

All the Multiple Choice Question and Answer have been compiled from the books of Data Communication and Networking by The well known author behrouz A forouzan.

Data Communication and Networking – Data and Signals multiple choice based questions and answers pdf cover the below lists of topic,

1. Data and signal Multiple Choice Question and Answer.
2. Amplitude, frequency, and phase Multiple Choice Question and Answer.
3. Time-domain graph plots Multiple Choice Question and Answer.
4. Frequency-domain graph plots Multiple Choice Question and Answer.
5. Spectrum ,bandwidth of a signa Multiple Choice Question and Answer.
6. Bit rate (number of bits per second) and bit interval (duration of 1 bit) Multiple Choice Question and Answer.
7. Nyquist formula Multiple Choice Question and Answer.
8. Shannon capacity Multiple Choice Question and Answer.
9. Attenuation, distortion, and noise Multiple Choice Question and Answer.
10. Throughput, propagation speed, and propagation time ,wavelength of a frequency Multiple Choice Question and Answer.

Practice it now to sharpen your concept.

1. Before data can be transmitted, they must be transformed to _____.

- A. periodic signals
- B. electromagnetic signals

- C. aperiodic signals
- D. low-frequency sine waves

2. A periodic signal completes one cycle in 0.001 s. What is the frequency?

- A. 1 Hz
- B. 100 Hz
- C. 1 KHz
- D. 1 MHz

3. In a frequency-domain plot, the horizontal axis measures the _____.

- A. peak amplitude
- B. frequency
- C. phase
- D. slope

4. In a time-domain plot, the horizontal axis is a measure of _____.

- A. signal amplitude
- B. frequency
- C. phase
- D. time

5. If the bandwidth of a signal is 5 KHz and the lowest frequency is 52 KHz, what is the highest frequency?

- A. 5 KHz
- B. 10 KHz
- C. 47 KHz
- D. 57 KHz

6. What is the bandwidth of a signal that ranges from 1 MHz to 4 MHz?

- A. 4 MHz
- B. 1 KHz
- C. 3 MHz
- D. none of the above

7. As frequency increases, the period _____.

- A. decreases
- B. increases
- C. remains the same
- D. doubles

8. Given two sine waves A and B, if the frequency of A is twice that of B, then the period of B is _____ that of A.

- A. one-half
- B. twice
- C. the same as
- D. indeterminate from

9. A sine wave is _____.

- A. periodic and continuous
- B. aperiodic and continuous
- C. periodic and discrete
- D. aperiodic and discrete

10. If the maximum amplitude of a sine wave is 2 V, the minimum amplitude is _____ V.

- A. 2
- B. 1
- C. -2
- D. between -2 and 2

Answer key for MCQ SET- 1

Q-1	Correct Answer :electromagnetic signals
Q-2	Correct Answer :1 KHz
Q-3	Correct Answer :frequency
Q-4	Correct Answer :time
Q-5	Correct Answer :57 KHz
Q-6	Correct Answer :3 MHz
Q-7	Correct Answer :decreases
Q-8	Correct Answer :twice
Q-9	Correct Answer :periodic and continuous
Q-10	Correct Answer :-2

Data and Signals Multiple Choice Questions and Answers (MCQ) Set-2

1. A signal is measured at two different points. The power is P_1 at the first point and P_2 at the second point. The dB is 0. This means _____.

- A. P_2 is zero
- B. P_2 equals P_1
- C. P_2 is much larger than P_1
- D. P_2 is much smaller than P_1

2. _____ 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

3. _____ 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

4. _____ 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

5. 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

6. Data can be _____.

- A. analog
- B. digital
- C. (a) or (b)
- D. none of the above

7. _____ data are continuous and take continuous values.

- A. analog
- B. digital
- C. (a) or (b)
- D. none of the above

8. _____ data have discrete states and take discrete values.

- A. Analog
- B. Digital
- C. (a) or (b)
- D. None of the above

9. Signals can be _____

- A. analog
- B. digital
- C. either (a) or (b)
- D. neither (a) nor (b)

10. _____ signals can have an infinite number of values in a range.

- A. Analog
- B. Digital
- C. (a) or (b)
- D. None of the above

Answer key for MCQ SET- 2	
Q-1	Correct Answer :P2 equals P1
Q-2	Correct Answer :Attenuation
Q-3	Correct Answer :Distortion

Q-4	Correct Answer :Noise
Q-5	Correct Answer :distance a signal or bit has traveled
Q-6	Correct Answer :(a) or (b)
Q-7	Correct Answer :analog
Q-8	Correct Answer :Digital
Q-9	Correct Answer :either (a) or (b)
Q-10	Correct Answer :Analog

Data and Signals Multiple Choice Questions and Answers (MCQ)
Set-3

1. _____ signals can have only a limited number of values.

- A. Analog
- B. Digital
- C. (a) or (b)
- D. None of the above

2. Frequency and period are _____

- A. inverse of each other
- B. proportional to each other
- C. the same
- D. none of the above

3. _____ is the rate of change with respect to time.

- A. Amplitude

- B. Time
- C. Frequency
- D. Voltage

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

- A. Frequency
- B. Phase
- C. Amplitude
- D. Voltage

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

- A. time; frequency
- B. frequency; time
- C. time; phase
- D. phase; time

6. A _____ sine wave is not useful in data communications; we need to send a _____ signal.

- A. composite; single-frequency
- B. single-frequency; composite
- C. single-frequency; double-frequency
- D. none of the above

7. The _____ of a composite signal is the difference between the highest and the lowest frequencies contained in that signal

- A. frequency
- B. period
- C. bandwidth
- D. amplitude

8. A(n) _____ signal is a composite analog signal with an infinite bandwidth.

- A. digital
- B. analog
- C. either (a) or (b)
- D. neither (a) nor (b)

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

- A. low-pass
- B. bandpass
- C. low rate
- D. high rate

10. 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

Answer key for MCQ SET- 3	
Q-1	Correct Answer :Digital
Q-2	Correct Answer :inverse of each other
Q-3	Correct Answer :Frequency
Q-4	Correct Answer :Phase
Q-5	Correct Answer :time; frequency
Q-6	Correct Answer :single-frequency; composite
Q-7	Correct Answer :bandwidth
Q-8	Correct Answer :digital
Q-9	Correct Answer :low-pass
Q-10	Correct Answer :bandpass

EXAMRADAR.COM
ONLINE ENGINEERING STUDY SITE