NSS COLLEGE OF ENGINEERING, PALAKKAD

Govt. Aided College Affiliated to APJ Abdul Kalam Technological University Approved by AICTE

Department of Computer Science & Engineering

CST 303 COMPUTER NETWORKS (FIFTH SEMESTER) (AY:2023-24)

TUTORIAL 1 SCHEME

(Answer ALL Questions)

MODULE 1

Time: 1 Hr

1. Describe the network hardware

   Ans: PAN,LAN,MAN,WAN and Internetwork

2. Discuss the design issues of layered architecture

   Ans:Error control, flow control, naming, addressing, routing, QoS

3. Compute the propagation time and the transmission time for a 25-MB (megabyte) message (an image) if the bandwidth of the network is 5 Mbps? Assume that the distance between the sender and the receiver is 15,000 km and that light travels at 2.4×10^8 m/s.

   Ans: Propagation Time= $15000*1000/2.4 \times 10^8$=0.06 sec

   Transmission Time= $25*10^6*8/ 5*10^6$=40s

4. Perform the following line coding methods on the data **101011100011**

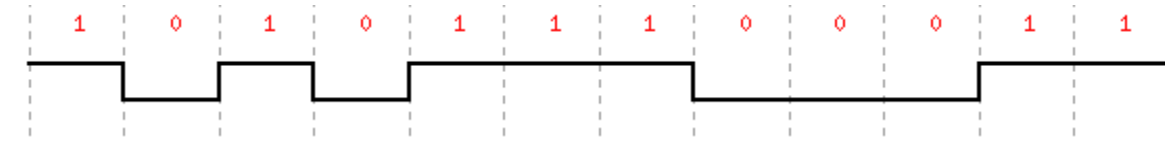
   1.Unipolar 2.NRZ-L 3. NRZ-I 4. RZ 5. Manchester

   Ans:

Unipolar

Wherever one comes positive voltage and when zero comes zero voltage

NRZ-L



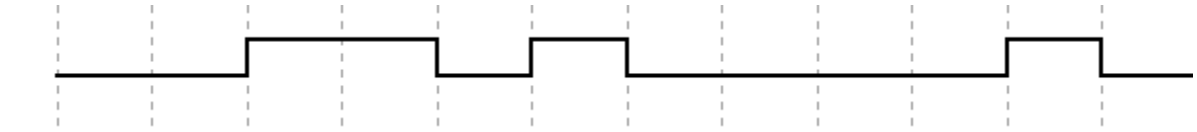
RZ

Whenever one comes transition from positive voltage level to zero voltage at the middle of the bit interval and retain in zero till the completion of the bit interval.

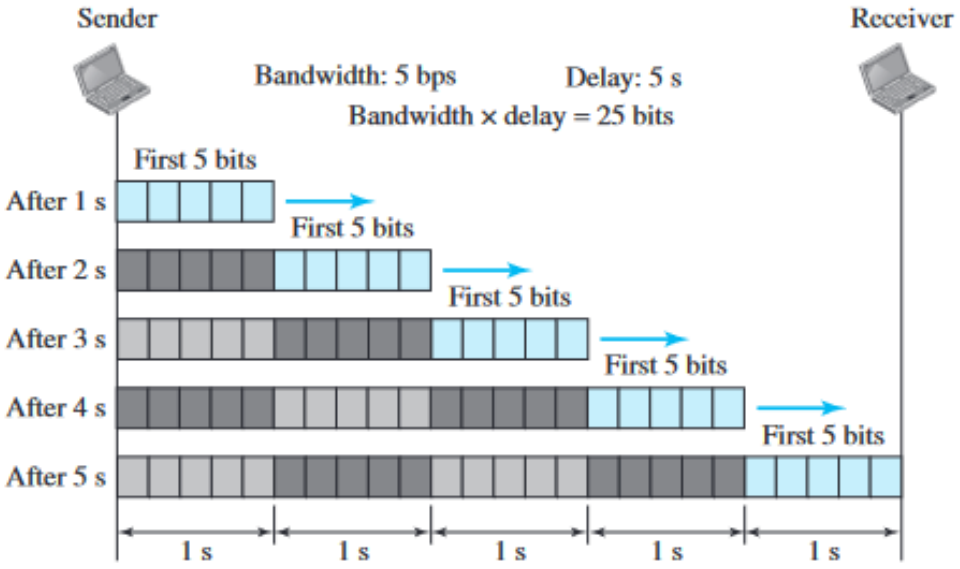
Whenever zero comes transition from negative voltage level to zero voltage at the middle of the bit interval and retain in zero till the completion of the bit interval

Manchester

NRZ-I



5. Define Bandwidth-Delay Product with an example
Ans:



Qst.No	1	2
COs	CO:1	CO:1
POs	PO1, PSO2	PO1, PSO2

Course Coordinator | Module Coordinator | Scrutiny Committee Chairman & HOD