

Section II

35 marks

Attempt Questions 16–20

Allow about 50 minutes for this section

Answer the questions in the spaces provided. These spaces provide guidance for the expected length of response.

Question 16 (6 marks)

- (a) Define the terms *anatomy* and *physiology*. 2

Anatomy is the structure of the human body. including - what it is made up of e.g. bones, organs, muscles. Physiology is how all these structures work together. eg. the cardiovascular system and how it works.

- (b) *Homeostasis* is a term that describes the state of physiological balance within the body. 4

Provide an example of *homeostasis* and explain how it works.

Homeostasis is the process by which organisms can maintain a relatively stable internal environment. For example, in humans, ~~we~~ our bodies use homeostasis to maintain a ^{relatively} constant body temperature. The ideal temperature for a human is approx. 37°C, and our body ~~keeps~~ ~~this~~ ~~stable~~ keeps this stable even when the external temperature changes. It is only during sickness, when our internal temperature may change, ~~it~~ indicates infection.

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