Grade Book Detail

,

Chapter 2 exercise

Started: October 17, 2019, 10:15 am
Last change: October 19, 2019, 7:09 pm

Showing Scored Attempts | Show Last Attempts | Show Review Attempts

Hide Perfect Score Questions | Hide Not Answered Questions

Q. Television channels are 13 MHz wide. How many bits/sec can be sent if 2-level digital signals are used? Assume a noiseless channel.
A. 26 Mbps
Show Answer 26

Question 1: 10 out of 10 in 1 attempt(s)

Q. If a binary signal is sent over a 8-kHz channel whose signal-to-noise ratio is 17 dB, what is the maximum achievable data rate?
A. 16 kbps
Show Answer 16

Question 2: 9 out of 10 in 2 attempt(s)

Q. 8 signals, each requiring 4000 Hz, are multiplexed on to a single channel using FDM. How much minimum bandwidth is required for the multiplexed channel? Assume that the guard bands are 100 Hz wide.
A: 32700 Hz
Show Answer 32700

Question 3: 10 out of 10 in 1 attempt(s)

Q. Why has the PCM sampling time been set at 125 μsec?

A sampling time of 125usecond corresponds to 8000 samples per second. According to Nyquist theorem, this is the sampling frequency needed to capture all the information in a 4-kHz channel, such as a telephone channel.

Show Answer A sampling time of 125 μsec corresponds to 8000 samples per second. According to the Nyquist theorem, this is the sampling frequency needed to capture all the information in a 4 kHz channel, such as a telephone channel. (Actually the nominal bandwidth is somewhat less, but the cutoff is not sharp.)

Question 4: 0 out of 10 in 1 attempt(s)

Q. What is the percent overhead on a T1 carrier; that is, what percent of the 1.544 Mbps are not delivered to the end user? How about the E1 carrier ?

A. For the T1 carrier: 13 % (give your answer as an integer)

A. For the E1 carrier: 6 % (give your answer as an integer)

Show Answer 13

Show Answer 6

Question 5: 10 (parts: 5, 5) out of 10 in 1 attempt(s)

Total: 39/50

Return to GradeBook