

2 (a) Alveoli are the gas exchange surface in humans.

State **three** features of alveoli that make them an effective gas exchange surface.

- 1
- 2
- 3 [3]

(b) Fig. 2.1 is a diagram of the human breathing system.

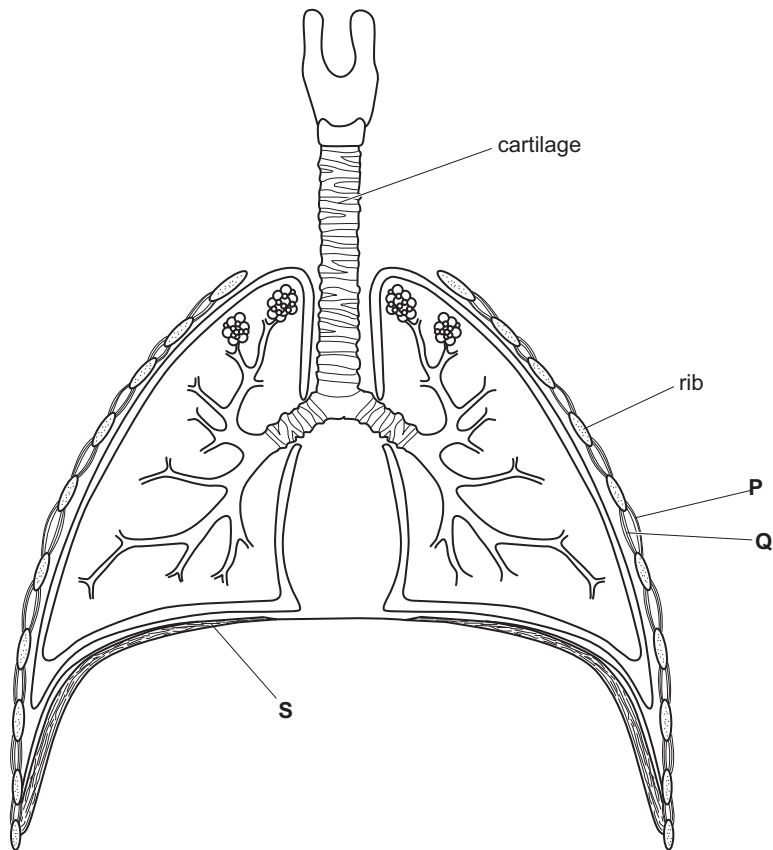


Fig. 2.1

(i) Three muscles involved in inspiration are labelled **P**, **Q** and **S** in Fig. 2.1.

Identify the letters in Fig. 2.1 that label the muscles which contract during inspiration.

..... [1]

(ii) State the function of cartilage in the breathing system.

..... [1]

(c) (i) State the balanced chemical equation for aerobic respiration.

..... [2]

(ii) During physical activity breathing changes.

Explain the mechanism that links the increase in physical activity to the changes in breathing.

..... [3]

[Total: 10]