[10133098]

In an experiment, potato strips of the same size were cut from a potato and immersed in sucrose solutions of different concentrations for 1 day. The ratio of initial mass to final mass of each potato strip was calculated and the results were presented in a graph. Which of the following graphs shows the results of the experiment?

|  |  |  |  |
| --- | --- | --- | --- |
| **A** |  | **B** |  |
| **C** |  | **D** |  |

Ans: D

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[10133147]

In an experiment, potato strips of the same size were cut from a potato and immersed in sucrose solutions of different concentrations for 1 day. Which of the following graphs shows the final mass of the potato strips in different sucrose solutions?

|  |  |  |  |
| --- | --- | --- | --- |
| **A** |  | **B** |  |
| **C** |  | **D** |  |

Ans: C

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[10133152]

Which of the following comparisons between diffusion and active transport is ***not*** correct?

|  |  |  |
| --- | --- | --- |
|  | **Diffusion** | **Active transport** |
| **A** | energy is not required | energy is required |
| **B** | cell membrane is required | cell membrane is not required |
| **C** | substances move from a region of higher concentration to a region of lower concentration | substances move from a region of lower concentration to a region of higher concentration |
| **D** | carrier proteins are not involved | carrier proteins are involved |

Ans: B

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[10133153]

***Directions***: The following two questions refer to the investigation below. Beetroot cells contain a red pigment in the vacuoles. A student cut some cubes (1 cm x 1 cm x 1 cm) from a beetroot and washed them in running water for 20 minutes. The cubes were then put into test tubes containing distilled water and alcohol of different concentrations (W, X, Y and Z) for 30 minutes. The table below shows the colour intensity of the solutions after 30 minutes.

|  |  |
| --- | --- |
| **Solution** | **Colour intensity** (maximum 5+) |
| Distilled water | – |
| W | + |
| X | +++ |
| Y | +++++ |
| Z | ++ |

(Key: ‘+’ means that the solution is red in colour. The larger the number of ‘+’, the more intense the colour. ‘–’ means that the solution is colourless)

Which alcohol is highest in concentration?

**A** W

**B** X

**C** Y

**D** Z

Ans: C

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