

Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Fourth semester B.Tech examinations (S), September 2020

**COURSE CODE: MR202****COURSE NAME: SENSORS AND ACTUATORS**

Max. Marks: 100

Duration: 3 Hours

PART A*Answer all questions, each carries 5 marks.*

		Marks
1	Examine positive displacement pump.	(5)
2	Demonstrate the single cylinder compressor.	(5)
3	Interpret about the rotary valves.	(5)
4	Evaluate about cylinder dynamics.	(5)
5	Discriminate fail-down actuator.	(5)
6	Judge the pressure to current or P-I converter with sketch.	(5)
7	Describe bistable flip-flop.	(5)
8	Illustrate the fluidic logic gates.	(5)

PART B*Answer any three full questions, each carries 10 marks.*

9	a) Evaluate gear pump with neat sketch	(10)
10	a) Elucidate adsorption dryer with a neat sketch	(10)
11	a) Exemplify relieving pressure regulator with a neat sketch	(10)
12	a) Describe the construction of a pilot operated 3/2 valve with a neat sketch	(10)
13	a) With neat sketch explain the construction of a typical cylinder	(10)

PART C*Answer any two full questions, each carries 15 marks.*

14	a) Demonstrate briefly about pneumatic controllers.	(15)
15	a) Distinguish between air relay and force balance principle with neat sketch.	(15)
16	a) Explain in detail about inductosyn with neat sketch.	(15)
17	a) Evaluate about stepping motors with a neat sketch.	(15)
