

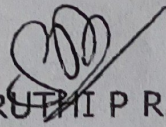
**CONTINUOUS INTERNAL EVALUATION - 2**

Dept: ECE	Sem / Div: VI	Sub: Microwave and Antennas	S Code: 18EC63
Date: 16/06/22	Time: 9:30-11:00 am	Max Marks: 50	Elective: N

Note: Answer any 2 full questions, choosing one full question from each part.

QN	Questions	Marks	RBT	CO's
<b>PART A</b>				
1 a	With a neat diagram explain precision type variable attenuator.	9	L2	CO2
b	What is magic Tee? Derive its S matrix.	9	L3	CO2
c	Which are the losses in microstrip line. Explain dielectric losses.	7	L2	CO2
<b>OR</b>				
2 a	What is reciprocal device? Write four point comparison among [S], [Y], [Z] matrices.	9	L2	CO2
b	Two transmission lines of characteristic impedance $Z_1$ and $Z_2$ joined at $PP'$ . Express S matrix interms of impedance when each line is matched terminated.	9	L3	CO2
c	Explain coplanar strip lines and shielded strip line.	7	L2	CO2
<b>PART B</b>				
3 a	Explain the different types of coaxial connectors in microwave circuits.	9	L2	CO2
b	Which are the different losses interms of S parameter in microwave network.	9	L2	CO2

	c	In a H plane T junction, compute the power delivered to the loads of 40 ohm and 60 ohm connected to arm 1 and 2 when a 10mW power is delivered to the matched port 3. assume characteristics impedance of line is 50 ohm.	7	L3	CO2
<b>OR</b>					
4	a	Describe ohmic losses and radiation losses in micro strip lines.	9	L2	CO2
	b	With a neat diagram explain rotary precision phase shifter.	9	L2	CO2
	c	A shielded strip line has the following parameters dielectric constant of the insulator $\epsilon_r = 2.56$ strip width: $w = 25$ mils strip thickness: $t = 14$ mils shield depth: $d = 70$ mils	7	L3	CO2

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HOD