

GUJARAT TECHNOLOGICAL UNIVERSITY

B.VOC- SEMESTER-IV EXAMINATION – WINTER 2024

Subject Code:21140303

Date:26-11-2024

Subject Name: Hydraulics and Pneumatics Systems

Time:02:30 PM TO 04:30 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.
- 5.

	Marks
Q.1 (a) Write any 5 applications of hydraulic system.	05
(b) State the basic components of hydraulic system with its functions	05
Q.2 (a) State and Explain pascal's law with neat sketch.	05
(b) Draw any 5 ISO symbol of hydraulic system.	05
OR	
(b) Explain fire resistant hydraulic oil and write its advantages and disadvantages.	05
Q.3 (a) Write properties of hydraulic oil and explain any two.	05
(b) State the functions of filter in hydraulic system	05
OR	
Q.3 (a) Explain construction and working of single cylinder compressor with neat sketch.	05
(b) Draw any five ISO symbol of pneumatic system.	05
Q.4 (a) Explain air filter used in pneumatic system with neat sketch.	05
(b) State the advantages and disadvantage of pneumatic system.	05
OR	
Q.4 (a) Explain Vane type pneumatic rotary actuator with neat sketch.	05
(b) Explain quick exhaust valves with neat sketch.	05
Q.5 (a) Explain 3/2 direction control valves of pneumatic control valve,	05
(b) Explain troubleshooting guidelines for pneumatic system.	05
OR	
Q.5 (a) Explain meter in circuit for hydraulic system with neat sketch.	05
(b) Explain maintenance procedure of hydraulic system.	05
