

CMR INSTITUTE OF TECHNOLOGY

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Internal Assesment Test - II

			Interna	l Assesment Te	st - 11	and control of the second seco		1.01	700	
Sub:	Electric Circuit Analysis Code:									
Date:	15/10/2018	Duration:			50	Sem: 3	Branc	h: EE	EA	
Answer Any FIVE FULL Questions										
								Marks	OBI	RBT
						8 U				
1 Us	se superposition	theorem to	find Ix of	the network sl	nown ir	n figl.		[10]	CO3	L4
	2017	× 5A	22~	2 Fx						
			Fig1.							1.4
2 F	ind current I usin	g Norton's th	eorem sho	own in fig2.				[10]	CO3	L4
47	6		G a							
•	IA (317	X 5 2 ~~	222	15	2				
			2n Fig	2				0		
10										
3 F	Find Thevenin's e	equivalent cir	cuit across	s the terminal A	A-B of t	he network sh	own in	[10]	CO3	L4
	0.01	V ₁	Fic	20n 100	V	o A VI = B		5		

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4	Verify Reciprocity theorem for the circuit shown in fig4.	[10]	CO3	L3
4	Verity Reciprocity theorem for the circuit shown in fig4.	[10]		
	50/30 (N) \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\			
	Fig 4.			
5a	Show that resonant frequency is the geometric mean of two half power frequencies of a series resonant circuit.	[4]	. CO4	L3
	a series resonant circuit.			
5b	A RLC series circuit has R=1Ω, L=100mH, C=10μF. If a voltage of 100V is applied	[6]	CO2	Ĺ3
	across the circuit, determine resonant frequency, Q-factor, half power frequencies.			TO SHEET THE SHEET
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			THE REAL PROPERTY AND ADDRESS OF THE PROPERTY ADDRESS OF THE PROPERTY AND ADDRESS OF THE PROPERTY ADDRESS OF THE PROPERTY AND ADDRESS OF THE PROPERTY ADDR	Maria 11 (100)
6	Derive the expression for parallel resonance when RL is parallel to RC. Also show	[10]	CO2	L3
	that the circuit will resonate at all frequencies if $R_L = R_C = \sqrt{(L/C)}$.			disconnection and the state of
	Determine R_L and R_C that causes the circuit to be resonating at all frequencies shown in fig6.			
12 (N)		10	9	
	RL 5mH	-		
		% 84		44
	Re 20MF			
		7		A CONTRACTOR OF THE CONTRACTOR
	Fig 6.			
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