**Yr. 12 ATAR Human Biology ATHBY**

**Task 6: Extended Response**

**Conditions**

Time for task:

Part A: You have one week to research the topic and complete notes. You **may not** use these notes for Part B.

Part B: 30 minutes for in class validation – examination-style extended answer question.

**Task weighting: 3 %**

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**Part A: Research Notes (5 marks)**

Maintaining a stable internal environment involves the coordinated activities of many of the body’s systems. Homeostatic processes involve the Endocrine and the Nervous Systems working together to ensure the body’s internal environment is maintained within tolerance limits. Your task is to research how homeostasis is maintained.

1a. Research how the body’s homeostatic processes ensures each of the following factors remain within the required tolerance limits to maintain homeostasis. One A4 page of notes is required for each factor. (3 marks)

* Temperature
* Blood sugar
* Gases
* Composition of body fluids

Your research must include for each factor:

* A general overview of importance
* The role of associated endocrine glands and divisions of the nervous system in maintaining homeostasis
* Negative Feed Back loops
* Any behaviour mechanisms that assist in maintain homeostasis
* Impact of homeostatic dysfunctions
* Any other critical information

b. You must include your references in a standard referencing format of your choice; for example Harvard. Hand this in as a separate sheet attached to your note-taking. (2 marks)

**Part B: In-class assessment 20 marks**

Answer each part of the following question on the line paper provided.

Responses could include clearly labelled tables and graphs; clearly labelled diagrams with explanatory notes; lists of points with linking sentences and annotated flow diagrams with introductory notes.

Question provided during class time on day of validation activity.