Code No: C6101, C3804, C0603, C7004, C6501
JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M.Tech I - Semester Examinations, March/April-2011
ADVANCED DATA COMMUNICATIONS
(COMMON TO COMMUNICATION SYSTEMS, DIGITAL ELECTRONICS AND COMMUNICATION SYSTEMS, DIGITAL SYSTEMS AND COMPUTER ELECTRONICS, ELECTRONICS AND COMMUNICATION, WIRELESS AND MOBILE COMMUNICATIONS)

Time: 3hours   **Max. Marks: 60**

Answer any five questions
All questions carry equal marks
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1.   Explain the following terms:
        i) Information capacity   ii) Band
        iii) M-ary Coding   iv) Band width efficiency.   [12]

2.   Explain and compare the performance of 8-PSK and 8-QAM systems.   [12]

3. a)   What are the components of data communication system? Explain its function.
   b)   Compare LAN, MAN and WAN categories of Networks.   [12]

4. a)   Explain CRC error detection process with a suitable example.
   b)   Compare the performance of stop and wait and sliding window protocols. [12]

5. a)   Explain the features of X-MODEM, Y-MODEM asynchronous protocols.
   b)   Describe HDLC frame format.   [12]

6. a)   Explain the operation of space division switches.
   b)   Explain the operation of Time Slot Interchange.   [12]

7. a)   What are the drawbacks of synchronous Time Division Multiplexing? How do
        you overcome them?
   b)   What is Inverse Multiplexing? Explain.   [12]

8. a)   Explain the operation of CSMA/CA with the help of a flow chart.
   b)   Write a brief note on CDMA.   [12]

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