

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT
TEST -1 EXAMINATION- September-2019
M.Tech./VII Semester

COURSE CODE: 10M11CI112

MAX. MARKS:15

COURSE NAME: Advance Computer Network

COURSE CREDITS: 03

MAX. TIME: One Hours

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.

1. Why it is necessary to have layering in a network? [2]
2. In a digital transmission NRZ scheme is used, assume sender send 64 bit long pattern of '1'. If receiver clock is 12.5% slower than sender's clock then how many '1' are received at receiver. How we can solve this problem? [2+1]
3. Compare centralized and distributed approaches to solve the problem of shared media. [2]
4. In a CSMA/CD protocol is used with minimum frame size is 128 Byte, at the speed of 1 Gbps calculate the size of network (wire length). [3]
5. A and B are the only two stations on Ethernet. Each has frames to send. Both A and B attempts to transmit a frame, collide and A wins first back off race. After successful transmission of A, again A and B attempts to transmit a frame, collide again and A wins second back off race. After this successful transmission by A, both A and B attempt to transmit and collide. What is the contention window of A and B. Also find the winning probability of A and B in the third back off race. [3]
6. Explain Hidden and exposed terminal problem in wireless network. [2]