Seat No.: _____ **Enrolment No._____**

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VII (NEW) - EXAMINATION – SUMMER 2018

Subject Code:2171912 Date:01/05/2018

Subject Name:Oil Hydraulics & Pneumatics(Department Elective - I)

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.**

			MARKS
Q.1	**(a)**	Classify basic system of hydraulic.	**03**
	(b)	State the advantages and disadvantages of pneumatic system.	**04**
	(c)	Develop and explain speed control of double acting cylinder.	**07**
Q.2	**(a)**	Discuss pump noise characteristics.	**03**
	(b)	List out rules to eliminate cavitation.	**04**
	(c)	Write short note on axial piston type hydraulic pump.	**07**
		OR	
	(c)	Discuss hydrostatic transmission system with its advantages	**07**
Q.3	**(a)**	What is the requirement of control valves?	**03**
	(b)	Classify pressure control valve. Explain any in brief.	**04**
	(c)	Discuss control techniques used in DCV.	**07**
		OR	
Q.3	**(a)**	Discuss principle of flow control valve.	**03**
	(b)	List out various accessories of reservoirs.	**04**
	(c)	Explain non-return valve with suitable sketch.	**07**
Q.4	**(a)**	Draw ISO/ANSI symbol of hydraulic supply elements.	**03**
	(b)	Classify automation by control system.	**04**
	(c)	Write short note on synthetics oil.	**07**
		OR	
Q.4	**(a)**	List properties of hydraulic oil.	**03**
	(b)	State advantages and dis advantages of automation.	**04**
	(c)	With the help of sketch explain different locations of filters.	**07**
Q.5	**(a)**	Explain meter in circuit.	**03**
	(b)	List some basic and industrial hydraulic circuits.	**04**
	(c)	Draw and explain twin lobe compressor.	**07**
		OR	
Q.5	**(a)**	What is regeneration?	**03**
	(b)	Draw basic circuit for control of single acting cylinder.	**04**
	(c)	Explain lubricator with sketch used in FRL unit.	**07**

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