

01 One way of representing sound digitally is to take samples of the original sound.

01.1 Explain why it is necessary to take samples to represent sound digitally.

[2 marks]

Because sound is analogue [1] or continuous nature of sound waves described

So to store as a number a point along the wave needs to be taken [1]

01.2 Define sampling rate

[2 marks]

The number of times per second [1] a sample is recorded as a number [1]

01.3 Chose one answer which correctly states the effects of decreasing the sample resolution of a digital sound recording.

[1 mark]

B. Decreases both the quality of the recording and the file size

01.4 To calculate the size of a digital sound file it is necessary to know both the sample rate and the sampling resolution that will be used to record the sound.

Describe how to calculate the file size of a digital sound recording.

[2 marks]

Multiply the sample rate by the sample resolution [1] and then multiply by the length of the recording in seconds [1]