

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- SEMESTER-III (NEW) EXAMINATION – WINTER 2020****Subject Code:3131706****Date:04/03/2021****Subject Name:Measurement and Instruments****Time:10:30 AM TO 12:30 PM****Total Marks:56****Instructions:**

1. Attempt any FOUR questions out of EIGHT questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

		Marks
Q.1	(a) Discuss about types of ‘resistors’	03
	(b) Write short note of Zero-beat Frequency Meter.	04
	(c) What is full form of ‘PMMC’? Discuss working of PMMC meter with diagram.	07
Q.2	(a) Explain weighted Binary Resistive type DAC	03
	(b) Explain special purpose analog meter	04
	(c) Discuss Whetstone bridge to find out unknown resistance with circuit diagram.	07
Q.3	(a) How a PMMC instrument can be used as a flux meter?	03
	(b) Compare: Accuracy and Precision with example.	04
	(c) With block diagram explain working of Digital Multi-meters.	07
Q.4	(a) Explain Lissajous pattern in oscilloscope in short.	03
	(b) Explain in brief: Wien Bridge to find out unknown frequency.	04
	(c) How electronics timers are working? Explain in detail.	07
Q.5	(a) Explain Current transformers with applications	03
	(b) Explain Function of RS 232C Standard in detail.	04
	(c) Describe how to find unknown inductor value by Maxwell bridge.	07
Q.6	(a) Explain seven segment display.	03
	(b) Draw block Diagram of CRO.	04
	(c) Explain Schering bridge method to measure unknown capacitance.	07
Q.7	(a) Explain Conductive coupling interference with example.	03
	(b) Explain Universal Timer-Counter with its block diagram	04
	(c) Draw and explain Analog to Digital convertor.	07
Q.8	(a) Define power factor.	03
	(b) Give the differences between current transformer and potential transformer.	04
	(c) Explain function generator.	07
