|  |  |  |
| --- | --- | --- |
| Encoding | 0 bit | 1 bit |
| Unipolar NRZ | zero voltage | positive voltage |
| NRZ - L | positive | negative |
| NRZ - I | No transition  start -positive | Transition  start - negative |
| Manchester | positive to negative | Negative to positive |
| Differentital Mancher | Transition  start – low to high | No Transition  start – high to low |
| AMI | zero voltage | Alternate  start - positive |
| Pesudoterrary | Alternate  start - positive | zero voltage |

MLT-3

current level = o voltage

current non zero = negative

|  |  |  |
| --- | --- | --- |
| current level = any  next bit = 0 | current level = positive or negative  next bit = 1 | current level = zero voltage  next bit = 1 |
| zero voltage | zero voltage | Opposite of last non zero voltage |

2B1Q

|  |  |  |
| --- | --- | --- |
|  | if previous level positive | if previous level negative |
|  |  |  |
| 00 | +1 | -1 |
| 01 | +3 | -3 |
| 10 | -1 | +1 |
| 11 | -3 | +3 |

B8ZS

* 000VB0VB
* v = same as last non zero
* b = opposite of last non zero
* 0 = zero voltage
* 1 = alternate

HDB3

* Odd = 000V
* even = B00V based on number of non zero

1. What is protocol ?
2. What are the types of line configuration ?
3. Difference between point to point vs multipoint ?
4. What is peer to peer network?
5. What are the criteria of efficient network ?
6. Answer the following question for Mesh , Ring , Star , Bus Topology
   1. Definition
   2. Number of cable link
   3. Number of port on each device
   4. What if connection fails
   5. What if unplug a station
7. Difference between LAN vs WAN ?
8. Difference between Intranets vs Extranets ?
9. What are the four characteristic of Reliable network ?
10. What are the requirements of network protocol ?
11. What are the agreements of network protocol ?
12. What are the functions of network protocol ?
13. What is protocol suite ?
14. What are the layers of OSI ?
15. What are the layer of TCP/IP ?
16. What are the benefits of layered model?
17. What is transport layer ?
18. What is multicasting ?
19. What are the element of Protocol Data Unit?
20. What are the function/concern of physical layer ?
21. What are function of data layer?
22. What are function of network layer ?
23. What are function of transport ?
24. What are function of application layer?
25. What are function of session layer ?
26. What are function of presentation layer ?
27. What are the adressing level ?
28. Difference between physical, logical and port address?
29. What is encryption ?