

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE Supplementary Examination –Summer 2024 Course: B. Tech. Branch : Electrical Engineering & Allied Semester : III Subject Code & Name: BTEEC303 Electrical & Electronics Measurements Max Marks: 60 Date: 04/07/2024 Duration: 3 Hr.			
Instructions to the Students: 1. All the questions are compulsory. 2. The level of question/expected answer as per OBE or the Course Outcome (CO) on which the question is based is mentioned in () in front of the question. 3. Use of non-programmable scientific calculators is allowed. 4. Assume suitable data wherever necessary and mention it clearly.			
		(Level/CO)	Marks
Q. 1	Solve Any Two of the following.		12
A)	Define the terms i) Resolution ii) Precision iii) Accuracy	CO1	6
B)	Draw and explain block diagram of generalised instrumentation system.	CO1	6
C)	What is Error? Explain different types of errors?	CO1	6
Q.2	Solve Any Two of the following.		12
A)	Derive the equation for the power measurement in AC circuit.	CO2	6
B)	Describe the construction and working of PMMC instrument.	CO2	6
C)	Draw and explain MI instrument and derive the equation for damping torque.	CO2	6
Q. 3	Solve Any Two of the following.		12
A)	Classify and explain different methods of measuring Low, Medium, and High resistance.	CO3	6
B)	Which bridge is preferred for measurement of unknown inductance having quality factor less than 10 explain in detail?	CO3	6
C)	Which technique is used to find the exact fault location of cables explain in detail?	CO3	6
Q.4	Solve Any Two of the following.		12
A)	Draw and explain block diagram of Cathode Ray Oscilloscope.	CO4	6
B)	Explain the operation of Ramp type DVM with the help of block diagram.	CO4	6

C)	Draw the block diagram of Digital Instrumentation System and compare analog and digital instrument (any 4 points)	CO4	6
Q. 5	Solve Any Two of the following.		12
A)	Explain the construction and working of Linear Variable Differential Transformer (LVDT)?	CO5	6
B)	Explain Strip Chart Recorder?	CO5	6
C)	State temperature measuring instruments explain any one in detail.	CO5	6
	*** End ***		