United College of Engineering and Research, Prayagraj
Department of Computer Science and Engineering

Computer Network (KCS-603)
Assignment-2

Q. No.	Question	CO	Bloom's level
1.	What is Ethernet LAN?	CO2	L1
2.	What is bit Stuffing?	CO2	L1
3.	Calculate the throughput for a pure ALOHA network if the offered traffic is 0.75.	CO2	L3
4.	If bandwidth of a channel is 10Mbps, round trip time is 100 micro second, frame size is 100 bits then calculate link utilization of a channel?	CO2	L3
5.	Write Nyquist theorem for noiseless channel. We need to send 280 kbps over a noiseless channel with a bandwidth of 20 kHz. How many signal levels do we need?	CO2	L3
6.	Explain the performance of ALOHA and Slotted ALOHA with mathematical expressions and graph.	CO2	L2
7.	Explain CRC. Generate the CRC code for the data of 1010011110. The divisor is 1011. And perform CRC checking of generated CRC code?	CO2	L4
8.	An ALOHA network uses 9.2 kbps channel for sending message packets of 100 bits long size. Calculate the maximum throughput for pure ALOHA network.	CO2	L3
9.	What is the total delay (latency) for a frame size of 10 million bits that is being set up on link with 15 routers, each having queuing time of 2μs and a processing time of 1μs? The length of link is 3000km The speed of light inside the link is 2x108 m/sec. The link has bandwidth of 6 Mbps.	CO2	L3
10.	Explain Go Back NARQ and Selective Repeat ARQ with example m=3 bits.	CO2	L2