

IV- SEM ELECT./EE(I&C)/EME/2019(W)/ (New)

EET402/EMT402 ELECTRICAL MEASUREMENT & MEASURING INSTRUMENT

Full Marks: 80

Time : 3 Hours

Answer any FIVE Questions including Q No. 1& 2

Figures in the right hand margin indicates marks

1.	Answer ALL the following. (a) Define precision. (b) What is the difference between indicating type and integrating type instrument? (c) Using which type instrument, both ac and dc quantity can be measured? (d) 'Creeping' is seen in which measuring instrument and state its cause? (e) State two application of megger. (f) What is burden in instrument transformer? (g) What is clamp-on meter ? (h) Classify resistance in terms its value. (i) For what measurement, Schering bridge is used ? (j) What is synchroscope ?	2x10
2.	Answer any SIX questions. (a) Write short notes on damping arrangement in indicating type of instrument? (b) With a neat diagram explain working of attraction type moving iron instrument. (c) Discuss about LPF electrodynamicometer type wattmeter. (d) Explain measurement of medium resistance by Wheatstone bridge method. (e) State uses of CT & PT. (f) Write a short note on digital voltmeter (DVM). (g) Explain measurement of inductance by Maxwell bridge method.	5x6
3.	Explain the working of single phase induction type energy meter with suitable diagram.	10
4.	Explain the working of a PMMC type measuring instrument with necessary diagram and derive expression for torque.	10
5.	(a) List various method used for measurement of low, medium and high resistance. (b) Explain measurement of capacitance by Schering bridge method?	3 7
6.	(a) What is calibration of instrument? (b) Explain the working principle of single phase dynamometer type wattmeter?	3 7
7.	Write short note of any TWO questions (a) Digital multimeter (b) Working of phase sequence indicator (c) Tachometer (d) Error in dynamometer type wattmeter	5x2