Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY BE- IVth SEMESTER-EXAMINATION - MAY/JUNE- 2012 de: 142302

·		0de: 142302 Date: 25/03	5/2012
_		Jame: Plastics Industrial Hydraulics and Pneumatics 30 am – 01:00 pm Total Mar	ks: 70
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	2.]	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a) (b)	What are the requirements of hydraulic oil? What are the three most common standard reservoir designs? Explain briefly.	07 07
Q.2	(a) (b)	torque rating of a hydraulic motor?	07 07
	(b)	OR What is the function of a flow control valve in hydraulic circuit? Explain about Bleed off circuit with the help of neat sketch.	07
Q.3	(a)	What is the function of a check valve & What are the different types of check valves?	07
	(b)	What is the purpose of a deceleration valve & What improvement made in the adjustable orifice deceleration valve over the tapered plunger design?	07
		OR	
Q.3	(a)	Name three functions of pressure control valve. What is the difference between a pilot operated relief valve and a pilot operated sequence valve?	07
	(b)	What is an accumulator? Explain about different types and Applications.	07
Q.4	(a) (b)	Explain about any one of the servo valve in detail. What are the different parts of the compressor & Explain about the working principle of a compressor? OR	07 07
Q.4	(a)		07
	(b)	What are the applications of pneumatics in plastic processing equipments?	07
Q.5	(a)	Draw the symbols for Reservoir, Pump, Pressure relief valve, Reversible motor, Spool type four-way valve, Pilot operator check valve,	07
	(b)	Double end cylinder. What are advantages and disadvantages of hydraulic systems? OR	07
Q.5	(a)		07
	(b)	State the Pascal's law. What is the principle of hydraulic jack?	07
