Reg No.:_____ Name:_____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
FOURTH SEMESTER B.TECH DEGREE EXAMINATION(R&S), MAY 2019

Course Code: MR202

Course Name: SENSORS AND ACTUATORS (MC)

Max. Marks: 100 Duration: 3 Hours

PART A
Answer all questions. Each question carries 5 marks

1	Write a short note on industrial prime movers	5
2	Give a brief description about adsorption driers	5
3	With a neat sketch explain 4/2 poppet valve	5
4	Compare static seal and dynamic seal	5
5	With a neat sketch explain fail up actuator	5
6	Evaluate flapper nozzle	5
7	Appraise any two feedback devices	5
8	Interpret different types of fluid sensors	5

PART B
Answer any three questions. Each question carries 10 marks

9	Compare in detail about the electrical, hydraulic, pneumatic system	10
10	Interpret briefly about all types of piston compressor with the help of neat diagram	10
11	Illustrate the working of	10
	(i) Lobe compressor	
	(ii) Liquid ring compressor	
12	List out any 3 application of check valves	10
13	Discuss in detail about meter in speed control technique in rotary actuators	10

PART C
Answer any two questions. Each question carries 15 marks

14	Write a short note on	
a)	PI converter	8
b)	Air relay	7
15	Summarise on	
a)	Volume booster	7
b)	PID controller	8
16	Illustrate with suitable diagrams and truth table of bistable flip flop, OR, NOR,	15

EXOR gates

17 a) Evaluate the working of stepping motor   5

    b) List and explain various types of fluidic logic gates   10