



C09-EC-604

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**BOARD DIPLOMA EXAMINATION, (C-09)
MARCH/APRIL—2017
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 cut-off frequency related to waveguide.
2. State the need for E-plane and H-plane tee.
- * 3. Mention the applications of reflex klystron.
4. State the function of microwave link.
5. Define apogee and perigee.
6. List the applications of satellites.
7. Define total internal reflection.
8. List the different splices.

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9. Write the ^{*}significance of handoff.
10. List the radio characteristics of GSM.

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) Describe the working of magnetron. 8
(b) Write the applications of magnetron. 2
12. Explain the working of duplexer with a diagram.
13. Draw the block diagram of communication satellites and explain the function of each block.
14. Explain the transponder in satellites and list the frequency bands used.
15. Explain the operation of LED used in optical fibre communication.
16. Explain the principle of DWDM with block diagram.
- * 17. (a) Describe basic digital cellular system operation. 5
(b) Explain about AMPS. 5
18. (a) Explain CDMA system used in mobile communication. 5
(b) Explain the concept of EDGE technology. 5
