

III B.Tech I Semester Supplementary Examinations, November 2006

DATA COMMUNICATIONS

**(Common to Computer Science & Engineering, Information Technology
and Computer Science & Systems Engineering)**

Time: 3 hours

Max Marks: 80

**Answer any FIVE Questions
All Questions carry equal marks**

1. (a) Describe the bandwidth relationship of an FSK modulation scheme. [8]
(b) Explain frequency deviation and modulation index for FSK modulation. [8]
2. (a) Give the Block-diagram of multipoint data communications circuit? Briefly explain? [10]
(b) Describe the functions of a line control unit. [6]
3. Explain the different types of error correction methods used in data communication. [16]
4. (a) What is acoustic coupling? [5]
(b) What are the virtues and drawbacks of acoustic coupling for modems? [5]
(c) What is a direct connect modem? How does it work? What are the advantages? [6]
5. (a) What are the basic features of IBM's bisync protocol. [4]
(b) Explain bisync frame format with neat diagram. [4]
(c) Explain how bisync protocol used for point-to-point communication. [8]
6. Compare the features of several codec / filter combo chips. [16]
7. Draw the statistical TDM frame format for
(a) One-source per frame. [6]
(b) Multiple sources per frame and explain in detail about each field. [10]
8. Give two configurations of cluster controllers and explain their operation. What do you understand by fast and polite selection? [16]
