muscular hypertrophy?
[1 mark]

A Muscles contract

B Muscles decrease in size

C Muscles increase in size

D Muscles retain their shape



0	7
---	---

Which **ONE** of these describes what happens to the digestive system's blood supply during exercise?

[1 mark]

A Blood supply increases

B Blood supply reduces

C Blood supply remains the same

[Turn over]

7



0	8
---	---

Andrew is 40-years-old.

0	8	.	1
---	---	---	---

Calculate Andrew's maximum heart rate. [1 mark]

_____ beats per minute



0	8	.	2
---	---	---	---

State the percentage range of maximal heart rate for the AEROBIC training zone.

Calculate Andrew's heart rate range in beats per minute (BPM) for his AEROBIC training zone. [2 marks]

The aerobic training zone is between _____ %
and _____ % of maximal heart rate.

Andrew's heart rate range for his aerobic training zone
is between _____ BPM and _____ BPM

[Turn over]

3

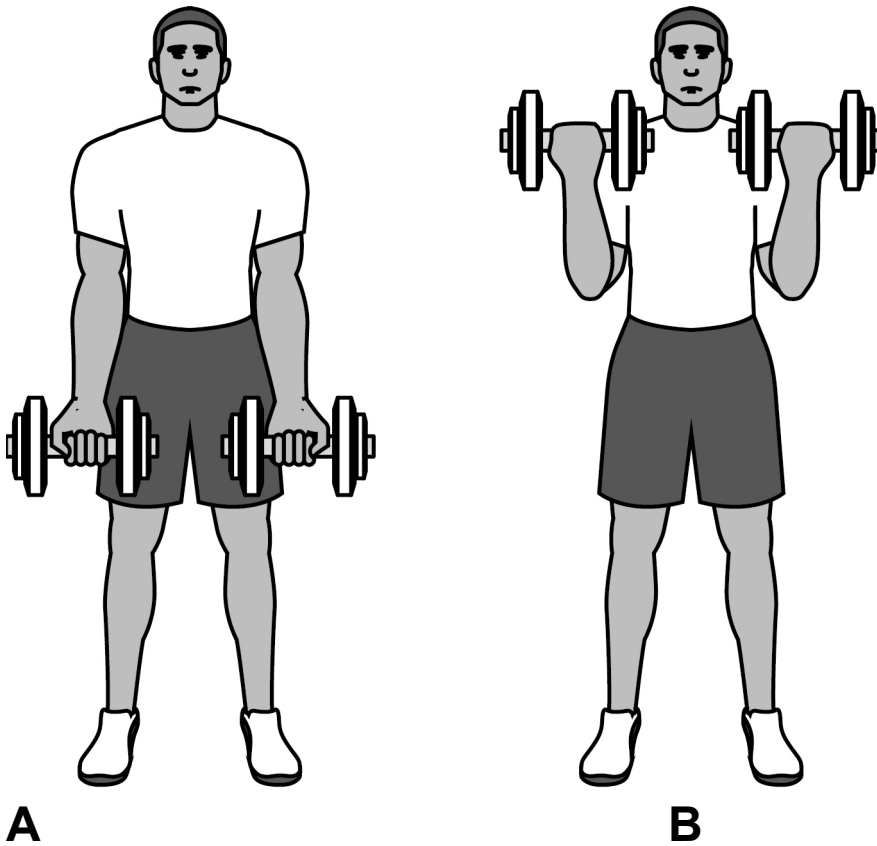


09

FIGURE 1 shows an athlete in two different positions (A and B) as he performs a bicep curl.

Use **FIGURE 1** to help you answer **QUESTIONS 09.1** to **09.3**, on the opposite page.

FIGURE 1



09.1

Identify the joint action taking place at the ELBOW as the arm moves from A to B. [1 mark]

09.2

Identify the main antagonist at the ELBOW as the arm moves from A to B. [1 mark]

09.3

Identify the type of muscle contraction that is taking place at the ELBOW as the arm moves from A to B. [1 mark]

[Turn over]

3



1 0

FIGURE 2 shows Anna performing a running action.

FIGURE 2



1	0	.	1
---	---	---	---

Identify the plane and axis when Anna is performing a running action as shown in FIGURE 2. [2 marks]

Plane _____

Axis _____

[Turn over]



10.2

Anna uses explosive strength when running a 400m race.

Define 'explosive strength'.

Justify why explosive strength is important when running a 400m race. [4 marks]

Definition _____

Justification _____



1 1 . 1

Define 'flexibility'. [1 mark]

1 1 . 2

The Sit and Reach Test measures flexibility.

Describe how to carry out this test. [3 marks]

[Turn over]



1	1	.	3
---	---	---	---

**Justify why flexibility is an important component of fitness needed for a games player to perform effectively.
[3 marks]**

7



1 2 . 1

State FOUR factors other than warming up and stretching that should be considered to help prevent injury BEFORE and DURING a training session.
[4 marks]

1 _____

2 _____

3 _____

4 _____

[Turn over]



13.1

What is the role of a tendon? [1 mark]

13.2

Muscles work in pairs.

Outline the role of the antagonist. [2 marks]

[Turn over]



1	3	.	3
---	---	---	---

Name TWO major muscle groups that allow the leg to move at the hip. [2 marks]

1

2

5



1 4 . 1

Define 'adduction'.

Use a sporting example in your answer. [2 marks]

1 4 . 2

Name the TYPE of joint where adduction can take place.
[1 mark]

[Turn over]



1	4	.	3
---	---	---	---

Define 'isometric contraction'.

Use a sporting example in your answer. [2 marks]

5



1 5 . 1

What is formed when haemoglobin and oxygen combine in the red blood cells? [1 mark]

1 5 . 2

Identify FOUR features of the alveoli that assist in gaseous exchange. [4 marks]

1 _____

2 _____

3 _____

4 _____

[Turn over]



15.3

Explain how air pressure changes occur in the chest cavity allowing exhalation to take place.

Refer to the roles of the intercostal muscles, rib cage and diaphragm. [4 marks]



1 6 . 1

Name TWO bones located at the ankle. [2 marks]

1 _____

2 _____

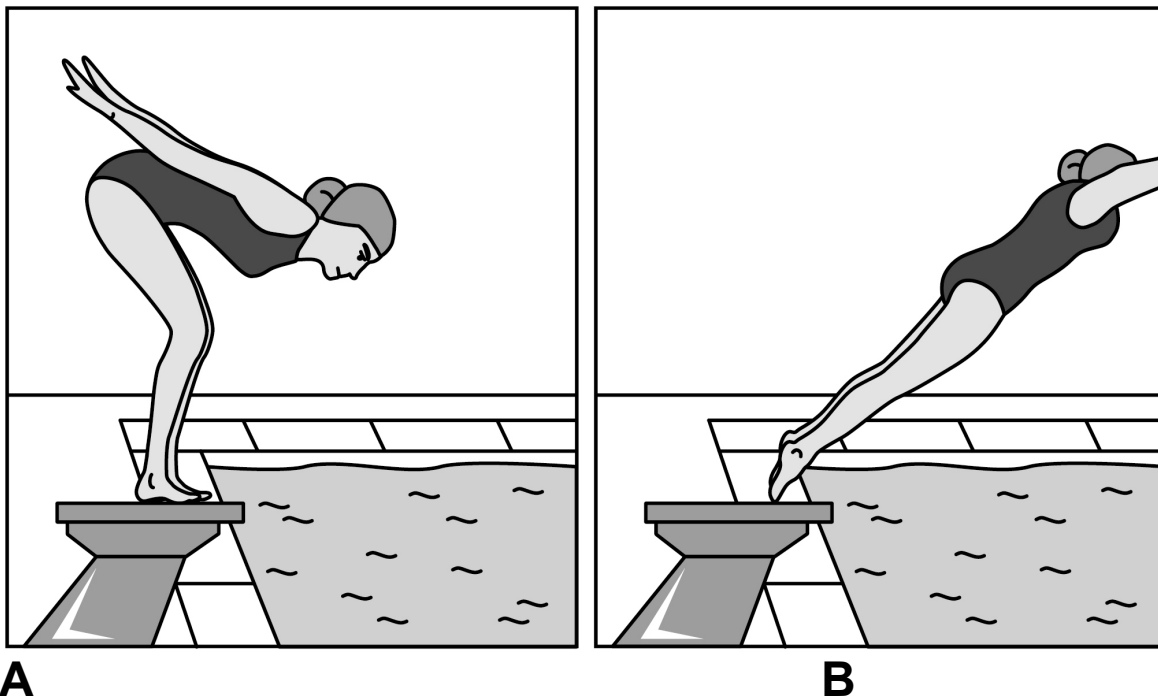
[Turn over]



FIGURE 3 shows a swimmer in two different positions (A and B) as they perform a dive.

Use **FIGURE 3** to help you answer **QUESTION 16.2**, on the opposite page.

FIGURE 3



16.2

Identify the class of lever used at the ankle as shown in **FIGURE 3**. [1 mark]

1	6	.	3
---	---	---	---

Draw a fully labelled diagram to show the class of lever identified in QUESTION 16.2. [2 marks]

[Turn over]



3 3

5

17

Performers may train at high altitude. This usually takes place at over 2000 m above sea level for at least 30 days.

Discuss whether altitude training is an effective method of training for a long-distance swimmer. [5 marks]

5



1 8

**Evaluate whether the Illinois Agility Test is more relevant to a netball player than to a 200m runner.
[6 marks]**

[Turn over]





[Turn over]

6



1	9
---	---

Zeke is a 15-year-old boy. He represents his local athletics club in the 800m, javelin and long jump. Zeke is about to start a weight training programme to improve his performance in these events.

Discuss the appropriateness of weight training for Zeke AND any other factors he may need to consider to improve his performance. [9 marks]



[Turn over]



[Turn over]



END OF QUESTIONS

<hr/>
9



Additional page, if required.

Write the question numbers in the left-hand margin.

Additional page, if required.

Write the question numbers in the left-hand margin.

Additional page, if required.

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For Examiner's Use	
Question	Mark
1 to 7	
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19	
TOTAL	

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