

Question Number	Answer	Mark
7 (a)	<ol style="list-style-type: none"> 1. positive correlation (between concentration of extract and diameter of zone of inhibition / eq ; 2. decrease small between 100 and 60% / larger decrease {between 60 and 20% / below 60%} / eq OR idea of difference in gradient before and after 60% ; 3. idea of direct proportionality {above / below} 60% e.g. linear {above / below} 60% ; 4. correct manipulation of the data (e.g. diameter decreased by 10mm as concentration of extract drops by 80% / from 100% to 20%) ; <p>allow converse statements referring to increase in concentration of extract</p> <p>Ignore reference to rate</p>	(3)

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7 (b)	<ol style="list-style-type: none"> 1. 100% /full strength / eq ; 2. largest zone of inhibition / eq ; 3. means most bacteria {killed / not reproducing / prevented from growing } / fewer bacteria able to grow / eq ; 4. faster diffusion at higher concentration / eq ; 	(3)

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7 (c)	(disc) {soaked (only) in water / with no garlic extract on it / 0% garlic extract } / eq ;	(1)

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7 (d)	<ol style="list-style-type: none"> 1. so no { bacteria/ fungi / microbes } (alive) on them / prevents contamination by microbes/ eq ; 2. that could be {harmful / pathogenic / eq} ; 3. idea that could compete with {<i>Micrococcus luteus</i> / those on the plate} / affect growth of <i>Micrococcus luteus</i> / eq ; 	(2)

Question Number	Answer	Mark
7(e)	<ol style="list-style-type: none"> 1. reference to increase in zone of inhibition / reference all results would have shown an equal zone of inhibition ; 2. alcohol would have killed {the bacteria in the plate / named bacteria} / alcohol is antimicrobial / eq ; <p>OR</p> <ol style="list-style-type: none"> 1. reference to decrease in zone of inhibition; 2. extract may have been { diluted / effectiveness reduced by the alcohol / eq } ; 	(2)