General Biology Year 11

Unit 1 - Classification and cell processes

Task 5: Investigation – Osmosis in living tissue

(weighting 5%)

MARKING KEY

|  |  |  |  |
| --- | --- | --- | --- |
| **Criteria** | **Description** | **Possible score** | **Your score** |
|  | **Introduction** | 3 |  |
| Aim | Correctly relates to the variables testing and measuring | 1 |  |
| Hypothesis | Correctly states appropriate hypothesis (independent & dependent variables) | 2 |  |
|  | **Materials and method** | 9 |  |
| Materials | Provides a comprehensive list of materials | 2 |  |
| Independent variable | Describes in detail how the investigation was set up to test the independent variable | 1 |  |
| Dependent variable | Clearly describes how each of the dependent variables was measured | 1 |  |
| Controlling variables | Explicitly describes how three other variables were controlled | 1 |  |
| Method | Provides a detailed description of techniques to ensure accuracy and considers the effect that techniques have on the accuracy of the results | 2 |  |
| Labelled diagram (5 diagramming rules) | 2 |  |
|  | **Results** | **9** |  |
| Table organisation | Data is presented in well organised tables with appropriate titles and headings | 2 |  |
| Data accuracy | Accurate data is presented | 2 |  |
| Graphs selection | Appropriate graphs are selected to present data | 1 |  |
| Graph presentation | Graphs are correctly drawn, with axes labelled and titles provided | 2 |  |
| Graph accuracy | Graphs are plotted accurately so that trends and patterns can be clearly seen | 2 |  |
|  | **Discussion of results** | **9** |  |
| Statement of results | Describes results and supports with data | 2 |  |
| Use of science concepts | Uses scientific concepts to explain the relationships between physiological processes | 2 |  |
| Validity | Suggests two ways in which the investigation design could be improved | 2 |  |
| Describes 2 difficulties encountered with the design of the investigation | 2 |  |
| Reliability | Comments on the accuracy of the results | 1 |  |
|  | **Conclusion** | **4** |  |
| Summary of results | Summarises results and explains reasons for results using science concepts | 2 |  |
| Reference to hypothesis | Explains how the results support the hypothesis or provides an alternative hypothesis | 2 |  |
| **Comment:** | | **Total** | |