



C09-EC-403

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**BOARD DIPLOMA EXAMINATION, (C-09)
OCT/NOV—2016
DECE—FOURTH SEMESTER EXAMINATION
COMMUNICATION SYSTEMS**

Time : 3 hours]

[Total Marks : 80

PART—A

3×10=30

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

1. Compare between analog and digital communication techniques.
2. What is the principle of vocoder?
- * 3. What is the principle of error detection using redundancy check?
4. Briefly explain cable modem.
5. What is the concept of spread spectrum communication?
6. Write short notes on signal and noise levels in a telephone system.
7. Compare between in-band and out-of-band signaling systems.
8. State the need for antenna array.

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9. Define antenna gain and directivity.
10. Define radiation resistance.

PART—B

10×5=50

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

11. (a) Explain the function of start and stop bits. 5
(b) Explain the conversion between parallel and serial data. 5
12. Explain the types of digital modulation, ASK, FSK and PSK.
13. Explain CDMA system.
14. Explain frequency-division multiplexing and time-division multiplexing.
15. (a) Explain the features of ISDN. 4
(b) Explain the operation of EPABX. 6
16. Explain the operation of FAX machine with block diagram.
17. (a) Explain the operation of dish antenna system. 7
(b) List the applications of dish in VSAT. 3
18. Explain the constructional features and radiation pattern of Yagi antenna. Mention the applications.
