

2 There are 18 species of puffer fish found in the Maldives.

The photograph shows one of these species, *Canthigaster valenti*.



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Magnification $\times 0.5$

(a) The markings on the skin of *Canthigaster valenti* are warnings to predators. It also protects itself from predators by producing poisons and by inflating its body.

Which row of the table describes these types of adaptations?

(1)

	Markings on the skin	Production of poison	Inflating the body
<input type="checkbox"/> A	anatomical	behavioural	physiological
<input type="checkbox"/> B	anatomical	physiological	behavioural
<input type="checkbox"/> C	physiological	anatomical	behavioural
<input type="checkbox"/> D	physiological	behavioural	anatomical

(b) Another fish found in the Maldives is *Paraluteres prionurus*.

This fish is not poisonous. It grows to about 10 cm in length.

The photograph shows *Paraluteres prionurus*.



Source: <http://www.underwaterkwaj.com/uw-misc/file/Paraluteres-prionurus.htm>

Explain how the appearance of *Paraluteres prionurus* shows it is adapted to its habitat.

(3)

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(c) Explain why *Canthigaster valenti* and *Paraluteres prionurus* are unable to reproduce with each other.

(2)

(Total for Question 2 = 6 marks)

number		
2(a)	B anatomical, physiological, behavioural	(1)

Question number	Answer	Mark
2(b)	<p>An explanation that includes the following points:</p> <ul style="list-style-type: none"> • mimics the <i>Canthigaster valenti</i> by having similar markings (1) • mimics the <i>Canthigaster valenti</i> by having similar {size / shape} (1) • therefore it still deters predators even though it does not produce poison (1) 	(3)