

Code No: I4504/R16

M. Tech. I Semester Regular Examinations, December-2016

DIGITAL DATA COMMUNICATIONS

Common to SSP (45), DIP (63), CE&SP (46), IP (-), C & SP (80), Microwave and Communication Engg (82), Digital Systems & Computer Electronics (06), DECS (38), ECE (70) and DECE (37), Communication Systems (47), C&CE (49) and C&C (39)

Time: 3 Hours

Max. Marks: 60

*Answer any FIVE Questions
All Questions Carry Equal Marks*

1. a Explain the principle of QAM with the help of a neat diagram. [6]
b What is a constellation diagram? Explain the constellation diagram of 16QAM. [6]
2. a Explain the OSI model for networking in brief. How does it differ from TCP/IP model? [6]
b What are different types of digital data transmission modes? Explain with examples. [6]
3. a With the help of a neat diagram, explain the DTE-DCE interface. [6]
b Explain the various network topologies and compare the performance of each topology. [6]
4. a What are the various types of error correction codes? Explain any one. [6]
b Compare the synchronous and asynchronous data link protocols. [6]
5. a What are the different types of packet switching? Explain. [6]
b Explain the architecture of IEEE 802.6. [6]
6. a What are the different functions of bridges in the network? Explain various types of bridges used in the network. [6]
b Compare the time division and frequency division multiplexing techniques. [6]
7. a Explain the principle of TDMA and derive the expression for efficiency of TDMA. [6]
b What are the demerits in OFDMA? Explain how they can be overcome? [6]
8. a Explain the principle, advantages and applications of CDMA. [6]
b What are the demerits of CDMA? Explain. [6]

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