

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-III (NEW) EXAMINATION – WINTER 2021****Subject Code:3132305****Date:23-02-2022****Subject Name:Hydraulics & Pneumatics in Plastic Industry****Time:10:30 AM TO 01:00 PM****Total Marks:70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

		Marks
Q.1	(a) Define Pascal's law.	03
	(b) List out each of any four Symbols of Hydraulics and Pneumatics.	04
	(c) Differentiate between Hydraulics and Pneumatics system.	07
Q.2	(a) Write short notes on Packing and Seals	03
	(b) Explain Bernoulli's Principle & its application	04
	(c) Explain construction and working of Radial Piston Pump with neat sketch.	07
	OR	
	(c) Explain construction and working of Gear pump with neat sketch.	07
Q.3	(a) Explain about Gauges used in hydraulic system	03
	(b) Write short notes on Unloading Valves	04
	(c) Explain ideal characteristic requirements for Hydraulic oils	07
	OR	
Q.3	(a) Draw symbols: (1) Double acting (2) Filter (3) Pressure switch	03
	(b) Write short notes on Balanced Valve.	04
	(c) Explain Flow Control Valve & Pressure Control Valve with neat sketches	07
Q.4	(a) Explain sequence valves.	03
	(b) List out Advantages and Disadvantages of Hydraulics.	04
	(c) Write short notes on intercooler & Lubricator	07
	OR	
Q.4	(a) List the different types of Accumulators.	03
	(b) List out Components of Pneumatic System	04
	(c) Explain Single & double stage pressure intensifiers with neat sketch.	07
Q.5	(a) Explain Deceleration Circuit.	03
	(b) Draw symbols (1) temperature gauge (2) check valve (3) Electric motor (4) pressure control valve	04
	(c) Explain briefly about Components of Pneumatic System with neat sketches.	07
	OR	
Q.5	(a) Differentiate between Filter and Strainer	03
	(b) Give classification of check valves	04
	(c) Explain single acting Air compressor in detail with neat sketch	07
