



C09-EC-604

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**BOARD DIPLOMA EXAMINATION, (C-09)
MARCH/APRIL—2018
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. Mention the performance factors affecting radar range.
2. What are the applications of radar?
3. State the function of duplexer in radar system.
4. Define apogee and perigee.
5. Distinguish between active and passive satellites.
6. List the Indian communication satellites.
7. List different types of optical cables.

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8. Define wavelength division multiplexing.
9. What are security aspects for GSM?
10. Write about cellular concept.

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 working of reflex klystron. 8
(b) Write the applications of reflex klystron. 2
12. Draw the block diagram of pulsed radar system and explain the function of each block.
13. What is a microwave link? Explain the fixed microwave link with a block diagram.
14. (a) Explain communication subsystem. 5
(b) Explain attitude control subsystem. 5
15. Explain the operation of PIN diode used as detector in optical fibre communication.
16. Explain the basic fibre optic communication system with a block diagram.
17. Explain the frequency reuse and hand off in cellular system.
18. (a) Explain intelligent network concept.
(b) Explain DECT.
