

FACULTY OF ENGINEERING

B.E. 3/4 (CSE) I Sem. Suppl. Examination

June - 2008

Subject : Data Communications

Time : 3 hours]

[Max. Marks : 75

[Note : Answer *all* questions from Part-A
Answer *five* questions from Part-B.

PART - A (25 marks)

1. What are the functions of physical layer ?
2. Why layering concept is needed in protocol architecture ?
3. Compute the maximum bit rate for a voice channel with signal-to-noise ratio of 30dB.
4. What is meant by bit stuffing ?
5. How a bridge can be used ?
6. Explain second generation of CDMA.
7. What are layer 2 switches ?
8. Write about briefly soft-switch architecture.
9. Explain synchronous TDM.
10. What is meant by line configuration ?

PART-B (5×10=50 marks)

11. Discuss Ethernet and token ring by giving their frame formats. Explain the significance of each field. Differentiate Ethernet and token ring.
12. Write about on error detecting and one error correcting codes. Explain with examples.

13. (a) Give architecture of ATM and explain its logical connections and cells.
(b) Discuss cellular wireless networks of third generation systems.
14. (a) Describe Frame relay.
(b) Elaborate on various methods of multiplexing.
15. (a) Describe IEEE 802.11.
(b) How medium access control is done in wireless LANs?
16. (a) Elaborate on data transmission techniques.
(b) Explain HDLC.
17. Write short notes on :
 - (a) Protocol Architecture.
 - (b) ATM Adaptation layer.
 - (c) LANs. Transmission media.