

GUJARAT TECHNOLOGICAL UNIVERSITY

B.VOC- SEMESTER-IV EXAMINATION – SUMMER 2025

Subject Code:21140303

Date:15-05-2025

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) Explain troubleshooting guidelines for pneumatic system.	05
(b) Explain maintenance procedure of hydraulic system.	05
Q.2 (a) Explain meter in circuit for hydraulic system with neat sketch.	05
(b) Explain quick exhaust valves with neat sketch.	05
OR	
(b) Explain air filter used in pneumatic system with neat sketch.	05
Q.3 (a) Write any five applications of hydraulic system.	05
(b) State the basic components of hydraulic system with its functions	05
OR	
Q.3 (a) State and Explain pascal's law with neat sketch.	05
(b) Draw any 5 ISO symbol of hydraulic system.	05
Q.4 (a) Write properties of hydraulic oil and explain any two.	05
(b) State the functions of filter in hydraulic system	05
OR	
Q.4 (a) Explain fire resistant hydraulic oil and write its advantages and disadvantages.	05
(b) Explain 3/2 direction control valves of pneumatic control valve,	05
Q.5 (a) State the advantages and disadvantage of pneumatic system.	05
(b) Explain Vane type pneumatic rotary actuator with neat sketch.	05
OR	
Q.5 (a) Explain construction and working of single cylinder compressor with neat sketch.	05
(b) Draw any five ISO symbol of pneumatic system.	05
