

## BE Semester-IV (CE) Question Bank

### Data Communication

All questions carry equal marks (10 marks)

1.	Explain the components of network in detail with suitable diagram
2.	What do you mean by distributed processing? Explain various network criteria to measure the performance of network.
3.	Explain and compare various network topologies.
4.	Explain in detail: LAN, WAN and MAN
5.	Write a short note on: Standards and Protocols
6.	Write a brief note on functionality of OSI model
7.	Write in detail with suitable diagram: Physical layer
8.	Write in detail with suitable diagram: Data link layer
9.	Write in detail with suitable diagram: Network layer
10.	Write in detail with suitable diagram: Transport layer
11.	Write in detail with suitable diagram: Presentation layer
12.	Write in detail with suitable diagram: Application layer
13.	Discuss TCP/IP Protocol suite. Compare it with OSI architecture
14.	Write a note on: Physical address, Logical address and port address
15.	Write a note on: Periodic Analog signal
16.	Explain following terms: Composite signal, Bandwidth
17.	Explain following terms: Bit rate, Bit Length, Baseband transmission,
18.	Discuss in detail: Attenuation, Distortion, Noise, SNR
19.	Write a short note on: 1. Noiseless channel, 2. Noisy channel
20.	Explain the terms: bandwidth, Throughput, Latency, Bandwidth-Delay product, Jitter
21.	a. Explain various transmission mode with example. b. Differentiate: LAN v/s MAN, LAN v/s WAN
22.	List line coding schemes and explain any two in detail
23.	Write a note on Pulse Code Modulation

24.	Explain various transmission modes in detail
25.	Write a short note on: Amplitude shift keying
26.	Write a short note on: Frequency shift keying
27.	Write a short note on : A. Frequency modulation, B. Phase Modulation
28.	Discuss in detail: Frequency division multiplexing
29.	Discuss in detail: Synchronous Time division multiplexing
30.	Explain in detail: Twisted Pair Cable
31.	Explain in detail: Coaxial Cable
32.	Explain in detail: Fiber Optic Cable
33.	Write short note on: A. Radio wave, B. Microwave
34.	Explain terms: Single bit error, Burst error, Modulo 2 arithmetic, Code words, Data words
35.	Write a note on: Cyclic redundancy code
36.	Explain the procedure for check sum with suitable example
37.	Write short note on: Aloha and slotted aloha
38.	Explain in detail: CSMA
39.	Write a short note on MAC sublayer
40.	Explain Giga byte ethernet