

Enroll No

K.E.Society's  
**Rajarambapu Institute of Technology, Rajaramnagar**  
 (An Empowered Autonomous Institute, affiliated to SUK)

Q.P. Code
UT 3128

**Unit Test -II (2025-26)**

T.Y. B.Tech. – OPEN ELECTIVE

**Course Code: OE353**

**Course Name: Factory Automation**

Day & Date: Friday 19/09/2025

Time: 10:30 To 12:30

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	A factory wants to improve productivity by reducing machine idle time. How can cellular manufacturing be implemented to address this issue? Provide an example. OR	06	BTL3	CO3
	A	Compare Group Technology (GT) and Cellular Manufacturing by explaining a real-life situation where GT would be preferred over traditional job-shop manufacturing.	06	BTL3	CO3
	B	For a batch manufacturing process, explain why discrete control is preferred over continuous control. Provide an example of a batch-controlled process.	06	BTL4	CO4
Q.2	A	List SPC Tools in Quality Control Systems (FA) and explain any one in detail.	07	BTL2	CO3
	B	Explain how Human-Machine Interface (HMI) improves control and monitoring in modern industrial control systems. Give an example of a user-friendly HMI application in a factory. OR	06	BTL4	CO4
	B	Explain any two Industrial Control Systems (ICS).	06	BTL4	CO4

