CMR INSTITUTE OF TECHNOLOGY

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Internal Test II-OCT 2018

Sub:	EL	ECTRICAL ANI	D ELECTRO	NIC MEASUREME	NTS			Code:	17EE36
Date:	16/10 /2018	Duration:	90 mins	Max Marks:	50	Sem:	III	Branch:	EEE
Note: Answer any FIVE full questions with neat diagram wherever necessary.									

		Marks	OE	BE
		Marks	CO	RBT
1.	Explain the construction and working of 1-phase induction type		CO2	L4
	energymeter. Discuss the varrious adjustments in brief required in energymeter for accurate reading.	[10]		
2a.	Write a short note on Weston type frequency meter.	[5]	CO2	L1
2b.	The number of resolutions per kWh of a 230V,10 A watt-hour meter is 900.On test at		CO2	L3
	halfload, the time taken for 20 revolutions of the disc is found to be69 seconds. Determine the meter error at half load.	[5]		
3.	Explain the construction and operation of 1-phase power meter and derive the torque expression.	[10]	CO2	L4
4.	Write the short note on phase sequence indicator.	[10]	CO2	L1

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Sub:

USN						



17EE36

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Internal Test II-OCT 2018

ELECTRICAL AND ELECTRONIC MEASUREMENTS

Date:	16/10 /2018 Duration: 90 i	mins Max Marks:	50	Sem:	III	Branch	:	EEE	E
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3.	Explain the construction and operation expression.	on of 1-phase power	meter a	nd deriv	e the	torque	[10]	CO2	L4
4.	Write the short note on phase sequence	indicator.					[10]	CO2	L1

5.	With a neat block diagram explain the working of true rms reading voltmeter.	[10]	CO4	L1
6.	With the proper block diagram describe (a)Ramp type DVM,(b)Successive approximation type DVM.	[10]	CO4	L2
7a.	Write a short note on Q-meter.	[5]	CO4	L1
7b.	The self capacitance of a coil is to be measured by Q- meter. The first measurement result is $f1=1.5$ MHz and C1=550pF. The second measurement result is $f2=3$ MHz and new value of tuning capacitor is 110pF. Find the distributed capacitance and the inductance.	[5]	CO4	L3

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5.	With a neat block diagram explain the working of true rms reading voltmeter.	[10]	CO4	L1
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7a.	Write a short note on Q-meter.	[5]	CO4	L1
7b.	The self capacitance of a coil is to be measured by Q- meter. The first measurement result is $f1=1.5$ MHz and C1=550pF. The second measurement result is $f2=3$ MHz and new value of tuning capacitor is 110pF. Find the distributed capacitance and the inductance.	[5]	CO4	L3