

A



**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**

**Wednesday 13 May 2020          Afternoon**

**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]**



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

**For this paper you may use:**

- **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.**

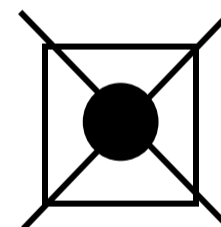
**Only ONE answer per question is allowed.**

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

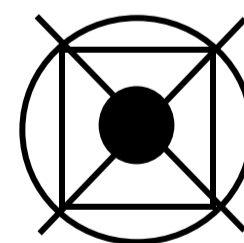
**CORRECT METHOD** 

**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
---	---

**Which ONE of these bones is found at the elbow joint? [1 mark]**

**A Femur**

**B Fibula**

**C Scapula**

**D Ulna**

**[Turn over]**

<hr/>
<b>1</b>



0	2
---	---

**Which ONE of these statements describes 'adduction' at a ball and socket joint? [1 mark]**

**A The movement of a limb away from the midline of the body**

**B The movement of a limb in a complete circle at a joint**

**C The movement of a limb towards the midline of the body**

**D The movement of a limb which increases the angle of a joint**

<hr/>
1

0	3
---	---

**Which ONE of these is the role of a ligament? [1 mark]**

**A To attach bone to bone**

**B To attach muscle to bone**

**C To act as a shock absorber between bones**

**D To release synovial fluid**

**[Turn over]**

<hr/>
<b>1</b>



04

**Which ONE of these lung volumes is ‘the maximum amount of air that can be taken into the lungs above that taken in during a normal breath’?**

**[1 mark]**

**A Expiratory reserve volume**

**B Inspiratory reserve volume**

**C Residual volume**

**D Tidal volume**

**1**





0	5
---	---

**For which ONE of these events would a performer be MOST likely to use high altitude training? [1 mark]**

**A 200m**

**B Pole vault**

**C 5000m**

**D Shot put**

**[Turn over]**

<hr/>
<b>1</b>

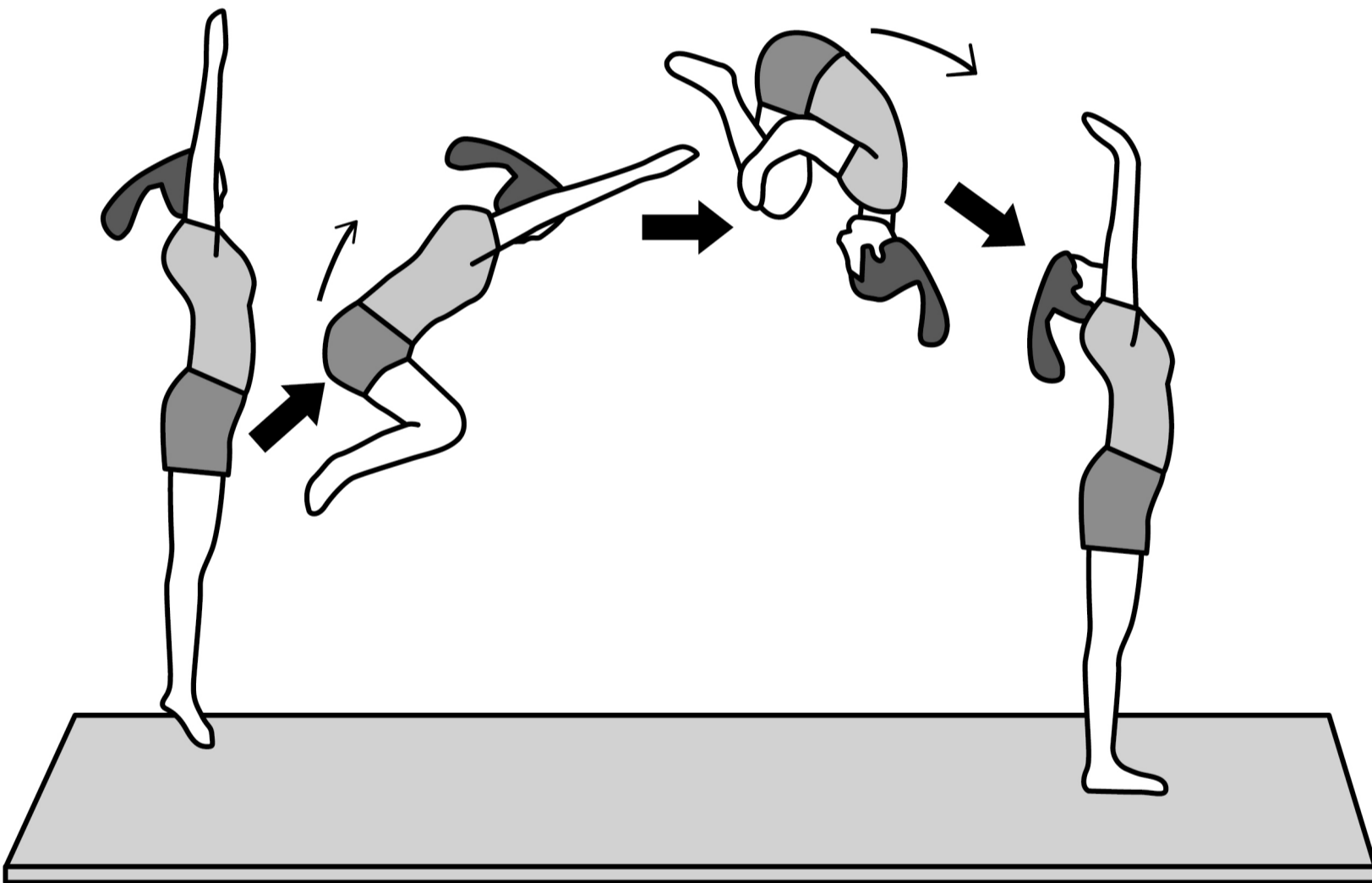


06

Helen is a gymnast.

FIGURE 1 shows Helen performing a front somersault.

FIGURE 1



0	6	.	1
---	---	---	---

**Identify the plane and axis of movement used when Helen performs a front somersault. [2 marks]**

**Plane** \_\_\_\_\_

**Axis** \_\_\_\_\_

**[Turn over]**



06.2

**Define flexibility. Evaluate the importance of flexibility for Helen as she performs in gymnastics. [4 marks]**

**Definition**

---

---

---

**Evaluation**

---

---

---

---

---

---

---

---

---

---



06.3

**Helen uses different types of strength when she performs in gymnastics.**

**Define static strength. Explain how Helen can use static strength in her gymnastic performance. [3 marks]**

**Definition** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Explanation** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**[Turn over]**





**BLANK PAGE**

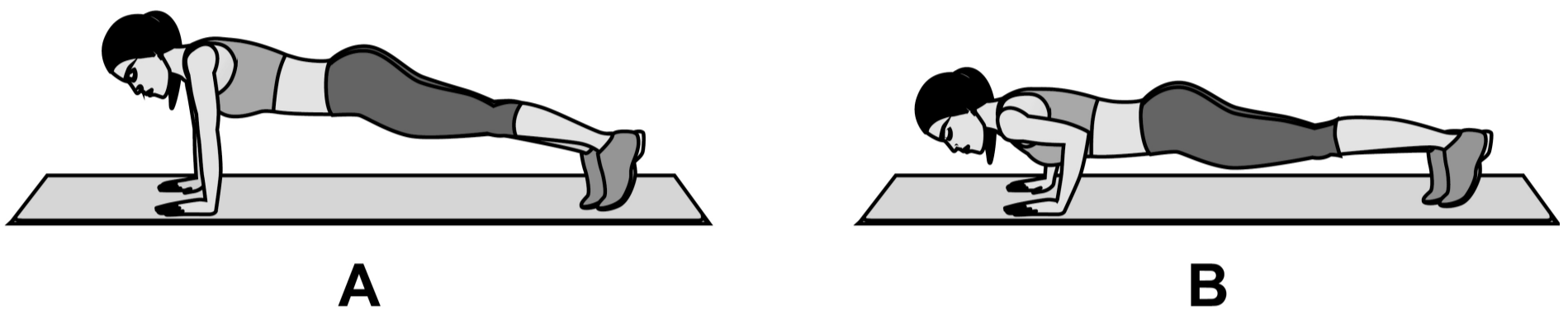
**[Turn over]**



07

**FIGURE 2** shows an individual performing a push-up.

**FIGURE 2**



07.1

Using **FIGURE 2**, identify what type of muscle contraction is taking place in the arms during the downward phase (A to B) of the push-up. [1 mark]

---

---

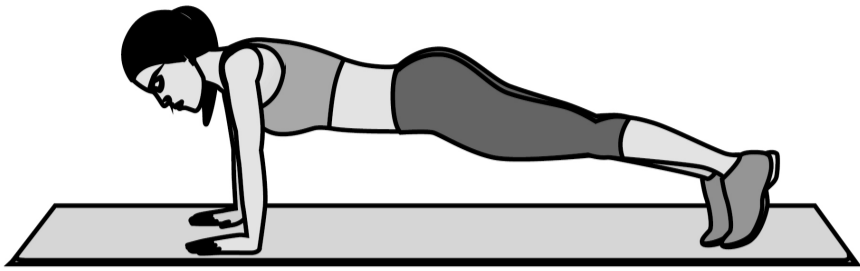
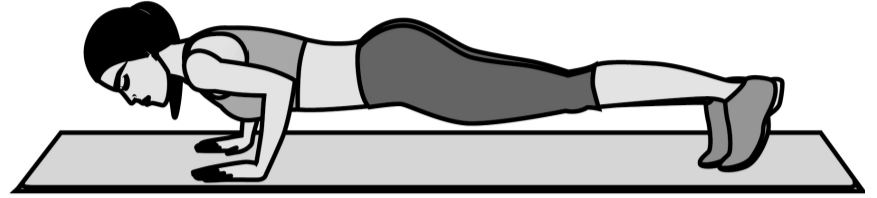


**07.2**

**Using FIGURE 2, identify the main agonist in the arm during the downward phase (A to B) of the push-up. [1 mark]**

---

**[Turn over]**

**REPEAT OF FIGURE 2****A****B****07.3**

**Using FIGURE 2, identify the lever system working at the elbow during the upward phase (B to A) of the push-up.  
[1 mark]**

---

**07.4**

**Draw a fully labelled diagram in the space below to show the type of lever identified in your answer to Question 07.3. [2 marks]**

**[Turn over]**

<hr/>
<b>5</b>



08

**Ibrahim participates in a range of athletics events which use different energy systems and muscle groups.**

08.1

**Define anaerobic exercise. Use an example from athletics in your answer.  
[2 marks]**

**Definition** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Example** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

08.2

**Define aerobic exercise. Use an example from athletics in your answer. [2 marks]**

**Definition** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Example** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

08.3

**Identify the TWO waste products released from the body when Ibrahim is working aerobically. [2 marks]**

- 1 \_\_\_\_\_
- 2 \_\_\_\_\_

**[Turn over]**





**BLANK PAGE**

**[Turn over]**



0	9
---	---

**Matthew is a Year 7 student who is a very good all-round sportsman. He has recently undertaken a series of fitness tests to measure his fitness levels. The multi stage fitness test was used to measure Matthew's cardiovascular endurance.**

0	9	.	1
---	---	---	---

**Describe the multi stage fitness test.  
[4 marks]**

---

---

---

---

---

---

---

---







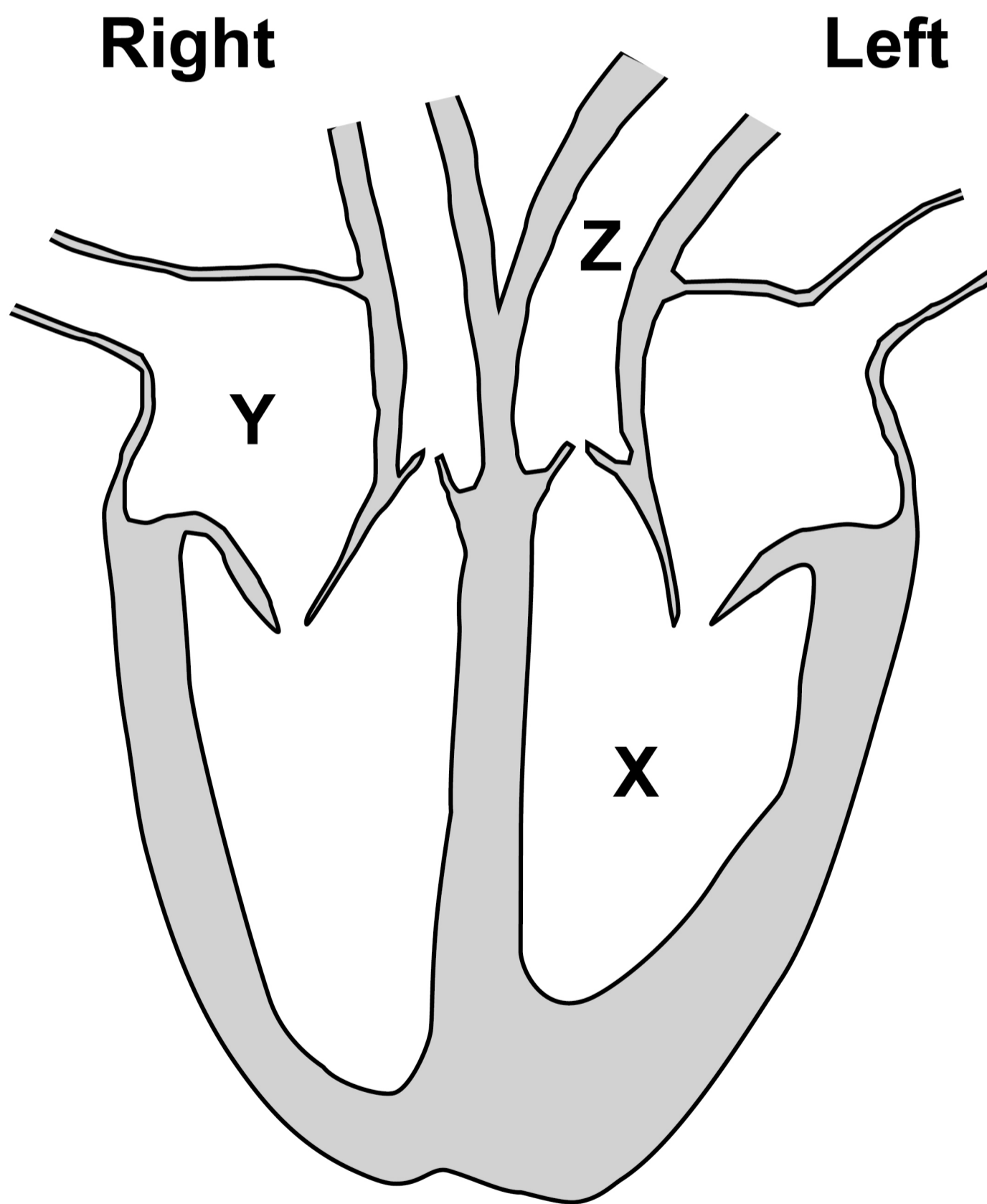




1	0
---	---

**FIGURE 3** shows the structure of the heart.

**FIGURE 3**



10.1

**Identify the chambers of the heart labelled X and Y in FIGURE 3. [2 marks]**

X \_\_\_\_\_

Y \_\_\_\_\_

10.2

**What is the role of Z in FIGURE 3?  
[1 mark]**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**[Turn over]**

1	0	.	3
---	---	---	---

**Complete the formula for cardiac output.  
[1 mark]**

**Cardiac output (Q) = \_\_\_\_\_**

---

---

---

**BLANK PAGE**

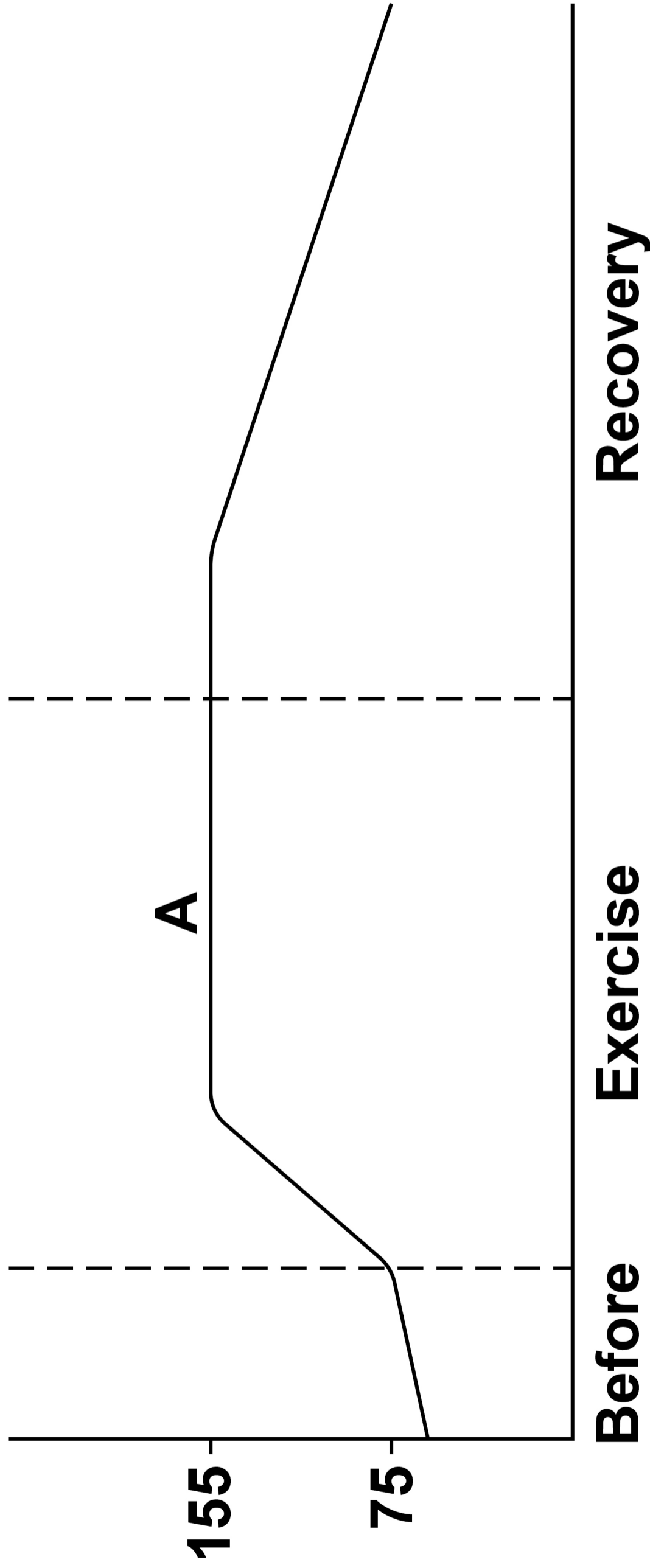
**[Turn over]**



**FIGURE 4 shows the heart rate of an individual before, during and in recovery from exercise.**

**FIGURE 4**

**Beats per minute (BPM)**





10.4

**Explain what is happening to the heart rate before exercise in FIGURE 4. [3 marks]**

---

---

---

---

---

---

---

---

**[Turn over]**



10.5

**What is the intensity of exercise at point A in FIGURE 4, on page 32? [1 mark]**

---

---

---



10.6

**Explain how vasodilation helps to direct blood flow when we exercise. [2 marks]**

---

---

---

---

---

---

---

**35**

10

**[Turn over]**



1	1	.	1
---	---	---	---

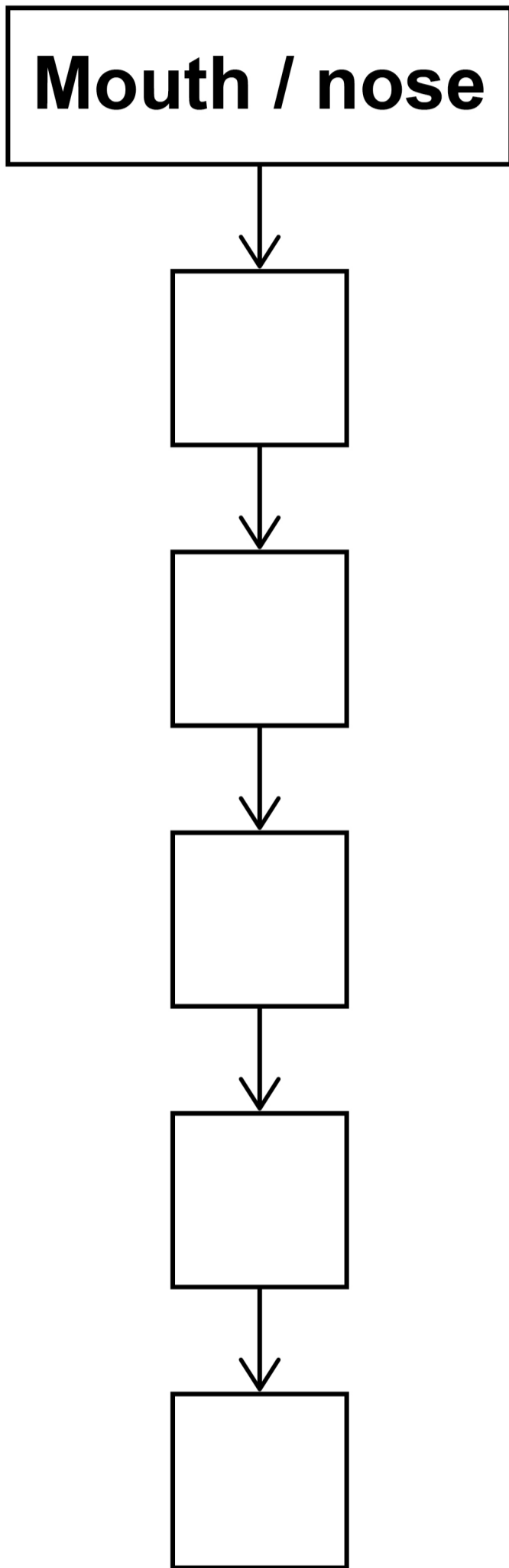
**Complete FIGURE 5, on the opposite page, to show the pathway of air.**

**Write the numbers from the following list in the boxes shown in FIGURE 5 to show the correct order of the pathway of air.**

**The first position in FIGURE 5 has been completed for you. Use each number only once. [5 marks]**

- 1. Alveoli**
- 2. Bronchi**
- 3. Trachea**
- 4. Lungs**
- 5. Bronchioles**

**FIGURE 5**



**[Turn over]**



**BLANK PAGE**



**11.2**

**During exercise the lungs expand more to allow a greater volume of air to be breathed in.**

**Name the TWO muscles that help the diaphragm and intercostal muscles in this process. [2 marks]**

**1** \_\_\_\_\_

**2** \_\_\_\_\_

**[Turn over]**

<hr/>
<b>7</b>



1 2 . 1

**Define speed. [1 mark]**

---

---

---

1 2 . 2

**Explain how a 1500m runner could use speed to their advantage in a 1500m race. [3 marks]**

---

---

---

---

---

---

---

---

---



**1** **2** . **3**

**Give an example of a sporting action for each of the following components of fitness. [3 marks]**

**Agility**

**Flexibility**

**Reaction time**

**Agility**

---

---

---

**Flexibility**

---

---

---

**Reaction time**

---

---

---

**[Turn over]**







1	3
---	---

**Nell is a 16-year-old who represents her county at both football and netball. She is undertaking an intensive training programme so that she can perform to her maximum potential.**

**Analyse the different methods that Nell could use to prevent injury and recover from vigorous exercise to optimise her performance. [9 marks]**

---

---

---

---

---

---

---

---

---

---



















**BLANK PAGE**

For Examiner's Use	
Question	Mark
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
<b>TOTAL</b>	

**Copyright information**

For confidentiality purposes, all acknowledgements of third-party copyright material are published in a separate booklet. This booklet is published after each live examination series and is available for free download from [www.aqa.org.uk](http://www.aqa.org.uk).

Permission to reproduce all copyright material has been applied for. In some cases, efforts to contact copyright-holders may have been unsuccessful and AQA will be happy to rectify any omissions of acknowledgements. If you have any queries please contact the Copyright Team.

Copyright © 2020 AQA and its licensors. All rights reserved.

**IB/M/CD/Jun20/8582/1/E2**

5 2



2 0 6 G 8 5 8 2 / 1