

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*.

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Anatomy is the study of our internal body, focusing on our organs and insides.
Physiology is the study of our body's structure, focusing on our bones and muscles and how they work together.

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

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

~~Homeostasis is when~~ An example of homeostasis is our body's reaction to hot and cold. When our body gets too hot (eg. exercising, sunbaking) our body responds by sweating. Sweating allows our body to begin cooling down back to our optimum temperature (37°). When our body gets too cold (eg. hopping out of a pool on a windy day, visiting the snow), our body responds by shivering. Shivering forces the body to move uncontrollably allowing the body to heat up back to its optimum temperature.