

Quiz on Jan 17

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13. Which of the following is true of signals and bandwidth? Select all that apply.

Marks: 1

Type: MULTIPLE_CHOICE

Options:

- 0) The absolute bandwidth of random NRZ signals is often infinity
- 1) The more link bandwidth you provide, the more distorted the received signal
- 2) According to Nyquist, $f_p \leq B$
- 3) Shannon Theorem considers the influence of noise

Answer: [[0, 3]]

13.

Which of the following is true of physical media? Select all that apply.

Marks: 1

Type: SINGLE_CORRECT_ANSWER

Options:

- 0) All frequencies of a signal propagate at same speed
- 1) Different link types have different bandwidths
- 2) Cross talk is due to random motion of electrons
- 3) All frequencies of a signal experience the same amount of loss

Answer: [1]

13. Which among the following links provides the highest bandwidth in Hz?

Marks: 1

Type: SINGLE_CORRECT_ANSWER

Options:

- 0) Cat 5
- 1) Cat 6
- 2) Coaxial
- 3) Fiber Optics

Answer: [3]

13. 10dB attenuation means, $P_2 = P_1/a$. What is a? Format X (e.g. 4)

Marks: 1

Type: FLOAT_TYPE

Answer: [{ "max_val": "10", "min_val": "10" }]

13. Which links support data flow in only one direction permanently?

Marks: 1

Type: SINGLE_CORRECT_ANSWER

Options:

- 0) full duplex
- 1) half duplex
- 2) simplex
- 3) multiplex

Answer: [2]

13. Which of the following is true of a node? Select all that apply.

Marks: 1

Type: MULTIPLE_CHOICE

Options:

- 0) In DMA, adaptor reads/writes directly to memory
- 1) The application processes run in the user space
- 2) The device drivers are implemented in the socket layer
- 3) Socket layer runs in the user space

Answer: [[0, 1]]

14. Which of the following is true of modulation? Select all that apply.

Marks: 1

Type: MULTIPLE_CHOICE

Options:

- 0) Some Line codes can have a DC component
- 1) Line coding is used in ADSL
- 2) Bandwidth of line-coded signals is rather small due to abrupt changes in signals
- 3) NRZ is an example of line code

Answer: [[0, 3]]

14. What is the efficiency of 4B/5B in percentage? Format X (e.g. 75)

Marks: 1

Type: FLOAT_TYPE

Answer: [{ "max_val": "80", "min_val": "80" }]

14.

Which encoding can have a major DC component? Select all that apply?

Marks: 1

Type: MULTIPLE_CHOICE

Options:

- 0) NRZ
- 1) NRZI
- 2) Manchester
- 3) 4B/5B

Answer: [[0, 1]]

14. Question group text

14.

Which of the following is true of error rates? Select all that apply.

Marks: 1

Type: MULTIPLE_CHOICE

Options:

- 0) BER is a function of SNR and modulation
- 1) Modulation schemes that provide higher data rates, often require high SNR for same BER
- 2) For a given modulation scheme, as you increase SNR, BER increases
- 3) Fiber optics have the lowest BER compared to other wired links

Answer: [[0, 1, 3]]