**The Respiratory System Test**

1. Figure 1 is a diagram of the human respiratory system. Complete labelling the diagram filling in the empty boxes with the correct anatomical names.



**(5)**

**2**. The nasal cavity has an important role in relation to the air that we breathe in,

performing **three** functions. What are they?

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**(3)**

**3**. Complete the table below to show the composition of inspired and expired air.

|  |  |  |
| --- | --- | --- |
| **Gases in air** | **Inspired air** | **Expired air** |
| Oxygen | 21% |  |
| Carbon Dioxide |  | 3% |
| Nitrogen |  | 79% |

**(3)**

(a). Where does the process of **Gaseous Exchange** take place?

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(b). Why is there a decrease in the amount of oxygen expired compared to the inspired

air?

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(c). Why is there an increase in the amount of carbon dioxide in the expired air compared

to the inspired air?

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1. Why do the alveoli have such a large blood supply?

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1. What terms are being described?

The maximum amount of air you can breathe out after breathing as deeply as you can.

(a) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **(1)**

The amount of air breathed in and out per breath.

(b) **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (1)**

1. Complete the following paragraph about the mechanics of breathing using the some of the words in the box below.

During inspiration the intercostals muscles contract to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the ribs.

Meanwhile the diaphragm also contracts, moving it \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Both of

these movements \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the volume of the lungs.

**Raise Lower Downwards**

**Decreases Inwards Increase**

**(3)**

1. The respiratory system adapts when we exercise. Name two changes that occur
   1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **(1)**

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

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1. Explain why an efficient respiratory system is vital for sports’ people.

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1. The body uses glucose and oxygen to help release energy. Complete the following equation

Glucose + Oxygen = Energy + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**(2)**

(b) The body can also release energy without the presence of oxygen. What harmful bi-

product is produced when performers work with insufficient oxygen?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **(1)**

1. What effect may this bi-product have on the performer’s muscles?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **(1)**

1. What is the term used to describe muscles working without oxygen?

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (1)**

1. Place the following air passages in the **correct order** that the air travels to the lungs.

Trachea

Alveoli

Bronchioles

Nose

Larynx

Bronchus **(2)**

**Total Marks /35**