E B3E071S **Pages: 1**

Reg. No._____ Name:_____

Max. Marks: 100 Duration: 3 Hours

PART A

Answer any two questions.

1. a. Differentiate between synchronous transmission and asynchronous transmission.(5)
    b. Encode the given digital data 10110010 using NRZ-L,NRZ-I,AMI, Manchester and differential Manchester encoding schemes? (5)
    c. What is noise? What are the various types of noise? (5)
2. Describe any three guided media used for data transmission. (15)
3. a. What are the transmission impairments happening in data communication? (10)
    b. Determine the channel capacity of a medium with bandwidth 4kHz and SNR 30 dB. (5)

PART B

Answer any two questions.

4. a. What is multiplexing? Explain FDM,TDM. (10)
    b. List the features of frequency hopping spread spectrum. (5)
5. a. Discuss various schemes used to convert analog data into analog signals. (10)
    b. What is CDMA? Explain. (5)
6. a. Explain the various methods for error detection. (10)
    b. How is Huffman coding done? (5)

PART C

Answer any two questions.

7. a. Compare packet switching and circuit switching. (10)
    b. Explain GSM and GPRS technologies with neat sketches. (10)
8. a. Explain error handling using Hamming codes with necessary example. (10)
    b. Describe about CRC encoding and decoding. (10)
9. a. Explain in detail about Wi-Fi and WiMax. (10)
    b. What are BCH codes and RS codes? Explain. (10)

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