



C09-EC-604

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**BOARD DIPLOMA EXAMINATION, (C-09)
OCT/NOV—2015
DECE—SIXTH SEMESTER EXAMINATION
ADVANCED 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. Define dominant mode and cutoff frequency related to waveguide.
2. State the basic principle of radar beacons.
3. Write the applications of reflex klystron.
4. Draw the block diagram of fixed microwave link.
5. List the Indian communication satellites.
6. State the function of telemetry, tracking and control subsystem.
7. Define numerical aperture and dispersion.

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1

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8. Compare between repeater and optical amplifiers.
9. Mention the significance of handoff features.
10. Write the basic concepts of CDMA systems used in mobile communication.

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. Draw the block diagram of a pulsed radar system and explain the function of each block. 10
12. Explain the working of magnetron oscillator. 10
13. Draw the block diagram of earth station and explain the function of each block. 10
14. Draw the block diagram of communication satellite and explain the power subsystem. 10
15. Explain the operation of PIN diode used as detector in optical fibre communication. 10
16. Explain the basic fibre optic communication system with block diagram. 10
17. Explain the concepts of digital cellular mobile system. 10
18. Explain about (a) AMPS system and (b) Iridium system. 5+5=10
