

Roll No.

Printed Pages : 2

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BT-5 / D-19

ANTENNA AND WAVE PROPAGATION

Paper-ECE- 301-E Opt. (2)

Time allowed : 3 hours]

[Maximum marks : 100

Note :- Attempt any five questions by selecting at least one question from each unit.

Unit-I

- 1. Find the expression of radiated field from a short dipole. Also find the radiation resistance of short dipole. 20
- 2. Write short note on:
 - (a) Radiation resistance
 - (b) Beam width
 - (c) Effective height of antenna 20

Unit-II

- 3. (a) Find the radiation pattern of four element antenna array using principle of pattern multiplication.
 - (b) Find the expression of radiated fields due to two point sources separated by distance d. 20
- 4. Write short note on:
 - (a) Biconical antenna
 - (b) Helical antenna
 - (c) Yagi-Uda Antenna 20

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Unit-III

- 5. For what purpose we are using Broad band antenna. With construction details explain Log periodic antenna. 20
- 6. Write short note on: 20
 - (a) Pyramidal Antenna
 - (b) Lens antenna
 - (c) Reflector antenna

Unit-IV

- 7. Find the expression of electric field at distance d from the transmitter in terms of height of transmitter, height of receiver and wavelength of signal used for space wave propagation. http://www.kuonline.in 20
- 8. Write short note on: 20
 - (a) Critical frequency
 - (b) MUF
 - (c) Skip distance
 - (d) Virtual height

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