

Question Number	Answer	Additional guidance	Mark
<b>5(a)(i)</b>	<ul style="list-style-type: none"> <li>correct magnification calculated</li> </ul>	ACCEPT range between x 14 000 - x 18 000 ACCEPT correct magnification in standard form	<b>(1)</b>

Question Number	Answer	Additional guidance	Mark
<b>5(a)(ii)</b>	<p>An answer that makes reference to the following point:</p> <ul style="list-style-type: none"> <li>too small (0.5 <math>\mu\text{m}</math>) to be viewed (under a light microscope) / magnification (of x 14 000-16 000) can't be achieved by a light microscope / resolution would be too low} (1)</li> </ul>	ecf applies ignore references to 3D image	<b>(1)</b>

Question Number	Answer	Additional guidance	Mark
<b>5(b)</b>	<p>An explanation that makes reference to two of the following points:</p> <ul style="list-style-type: none"> <li>plant based packaging is (more) sustainable / biodegradable / carbon neutral (than traditional oil-based packaging) (1)</li> <li>(the antimicrobial property of the oregano oil) will {reduce the numbers of (<i>L. monocytogenes</i>) bacteria / prevent bacterial growth (on the food) / prevent microbial growth} (1)</li> <li>(resulting in) fewer people getting {listeriosis / (microbial) disease} (1)</li> </ul>	ACCEPT plant-based packaging is {renewable / available for future generations}  ACCEPT kill bacteria ignore reduce microbes entering packaging  ACCEPT so food will not go off as quick / extends shelf life	<b>(2)</b>

Question Number	Answer	Mark
<b>5(c)(i)</b>	<p>The only correct answer is C</p> <p><i>A is not correct because L. monocytogenes is least affected by the chemicals</i></p> <p><i>B is not correct because L. monocytogenes is least affected by the chemicals</i></p> <p><i>D is not correct because L. monocytogenes is least affected by the chemicals</i></p>	<b>(1)</b>