



Please write clearly in block capitals.

Centre number

Candidate number

Surname \_\_\_\_\_

Forename(s) \_\_\_\_\_

Candidate signature \_\_\_\_\_

I declare this is my own work.

# GCSE PHYSICAL EDUCATION

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

Time allowed: 1 hour 15 minutes

### Materials

For this paper you must have:

- a ruler.

### Instructions

- Use black ink or black ball-point pen. Pencil should only be used for drawing.
- Fill in the boxes at the top of this page.
- Answer **all** questions.
- You must answer questions in the spaces provided. Do not write outside the box around each page or 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.

| For Examiner's Use |      |
|--------------------|------|
| Question           | Mark |
| 1 to 5             |      |
| 6                  |      |
| 7                  |      |
| 8                  |      |
| 9                  |      |
| 10                 |      |
| 11                 |      |
| 12                 |      |
| 13                 |      |
| 14                 |      |
| 15                 |      |
| 16                 |      |
| 17                 |      |
| <b>TOTAL</b>       |      |



J U N 2 2 8 5 8 2 1 0 1

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**Which **one** of these components of fitness is measured by the Ruler Drop Test?**[1 mark]****A** Agility**B** Balance**C** Coordination**D** Reaction time**0 2**Which **one** of these is the correct pathway of air?**[1 mark]****A** Mouth/nose – trachea – bronchi – bronchioles – alveoli**B** Mouth/nose – bronchi – bronchioles – trachea – alveoli**C** Mouth/nose – trachea – bronchioles – bronchi – alveoli**D** Mouth/nose – bronchioles – bronchi – trachea – alveoli

0 3

Which **one** of these is the **main** function of a flat bone?

[1 mark]

A Allow movement

B Blood cell production

C Mineral storage

D Protection of vital organs

0 4

Which **one** of these blood vessels transports oxygenated blood back to the left atrium?

[1 mark]

A Aorta

B Pulmonary artery

C Pulmonary vein

D Vena cava

0 5

Which **one** of these pairs of muscles are used when **breathing in** during exercise?

[1 mark]

A Sternocleidomastoid and abdominals

B Sternocleidomastoid and deltoids

C Sternocleidomastoid and intercostals

D Sternocleidomastoid and pectorals

5

Turn over ►



0 6 . 1

Define muscular endurance.

Use an example of a sporting action in your answer.

**[2 marks]**

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0 6 . 2

Justify why muscular endurance is an important component of fitness needed for a games player to perform effectively.

**[4 marks]**

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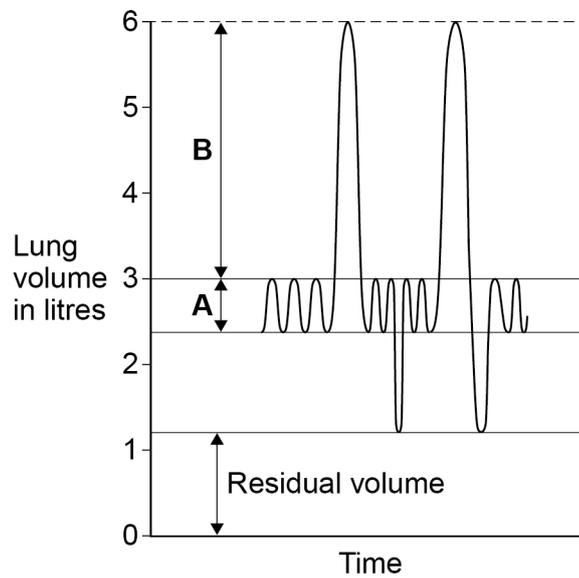
**6**



0 7

Figure 1 shows a spirometer trace for a person at rest.

Figure 1



0 7 . 1

Identify lung volumes **A** and **B** in **Figure 1**.

[2 marks]

**A** \_\_\_\_\_

**B** \_\_\_\_\_

0 7 . 2

In **Figure 1**, what would happen to lung volume **A** during exercise?

[1 mark]

\_\_\_\_\_

0 7 . 3

Justify your answer to **Question 7.2**.

[2 marks]

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Question 7 continues on the next page

Turn over ►



0 7 . 4

Define inhalation and describe how it takes place at rest.

Refer to the intercostal muscles, rib cage and diaphragm in your answer.

[4 marks]

Definition \_\_\_\_\_

\_\_\_\_\_

Description \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

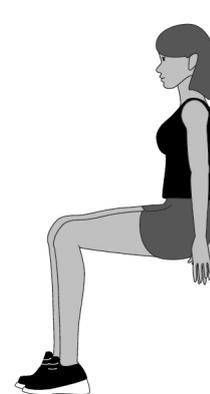
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9

0 8

Figure 2 shows a person performing a wall sit.

Figure 2



0 8 . 1

Identify the type of muscular contraction taking place in the legs in **Figure 2**.

[1 mark]

\_\_\_\_\_

0 8 . 2

Justify your answer to **Question 8.1**.

[1 mark]

\_\_\_\_\_

\_\_\_\_\_

2



0 9 . 1

Name **two** major muscles that allow the foot to move at the ankle.

[2 marks]

1 \_\_\_\_\_

2 \_\_\_\_\_

0 9 . 2

Name **two** bones found at the elbow.

[2 marks]

1 \_\_\_\_\_

2 \_\_\_\_\_

0 9 . 3

Name the type of synovial joint at the elbow.

[1 mark]

\_\_\_\_\_

0 9 . 4

Name **three** structures of a synovial joint that help to prevent injury.

[3 marks]

1 \_\_\_\_\_

2 \_\_\_\_\_

3 \_\_\_\_\_

8

**Turn over for the next question**

**Turn over ►**



1 0

Michael is starting a 12-week training programme.

1 0 . 1

State **four** reasons why Michael should test his levels of fitness **before** starting his 12-week training programme.

[4 marks]

1 \_\_\_\_\_

\_\_\_\_\_

2 \_\_\_\_\_

\_\_\_\_\_

3 \_\_\_\_\_

\_\_\_\_\_

4 \_\_\_\_\_

\_\_\_\_\_

1 0 . 2

Identify **four** long-term effects of exercise.

[4 marks]

1 \_\_\_\_\_

\_\_\_\_\_

2 \_\_\_\_\_

\_\_\_\_\_

3 \_\_\_\_\_

\_\_\_\_\_

4 \_\_\_\_\_

\_\_\_\_\_



1 0 . 3

Explain how Michael would apply the FITT principle to bring about an improvement in his fitness levels.

[3 marks]

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1 0 . 4

State **two** parts that Michael should include in a warm up before a training session.

[2 marks]

1 \_\_\_\_\_

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2 \_\_\_\_\_

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1 0 . 5

Explain **four** reasons why Michael should warm up before taking part in a training session.

[4 marks]

1 \_\_\_\_\_

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2 \_\_\_\_\_

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3 \_\_\_\_\_

---

4 \_\_\_\_\_

---

17

Turn over ►



1 1 . 1

Define circumduction.

Use an example of a sporting action in your answer.

[2 marks]

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1 1 . 2

Name the **type** of joint where circumduction can take place.

[1 mark]

---

3

1 2 . 1

What is the role of the valves in the veins?

[1 mark]

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1 2 . 2

Identify **two** features of the structure of arteries. Explain how each feature helps the arteries to perform their function.

[4 marks]

Feature 1 \_\_\_\_\_

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Feature 2 \_\_\_\_\_

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5

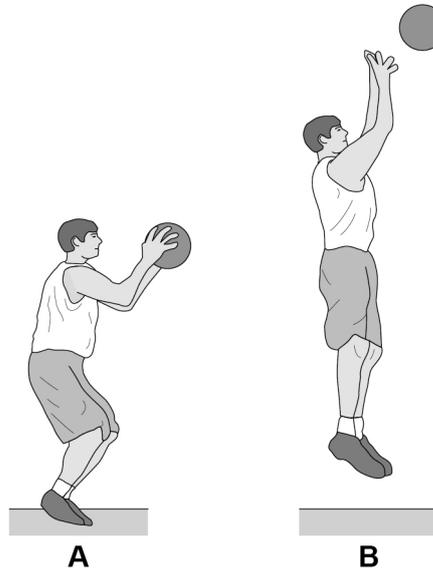


1 3

**Figure 3** shows a basketball player in two different positions (**A** and **B**) as they perform the jump shot.

Use **Figure 3** to help you answer **Questions 13.1** to **13.3**.

**Figure 3**



1 3 . 1

Identify the joint action taking place at the **knee** as the basketball player moves from **A** to **B**.

[1 mark]

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1 3 . 2

Identify the main agonist at the **knee** as the basketball player moves from **A** to **B**.

[1 mark]

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1 3 . 3

Identify the type of muscle contraction that is taking place at the **knee** as the basketball player moves from **A** to **B**.

[1 mark]

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|   |
|---|
| 3 |
|---|

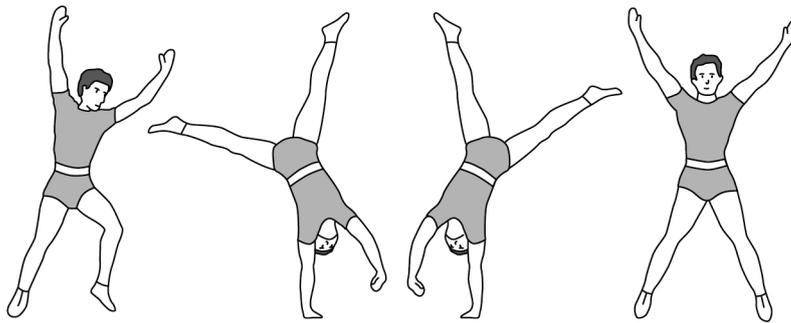
Turn over ►



1 4

**Figure 4** shows a gymnast performing a cartwheel.

**Figure 4**



Identify the plane and axis when the gymnast in **Figure 4** is performing a cartwheel.

**[2 marks]**

Plane \_\_\_\_\_

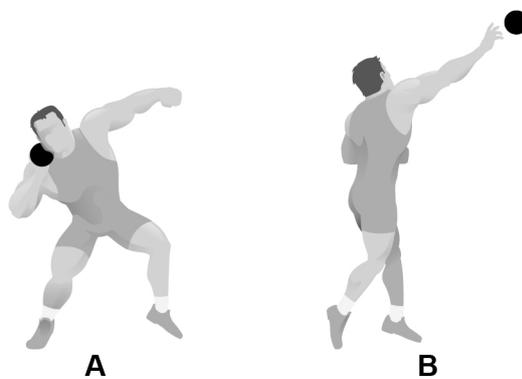
Axis \_\_\_\_\_

2

1 5

**Figure 5** shows a shot putter in two different positions (**A** and **B**) as they release the shot.

**Figure 5**



1 5 . 1

Identify the class of lever used at the **elbow** as it moves from **A** to **B**.

**[1 mark]**

\_\_\_\_\_

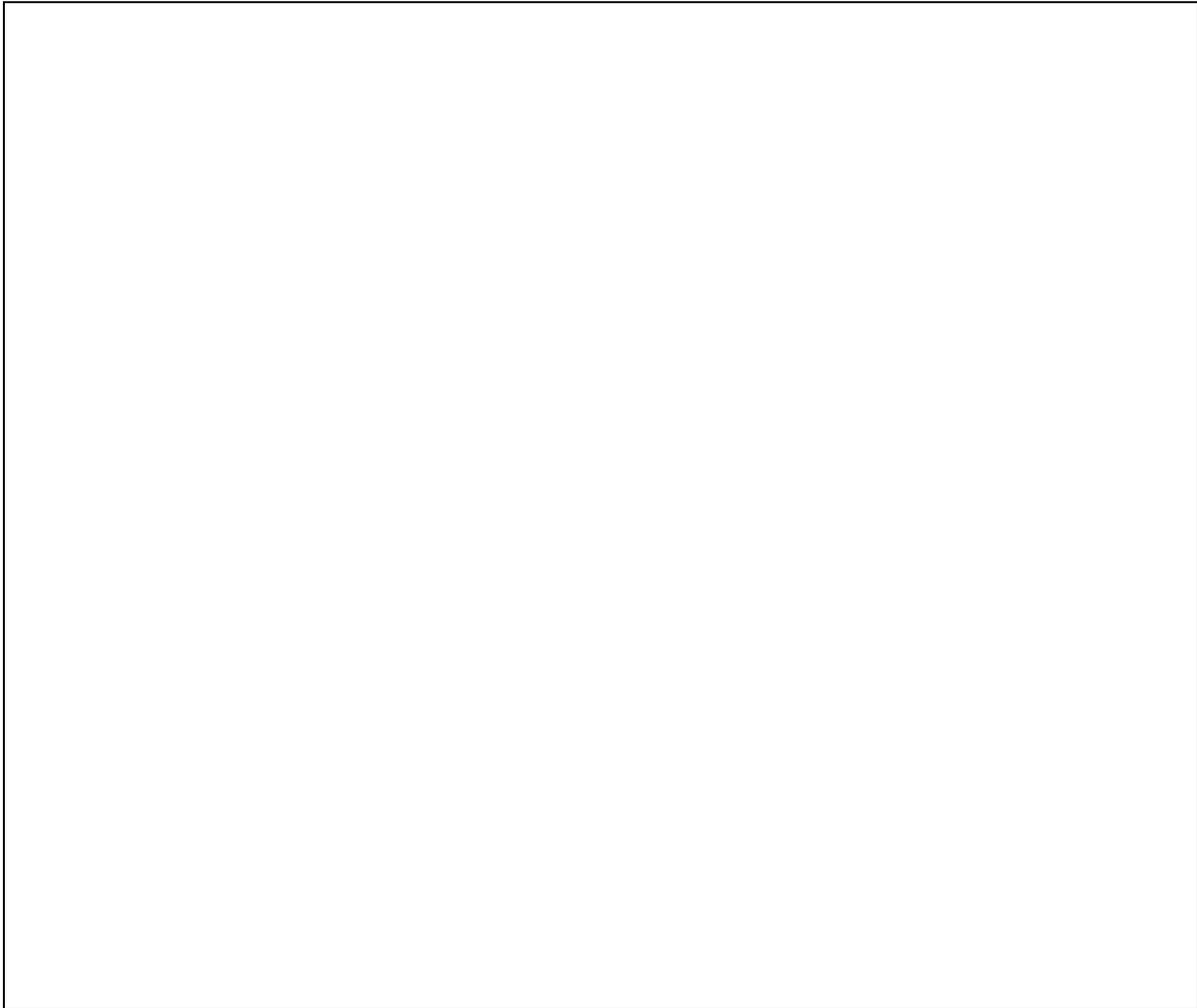


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box

1 5 . 2

Draw a fully labelled diagram to show the class of lever identified in **Question 15.1**.

**[2 marks]**



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3

**Turn over for the next question**

**Turn over ►**









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*Do not write  
outside the  
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ANSWER IN THE SPACES PROVIDED**







