Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

ME - SEMESTER II- EXAMINATION - WINTER - 2016

Subj	ect	Code: 2721108 Date: 17/11/ 2016	
Time	e: 2:	Name: Experimental Techniques and Instrumentations in Automobile Engineering 30 pm to 5:00 pm Total Marks: 70	5
Instru	1. 2.	as: Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a)	Explain devices to measure temperature of air and coolant flow for the engine with neat sketch.	07
	(b)		07
Q.2	(a)	Why Calibration of Fuel pump is required? Write down the procedure for calibrating Inline Fuel pump.	07
	(b)	1 1	07
		OR	
	(b)	Discuss the Calibration of Thermocouples.	07
Q.3	(a) (b)	Derive an expression for gauge factor of a resistance strain gauge. Explain FFT analyzer.	07 07
	()	OR	
Q.3	(a)		07
	(b)	Draw the block diagram of general purpose cathode ray oscilloscope and explain the functions of Horizontal and Vertical positioning controls.	07
Q.4	(a) (b)	Discuss the data acquisition systems for automobile engineering. Discuss the Analog and Digital transducers with suitable examples.	07 07
	()	OR	
Q.4	(a)	Explain the oil pressure warning system.	07
	(b)	Discuss in details about dash board amenities.	07
Q.5	(a)	Write a short note on Printers and displays.	07
	(b)	Discuss in short on Morse test.	07
0.5	()	OR	۰.
Q.5	(a)	Discus I.S Code for Engine testing.	07
	(b)	Explain Endurance Tests and wind tunnel test.	07
