GUJARAT TECHNOLOGICAL UNIVERSITY
ME – SEMESTER – II (New)– EXAMINATION – WINTER-2019

Subject Code: 3720512   **Date: 18-11-2019**

Subject Name: Antennas and Radiating Systems

Time: 02:30 PM TO 05:00 PM   **Total Marks: 70**

Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	Define following terms: 1) HPBW 2) Antenna radiation pattern 3) Radiation density 4) Beam solid angle 5) Directivity 6) Friss transmission 7) Antenna apertures	**07**
	(b)	Explain importance of reciprocity theorem for antenna application.	**07**
Q.2	**(a)**	Explain Uniform Amplitude and Spacing for N Element Linear Array analysis.	**07**
	(b)	Write note on Horn antenna	**07**

OR

	(b)	Explain Parabolic Reflector Geometry with various feed types .	**07**
Q.3	**(a)**	Write note on Linear broadside array with Non uniform Amplitude Distribution.	**07**
	(b)	Write note on Phased arrays with application.	**07**
Q.3	**(a)**	Write note on Characteristics of Microstrip antenna.	**07**
	(b)	Explain any one antenna synthesis method.	**07**
Q.4	**(a)**	Write note on any one antenna optimization technique.	**07**
	(b)	Explain method of moment and it's application for wire antenna.	**07**

OR

Q.4	**(a)**	What is importance of Fuzzy logic in modern communication	**07**
	(b)	Write note on Electromagnetic Hazards.	**07**
Q.5	**(a)**	Explain Smart antenna for wireless communication.	**07**
	(b)	Write note on Turnstile antennas with their application.	**07**

OR

Q.5	**(a)**	Write note on Different modes of Radio wave propagation.	**07**
	(b)	Write note on Finite Difference Time Domain methods.	**07**

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