

Internal Test II–OCT 2018

Sub:	ELECTRICAL AND ELECTRONIC MEASUREMENTS						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	OBE	
		CO	RBT
1. Explain the construction and working of 1-phase induction type energymeter. Discuss the varrious adjustments in brief required in energymeter for accurate reading.	[10]	CO2	L4
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 halfload, the time taken for 20 revolutions of the disc is found to be 69 seconds. Determine the meter error at half load.	[5]	CO2	L3
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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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 $f_1 = 1.5$ MHz and $C_1 = 550$ pF. The second measurement result is $f_2 = 3$ MHz and new value of tuning capacitor is 110 pF. Find the distributed capacitance and the inductance.	[5]	CO4	L3

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