

Code No: RT41194

R13

Set No. 1

IV B.Tech I Semester Supplementary Examinations, February/March - 2018

DATA COMMUNICATION

(Electronics and Computer Engineering)

Time: 3 hours

Max. Marks: 70

Question paper consists of Part-A and Part-B

Answer ALL sub questions from Part-A

Answer any THREE questions from Part-B

PART-A (22 Marks)

1. a) What is the difference between standard FSK and MSK? What is the advantage of MSK? [4]
- b) What is meant by character synchronization? [4]
- c) Describe the most common Ethernet frame formats? [4]
- d) Describe the frame format of North American FDM hierarchy. [3]
- e) What is the difference between piconet and scatternet? [3]
- f) Describe audio and video compression? [4]

PART-B (3x16 = 48 Marks)

2. a) What is the difference between probability of error and bit error rate? Compare error performance of PSK, QAM, and FSK schemes. [8]
- b) Discuss the relationship between minimum bandwidth required for 16 QAM system and the Bit Rate. [8]
3. a) Compare and contrast RS-232, RS449, RS 530 serial interfaces. [8]
- b) Describe the differences between synchronous modems and asynchronous modems and explain their functioning in detail. [8]
4. a) Discuss the various topologies used in LAN's. [8]
- b) Explain various LAN transmission formats. [8]
5. a) Explain the frame format and operation of T1 carrier system. [8]
- b) Explain TDM with block diagram. [8]
6. a) Describe the architecture of 802.11. [8]
- b) Explain Physical layer of IEEE 802.11 FHSS, 802.11 DSSS, 802.11 infrared. [8]
7. a) Explain the various applications in streaming stored video and audio. [8]
- b) Discuss Jitter, play back buffer, Timestamp with reference to Multimedia. [8]