

# Self-test questions

## Option C (SL)

- 1 How do ecologists define a 'keystone species'?
  - A herbivores that live at their limit of tolerance
  - B herbivores or carnivores that reduce competition in other trophic levels so diversity is maintained
  - C producers that determine which herbivores can survive so diversity is maintained
  - D carnivores that limit the range of herbivores in a community
- 2 Which of the following abiotic factors are most likely to be limiting factors to a plant species?
  - A soil pH, temperature and herbivores
  - B soil pH, temperature and light intensity
  - C temperature, herbivores and water quality
  - D temperature, light intensity and keystone species
- 3 When can two species fail to survive together in the same habitat?
  - A if one is a source of food for the other
  - B if they have identical niches
  - C if their distributions overlap
  - D if one is a keystone species and the other is not
- 4 The main factor influencing the percentage of ingested energy that is converted to biomass is:
  - A respiration rate
  - B rate of excretion
  - C proportion of ingested energy that is wasted
  - D number of organisms at each trophic level
- 5 In which of these situations will a primary succession develop?
  - A on an isolated island that has no animal life
  - B after a volcanic eruption when bare rock is colonised for the first time
  - C in a halosphere such as a salt marsh when rock is colonised
  - D after trees have been cut down in a rainforest
- 6 Which of the following is likely to lead to a reduction in an endemic population if an invasive alien species is introduced to an environment?
  - i competition for resources
  - ii lack of predators of the alien species
  - iii faster breeding rate of the alien species
  - A i and ii only
  - B i, ii and iii
  - C ii and iii only
  - D i and iii only
- 7 Which of the following observations indicates that biomagnification of a pesticide is occurring?
  - A increase of the pesticide in local water sources
  - B increase in concentration of pesticide in animal tissues at higher trophic levels
  - C increase in concentration of pesticide residues in water sources
  - D decrease in the numbers of top predators at higher trophic levels

- 8 Where would you expect to see *ex situ* conservation measures taking place?
- A in a rainforest
  - B in a national park
  - C in a zoo
  - D in the desert