Enrolment No:

KADI SARVA VISHWAVIDYALAYA UNIVERSITY
LDRP INSTITUTE OF TECHNOLOGY AND RESEARCH, GANDHINAGAR
DEPARTMENT OF ELECTRONICS AND COMMUNICATION
B.E.6th SEMESTER
MID SEMESTER EXAMINATION FEB/MAR - 2015

Subject Code: EC-602 **Branch: EC**
Subject Name: Antenna and Wave Propagation **Total Marks: 30**
Date: 28 /02/2015 **Time: 10.00 AM to 11.30 AM**

Instructions: - All questions are compulsory.
- Figures to the right indicate full marks.
- Make suitable assumption, wherever necessary.

Que. 1 A) **Define :** **(2)**
1. First Null Beam Width 2. Radiation density

B) Explain radio communication link between transmitting and receiving antenna. **(4)**

Que. 2 **Answer the following questions.**

A) Derive the expression of directivity of an antenna. **(6)**
B) Explain radiation regions of an antenna with diagrams. **(6)**

OR

A) Derive the expression for radiation resistance of loop antenna. **(6)**
B) Mention the types of antenna. Explain any two. **(3)**
C) Compare dipole and small loop antenna. **(3)**

Que. 3 **Answer the following questions.**

A) Explain the case of array of two isotropic point sources with equal amplitude and same phase. **(6)**
B) Explain broadside array and endfire array in details. **(6)**

OR

A) Explain principle of pattern multiplication with example. **(6)**
B) Explain the geometry of helical antenna. Also enlist modes of radiation of helical antenna. **(6)**

*****All The Best*****