CS-501

B. E. (Fifth Semester) EXAMINATION, Dec., 2011

(Computer Science & Engg. Branch)

DATA COMMUNICATION

(CS – 501)

Time : Three Hours

Maximum Marks : 100

Minimum Pass Marks : 35

Note : Attempt *one* question from each Unit. All questions carry equal marks.

Unit – I

1. (a) What is Data Communication ? Define its components. 10

   (b) Define models of data transmission. 10

Or

2. (a) Define Digital Encoding techniques. 10

   (b) Explain serial and parallel transmission. 10

Unit – II

3. (a) Write difference between all switching techniques. 12

   (b) Define frequency hopping spread spectrum. 8

Or

4. (a) Explain X·25 and ISDN. 10

   (b) Compare FDM, TDM and WDM. 10

Unit – III

(a) Define connecting devices in detail.   12

(b) Explain RJ-45.   8

Or

(a) Discuss various topology with merits, demerits and diagram.   15

(b) Explain Null modems.   5

Unit – IV

Explain various guided and unguided media with diagram.

20

Or

(a) Explain VDSL and HDSL.   10

(b) Define the properties of Radio and Electromagnetic waves.   10

Unit – V

(a) Given a 10 bit sequence 1010011110 and a divisor of 1011. Find CRC and check whether there is any error.

10

(b) Define interleaved and convolution code.   10

Or

Discuss various error detection and correction methods.   20