

Question Number	Answer	Mark
3 (a)	<p>1. year 1 ;</p> <p>2. {more / eq } species present (in year 1) / greater variety of species ;</p> <p>Ignore references to abundance.</p>	(2)

Question Number	Answer	Mark
3 (b)(i)	mitosis ;	(1)

Question Number	Answer	Mark
3 (b)(ii)	<p>1. low genetic diversity is {few / low number of / less / eq} different <u>alleles</u> in the {gene pool / population / species} / small gene pool / eq ;</p> <p>2. (asexual reproduction leads to) all offspring being {<u>genetically</u> identical / clones / same genotype / same <u>alleles</u> } ;</p> <p>3. no meiosis/ no recombination of genetic material / eq;</p> <p>4. idea of variation only possible as a result of mutation ;</p>	(2)

Question Number	Answer	Mark
* 3 (c)	<p>(QWC - Spelling of technical terms must be correct and the answer must be organised in a logical sequence)</p> <ol style="list-style-type: none"> <li>1. (description of how to vary the independent variable) Idea of at least 5 different nitrate (ion) concentrations ;</li> <li>2. Reference to repeats at each concentration ;</li> <li>3. (measuring of dependent variable)</li> </ol> <p>Increase in {length/mass/ height} ;</p> <ol style="list-style-type: none"> <li>4. use plants that are genetically {similar / same} / same age / same original {height/ size / mass} of plant ;</li> <li>5. &amp; 6. Controlling abiotic factors, maximum 2 from list: <ul style="list-style-type: none"> <li>• time (at least a week) allowed for growth</li> <li>• other mineral ions constant</li> <li>• temperature</li> <li>• light (intensity)</li> <li>• water provided</li> <li>• pH of {solution / soil}</li> <li>• CO<sub>2</sub> concentration ;;</li> </ul> </li> <li>7. idea of control described, e.g. no nitrate/ soil with no extra nitrate ;</li> </ol>	(5)