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Pages: 2

Reg No.:_____ Name:_____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Third Semester B.Tech (Minor) Degree Examination December 2024 (2023 Admission)

Course Code: MRT281

Course Name: INTRODUCTION TO SENSORS AND ACTUATORS

Max. Marks: 100 Duration: 3 Hours

PART A

Answer all questions. Each question carries 3 marks Marks

1	Mention the difference between Sensors and Actuators	(3)
2	Briefly describe about Magnetic Sensors	(3)
3	State the applications of VR Sensors	(3)
4	What is meant by Magnetic Materials Market?	(3)
5	List out the applications of Linear actuators?	(3)
6	Write a short note on solenoid actuator.	(3)
7	What is cylindrical rotatory actuator?	(3)
8	Give a brief description about the actuation in rotatory actuators.	(3)
9	What are the applications of Encoders?	(3)
10	Define Coanda effect.	(3)

PART B

Answer any one full question from each module. Each question carries 14 marks

Module 1

11	Explain about Linear and Latching Solenoids with a neat sketch.	(14)
12	Describe in detail about Special Magnetic devices with examples.	(14)

Module 2

13	With a neat sketch explain about Solid state sensors.	(14)
14	Write in detail about magnetic sensors with an example.	(14)

Module 3

15	Name the various types of Solenoids. Explain any two in detail.	(14)
16	List out the various types of Injectors. Explain any two in detail.	(14)

Module 4

17 Write in detail about Disk rotatory actuators with an example. (14)

18 Explain about Claw pole rotatory actuator with a neat sketch. (14)

Module 5

19 Interpret about Tachogenerators with a neat sketch. (14)

20 Write in detail about Cone jet proximity sensor with a neat sketch. (14)

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