

**Year 12 Human Biology**

**Extended Response: Nervous System**

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| Name: |
| Teacher: |

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|  | Marks Received | Marks Available | Percentage |
| Total |  | 25 |  |

Assessment Time: 40 minutes

Weighting: 5%



You must **answer all questions** in the booklet provided. Please clearly number questions and use the paper at the back of the booklet if you wish to plan your answer. Clearly label your plan.

**Nervous System Extended Response**

**Question 1)**

Discuss how nerve impulse are generated and propagated in a myelinated neuron.

(13 marks)

**Question 2)**

Human skeletal muscle is activated by a complex relationship between nervous stimuli and the process inside the muscle fibre.

Draw an annotated, labelled diagram which shows the pathway taken by a nerve impulse in a spinal reflex arc and explain three (3) ways in which is it considered to be a protective mechanism.

(12 marks)

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