United College of Engineering and Research, Prayagraj

B.Tech. [6th Semester (CS & IT)]

Computer Networks (CN) - Unit 2 Question bank

Very Short Questions	
1	What are header and trailers? How do they get added and removed?(2018-2019)
2	What is piggybacking? (2017-2018)(2016-2017)
3	Measurement of slotted ALOHA with infinite number of users show that 10 percent of slots are idle a. What is the Channel load? b. What is the throughput? (2017-2018)(2015-2016)
4	Compare ALOHA with Slotted ALOHA.(2016-2017)
5	State the requirement of CRC.(2016-2017)
Short Questions	
1.	A pure ALOHA network transmits 200-bit frames on a shared channel of 200 kbps. What is the throughput if the system (all stations together) produces a. 1000 frames per second b. 500 frames per second c. 250 frames per second (2018-2019)(2014-2015)
2	Discuss the issues of Data Link Layer and about its protocol on the basis of layering principle.(2017-2018)(2016-2017)
3	A channel has a bit rate of 20 kbps . The stop and wait protocol with the frame size 4500 bits is used. The delay for error detection and sending ACK by the receiver is 0.25 seconds because of a fault. Find the maximum efficiency of the channel if the destination is 30000 km away and the speed of the propogation of the signal is **$2 * 10^8$** m/s. Find the decrease in efficiency due to fault.(2018-2019)
4	Discuss different carrier sense protocols. How they are different from collision protocols.(2017-2018)
5	Consider the use of 10 K-bit size frames on a 10 Mbps satellite channel with 270 ms delay. What is the link utilization for stop-and-wait ARQ technique assuming $P=10^{-3}$?(2016-2017)
6	Given a 10 bit sequence 1010011110 and divisor 1011. Find CRC.(2014-2015)
Long Questions	
1	What is Hamming Code? Explain its working.(2015-2016).
2	Write short notes on Stop and wait protocol,Go Back NARQ and Seletive Repeat ARQ .(2017-2018)(2014-2015) .(2016-2017)