

Name: \_\_\_\_\_

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## 1.3/1.4 Anaerobic & Aerobic Respiration/The Effects of Exercise

## 2.1/2.2 Lever Systems/Planes & Axes of Movement

Date: \_\_\_\_\_

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**Time:** 40 minutes

**Total marks available:** 30

**Total marks achieved:** \_\_\_\_\_

**Percentage:** \_\_\_\_\_

**Q1.** Which one of the following describes a first class lever system?

(1)

- A The load is at the right-hand end of the lever
- B The fulcrum is in the middle of the lever
- C The load is in the middle of the lever
- D The load and the fulcrum are at the same point on the lever

**Q2.**

**Figure 1** shows one plane and one axis of the human body.

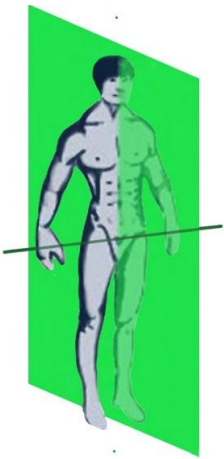
**Sample exam questions:**

Identify the plane and axis shown in the figure on the left (1)

.....

Give an example of a sporting action used at this plane and axis?

(1).....



**Q3.** Identify the plane and axis shown in the figure on the left (1)

.....

Give an example of a sporting action used at this plane and axis? (1)

.....



**Q3.**

John takes has taken part in a six week exercise programme in order to improve his fitness in the sport of basketball. Explain two long term effects of exercise that John may have experienced and explain how they may have helped to improve his performance.

1. ....  
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**(3 marks)**

2. ....  
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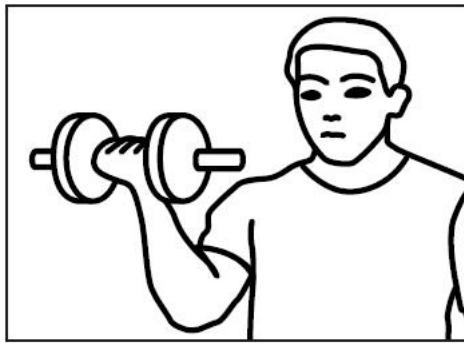
**(3 marks)**

**Q4.** Identify the **two** by-products released while producing energy aerobically. **(2 marks)**

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**Q5.**

**Figure 5** shows a man weight training.



**Figure 5**

Analyse how the following parts of the lever system allow the weight trainer in **Figure 5** to lift the weight.

(i) What is the class of lever being shown in **figure 5**?

(1)

.....  
.....  
.....

(ii) Identify the load/resistance being shown in **figure 5**. (1)

.....

(iii) Draw the lever system being shown in **figure 5**, identifying the fulcrum, load and effort.

(1)

(iv) Some lever systems have a mechanical advantage and others have a mechanical disadvantage. What is meant by a **mechanical advantage**? (1)

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**Q6.**

Heart rate is measured in beats per minute (bpm).

**Table 3** shows a performer's heart rate at rest, during exercise and during recovery.

156 bpm	72 bpm	80 bpm
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**Table 3**

(a) Identify from **Table 3** the number which represents Resting Heart Rate.

(1)

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(b) Give a reason for your answer.

(1)

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(c) What would you expect to happen to resting heart rate as a long term effect of exercise? Explain your answer. **(2 marks)**

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**Q7.** State three immediate effects of exercise. **(3 marks)**

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