Semester IV (B.Tech)

Er. No...21IB353...

Academic Year: 2022-23

Jaypee University of Engineering & Technology, Guna

T-1 (Even Semester 2023)

18B11CI411 – COMPUTER NETWORKS

Maximum Duration: 1 Hour

Maximum Marks: 15

Notes:

1. This question paper has three questions.
2. Write relevant answers only.
3. Do not write anything on question paper (Except your Er. No.).

		Marks	CO No.
Q1.	Write the functions and protocols of all the layers of TCP/IP Model.	[03]	CO2
Q2.	Draw the waveforms of different techniques for converting digital to analog signal used for long distance transmission. A signal has passed through three cascaded amplifiers, each with a 6 dB gain and loss of 2dB in links between them. What is the total gain/loss? How much is the signal amplified.	[03]	CO3
Q3.	Discuss different line coding schemes. Draw the waveforms for bit stream 110100 using Unipolar NRZ, Polar RZ and Manchester schemes.	[03]	CO2
Q4.	What are the various components of latency in telecommunication networks? Calculate the total latency for a frame of size 2 million Bytes that is being sent on a link with 10 routers each having a queuing time of 2 μsec and a processing time of 1 μsec. The length of link is 2000 km and the speed of light inside link is 2×10^8 m/s. The link has bandwidth of 4 Mbps. Which component of total delay is dominant?	[03]	CO3
Q5.	Illustrate the transmissions impairments and how they are calculated? Write down the addressing modes used in telecommunication networks.	[03]	CO4