

Ecology

Question Paper

Level	Pre U
Subject	Biology
Exam Board	Cambridge International Examinations
Topic	Ecology
Booklet	Question Paper

Time Allowed: 5 minutes

Score: /4

Percentage: /100

- 1 When an isolated island was settled by humans they introduced cats to the island. These pet cats escaped into the wild.

After about 20 years, the cat population had increased and many native species had disappeared.

What is the reason for this?

- A** The introduced cats lacked adaptive behavioural strategies.
 - B** The introduced cats had been selected as good hunters.
 - C** The introduced cats occupied a different habitat to native species.
 - D** The introduced cats occupied a unique niche on the island.
- 2 A comparison of the plants in 65 woods in Dorset with the plants in the same woods 70 years ago gave the following results.
- 1 On average, individual woods contain the same number of species as they did 70 years ago.
 - 2 The woods with the most species 70 years ago now contain fewer species.
 - 3 The woods with the fewest species 70 years ago now contain more species.
 - 4 Overall, 117 species have disappeared and 47 new species have appeared.

Which results suggest that the Dorset woods have lost biodiversity?

- A** 1 and 2 **B** 2 and 3 **C** 2 and 4 **D** 3 and 4

- 3 When an animal population is being estimated by the capture-recapture technique, what would lead to the size of the population being underestimated?
- A** a greater attraction of marked than of unmarked animals to traps
 - B** a high, equal mortality of both marked and unmarked animals
 - C** a higher predation of marked than of unmarked animals
 - D** an immigration of animals of the same species into the area between samplings
- 4 Human activity often results in habitat loss. The remaining habitat in an area becomes fragmented forming smaller patches of habitat.

Which statements describe how a small habitat patch differs from a larger patch of the same habitat?

- 1 biodiversity decreases
 - 2 competition from surrounding habitats increases
 - 3 numbers of invasive species increase
 - 4 populations of large animals decrease
- A** 1 and 2 only
 - B** 1, 2 and 3 only
 - C** 1, 2 and 4 only
 - D** 1, 3 and 4 only