

Total No. of Questions : 12]

SEAT No. :

NOV- Dec- 2012

P823

[Total No. of Pages : 2

[4263] - 342

T.E. (Computer Engineering)
DATA COMMUNICATION
(2008 Pattern) (Sem. - I) (Theory)

Time : 3 Hours]

[Max. Marks : 100

Instructions to the candidates :

- 1) Solve any three questions from Section-I and three questions from Section-II.
- 2) Answer to the two sections should be written in separate answer books.
- 3) Assume suitable data if necessary
- 4) Neat diagram must be drawn wherever necessary.

SECTION - I

- Q1)** a) Explain WDM and CDMA multiplexing techniques. [8]
b) What is FSK? Explain FSK generation bandwidth of FSK signal and detection of FSK. [10]

OR

- Q2)** a) Compare ASK, PSK, FSK techniques. [10]
b) Calculate maximum bit rate for a channel having bandwidth 1600 Hz if
i) S/N ratio is 0 dB.
ii) S/N ratio is 20 dB. [8]

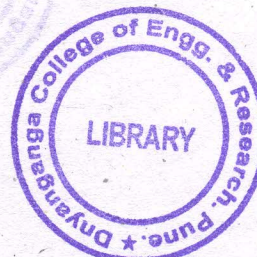
- Q3)** a) Explain with block diagram PCM Encoder and Decoder. [8]
b) Encode the following binary data stream into RZ, NRZ, AMI and Manchester codes. 11001010. [8]

OR

- Q4)** a) Draw a block diagram of DELTA modulation Transmitter and Receiver. Comment on slope overload error. [8]
b) Find Nyquist rate and interval for the signal $10 \sin c(100) t$. [8]

- Q5)** a) List and explain all types of ARQ system. [8]
b) Explain Huffman encoding Algorithm. [8]

OR



P.T.O.

