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Seat No.:	Enrolment No.

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

ME - SEMESTER-IV • EXAMINATION- WINTER • 2015

Subje	ect Na : 2:30	ame: Hydraulic & Pneumatic systems in Automoti O PM TO 5:00 PM Total Marks	ve Vehicles
III)ti ti	1. At 2. M	ttempt all questions.  Take suitable assumptions wherever necessary.  The gures to the right indicate full marks.	
Q.1	(a)	Enlist air compressors. Describe with sketch the working of two stage reciprocating air compressor.	07
	<b>(b)</b>	Describe with sketch the working of basic Pneumatic System and components.	07
Q.2	(a)	Describe important properties of hydraulic and pneumatic fluids.	07
	<b>(b)</b>	Describe with sketch the working of Gear type Hydro-Motor.	07
		OR	
	<b>(b)</b>	Describe Ladder diagram.	07
Q.3	(a)	With a schematic diagram explain a hydraulic lift.	07
•	<b>(b)</b>	Describe with sketch the working of pneumatic filter. <b>OR</b>	07
Q.3	(a)	Describe with sketch the Electro pneumatics.	07
	<b>(b)</b>	Explain the function of a two way pneumatic direction control valve.	07
Q.4	(a)	Describe pneumatic system lubricator.	07
ų, i	(b)	Describe with sketch the air motor.	07
	(6)	OR	07
Q.4	(a)	Describe selection criteria for cylinders.	07
Q	(b)	Define actuators and explain construction and working of any one actuator	07
Q.5	(a)	Describe with sketch the vane pump used in a hydraulic system.	07
	<b>(b)</b>	Explain the maintenance of hydraulic system.	07
		OR	
Q.5	(a)	Explain the basic construction and function of a PLC.	07
	<b>(b)</b>	Describe hydro-pneumatic suspension in automotive vehicles.	07