GLS UNIVERSITY
FCAIT
Bachelor of Computer Applications (BCA) : Semester-IV
210301404 DATA COMMUNICATION & NETWORKS

Q-1 Define the following terms:

1. Bandwidth
2. Protocols
3. de-facto
4. de-jure
5. Digital Signal
6. Analog Signal
7. Baud Rate
8. Bit Rate
9. Bandwidth of a Signal
10. Period
11. Amplitude
12. Frequency
13. Phase
14. PAN
15. VLAN

Q-2 Fill in the blanks:

1. The de-jure standards apply because of _____
2. Bit rate can be _____ baud rate.
3. _____ signals are on-off in nature.
4. The strength of a signal at any point of time is called as its _____ .
5. The time required for the completion of one single cycle is its _____ .
6. The number of cycles completed by a signal in one second is its _____.
7. A _____ detects zeroes and ones and regenerates them.
8. The _____ techniques combines the features of ASK and PSK.
9. _____ modulation technique is highly affected by noise.
10. The measure of the number of data bits transmitted in one second is called _____.
11. In _____, we transmit all the 8 bits at a time.
12. Parallel transmission is generally used for _____ distances.
13 _____ signals are continuous in nature.
14 A set of rules that govern communication between the sender and the receiver is called _____
15 ____is a group of computers connected to each other in a small area.

16 ____computer network that is spread across a large geographical area.

Q-3 True or False

1. Bits per second is the number of times the signal level changes in a channel per second.
2. The term modem is derived from a single component i.e modulator.
3. ASK , FSK , PSK are all modulation techniques.
4. A codec is required at both the ends(source and destination) to perform analog to digital and digital to analog conversion.
5. In ASK , we do not alter the frequency and phase.
6. ASK is highly affected by noise.
7. The de-jure standards apply because of choice.
8. Protocol is the physical layer path over which data travels from the sender to the receiver.
9. Bandwidth commonly used in data transmission.
10. VLAN is a computer network that spread across a large geographical area.

Q-4 Answer the following questions:

1. What is Data Communication? Explain its characteristics.
2. Explain the concept of Protocols briefly.
3. What is Standard? Explain with its types.
4. Explain analog to analog transmission with example.
5. Explain digital to digital transmission with example.
6. Explain various Modulation techniques in detail.
7. Differentiate Synchronous and Asynchronous transmission.
8. Explain in detail Serial communication.
9. Explain in detail Parallel communication.
10. Explain Pulse Code Modulation technique.
11. Explain with example simple, half-duplex and full-duplex transmission.
12. What is network? Explain types of nerwork

Note: All students have to attempt Q-1, Q-2, Q-3. Attemt Q-4 in following sequence:

Roll No.	**Question No.**
1 to 10, 61 to 70, 121 to 130	1,6,3,10
11 to 20, 71 to 80, 131 to 140	2,7,4,11
21 to 30, 81 to 90, 141 to 150	3,8,5,9
31 to 40, 91 to 100, 151 to 160	4,9,6,1
41 to 50, 101 to 110, 161 to 170	5,12,7,1
51 to 60, 111 to 120, 171 onwards	6,1,10,5