Reg. No. : | | | | | | | | | | |

Question Paper Code: 91Q02

M.E. DEGREE EXAMINATION, NOV 2019

First Semester

Communication Systems

19PCM102 - ANTENNAS RADIATING SYSTEMS

(Regulation 2019)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions

PART - A (5 x 20 = 100 Marks)

1.	(a)	The procedure to find the electric field and magnetic fields generated by an electric current source J and a magnetic current source M.	CO1- U	(20)
		Or		
	(b)	What is the need for a Balun and explain types of Balun used for matching the antenna?	CO1- U	(20)
2.	(a)	Discuss the different types of feed system for Parabolic reflectors.	CO2- U	(20)
		Or		
	(b)	Explain the principle of operation of Horn antenna .How this antenna is feed and what are its applications.	CO2- U	(20)
3.	(a)	Derive the equation of N-element linear array factor with Uniform amplitude and out of phase signals.	CO3- U	(20)
		Or		
	(b)	Derive the equation of N-element linear array factor with Uniform amplitude and equal phasing	CO3- U	(20)
4.	(a)	Briefly explain various Excitation techniques of patch antennas.	CO4- U	(20)
		Or		
	(b)	Explain the transmission line model and discuss the design procedure for rectangular patch.	CO4- U	(20)

5.	(a)	Discuss in details about near field and far field method of antenna test range design.	CO5- U	(20)
		Or		
	(b)	Explain different types of impedance measurement techniques.	CO5- U	(20)