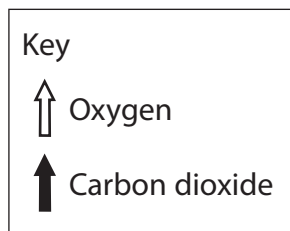
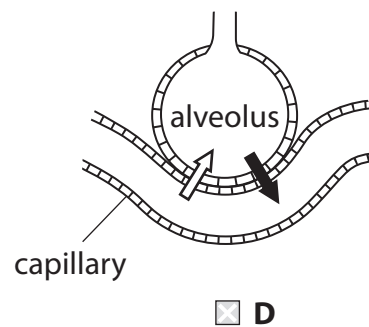
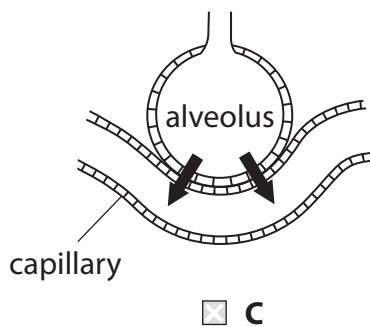
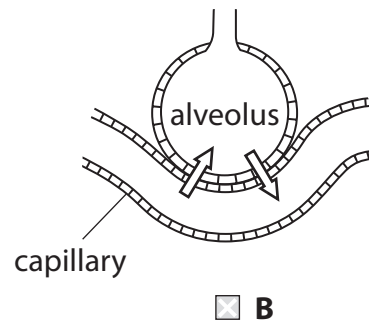
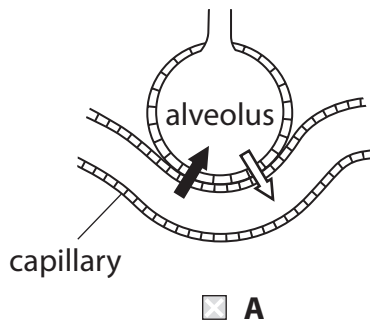


**Answer ALL questions.**

- 1 For each of the questions (a) to (j), choose an answer **A**, **B**, **C** or **D** and put a cross in the box ☐. Mark only one answer for each question. If you change your mind about an answer, put a line through the box ☐ and then mark your new answer with a cross ☐.

(a) Which diagram shows the correct process of gaseous exchange in the lungs?

(1)



- (i) Four cubes of equal size, from the same potato, are each placed into sugar solutions, A, B, C and D. Each sugar solution has a different concentration.

The cubes are weighed at the start and one hour after being placed in their sugar solution.

The table shows the results.

Solution	Mass at start in g	Mass after 1 hour in g
A	49.5	50.1
B	49.5	46.2
C	49.5	60.1
D	49.5	43.4

Which sugar solution has the lowest concentration?

(1)

- ☐ A
- ☐ B
- ☐ C
- ☐ D

- (j) Some cells contain a large number of different enzymes.

What is the reason for this large number of different enzymes?

(1)

- ☐ A they have different optimum temperatures
- ☐ B they have a different optimum pH
- ☐ C they are affected by different substrate concentrations
- ☐ D they are each specific to one type of reaction

(Total for Question 1 = 10 marks)

