

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 disadvantages 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
