

**Year 11 Human Biology**

**Extended Response: Musculoskeletal System and DNA**

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| Name: |
| Teacher: |

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|  | Marks Available | Marks Achieved |
| Question 1 | 14 |  |
| Question 2 | 8 |  |
| Question 3 | 8 |  |
| Total | 30 |  |

Assessment Time: 55 minutes

Weighting: 5%

**Extended Response: Muscular Skeletal System and DNA**

**1 a)** Protein synthesis involves two stages, transcription and translation. Describe the main steps in transcription. (6 marks)

**1 b)** Briefly explain the term gene expression ad describe in detail **two** changes that can affect the likelihood of gene expression.

(8 marks)

**2)** After 30 years of age a person’s bones begin to gradually deteriorate.

Explain the **two effects** of aging on the skeletal system. In your answer discuss the **treatments** and **symptoms** available for each. (8 marks)

**3)** Using examples, explain **four** types of movement that occur at a joint. (8 marks)

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