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4458

BOARD DIPLOMA EXAMINATION, (C-14)

MARCH/APRIL-2019

DECE - FOURTH SEMESTER EXAMINATION

DIGITAL COMMUNICATIONS

Time: 3 Hours]

[Max. Marks: 80

PART-A

3x10=30M

Instructions: 1) Answer **all** questions.

2) Each question carries **three** marks.

3) Answer should be brief and straight to the point and shall not exceed five simple sentences.

1. Define information capacity of a channel.
2. Define Bit rate and dynamic range for PCM systems.
3. List any three digital signal Encoding formats.
4. List any three error correction techniques.
5. State the need for Digital Modulation.
6. Compare ASK,FSK and PSK.
7. State the need for multiplexing.
8. State any three advantages of ISDN.
9. Classify different switched Telephone Systems.
10. Define Local loop in telephone system.

PART-B

5x10=50M

- Instructions:* 1) Answer any **five** questions.
2) Each questions carries **ten** marks.
3) Answer should be comprehensive and the crietron for valuation is the content but not the length of the answer.

11. Explain the generation and demodulation of PAM with block diagram.
12. Explain the Delta modulation with block diagram and wave form.
13. Explain the importance of Hamming code in error detection and correction.
14. Explain NRZ and RZ line coding techniques.
15. Explain ASK modulator with the help of block diagram and wave form.
16. Draw and explain BPSK modulator and demodulator with the help of waveforms.
17. Explain frequency Division Multiplexing with the help of waveform.
18. Wrtie a short notes on a) Internet telephone b) VOIP

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