**Year 12 Human Biology**

**Task 9 – Extended Response**

**Evidence for Evolution and Hominid Evolutionary Trends**

**Weighting: 8.5%**

**Total Marks: 25**

**Date: Week 8**

**Student Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Part B Mark: \_\_\_\_\_\_\_/20**

*I acknowledge that all the information contained in this task is my own work and not taken from other sources. If other sources have been used they have been acknowledged in my references.*

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(Student Signature)

**PART B: Validation [20 marks]**

Answer each part of the following question on the lined pages in this booklet.

2. (a) Examination of fossils and their surroundings, comparison of homologous anatomy, comparative embryology and geographical distribution are sources of evidence for evolution. Biochemical comparison can also be used to provide evidence for evolution.

Discuss in detail how DNA evidence in the form of Endogenous Retroviruses, and amino acid sequencing of Ubiquitous Proteins can be used to provide evidence for evolution.

(10 marks)

(b) The Human Genome Project has enabled more detailed comparison of genomes of Humans, Primates and extinct human ancestors. Explain how the Human Genome Project in combination with bioinformatics could identify faulty genes for genetically inherited diseases, and why this would be useful.

(10 marks)

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