SRINIX COLLEGE OF ENGINEERING, BALASORE

DEPARTMENT OF
COMPUTER SCIENCE & ENGINEERING

ASSIGNMENT ON

DATA COMMUNICATION

DATA COMMUNICATION

Assignment-I

1. What is meant by Data Communication and explain its characteristics?
2. What are the components of Data communication?
3. Explain different Data flow directions.
4. Write about different types of connections.
5. Explain different types of topologies.
6. Explain different types of Networks.
7. Write about Protocol and Standards.
8. Explain different layers in OSI Model.
9. Explain the layers of TCP/IP model.
10. Write about Digital Signals.

Assignment-II

1. Write about Composite Signals.
2. Different methods for Digital signal transmission.
3. Write about different transmission modes.
4. Explain Different Digital to Analog Conversion Techniques.
5. Explain Analog to Analog Conversion Techniques.
6. What is Multiplexing and Explain different types of Multiplexing
7. Write about Frequency Division Multiplexing.
8. Write about Wavelength Division Multiplexing.
9. Write about Time Division Multiplexing

Assignment-III

1. What are the different spread spectrum techniques.
2. What is transmission medium? What are the different types of transmission medium?
3. Write about Guided medium?
4. Write about Unguided medium?
5. Write about Block Coding and explain how the errors are detected and corrected using Block coding?
6. What is Switching and What are the different types of Switching Techniques?
7. Write about Circuit Switched Network.
8. Write about Datagram Network.
9. Write about Virtual Circuit Network.
10. What is meant by linear Block Code and explain Simple Parity-Check Code?

Assignment-IV

1. What is cyclic code and explain Cyclic Redundancy Check (CRC) code?
2. Explain different types of errors in data transmission.
3. What is framing and explain different framing algorithms?
4. Write about Flow control and Error Control.
5. Write about Simplest Protocol.
6. Write about Stop and wait protocol.
7. Write about Stop and wait with ARQ protocol.
8. Write about Go-Back-N ARQ protocol.
9. Write about Selective Repeat ARQ protocol.
10. Explain about HDLC Configurations,Transfer Modes and different types of frames.

Assignment-V

1. Explain about Control Fields of HDLC frames.
2. Define random access and list three protocols in this category
3. Write about ALOHA Protocols.
4. Write about CSMA/CD protocol
5. Define controlled access and list three protocols in this category.
6. Write about loop problem in Transparent bridges.
7. Wrtie about Bus Backbone network.
8. Explain about Process-to-Process Delivery
9. Explain about UDP.
10. Write about TCP services.
11. What are the features of TCP?
12. Write about TCP segment?
13. Write about different steps to create a TCP Connection.
14. Write about Flow Control in TCP.
15. Write about Error Control in TCP.
16. Write about Packet Format in SCTP?
17. Write about Error Control in SCTP?