Complex MCQs on Ecotone

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1. Which of the following best describes the edge effect in an ecotone?

a) Increased species diversity at the core of two ecosystems

b) Higher species diversity and population density at the boundary of two ecosystems

c) Reduction in species diversity due to competition at the boundary

d) Uniform distribution of species across the boundary and adjacent ecosystems

Answer:

b) Higher species diversity and population density at the boundary of two ecosystems

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2. In an ecotone between a forest and a grassland, which of the following species is most likely to thrive?

a) A species that relies exclusively on grassland resources

b) A generalist species that can exploit resources from both ecosystems

c) A predator that requires dense forest for hunting

d) A species adapted to a single ecosystem with no tolerance for overlap

Answer:

b) A generalist species that can exploit resources from both ecosystems

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3. Which of the following factors is least likely to influence the formation of an ecotone?

a) Topography and soil gradients

b) Climatic variations

c) Human-induced activities such as agriculture

d) Genetic diversity within a single species

Answer:

d) Genetic diversity within a single species

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4. Which of these is a distinguishing feature of ecotones compared to core ecosystems?

a) Uniformity in ecological conditions

b) Presence of endemic species exclusive to one ecosystem

c) Presence of species from adjacent ecosystems and unique transitional species

d) Lower resilience to environmental disturbances compared to the core

Answer:

c) Presence of species from adjacent ecosystems and unique transitional species

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5. What is the primary ecological significance of ecotones in biodiversity conservation?

a) They restrict the movement of species between ecosystems, preserving their integrity.

b) They act as buffer zones that mitigate the impact of disturbances on adjacent ecosystems.

c) They limit genetic exchange between populations of different ecosystems.

d) They stabilize environmental conditions, making them uniform across ecosystems.

Answer:

b) They act as buffer zones that mitigate the impact of disturbances on adjacent ecosystems

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