

C.U.SHAH UNIVERSITY

Summer Examination-2017

Subject Name: Antennas & Wave Propagation

Subject Code: 4TE06AWP1

Branch: B.Tech (EC)

Semester: 6

Date: 13/04/2017

Time: 02:30 To 05:30

Marks :70

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
 - (2) Instructions written on main answer book are strictly to be obeyed.
 - (3) Draw neat diagrams and figures (if necessary) at right places.
 - (4) Assume suitable data if needed.
-

- Q-1 Define the following terms: (14)**
- a) Antenna.
 - b) Field pattern.
 - c) Major lobe.
 - d) Radiation Intensity.
 - e) Back lobe.
 - f) Directive gain.
 - g) Front to back ratio.
 - h) Antenna beam width.
 - i) Polarization.
 - j) Effective aperture.
 - k) Beam solid angle.
 - l) Antenna beam efficiency.
 - m) Resolution of antenna.
 - n) Radiation Resistance.

Attempt any four questions from Q-2 to Q-8

- Q-2 Attempt all questions (14)**
- (a) Explain radiation from an oscillating dipole
 - (b) What is Directivity? Derive the expression for directivity.
- Q-3 Attempt all questions (14)**
- (a) Explain the hertzian dipole
 - (b) Explain briefly a short dipole and monopole.
- Q-4 Attempt all questions (14)**
- (a) Explain Reciprocity theorem
 - (b) What is power gain? Derive the relation between power gain and radiation



