<table>
<thead>
<tr>
<th>Question</th>
<th>Expected Answers</th>
<th>Mark</th>
<th>Additional Guidance</th>
</tr>
</thead>
</table>
| 1 (a)    | different species;  
           different genus;  
           genetically incompatible;  
           (may have) different number of chromosomes;  
           physical / behavioural, reason for reproductive incompatibility; | 3     | ACCEPT ‘DNA sufficiently different’  
                   IGNORE refs to meiosis  
                   4     | IGNORE refs to meiosis  
                   5     | e.g. eggs remain unfertilised / different incubation patterns  
                   IGNORE refs to fertility of offspring |
| 1 (b) (i) | Convention (on) International Trade (in) Endangered Species; | 2 max | ACCEPT Commission / Conference / Congress  
                   ACCEPT Trading  
                   DO NOT CREDIT Conservation / Countries |
| 1 (b) (ii)| regulate / monitor, trade in selected, species / animals / plants / animal products;  
           idea of ensuring trade does not put wild populations at risk;  
           idea of prohibiting commercial trade in wild plants;  
           idea of allowing trade in artificially propagated plants;  
           idea of allowing trade in less endangered species subject to permit; | 2 max | Mark the first two answers only.  
                   IGNORE trafficking throughout (as in stem)  
                   1 ACCEPT idea of species being on a list  
                   ACCEPT endangered  
                   ACCEPT prevent  
                   IGNORE illegal  
                   IGNORE animals / plants unqualified  
                   3 ACCEPT endangered plants |
<table>
<thead>
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</tr>
</thead>
</table>
| 1 (c)    | unrelated / AW, individuals ; health ; of reproductive age ; selecting individuals of opposite sex (for breeding) ; select higher proportion of females ;                                                                 | 2 max| ACCEPT idea of individuals with sufficiently different genes  
ACCEPT ‘whether they are healthy (or not)’  
ACCEPT fertility of individuals                                                                                                                                                                                                                                                                               |
| 1 (d)    | 1 bird(s) healthy / quarantine before release ;  
2 adequate (natural) food supply / provide food (if necessary) ;  
3 protected reserve / no hunting / no poaching / legal protection ;  
4 method to monitor population ;  
5 raise public awareness / educate local population / educate collectors ;  
6 method to prepare animals for survival in wild ;  
7 *idea of* gradual introduction, e.g. via semi-wild habitat ;                                                                 | 3 max| 1 IGNORE refs to ongoing health monitoring  
3 ACCEPT ref to controlling predators  
4 e.g. tag birds  
5 ACCEPT involve local population  
6 e.g. raise with minimal human contact, predat awareness training ACCEPT teaching it to find food                                                                                                                                                                                                 |
### Question 2 (a) (i)

1. (all), sub-arctic / all 4 named sub-arctic, species / birds, show decrease;
2. (all / most), other / non sub-arctic / all 4 named non sub-arctic, species / birds, show, increase / no change;
3. greater change / AW (in breeding success), in sub-arctic than in non sub-arctic species;
4. comparative figs (in 1970 AND 2000);

### Additional Guidance

- **ACCEPT** reference to numbers rather than breeding success throughout
- 1 sub-arctic species = snow bunting + Lapland bunting + ptarmigan + dottere
- 2 non sub-arctic species = red grouse + wheatear + meadow pipit + ring ouzel
- 4 number of young for one sub-arctic and one non sub-arctic species in 1970 and 2000 (or calculated subtraction between the two years)
- **4 DO NOT CREDIT** if figures are not from 1970 and 2000

### Table: Number of Young Raised Per Year

<table>
<thead>
<tr>
<th>Species</th>
<th>Number of Young Raised Per Year</th>
<th>Difference in Number of Young Raised Between 1970 and 2000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1970</td>
<td>2000</td>
</tr>
<tr>
<td>Snow bunting*</td>
<td>78</td>
<td>2</td>
</tr>
<tr>
<td>Lapland bunting*</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Ptarmigan*</td>
<td>1280</td>
<td>876</td>
</tr>
<tr>
<td>Red grouse</td>
<td>890</td>
<td>962</td>
</tr>
<tr>
<td>Wheatear</td>
<td>209</td>
<td>231</td>
</tr>
<tr>
<td>Meadow pipit</td>
<td>23</td>
<td>82</td>
</tr>
<tr>
<td>Ring ouzel</td>
<td>23</td>
<td>26</td>
</tr>
<tr>
<td>Dotterel*</td>
<td>45</td>
<td>35</td>
</tr>
</tbody>
</table>

- Down 76
- Down 7
- Down 404
- Up 72
- Up 22
- Up 59
- Up 3
- Down 10
<table>
<thead>
<tr>
<th>Question</th>
<th>Expected Answer</th>
<th>Mark</th>
<th>Additional Guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 (a) (ii)</td>
<td>1 climate change / global warming ; 2 (environmental) change too rapid for adaptation ; 3 change in, flora / plants / food supply / insects / prey / predators / human activity ; 4 disease (that affects sub-arctic species more than others) ; 5 sub-arctic species, less well-adapted than / have been outcompeted by, non sub-arctic species / AW ;</td>
<td>1 1 DO NOT CREDIT ‘it is too warm’ or ‘it is not cold enough’ without reference since 1970 2 max</td>
<td>3 ACCEPT camouflage no longer appropriate / reduction in size of habitats 5 ACCEPT ora</td>
</tr>
<tr>
<td>2 (b) (i)</td>
<td>the number of species present (in a habitat) ;</td>
<td>1</td>
<td>DO NOT CREDIT range / amount</td>
</tr>
<tr>
<td>Question</td>
<td>Expected Answer</td>
<td>Mark</td>
<td>Additional Guidance</td>
</tr>
<tr>
<td>----------</td>
<td>----------------</td>
<td>------</td>
<td>---------------------</td>
</tr>
<tr>
<td>2 (b) (ii)</td>
<td>1 idea of: unbiased method to selecting sampling area;</td>
<td>1 ACCEPT</td>
<td>Mark the first three suggestions</td>
</tr>
<tr>
<td></td>
<td>2 sample many times / AW, and calculate mean / average;</td>
<td>1 IGNORE</td>
<td>1 ACCEPT e.g. random selection of, areas / coordinates OR use of transect</td>
</tr>
<tr>
<td></td>
<td>3 standardised sweeping procedure;</td>
<td>1 IGNORE</td>
<td>1 IGNORE ‘random sampling’ unqualified</td>
</tr>
<tr>
<td></td>
<td>4 ensure insects do not escape (before being identified);</td>
<td>3 ACCEPT</td>
<td>3 e.g. same type of movement / same length of time</td>
</tr>
<tr>
<td></td>
<td>5 method to prevent recounting;</td>
<td>3 IGNORE</td>
<td>3 ACCEPT same number of sweeps</td>
</tr>
<tr>
<td></td>
<td>6 sample at different times of, day / month / year / weather conditions;</td>
<td>3 IGNORE</td>
<td>3 IGNORE same collector</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 max</td>
<td>3 IGNORE refs to using alternative collecting techniques in order to collect more insect species</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4 ACCEPT use of pooter</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5 if ref to mark-release-recapture, IGNORE ‘release and recapture’ and look for idea for preventing recounting</td>
</tr>
<tr>
<td>Question</td>
<td>Expected Answer</td>
<td>Mark</td>
<td>Additional Guidance</td>
</tr>
<tr>
<td>----------</td>
<td>-----------------</td>
<td>------</td>
<td>---------------------</td>
</tr>
<tr>
<td>2</td>
<td>(b) (iii)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(measures), abundance / numbers, of individuals in <em>each</em> species;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>species evenness is more quantitative than species richness; <em>ora</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>high(er) <em>species evenness</em> indicates high(er) <em>biodiversity</em>; <em>ora</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>low <em>species evenness</em> indicates, dominance by / high abundance of, one / few, species; <em>ora</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>used to calculate (Simpson’s) Index of Diversity;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>example used to illustrate explanation of mp 3 or 4;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6 e.g. “Two areas have the same number of species. One with 90% of 1 species has less biodiversity than one where all species have an abundance of 5-20%”

Total 12
<table>
<thead>
<tr>
<th>Question</th>
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<th>Mark</th>
<th>Additional Guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 (a)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>biodiversity (of heathland);</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>rare / endangered, species / plants / animals / fungi / organisms / named organism;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>rarity of (this) habitat;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>example of current legal status;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>(likely) reduction in size of, habitat / ecosystem / heathland;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>effect of reduced size on viability (of whole ecosystem);</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>effect on, movement / spread, of, species / named species / plants / animals;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>a method of minimizing impact / AW / named example;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>e.g. National Park / SSSI / protected species / National Nature Reserves / NNR / other legal example</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>IGNORE ‘habitat destruction’ alone. Must refer to extent or size of destruction.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>CREDIT effect on wildlife corridors</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Answers could refer to limiting species spread or introduction of species</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>e.g. ‘toad tunnels’ / relocation of population</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>‘build toad tunnels so that the toads can still move between the two areas of heathland’ = 2 marks (mps 7 and 8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 (b)</td>
<td></td>
<td>3 max</td>
<td></td>
</tr>
<tr>
<td>(i)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>idea of (collect in) different / wider, area;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>(collect at) different, times of day / times of year / weather conditions;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>use of named, collecting / identifying, technique;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>method of ensuring that individuals not counted again;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>mark-release-recapture / capture-recapture, technique;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>ALLOW several transects e.g. another path</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>e.g. (sweep) net / photographs / feeding stations IGNORE pooter (as could only catch larvae) / light trap / use of key / single transect</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>This mark refers to an initial or the only sample – it is not linked to mp 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>CREDIT count marked individuals in 2nd sample / population = no. in 1st sample x no. in 2nd sample no. retrapped in 2nd sample</td>
<td></td>
<td></td>
</tr>
<tr>
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<td>Additional Guidance</td>
</tr>
<tr>
<td>----------</td>
<td>----------------</td>
<td>------</td>
<td>---------------------</td>
</tr>
<tr>
<td>3 (b) (ii)</td>
<td></td>
<td></td>
<td>Original table on question paper had incorrect figure in ((n/N)^2) column for Grayling row. Answers for mps 2 &amp; 3 take this into account.</td>
</tr>
<tr>
<td><strong>species</strong></td>
<td>n</td>
<td>n/N</td>
<td>((n/N)^2)</td>
</tr>
<tr>
<td>Grayling ((Hipparchia semele))</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Large Heath ((Coenonympha tullia))</td>
<td></td>
<td>0.3548</td>
<td></td>
</tr>
<tr>
<td>Gatekeeper ((Pyronia tithonus))</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green Hairstreak ((Callophrys rubi))</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silver-studded Blue ((Plebeius argus))</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small Heath ((Coenonympha phamylus))</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sum (Σ)</td>
<td>0.31633</td>
<td>OR</td>
<td>0.31217</td>
</tr>
<tr>
<td>1 - Σ</td>
<td>D = 0.68367</td>
<td>OR</td>
<td>0.68783</td>
</tr>
<tr>
<td>3 (b) (iii)</td>
<td>many species present / high species richness / all species evenly represented / high species evenness / high biodiversity ;</td>
<td></td>
<td>ACCEPT ecf from incorrect answer for Σ (whether decimal places or rounding)</td>
</tr>
<tr>
<td></td>
<td>(so) should not be developed / development should be modified / development should be reconsidered / should be conserved / AW ;</td>
<td></td>
<td>IGNORE refs to relative robustness of habitat</td>
</tr>
<tr>
<td></td>
<td>1 ACCEPT ‘types of butterfly’ as AW for species</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 DO NOT CREDIT ref to ‘planning’ alone (as given in question)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 IGNORE responses that imply uncertainty about the development. e.g. ‘could’ ‘might’ ‘may’</td>
<td></td>
<td></td>
</tr>
<tr>
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<td>Expected Answer</td>
<td>Mark</td>
<td>Additional Guidance</td>
</tr>
<tr>
<td>----------</td>
<td>----------------</td>
<td>------</td>
<td>---------------------</td>
</tr>
<tr>
<td>3 (c) (i)</td>
<td>species</td>
<td>letter</td>
<td></td>
</tr>
<tr>
<td>Grayling <em>(Hipparchia semele)</em></td>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Large Heath <em>(Coenonympha tullia)</em></td>
<td>D</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gatekeeper <em>(Pyronia tythonus)</em></td>
<td>F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green Hairstreak <em>(Callophrys rubi)</em></td>
<td>B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silver-studded Blue <em>(Plebeius argus)</em></td>
<td>C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small Heath <em>(Coenonympha phamhylus)</em></td>
<td>E</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total** 5

| 3 (c) (ii) | (is) same genus ; |
| 1 | do not credit vague statements like ‘could be in the same genus’
| 2 | ignore *Coenonympha*
| 2 max | accept closely related ;

**Total** 18
<table>
<thead>
<tr>
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<th>Marks</th>
<th>Additional Guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 (a) (i)</td>
<td>likely to become extinct / on the verge of extinction / numbers are not sustainable / numbers too low for survival of species / numbers drop below 10% of (original) population</td>
<td>1</td>
<td>DO NOT CREDIT ‘may’ / ‘might’ / ‘could’ become extinct CREDIT ‘die out’ or ‘wiped out’ instead of extinct</td>
</tr>
<tr>
<td>4 (a) (ii)</td>
<td>133 333 ;</td>
<td>2</td>
<td>Award 2 marks for a correct answer, even if no working shown. ALLOW 1 mark for seeing 133 333.3333... if answer is incorrectly rounded or not rounded to a whole number. If the answer is incorrect ALLOW 1 mark for 4000 x 100</td>
</tr>
<tr>
<td>4 (b) (i)</td>
<td>painkiller still being used ; in captivity – allow reverse argument for in the wild fed uncontaminated food / keep away from painkiller ; health of individuals monitored / treated for disease ; eggs (artificially) incubated / young hand reared ; reduced mortality of young ; provision of mate / females breeding can be manipulated ; protection, from hunting / predation ; competition reduced (between, individuals / species) ;</td>
<td>4 max</td>
<td>IGNORE ref to controlling diet or nutrition e.g. hormones / artificial insemination / artificial selection ‘safer environment’ is not quite enough</td>
</tr>
<tr>
<td>Question</td>
<td>Expected Answers</td>
<td>Marks</td>
<td>Additional Guidance</td>
</tr>
<tr>
<td>----------</td>
<td>------------------</td>
<td>-------</td>
<td>----------------------</td>
</tr>
<tr>
<td>4 (b) (ii)</td>
<td>maintain / increase, genetic variation / gene pool; reduce risk of, inbreeding / breeding between related birds; different ‘races’ of vulture in different areas / geographical variation / different subspecies; less likely all contaminated with painkiller; less risk of losing all individuals due to, disease / natural disaster / human action;</td>
<td>3 max</td>
<td>In the context of the vultures, rather than ‘biodiversity’ <strong>CREDIT</strong> different alleles <strong>DO NOT CREDIT</strong> different genes <strong>CREDIT ora</strong> for idea of promoting outbreeding <strong>ALLOW</strong> ref to types of (white-backed) vulture</td>
</tr>
<tr>
<td>4 (c)</td>
<td>reason or explanation;</td>
<td></td>
<td><strong>CREDIT</strong> any three valid suggestions. Ignore the numbers on the answer lines. Mark as prose and award points as they arise.</td>
</tr>
<tr>
<td></td>
<td>Suitable examples include but are <strong>not</strong> limited to:</td>
<td></td>
<td>The idea of research must be qualified</td>
</tr>
<tr>
<td></td>
<td>• maintains biodiversity</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• part of food chain / part of ecosystem / part of food web / scavengers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• have a right to existence / moral reason</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• specific religious reason</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• give pleasure / beautiful creatures</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• ecotourism</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• useful product / source of medicine / medical research</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• genetic resource</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• saves clearing up / remove carcasses</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• prevents disease</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• keeps, rat / dog, population down</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question</td>
<td>Expected Answers</td>
<td>Marks</td>
<td>Additional Guidance</td>
</tr>
<tr>
<td>----------</td>
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<td>---------------------</td>
</tr>
<tr>
<td>4 (d)</td>
<td>ban / make illegal, use of <strong>this</strong> painkiller; provide alternative painkillers (that do not have the same ecological impact); no hunting / no killing / legal protection, of white-backed vultures; protected areas / sanctuary / reserves; provide breeding sites; prevent habitat destruction; monitoring (of vultures) / tagging; feeding programme (for released birds) / provide uncontaminated carcasses; qualified ref. to education; promotion of ecotourism; in case the population falls again, sperm and egg banks / frozen embryos;</td>
<td>3 max</td>
<td>e.g. to farmers / local people (on importance of vultures)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question</td>
<td>Answer</td>
<td>Marks</td>
<td>Guidance</td>
</tr>
<tr>
<td>----------</td>
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<td>-------</td>
<td>----------</td>
</tr>
<tr>
<td>5 (a) (i)</td>
<td><em>idea of if one susceptible to, this / the disease, all likely to be</em> ;</td>
<td>1</td>
<td>DO NOT CREDIT if the response is referring to diseases in general</td>
</tr>
<tr>
<td>5 (a) (ii)</td>
<td>1 environment / environmental factor ; 2 (variation in) weather conditions / temperature ; 3 rainfall / soil water content ; 4 soil, (named) mineral / nitrate, content / AW ; 5 (named) biotic factor (might vary) ;</td>
<td>2</td>
<td>2 ACCEPT climate 3 IGNORE ‘availability of water’ unqualified 4 IGNORE nutrient 4 ACCEPT mineral availability / amount of fertiliser added 5 e.g. number of pests / competition from other plants / disease</td>
</tr>
<tr>
<td>5 (a) (iii)</td>
<td><em>mutation</em> ;</td>
<td>1</td>
<td>ACCEPT deletion etc. IGNORE (named) mutagenic agent</td>
</tr>
<tr>
<td>Question</td>
<td>Answer</td>
<td>Marks</td>
<td>Guidance</td>
</tr>
<tr>
<td>----------</td>
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<tr>
<td>5 (b)</td>
<td></td>
<td>6</td>
<td>If a candidate describes resistance as immunity DO NOT CREDIT the first time it is seen but apply ECF thereafter</td>
</tr>
<tr>
<td>1</td>
<td>cross / breed, with disease resistant variety ;</td>
<td>1 ACCEPT</td>
<td>make two disease resistant individuals reproduce</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 IGNORE</td>
<td>crossbreed two best individuals</td>
</tr>
<tr>
<td>2</td>
<td>method to test offspring for disease resistance ;</td>
<td>2 ACCEPT</td>
<td>general statement or example e.g: ‘germinate seeds, expose to disease, see if die’</td>
</tr>
<tr>
<td>3</td>
<td>select , best offspring / offspring with resistance ;</td>
<td>3 ACCEPT</td>
<td>seeds / tubers / potatoes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 IGNORE</td>
<td>children / babies</td>
</tr>
<tr>
<td>4</td>
<td>(inter)breed, offspring with resistance / best offspring ;</td>
<td>5 IGNORE</td>
<td>many years</td>
</tr>
<tr>
<td>5</td>
<td>(continue process) for (many) generations ;</td>
<td>6 ACCEPT</td>
<td>avoid , inbreeding / inline breeding</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6 ACCEPT</td>
<td>‘maintain genetic diversity by breeding with plants from different field / area’</td>
</tr>
<tr>
<td>6</td>
<td>idea of avoid breeding, closely related / AW , individuals to preserve genetic diversity ; ora</td>
<td>6 ACCEPT</td>
<td>breed with different varieties to widen the gene pool</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8 ACCEPT</td>
<td>use of seed bank to preserve range of alleles</td>
</tr>
<tr>
<td>7</td>
<td>(regularly back) cross with, wild variety ;</td>
<td>9 e.g. ref. to marker assisted selection / detail of pollination method / prevention of self-pollination / asexual reproduction of desired variety</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>idea of preserving rare varieties in case they are needed in the future ;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>AVP ;</td>
<td></td>
<td></td>
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<tr>
<td>QWC ;</td>
<td></td>
<td>1</td>
<td>Award if the answer has been given one mark from marking points 1–5 and one mark from marking points 6–8</td>
</tr>
</tbody>
</table>

Total 11