MGM's College of Engineering and Technology NOIDA
Departments of CS
Subject Name: COMPUTER-NETWORK
Subject Code: RCS601
Assignment 2

Q1. Write short notes on following :
   i.   Stop ans Wait ARQ
   ii.   Sliding Window Protocol
   iii.   Go Back N ARQ

Q2. A Slotted ALOHA network transmits 200-bit frames on a shared channel of 200 kbps. What is the throughput if the system(all stations together) produces -
   (i) 1000 frames per second
   (ii) 500 frames per second
   (iii) 250 frames per second

Explain ARQ Error Control technique, in brief.

Q3. How can you compare pure Aloha and slotted Aloha ?

Q4. What is Piggybacking?

Q5. What do you mean by Channel Allocation Problem? What are the various approaches to rectify that problem?

Q6. A slotted ALOHA network transmits 200 bit frames using a shred channel with a 200 Kbps bandwidth.

Find the throughput of the system (all stations put together) produces 250 frames per second :
   (i) 49
   (ii) 368
   (iii) 149
   (iv) 151

Q7. A large FDDI ring has 100 stations and a token rotation time of 40 msec. The token holding time is 10 msec. What is the maximum achievable efficiency of the ring?

Q8. Illustrate the performance issues for GO-BACK-N data link protocol.

Q9. Discuss the issues in the data link layer and about its protocol on the basis of layering principle.

Q10. Brief about how line coding implemented in FDDI and describe its format.

Q11. An FDDI ring may contain 500 stations and 100km of fiber optic cable. Suppose that each station grabs the token and transmits a 1000 byte frame.
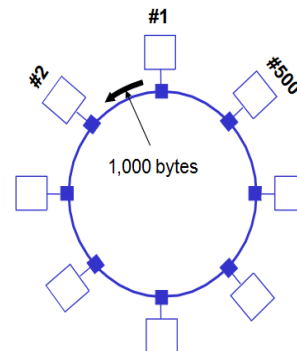
What will be the time for the token to come back to node #1.

Q12. What are the various Error Detection techniques?