**1.** What happens during inhalation?

A. Both the external intercostal muscles and the diaphragm contract.

B. The internal intercostal muscles contract and the diaphragm relaxes.

C. The external intercostal muscles relax and the diaphragm contracts.

D. Both the internal intercostal muscles and the diaphragm relax.

(Total 1 mark)

**2.** How many times does an oxygen molecule cross a plasma membrane when moving from inside an alveolus to the hemoglobin of a red blood cell?

A. Two

B. Three

C. Four

D. Five

(Total 1 mark)

**3.** What conditions are necessary for air to be exhaled from the lungs?

A. Air pressure in the alveoli must become greater than the air pressure in the mouth.

B. Air pressure in the alveoli must become lower than the air pressure in the mouth.

C. Air pressure in the alveoli must become the same as the air pressure in the mouth.

D. There is no change in the air pressure of the alveoli or the mouth.

(Total 1 mark)

**4.** Many processes in living organisms, including ventilation and gas exchange, involve moving materials. State the differences between ventilation and gas exchange in humans.

(Total 4 marks)

5. Describe the features of the alveoli that make them well adapted for gaseous exchange.

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