2005 JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY

III B.TECH I SEMESTER SUPPLEMENTARY EXAMINATIONS
DATA COMMUNICATIONS
(COMMON TO COMPUTER SCIENCE & ENGINEERING, INFORMATION TECHNOLOGY
AND COMPUTER SCIENCE & SYSTEMS ENGINEERING)

NOVEMBER 2005

TIME – 3 HOUR
MARK – 80

Answer any FIVE Questions
All Questions carry equal marks

1. (a) What are the advantages of QPSK.

(b) Find the probability of error of QPSK.

(c) For different inputs find correlator output .   [4+4+8]

2. What are the disadvantages of ring topology.Explain ring topology.   [16]

3. (a) What is parity checking? How is parity generated?

(b) How is parity used for error detection?

(c) What is the difference between odd and even parity in terms of technical performance?

(d) What are the benefits of parity?   [4*4]

4. What are the benefits of implementing high speed serial interface technology in a network?
                                                                              [16]

5. Explain the link access procedures in HDLC.   [16]

6. (a) Write short notes on frequency corelator.   [16]

(b) Calculate the frequency range at MG,combining network for the following assignment.
GP SG MG
3 13 2
5 D25 3
1 15 1
2 17 2   [8+8]

7. Which one you are saving by using statistical time-division multiplexing and prove it. [16]

8. Give two full duplex protocols and explain their operation?   [16]