

0	1	.	1
---	---	---	---

Describe what is meant by diffusion

[2 marks]

The net/overall movement of particles [1] from a high concentration to a low concentration [1]

0	1	.	2
---	---	---	---

The diagram below shows the percentage of oxygen in 3 cells; A, B and C.

Oxygen can move from cell to cell. Into which cell; A, B or C will oxygen move the fastest? Give a reason for your answer

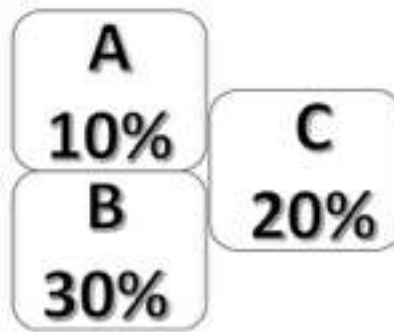
[2 marks]

A [1]

Any one from the following explanations:

because it has the lowest concentration of oxygen and diffusion occurs down a concentration gradient/from a high to a low concentration [1]

the steeper the concentration gradient/the bigger the difference in concentration the faster the speed of diffusion [1]



0	1	.	3
---	---	---	---

Describe why diffusion is important in plants and animals. For both plants and animals you need to give examples of the substances that are diffusing

[6 marks]

animal:

oxygen diffuses from lungs into the blood/from the blood into cells [1]

carbon dioxide diffuses from cells into the blood/from blood into the lungs [1]

digested/soluble food from the small intestine into the blood/from the blood into the cells [1]

water from large intestine into blood [1]

plant:

carbon dioxide diffuses into the stomata [1] from air spaces (in the leaf) into cells (for photosynthesis) [1]

water absorption from soil into roots [1]

mineral ion absorption from soil into roots (provided there is more mineral ions outside the root) [1]