Year 12 General Biology

Task 1 – Asexual Reproduction

Section 2 – In Class Assessment

1. Which parts of the garlic give rise to new growth? (1 mark)

Identifies bulb structure give rise to asexual reproduction root growth (1 mark).

1. Suggest why it is important to keep a few leaves on the cutting? (1 mark)

Explain growth from stem cutting and nodes (1 mark).

1. Summarise the pattern of growth you observed for all three growths and refer to data in your answer. For example, which plant tissue developed first and by how much? (3 marks)

Explain growth Part A (0.5 marks)

Refer data from Part A (0.5 marks)

Explain growth Part B (0.5 marks)

Refer data from Part B (0.5 marks)

Explain growth Part C (0.5 marks)

Refer data from Part C (0.5 marks)

1. Outline the implications of vegetative reproduction for plants. How does it compare with plants grown from a seed? (3 marks)

Explain vegetative reproduction (1 mark)

Explain propagation from a seed (1 mark)

Identify the exact difference between the two processes (1 mark)

1. Use scientific language to compare the technique of vegetative propagation from a cutting in comparison to a bulb with their differences outlined. (2 marks)

Identifies technique from cutting (1 mark)

Identifies technique from bulb (1 mark)

1. Discuss how the spread of vegetative parts such as tubers may have assisted in perennial weeds colonising our land and waterways, even once the surface of the weed is removed. (2 marks)

Identify what form of vegetative propagation in perennial weeds (1 mark)

Describes the process of rootage and growth (1 mark)

1. Vegetative propagation has a negative impact on the lack of variation between plants. Explain how this factor influences the production and sustainability of crops when facing harsh environmental conditions seen in Australia. (2 marks)

Discuss crop production when faced with harsh conditions and lack of variation (1 mark)

Discuss crops sustainability when faced with harsh conditions and lack of variation (1 mark)

1. How do crop farmers and horticulturalists use knowledge of asexual reproduction in plants to our benefit? Consider the commercial production of seedless fruits when propagated such as navel oranges, bananas, pineapples and potatoes. (2 marks)

Explain the role of horticulturalists role of production using asexual reproduction (1 mark)

Relate with use of example of propagation without seeds (1 mark)

End of Assessment