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

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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   [6]
        model?
    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   [6]
        topology.

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   [6]
        bridges used in the network.
    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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