

12. In the 1960s in Scotland, large areas of natural habitat were cleared to make way for a new motorway. This resulted in habitat fragments with reduced species and genetic diversity.

(a) State the two components of species diversity.

2

1. _____

2. _____

(b) It was suggested that the decrease in genetic diversity was a result of the bottleneck effect.

Explain how the bottleneck effect may lead to the local extinction of certain species.

2

(c) In an attempt to increase biodiversity, habitat fragments were linked together using tunnels under the motorway.

(i) State the term used to describe these tunnels.

1

(ii) Explain how these tunnels may result in an increase in biodiversity.

2

