HKUSTx: ELEC1200.1x A System View of Communications: From Signals to Packets (Part 1)

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2.1 QUIZ QUESTION 1 (1/1 point)

Suppose we sample a signal at frequency F_s . If we collect 1500 samples in 5 seconds, what is F_s in Hz?

Please key in the numerical value of your answer in the box provided below.

300

300

Answer: 300

EXPLANATION

The sampling frequency F_s =1500/5=300samples/sec=300Hz.

Check

Save

Hide Answer

You have used 1 of 3 submissions

2.1 QUIZ QUESTION 2 (1/1 point)

Compact discs record two channels (left and right) of music at a sampling frequency of $F_s=44.1
m kHz$. If each sample is encoded with 16 bits, and one byte is 8 bits, how many bytes are required to store one minute of music?

Please key in the numerical value of your answer in the box provided below.

10584000

10584000

Answer: 10584000

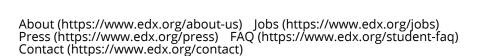
2.1 Quiz Question 1 | 2.1 Continuous vs Discr... https://courses.edx.org/courses/HKUSTx/EL... Each sample requires 2 bytes. There are 60 seconds in one minute. Thus, the total number of bytes required is

60 sec/channel * 44,100 sample/sec * 2 bytes/sample * 2 channel = 10,584,000 bytes

Help

Hide Answer

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