

Question 03

QUESTION	ANSWERS	EXTRA INFORMATION	MARK	AO / SPEC. REF.
03.1	to prevent microorganisms / bacteria getting into the milk	Accept pathogens, reject 'dirt' or 'germs'	1	AO2/2 4.1.1.6
03.2	count the number of colonies on each plate plate with fewest colonies is from most effective treatment		1 1	AO3/2a 4.1.1.6
03.3	Level 3: A clear, logical and coherent answer, with no significant redundancy. The student understands the process and links this to reasons for aseptic technique.		5–6	AO1/2 4.1.1.6
	Level 2: A partial answer with some stages missed or not in logical order.		3–4	
	Level 1: One or two relevant points but little linkage of points or logical order.		1–2	
	No relevant content		0	
	Indicative content <ul style="list-style-type: none"> • wash hands before starting work • disinfect work surfaces • Petri dishes must be sterilised before use • culture media must be sterilised before use • inoculating loops used to transfer microorganisms to the media must be sterilised by passing them through a flame • the lid of the Petri dish should be secured with adhesive tape and the Petri dish stored upside down • cultures should generally be incubated at 25 °C 			
03.4	Any two from: <ul style="list-style-type: none"> • repeat the experiment several times • trial different disinfectants • swab teats before treatment so it is possible to see if treatment kills any bacteria 		2	AO3/3a 4.1.1.6
TOTAL			11	