C.U.SHAH UNIVERSITY Summer Examination-2018

Subject Name : Antennas & Wave Propagation

	Subject	Code : 4TI	E06AWP1	Branch: B.Tech	(EC)		
	Semester	r:6	Date : 22/10/2018	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		Attempt	the following questions	:			(14)
	 a) b) c) d) e) f) g) h) i) j) k) l) m) n) 	What is R Define Ga What is y What is A What is S Give valu Define Ba Define: A Define: A What is n What is n What is A What doe Can static	-	n Antenna? onna bandwidth? ? dance of free space. tenna. on.	antenna?		
		-	ons from Q-2 to Q-8				(14)
Q-2	(a)	Sketch	all questions the helical geometry rence, spacing, turn lengt	with its associated h and pitch angle of helix.		showing	(14) 07
	(b)	Write a sl	nort note on (a) Binomial	Array (b) Phased array			07
Q-3	(a)	In far fiel	all questions d, for a small loop anten d radiation resistance equ	na derive field equations.	Also derive	radiated	(14) 09
	(b)	1	gram of Microstrip Patch			Dage 1 of	05



Q-4		Attempt all questions	(14)
	(a)	Explain different feeding methods in Microstrip patch antenna	07
	(b)	Explain Babinet's principle of slot antenna.	07
Q-5		Attempt all questions	(14)
	(a)	Describe Various types of horn used at microwave frequency.	07
	(b)	Explain Reflector Lens Antenna.	07
Q-6		Attempt all questions	(14)
	(a)	Write the equation of Scalar potential and vector potential for short dipole. Derive the equation of electric field components and magnetic field components.	07
	(b)	Explain the types of antenna measurements.	07
Q-7		Attempt all questions	(14)
	(a)	Describe Rician Fading.	07
	(b)	Draw diagram of log-periodic antenna	07
Q-8		Attempt all questions	(14)
	(a)	Describe Ground Wave Propagation	07
	(b)	Explain different layers of ionosphere.	07

