1 Chapter 3 Quizzes

1 In a frequency-domain plot, the horizontal axis measures the ______.

A) signal amplitude

B) frequency

C) phase

D) time

2 In a time-domain plot, the horizontal axis is a measure of ______.

- A) signal amplitude
- B) frequency
- C) phase
- <mark>D) time</mark>

3 _____ data are continuous and take continuous values.

- <mark>A) Analog</mark>
- B) Digital
- C) Analog or digital
- D) None of the choices are correct
- 4 _____ data have discrete states and take discrete values.
- A) Analog
- <mark>B) Digital</mark>
- C) Analog or digital
- D) None of the choices are correct

5 _____ signals have an infinite number of values in a time interval.

<mark>A) Analog</mark>

B) Digital

- C) Either analog or digital
- D) None of the choices are correct

6 ______ signals can have only a limited number of values in a time interval.

A) Analog

<mark>B) Digital</mark>

- C) Either analog or digital
- D) None of the choices are correct



7 Frequency and period are _____.

A) inverse of each other

B) proportional to each other

C) the same

D) are not related

8 ______ is the rate of change with respect to time.

A) Amplitude

B) Time

C) Frequency

D) Phase

9 _____ describes the position of the waveform relative to time 0.

A) Amplitude

B) Time

C) Frequency

<mark>D) Phase</mark>

10 A simple sine wave can be represented by one single spike in the _____ domain.

A) amplitude

B) time

C) frequency

D) phase

11 As frequency increases, the period ______.

<mark>A) decreases</mark>

B) increases

- C) remains the same
- D) None of the choices are correct

12 _____ is a type of transmission impairment in which the signal loses strength due to the resistance of the transmission medium.

A) Attenuation

B) Distortion

C) Noise

D) Decibel

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13 _____ is a type of transmission impairment in which the signal loses strength due to the different propagation speeds of each frequency that makes up the signal.

A) Attenuation

B) Distortion

- C) Noise
- D) Decibel

14 _____ is a type of transmission impairment in which an outside source such as crosstalk corrupts a signal.

A) Attenuation

B) Distortion

C) Noise

D) Decibel

15 When propagation speed is multiplied by propagation time, we get the ______

- A) throughput
- B) wavelength of the signal
- C) distortion factor
- D) distance a signal or bit has traveled

16 Baseband transmission of a digital signal is possible only if we have a _____ channel.

<mark>A) low-pass</mark>

- B) bandpass
- C) low rate
- D) high rate

17 If the available channel is a _____ channel, we cannot send a digital signal directly to the channel.

A) low-pass

- B) bandpass
- C) low rate
- D) high rate

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18 For a _____ channel, the Nyquist bit rate formula defines the theoretical maximum bit rate.

A) noisy

<mark>B) noiseless</mark>

C) bandpass

D) low-pass

19 For a _____ channel, we need to use the Shannon capacity to find the maximum bit rate.

- A) noisy
- B) noiseless

C) bandpass

D) low-pass

20 _____ can impair a signal.

- A) Attenuation
- B) Distortion

C) Noise

D) All of the choices are correct

21 The _____ product defines the number of bits that can fill the link.

A) bandwidth-period

B) frequency-amplitude

C) bandwidth-delay

D) delay-amplitude