



C09-EC-403

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BOARD DIPLOMA EXAMINATION, (C-09)

MARCH/APRIL—2021

DECE - FOURTH SEMESTER EXAMINATION

COMMUNICATION SYSTEMS

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. Explain the difference between bit rate and baud rate.
3. Explain the function of start and stop bits.
4. List three types of multiplexing.
5. Explain concept of CDMA.
6. Write the concept of FAX system.
7. Mention the advantage of ISDN.
8. Define the term radiation resistance.
9. Explain concept of grounding of an antenna.
10. State the need of antenna array.

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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. Describe the coding and decoding of a PCM.
12. Explain quadrature amplitude modulation (QAM).
13. Explain asynchronous digital subscriber line (ADSL) telephone communication.
14. Describe CDMA system.
15. Explain the operation of electronic telephone equipment.
16. Explain the use of FDM in telephones.
17. Draw Yagi-Uda antenna and explain its radiation pattern.
18. Explain the operation of dish antenna system.

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