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CP09–EC–403

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BOARD DIPLOMA EXAMINATION, (C–09)

SEPTEMBER/OCTOBER - 2020

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. State the sampling theorem.

2. State the need of data codes.

3. What is the difference between bit rate and baud rate?

4. What is FDMA?

5. Mention the concept of spread spectrum communication.

6. State the difference between in-band and out-of-band signalling systems.

7. Classify switched telephone systems.

8. Define radiation resistance.

9. State the need of antenna array.

10. List the applications of helical antenna.

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. Explain PAM and PWM with neat sketches.

12. Describe the operation of vocoders.

13. Explain time division multiplexing used in telephony.

14. Explain Code Division Multiple Access (CDMA) system with block diagram.

15. *(a)* Explain the operation of basic telephone equipment.

(b) List the salient features of ISDN.

16. *(a)* Explain the working principle of EPABX.

(b) Briefly explain Internet telephony.

17. *(a)* Explain the operation of log-periodic antenna.

(b) Explain the operation of broadside array.

18. Explain the constructional features and radiation pattern of yagi antenna. List its applications.

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