<table>
<tr><th>Question Number</th><th>Answer</th><th>Additional guidance</th><th>Mark</th></tr>
<tr><td>7(c)(i)</td><td>A calculation in which:

• N(N-1) correctly calculated (1)

• ∑n(n-1) correctly calculated (1)

• correct substitution to obtain D to 1 d.p. (1)</td><td><u>Example of calculation</u>

(147 x 146) = 21462

4684

4.6
(4.58 = 2 marks)

<table>
<tr><th>Species</th><th>Number of individuals (n)</th><th>(n-1)</th><th>n(n-1)</th></tr>
<tr><td>A</td><td>21</td><td>20</td><td>420</td></tr>
<tr><td>B</td><td>2</td><td>1</td><td>2</td></tr>
<tr><td>C</td><td>4</td><td>3</td><td>12</td></tr>
<tr><td>D</td><td>13</td><td>12</td><td>156</td></tr>
<tr><td>E</td><td>54</td><td>53</td><td>2862</td></tr>
<tr><td>F</td><td>15</td><td>14</td><td>210</td></tr>
<tr><td>G</td><td>6</td><td>5</td><td>30</td></tr>
<tr><td>H</td><td>32</td><td>31</td><td>992</td></tr>
<tr><td></td><td>Total (N)=147</td><td></td><td>∑n(n-1)=4684</td></tr>
</table>

Correct answer with no working scores full marks
ECF applied</td><td>(3)</td></tr>
</table>

<table>
<tr><th>Question Number</th><th>Answer</th><th>Additional guidance</th><th>Mark</th></tr>
<tr><td>7(c)(ii)</td><td>An answer that includes five of the following points:

• reduction in biodiversity (1)

• as forest is habitat for many species of plants (1)

• (because) populations will decrease because loss of forest will result in {reduced habitat for animals / reduced food} / increased competition between (animal) species} (1)

• causing reduction in species richness (1)

• (because) loss of forest will result in reduction of genetic diversity (1)

• (due to) reproduction in {smaller / isolated} populations (1)</td><td>

Accept possible increase in species that have blackberry as part of food chain

Accept reduction in forest habitat (for many species unqualified) / blackberry {outcompetes (the forest) plants / introduces disease}

Accept animals not adapted to feed on blackberry / blackberry is poisonous to the animals
Accept descriptions of what animals would compete for e.g. nesting sites

Accept reduction in gene pool</td><td>(5)</td></tr>
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