

**III B.Tech II Semester Supplementary Examinations, April/May 2005**  
**DATA COMMUNICATIONS**  
**( Common to Computer Science & Engineering and Information Technology)**

**Time: 3 hours**

**Max Marks: 70**

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

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1. List the differences and similarities of the PSK and QAM modulation schemes
2. (a) Write the definition of different types of transmission modes used in data communication?  
(b) For n devices in a network, how many cable links are required for a star topology? Justify your answer  
(c) If a modem supports several different standards, how does it know which one to use when you connect to another computer over a telephone line?
3. (a) When a party makes a local telephone call to another party, is this a point to-point or multipoint configuration? Explain your answer.  
(b) How can the parity bit detect a damaged data unit?
4. (a) What are the characteristics of a serial interface  
(b) Define Baud rate
5. (a) What is extended addressing? Explain with an example.  
(b) Compare the normal response mode and asynchronous response mode.
6. Explain muldem, digital cross connect. Tabulate the digital signal, bit rate, channel capacities and service offered to various line types.
7. Draw the statistical TDM frame format for overall statistical TDM frame and explain in detail about each field.
8. Discuss the contingencies and throughput of point to point line under Full duplex protocol.

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