

III B.Tech I Semester Regular Examinations, Nov/Dec 2009

DATA COMMUNICATION SYSTEMS

Common to Information Technology, Computer Science And Engineering

Time: 3 hours

Max Marks: 80

**Answer any FIVE Questions
All Questions carry equal marks**

1. (a) Explain the classifications of CDMA radiated power?
(b) Describe GSM architecture? [8+8]
2. (a) Describe the Clark orbit?
(b) List and explain the three satellite elevation categories? [8+8]
3. (a) What is Topology? Explain briefly about network Topologies.
(b) Explain the probability of error and bit error rate? [16]
4. Explain SDLC loop operation? [16]
5. (a) What are the characteristics of asynchronous voice-band modems.
(b) Generate the hamming codeword for ASCII character "U" = 1010101. Assume even parity for the hamming code. [8+8]
6. (a) List and describe the types of losses associated with metallic transmission lines.
(b) What is meant by mode of operation and index profile. [8+8]
7. (a) For the following bit sequence, draw the timing diagram for UPRZ, UPNRZ, BPRZ, BPNRZ, and BPRZ-AMI: 1 1 1 0 0 1 0 1 1 0 0.
(b) Explain the relationship between dynamic range, resolution and the number of bits in a PCM code? [8+8]
8. (a) What is meant by line conditioning? What are the types of line conditioning?
(b) Explain the paging systems? [10+6]
