

✓ May-June 2012

Total No. of Questions : 12]

SEAT No. :

P1135

[Total No. of Pages : 2

[4163] - 342

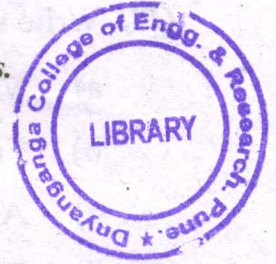
**T.E. (Computer Engg.)
DATA COMMUNICATIONS
(Sem. - I) (2008 Pattern)**

Time : 3 Hours]

[Max. Marks : 100

Instructions to the candidates:

- 1) Answers to the two sections should be written in separate books.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right indicates full marks.
- 4) Assume suitable data, if necessary.



SECTION - I

- Q1)** a) Explain different transmission modes. What is transmission order. [8]
b) What is the difference between bytes, blocks and frames? [4]
c) Explain simplex, duplex and half duplex categories of communication channel. [6]

OR

- Q2)** a) Explain different analog modulation techniques. [8]
b) Explain basic digital communication system. [6]
c) Explain the concepts data rate and bandwidth. [4]
- Q3)** a) Explain in detail what is delta modulation? [8]
b) Encode the following binary stream into RZ, NRZ, AMI and Manchester codes 1 1 0 0 1 0 1 0 [8]

OR

- Q4)** a) Describe in short TDM and FDM techniques along with their suitable example. [8]
b) Justify the statement "Signal received may differ from signal transmitted" [8]
- Q5)** a) How to calculate capacity of system? [2]
b) List and explain different handshaking techniques. [8]
c) How error correction and detection capabilities of block codes are related to minimum distance? [6]

P.T.O

