

Enroll No

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

Q.P. Code
UT 3039

Course Code: OE355

T.Y. B.Tech.-Mechatronics Engineering
Course Name: Cyber Physical Systems

Day & Date: Wednesday 13/08/2025

Time: 02:30 – 03:30 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	BT Level	COs
Q.1	A	State the concept of Cyber-Physical Systems and explain their use with the help of a suitable example.	5	BL1	CO1
	B	Modify a traditional manufacturing process into an Industry 4.0-enabled CPS workflow.	5	BL3	CO1
	C	Differentiate between IoT and IIoT by applying their concepts to a smart manufacturing case study	5	BL2	CO1
		OR			
	C	Draw block diagram, explain its working and state basic principle of CPS	5	BL2	CO1
Q.2	A	Interpret the design requirements for Cyber-Physical Systems and their relevance to real-world applications.	5	BL3	CO2
	B	Link any one type of design approach for CPS with industrial application	5	BL3	CO2

