RESPIRATION REVISION WACE 2014 Q 37

1. (i) Name this cell organelle. (1 mark)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Mitochondria/mitochondrion | 1 |
| **Total** | **1** |

1. Name the process that occurs in this organelle to produce energy and write a word equation to represent it. (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| (Aerobic) respiration | 1 |
| Glucose + oxygen carbon dioxide + water | 1 |
| **Total** | **2** |

1. State **two** cellular uses for this energy. (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Any 2 of: | 1–2 |
| * Movement
* Growth
* Cell division
* Membrane transport
* Heat production
* Biochemical processes
 |
| **Total** | **2** |

1. (i) Write the equation for the production of ATP. (1 mark)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| ADP + P + energy ATP | 1 |
| **Total** | **1** |

(ii) Explain why ATP is such a useful molecule. (2 marks)

|  |  |
| --- | --- |
| **Description** | **Marks** |
| Any 2 of: |  |
| * Stores high amounts of energy
* Releases energy readily
* Can be recycled
 | 1–2 |
| **Total** | **2** |