

GUJARAT TECHNOLOGICAL UNIVERSITY
DIPLOMA ENGINEERING – SEMESTER – IV EXAMINATION –WINTER - 2018

Subject Code: 3342303**Date: 28-11-2018****Subject Name::HYDRAULIC & PNEUMATIC SYSTEMS****Time: 02:30 PM TO 05:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make Suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Use of programmable & Communication aids are strictly prohibited.
5. Use of only simple calculator is permitted in Mathematics.
6. English version is authentic.

- Q.1** Answer any seven out of ten. **14**
1. Write Pascal's law.
 2. Draw hydraulic symbol of (1) pump (2) filter.
 3. Write two disadvantages of hydraulic system.
 4. Lists components of pneumatic system.
 5. Write type of air compressor.
 6. Lists ideal characteristic of hydraulic oil.
 7. Write type of hydraulic pump.
 8. Write function of hydraulic motor.
 9. Draw hydraulic symbol of (1) motor (2) two way valve.
 10. Lists various accessories of hydraulic system.
- Q.2** (a) Write short note on hydraulic filter. **07**
- OR
- (a) Draw and explain flow control valve. **07**
- (b) Write short note on packing and seals. **07**
- OR
- (b) Draw and explain any one type of pressure control valve. **07**
- Q.3** (a) Draw and explain oil filtration circuit. **07**
- OR
- (a) Draw and explain clamp control circuit. **07**
- (b) Write difference between hydraulic system and pneumatic system. **07**
- OR
- (b) Draw and explain any one type of accumulator. **07**
- Q.4** (a) Explain two way valve of hydraulic system. **07**
- OR
- (a) Explain single stage air compressor. **07**
- (b) Explain working of hydraulic jack with sketch. **07**
- Q.5** (a) Explain Pascal's law with sketch. **07**
- (b) Write advantages of hydraulic system. **07**
