

1. It is very important that meat products are stored at the correct temperature.

A student was investigating the growth of a bacterial culture at 20°C in a liquid containing meat extract. The following results were obtained:

Time (hrs)	<i>E. coli</i> ( $\log_{10}$ of numbers per $\text{cm}^3$ )
0	2.0
4	2.0
8	3.0
12	4.0
16	5.0
20	5.5
24	6.0

Table 16.1

Which of the following conclusions is correct?

- A The number of bacteria doubles between 4 hours and 12 hours.
- B There is a 25% increase in the number of bacteria between 12 and 16 hours.
- C There are 550 000 bacteria per  $\text{cm}^3$  after 20 hours.
- D There are a million bacteria per  $\text{cm}^3$  after 24 hours.

Your answer

[1]

END OF QUESTION PAPER

### Mark Scheme

Question			Answer/Indicative content	Marks	Guidance
1			D	1	
			Total	1	