

**IV Semester B.Tech. Examination, Feb./March 2010**  
**DATA COMMUNICATION**

Time : 3 Hours

Max. Marks : 80

**Instructions :** Answer *all* questions in Part A, **6** out of 8 questions in Part B and **3** out of 5 questions in Part C.

*Part A :* Questions from **1** to **8** carry **1** mark and **9** to **14** carry **2** marks *each*.

*Part B :* **Each** question carries **5** marks.

*Part C :* **Each** question carries **10** marks.

PART – A

1. What do you mean by Broadband ?
2. Write the expansion of ARPANET AND IEEE.
3. What is an Ethernet ?
4. What is a frame ?
5. What is piggybacking ?
6. Mention any two connection-oriented networks.
7. Define Bit rate and Baud rate.
8. Define multiplexing.
9. Explain Channel capacity formula.
10. Enumerate any two protocols used in E-Mail application.
11. What is a HTTP server ?
12. What is a network topology ?
13. What is a protocol suite ? Give an example.
14. What is a repeater ?

**P.T.O.**

## PART – B

1. Explain the various functions of different layers in OSI reference model.
2. Explain the following terms: ASK, FSK and PSK.
3. Explain the different types of circuit switches.
4. Explain i) Sliding Window Protocol ii) Piggybacking Technique.
5. What is line encoding? Explain different techniques of it.
6. Explain different approaches to detect data errors.
7. Explain LAN, WAN and MAN.
8. Explain the following terms with a neat diagram
  - i) Frequency
  - ii) Bandwidth
  - iii) Phase

## PART – C

1. What is FDDI? Explain in detail.
  2. What is a bridge? List out the advantages of having bridges.
  3. How is flow control handled in frame relay ?
  4. Explain with frame format IEEE802.3.
  5. Write short notes on :
    - i) SONET/SDH
    - ii) ISDN
    - iii) HDLC
    - iv) IEEE 802.5
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