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C14-EC-501

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BOARD DIPLOMA EXAMINATION, (C-14)
OCT/NOV—2018
DECE—FIFTH SEMESTER EXAMINATION
ADVANCED COMMUNICATION

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 applications of micro-strip antenna.
2. Define characteristic impedance.
3. List different types of indicators used in radar.
4. What is a microwave link?
5. List the limitations of a CW Radar.
6. What is meant by a lossless transmission line.
7. Define E-plane Tee and H-plane Tee.
8. Mention the applications of Gunn diode.

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9. List the various bands in microwave frequency range.
10. Mention the disadvantages of geostationary satellites.

PART—B

10×5=50

Instructions : (1) Answer *any five* questions.

(2) Each question carries **ten** marks.

(3) The answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

11. Explain the use of microwave bends, corners and twists used for waveguides with figs.
12. Draw the block diagram of earth station and explain the operation.
13. (a) State the tunnelling phenomena.
(b) Explain the operation of tunnel diode.
14. Explain the operation of reflex klystron oscillator with diagram.
15. Draw the block diagram of pulsed radar system and explain its operation.
16. Explain the terms azimuth, elevation, apogee and perigee with reference to satellites.
17. Explain the operation of MTI Radar with block diagram.
18. What is the need for impedance matching? Explain the technique of impedance matching using quarter wave line.
