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A2 Biology OCR

Unit F215: Control, genomes and environment

Module 3.2 Populations and sustainability

Answers

1

- (a) (i) curve to have peaks to right of lemming peaks and must have two peaks between 1994 and 1996 and 1998 and 2000 respectively ; peaks below level of lemming peaks ; 2
- (ii) plenty / AW, of food ;
few / AW, predators ;
high population of alternative prey for predators ;
no overcrowding / lots of breeding sites / AW ;
less disease ;
less competition from other species ;
low environmental resistance ; 3
max
- (b) *interspecific*
between two (or more) species ;
two named species (on lemmings) ;
intraspecific
within species ;
named species plus resource ;
if definitions of interspecific and intraspecific competition are the wrong way around can still gain one mark for correct examples of both types of competition 3 max
- (c) maximum, size / number, of a, population / species ;
either
(supported) in a particular, habitat / ecosystem / area / environment ;
or
determined by limiting factors ; 2

[10]

2

- (i) tree cut, close to ground/down to its stump/AW; **R** down to trunk
new growth forms/AW;
harvest after a number of years/process repeated;
rotational coppicing/AW;
ref to how coppicing increases biodiversity
e.g. increasing light intensity; max 3
- (ii) (standards) large planks/AW; **A** used as *timber*
A standards more valuable/AW
(coppice) small diameter wood/fencing/hurdles/garden
furniture/charcoal/firewood/matches;
(coppice) continuous, source of timber/income;
recreational use/nature reserve; **A** ref to tourism max 2

