01 Figure 1 shows four stages in converting sound into a digital form.

Place the stages in the correct order 1-4, where 1 is the first stage and 4 the last.

[3 marks]

Figure 1

Stage	Order (1-4)
binary representation of audio stored	
microphone picks up sound waves	
audio sampled and converted to a digital value	
converted to en electronic analogue signal	

02 A way of representing sound digitally is to take samples of the original sound.

02.1 A sound engineer records a 4 second sound recording using a sampling rate of 4000 Hz and a sample resolution of 4 bits.

What is the minimum file size of the recording? Your answer should be given in **bytes**.

You should show your working.

[3 marks]

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Answer: …………………………………………..

02.2 What does a sampling rate of 4000 Hz mean?

[1 mark]

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02.3 Define the term sampling resolution in the context of representing sound digitally.

[2 marks]

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