

IT-501

(Fifth Semester) EXAMINATION, Dec. 2011

DATA COMMUNICATION (IT-501)

Time: Three Hours

Maximum Marks: 100

Minimum Pass Marks : 35

Note : Attempt any five questions. All questions carry equal marks.

- 1.(a) Give the difference between Asynchronous and Synchronous Transmission. 10
- (b) Explain the following with examples : 10
 - (i) Simplex
 - (ii) Half-Duplex
 - (iii) Duplex
- 2.(a) Why are line splitters used in Data Communication ? 10
- (b) Explain various digital interface standards.
- 3 (a) Explain the difference among Short-wave modems, Facsimile modems and Fax modems. 10
- (b) What is the role of ISDN as Remote Digital transmission carrier ? 10
- 4.(a) Explain Error Detecting and Error Correcting codes. 10
- (b) Give the 8-bit data word 101101 III, generate the 13-bit composite word for the Hamming code that corrects single errors. 10
- 5.(a) Explain the working of cyclic redundancy check. 10
- (b) Explain the functions of OSI Layers, 10
- 6.(a) Why are protocols used in Data Communication Explain. . 10
- (b) Write difference between polling and selection. 5
- (c) Explain TCP/IP Protocol suite. . 5
- 7.(a) Explain Packet switching. Message switching and Circuit switching with examples. 10
- (b) What are the differences between TCP and UDP 1 5
- (c) Explain Data link layer protocols. 5
8. Write short notes on any four of the following : 20
 - (a) RS-449
 - (b) RS-423A
 - (c) TDM and EDM
 - (d) Data Security
 - (e) Routing