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C09–EC–**604**

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BOARD DIPLOMA EXAMINATION, (C–09)

MARCH/APRIL—2016

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. State the basic principle of radar.

2. Write the applications of magnetron.

3. Mention various modes of operation of waveguides.

4. Draw the block diagram of fixed microwave link.

5. List the Indian communication satellites.

6. Define the terms *(a)* apogee and *(b)* perigee.

7. What is 'Total Internal Reflection'?

8. List the advantages of optical fibres in communication.

9. Write briefly on power control in CDMA.

10. Mention the main functions of intelligent network.

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.

12. Explain the operation of a magic tee.

13. *(a)* Explain communication subsystem.

(b) Explain attitude control subsystem.

14. Explain the principle of geostationary satellite.

15. Explain the principle of DWDM with block diagram.

16. Explain ethernet on fibre and gigabit ethernet.

17. Explain about global star system and IRIDIUM system. 5+5

18. List the radio characteristics of GSM and write about security aspects of GSM. 5+5

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