Sea	t No.:	Enrolment No	
		GUJARAT TECHNOLOGICAL UNIVERSITY	
		M. E SEMESTER – II • EXAMINATION – SUMMER • 2014	
Subject code: 1721101 Date: 16-06-201			
	-	Name: Instrumentation and Vehicle Testing	
		2:30 pm - 05:00 pm Total Marks: 70	
Ins		tions:	
		Attempt all questions.  Make suitable assumptions wherever necessary.	
		Figures to the right indicate full marks.	
Q.1	(a) (b)	Discuss factors affecting Selection and Requirement of Measuring instrument List the various devices to measure temperature and pressure of fluid in	07 07
	(D)	automobile. Explain any one device with neat sketch.	U /
Q.2	(a)	Write short note on piezoelectric accelerometer	07
Q. <u>-</u>	(b)	Classify the methods used to measure vibrations and Explain principle of any	07
	, ,	two methods	
	<b>(1)</b>	OR	0.7
	<b>(b)</b>	With neat sketch explain the device used to measure the coolant temperature in automobile engine.	07
0.3	(a)	Write short note on air and musical horn	07
Q.3	(a) (b)	Enlist different warning and alarm instruments used in automobile. Explain	07
	(~)	any one of them with neat sketch	
		OR	
Q.3	(a)	Write short note on oil pressure warning system Enlist major component of Air bag system. Explain each component in brief	07 07
	<b>(b)</b>	with neat sketch	U /
Q.4	(a)	Enlist recording and display devices used in data acquisition system. Explain	07
Ų.Ŧ	(a)	any one device with neat sketch.	U /
	<b>(b)</b>	Explain data acquisition system with neat sketch	07
0.4	( )	OR	0.7
Q.4	(a) (b)	Discuss importance and need of data acquisition system in modern automobile Write short note on laboratory dynamometer testing system for power train	07 07
0.5	, í		
Q.5	(a) (b)	Explain PUC test procedure for diesel vehicle.  Write short note on Road test of an Automobile.	07 07
	(0)	OR	<b>J</b> /
Q.5	(a)	Write short note on EURO standards	07
	<b>(b)</b>	Write short note on Instrumentation required for testing of Engine	<b>07</b>

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