

Enroll No

K.E.Society's
Rajarambapu Institute of Technology, Rajaramnagar
 (An Empowered Autonomous Institute, affiliated to SUK)
Unit Test -I (2025-26)
 S.Y. B.Tech.

Q.P. Code
UT 3042

Course Code: RAMD 201 Course Name: MDM-I Fundamentals of Robotics & Automation

Day & Date: Wednesday 13/08/2025

Time: 3:45 To 4:45

Max Marks- 25

- Instructions:**
- 1) All questions are compulsory.
 - 2) Figures in rounded () brackets within the question, indicate the scheme of marking for respective part of the question, whereas, figures in the first right column indicate total marks for that whole question.
 - 3) CO is the index number of the Course Outcome statement.
 - 4) The Bloom's taxonomy level (BL) for 1,2,3,4,5 and 6 is remember, understand, apply, analyze, evaluate and create respectively.
 - 5) Assume suitable data if necessary.
 - 6) Use of non-programmable calculators is allowed

			Marks	BT Level	COs
Q.1	A	Explain Isaac Asimov's three laws of robotics.	4	2	CO_1
OR					
	A	Discuss various indigenous humanoid robots in detail. (1 each)		2	CO_1
	B	What are the criteria used to determine whether a machine qualify as a robot or not? (2) Apply that criterions to following machines and conclude whether they are Robot or Not (1 each)	4	3	CO_1
		i. Traffic Signal System			
		ii. Mars Rover			
	C	Analyze the advantages and limitations of cobots in manufacturing compared to traditional robots, and suggest situations where their use is most beneficial.	4	2	CO_1
Q.2	A	Differentiate between two jaw gripper and multi jaw gripper. (1 each)	4	2	CO_2
OR					
	A	Classify (2) Sensors and explain (2) External Sensors.		2	CO_2
	B	Identify the movement of gripper for following task (1 each)	4	3	CO_2
		a. Holding bottle			
		b. Writing with pen			
		c. Hand shaking			
		d. Opening door			
	C	Draw (2) schematic of cam operated gripper actuation and write (3) its applications	5	3	CO_2

