A-level Transition Work- Anatomy and Physiology

Name: …….

Using your knowledge gained at GCSE please apply to the questions below to help you in the anatomy and physiology section.

In paper 1 section A we look at anatomy and physiology. In this topic area we look at:

- Cardiovascular system,
- Respiratory system,
- Muscular-skeletal system,
- Energy systems.

The idea of this transition worksheet it to help revise GCSE content which is also covered in the A-level specification.

Identify which **one** of the following statements defines expiratory reserve volume.

A The amount of air breathed in or out per breath ⬭

B The amount of air left in the lungs after maximal expiration has occurred ⬭

C The amount of air that can be forcibly expelled after a normal breath ⬭

D The amount of air that can be forcibly inspired at the end of a breath ⬭

[1 mark]

Answer …….

'Tidal volume × respiratory frequency' is an equation.

Which **one** of these physiological measures does the equation allow you to calculate?

A Expiratory reserve volume ⬭

B Inspiratory reserve volume ⬭

C Minute ventilation ⬭

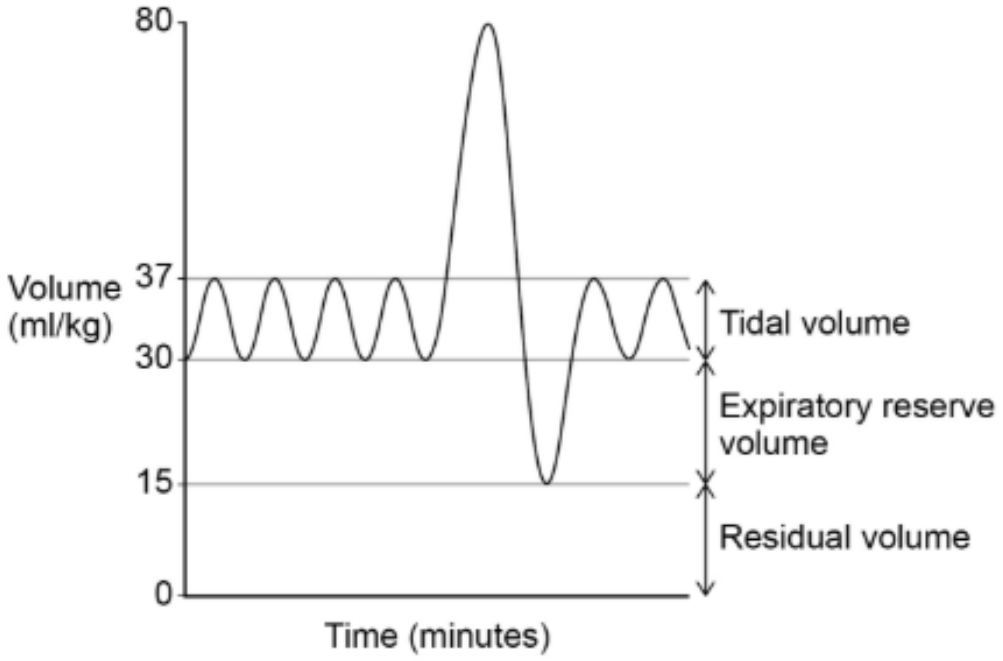
D Residual volume ⬭

[1 mark]

Answer ……

Figure 1 shows a spirometer trace.

Figure 1



Define the term ‘tidal volume’

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Explain how and why a period of continuous exercise would impact the lung volumes in Figure 1.

Tidal volume ……

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Expiratory reserve volume ……..……

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Residual volume ……..……..…

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Outline two ways an active lifestyle can reduce the risk of heart disease

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Describe the process of gas exchange which occurs at a muscle.

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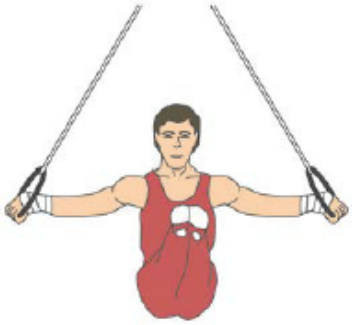
Figure 1 shows a gymnast in a crucifix position on the rings.

Figure 1



Complete **Table 1** to identify the type of joint, the main agonist and the joint action at the gymnast's shoulder when in the crucifix position.

[3 marks]

Table 1

Type of joint	Main agonist	Joint action