

Enroll No

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

Q.P. Code
UT 3038

T.Y. B.Tech. – OPEN ELECTIVE

Course Code: OE353

Course Name: Factory Automation

Day & Date: Wednesday 13/08/2025

Time: 2:30 To 3:30

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	Apply the USA principle to improve a small bakery's manual dough mixing process.	06	BTL4	CO1
		OR			
	A	Design a bottle-filling system using the ten strategies of automation to increase throughput and accuracy.	06	BTL4	CO1
	B	Select appropriate material handling equipment for the foundry industry and justify your choice based on material type.	06	BTL3	CO2
Q.2	A	A workshop issues tools manually. Propose an automated tool-issuing system using USA principles.	06	BTL3	CO1
	B	Create a layout for a factory workstation that suggests appropriate handling, transportation, and automation systems.	07	BTL4	CO2
		OR			
	B	Design a material flow and scheduling plan for a food packaging line, considering product fragility and timing constraints.	07	BTL4	CO2

