

GUJARAT TECHNOLOGICAL UNIVERSITY**BVOC- SEMESTER– IV EXAMINATION – SUMMER 2023****Subject Code:21140303****Date:28-06-2023****Subject Name: Hydraulics and Pneumatics Systems****Time:10:30 AM TO 12:30 PM****Total Marks:50****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) State the basic components of hydraulic system with its functions	05
	(b) Draw any 5 ISO symbol of hydraulic system	05
Q.2	(a) State and explain physical characteristics of hydraulic fluid.	05
	(b) Explain FRL unit in pneumatic system.	05
OR		
	(b) Difference between hydraulic and pneumatic system.	05
Q.3	(a) Explain all three location of filter with neat sketch?	05
	(b) State the advantages and disadvantage of pneumatic system.	05
OR		
Q.3	(a) State the functions of filter in hydraulic system	05
	(b) Draw pneumatic circuit state the basic component of pneumatic system with function.	05
Q.4	(a) Explain double acting cylinder for hydraulic system with neat sketch?	05
	(b) Explain twin pressure valve with neat sketch.	05
OR		
Q.4	(a) Explain 3/2 direction control valve for hydraulic system.	05
	(b) Explain Vane type pneumatic rotary actuator with neat sketch?	05
Q.5	(a) Explain regenerative circuit with neat sketch.	05
	(b) Explain Maintenance of Hydraulic system.	05
OR		
Q.5	(a) Explain sequential circuit for two pneumatic cylinder	05
	(b) Explain Maintenance of Pneumatic system.	05
