

Question Number	Answer	Mark
8 (a) (i)	<ol style="list-style-type: none"> 1. ref to aseptic technique (used to prevent contamination of plate), e.g. use of sterile equipment, such as a pipette ; 2. idea of uniform spreading of bacteria e.g. lawn, spread (over agar), mixed in with molten agar, seeded ; 	(2)

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8 (a) (ii)	<ol style="list-style-type: none"> 1. reduces contamination (of culture) / eq ; 2. allows { aerobic conditions / entry of air / entry of oxygen} / prevents anaerobic conditions ; 3. reduces {growth / eq} of {harmful / anaerobic} bacteria being {cultured / eq} ; 	(2)

Question Number	Answer	Mark
8 (a) (iii)	encourages growth of bacteria that are {harmful / pathogenic / eq} (to humans) ;	(1)

Question Number	Answer	Mark
8 (b)(i)	{3 species of bacteria / B1, B2 and B4 / most} {killed more effectively / had a larger zone of inhibition} (when using ethanol) / eq ;	(1)

Question Number	Answer	Mark
8 (b)(ii)	Idea of mean zone of inhibition larger when using hot water e.g. mean diameter 0.5mm larger for hot water extract ;	(1)

Question Number	Answer	Mark
8 (c) (i)	<ol style="list-style-type: none"> the ranges overlap / largest diameter for cold water method is { bigger / eq } than the smallest for hot water / eq ; use of calculated figures to support this e.g. hot water is 16.8 mm AND cold water is 17.0 mm OR reference to 0.2 mm overlap; 	(2)

Question Number	Answer	Mark
8 (c) (ii)	<ol style="list-style-type: none"> cold water ; {smaller / eq} range / spread of data is less / eq ; 	(2)