

IV B.Tech I Semester Supplementary Examinations, April/May 2005

DATA COMMUNICATIONS

(Electrical & Electronic Engineering)

Time: 3 hours

Max Marks: 80

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

1. With coswct as reference oscillator and +90° phase shift network write the block diagram and constellation diagram.
2. Explain the two categories of serial printers
3. (a) How does CRC (Cyclic Redundancy Code) provide error detection? How is the CRC checksum generated?
(b) What circuitry is used to develop the CRC checksum?
4. (a) How does a current loop of interface differ fundamentally from a voltage interface?
(b) What is a key advantage and disadvantage of a current loop interface compared to a voltage interface?
(c) Is multi drop the same as multiplexer? Explain the similarities and differences.
5. (a) What are the basic features of IBM's bisync protocol.
(b) Explain bisync frame format with neat diagram.
(c) Explain how bisync protocol used for point-to-point communication.
6. Describe FDM and explain with block diagram one application for FDM.
7. (a) What is meant by Data on Voice?
(b) Draw the frequency response of Data Under Voice.
8. Discuss the contingencies and throughput of point to point line under Full duplex protocol.
