

K.E.Society's

Enroll No

Rajarambapu Institute of Technology, Rajaramnagar
(An Empowered Autonomous Institute, affiliated to SUK)

Q.P. Code
UT 3027

Unit Test -I (2025-26)

T.Y. B.Tech.- Robotics & Automation

Course Code: OE363

Course Name: Robotics Engineering and applications

Day & Date: Wednesday 13.08.2025

Time: 2.30-3.30 PM

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	BL	COs
Q.1	A	Outline how autonomous tractors and drones are transforming modern agricultural practices(4). analyse benefit and limitation for each.(2)	6	2	1
	B	Describe the concept of automation(3), robot integration(2), and their role in modern industries.(2)	7	3	2
OR					
	C	Depict how artificial intelligence(AI) and machine learning(ML) are used in agricultural robots like harvesting or crop monitoring drones.(5) Give at least two examples of specific AI/ML tasks.(2)	7	3	1



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|-----|---|---|---|---|---|
| Q.2 | A | Portray the impact and sustainability of agricultural robots on the environment and rural employment.(3) Do you think their long-term use is sustainable? Justify your answer.(3) | 6 | 3 | 1 |
| | B | Present the integration of robots with CNC machines(3) and flexible manufacturing systems(FMS) in industrial applications (3) | 6 | 3 | 2 |

