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C14-EC-404

4458

BOARD DIPLOMA EXAMINATION, (C-14)
MARCH/APRIL—2021
DECE - FOURTH SEMESTER EXAMINATION
DIGITAL COMMUNICATIONS

Time : 3 hours]

[Total Marks : 80

PART—A

4×5=20

- Instructions :** (1) Answer *any five* questions.
(2) Each question carries **four** marks.
(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

1. State sampling theorem.
2. List any two advantages and disadvantages of PAM.
3. Define the term bit overhead.
4. Mention different error detection techniques.
- * 5. Explain the difference between bit rate and baud rate.
6. List two advantages and disadvantages of FSK.
7. State the need of multiplexing.
8. Write the differences between fax and data modem.
9. List the types of dialing in telephony.
10. Define local loop in telephone system.

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[Contd...

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PART—B

15×4=60

- Instructions :** (1) Answer *any four* questions.
(2) Each question carries **fifteen** marks.
(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

11. Explain the generation & demodulation of PAM with block diagram.
12. Describe coding & decoding of a PCM signal.
13. Explain the process of synchronous transmission.
14. Explain any two error correction techniques.
15. Explain ASK modulator with block diagram.
16. Draw and explain quadrature amplitude modulation (QAM).
17. Explain Time Division Multiplexing (TDM) with block diagram.
18. State the function of various signals present on a local loop telephone line.

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