

1 Organisms survive in their environment because of their behavioural, physiological and anatomical adaptations.

(a) The table below gives some examples of adaptations. Complete the table by stating whether the example given is behavioural, physiological or anatomical.

(4)

Name of adaptation	Example
	Some metabolic reactions become less efficient in cold weather so the organism generates more heat to keep warm
	Sheep learn to ignore sounds that have no importance to them
	The ears of African elephants are larger than those of Asian elephants, due to differences in the environment
	Formation of a sun tan when human skin is exposed to sunlight

(b) The human egg cell is adapted for its function. Describe and explain **two** adaptations of the human egg cell.

(4)

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(c) Pine needles, the leaves of pine trees, are believed to have antimicrobial properties.

Suggest how you could investigate the antimicrobial properties of pine needles.

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**(Total for Question 1 = 13 marks)**