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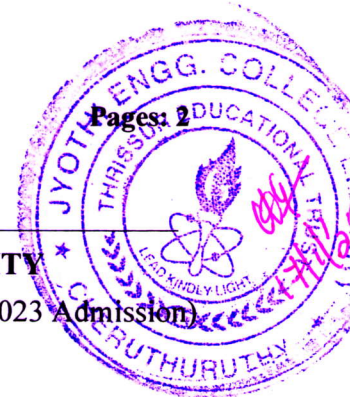
Pages: 2

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**

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|---|------|
| 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**

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

**Module 3**

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| 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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