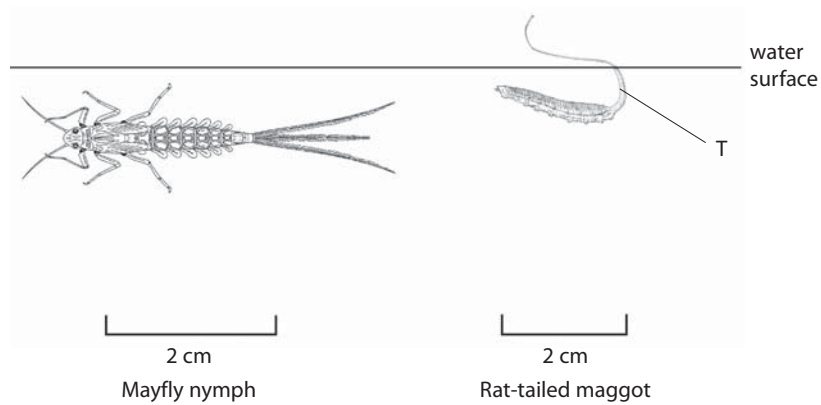


7 The process of natural selection can lead to the adaptation of organisms to their environment as well as to evolution.

(a) The diagram below shows two species of invertebrates found in freshwater.



(i) Suggest **two** features of the mayfly nymph, shown in the diagram above, that makes it well-adapted to survival in fast-flowing streams. Explain how each feature helps it to survive.

(4)

- 1
- 2



- (ii) The rat-tailed maggot lives in water which has a low concentration of dissolved oxygen. Suggest how the structure labelled T helps it to survive in this environment.

(2)

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- (b) Adaptation can occur within the same species. Leopards and panthers are members of the same species found in Africa. Leopards have spotted fur and hunt in open grasslands, whilst panthers have black fur and hunt in forests.

Suggest how natural selection has led to the evolution of these two different forms of the same species.

(4)

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(Total for Question 7 = 10 marks)

