

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]
