

Code: 9A04503

B.Tech III Year I Semester (R09) Supplementary Examinations June 2017

ANTENNAS & WAVE PROPAGATION

(Electronics & Communication Engineering)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions
All questions carry equal marks

- 1 Discuss about the following antenna parameters:
 - (a) Beam area.
 - (b) Radiation intensity.
 - (c) Directivity.
 - (d) Antenna aperture.
- 2 Derive the expression for the far field component of a half wave dipole antenna.
- 3 Write short notes on the following:
 - (a) End fire array.
 - (b) Broadside array.
- 4 Explain about practical design consideration for monofilar helical antenna.
- 5 Explain the special features, advantages and limitations of microstrip antenna.
- 6 Explain the geometry of non-metallic dielectric lens antenna and write down its applications.
- 7 Describe tropospheric propagation and explain how ducts can be used for microwave propagation.
- 8 Discuss about refraction and reflection of sky waves by ionosphere.
