GUJARAT TECHNOLOGICAL UNIVERSITY
BE – SEMESTER- VII EXAMINATION-SUMMER 2023
Subject Code: 3171930   **Date: 30/06/2023**
Subject Name: Industrial Internet of Things
Time: 10:30 AM TO 01:00 PM   **Total Marks: 70**
Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**
4. **Simple and non-programmable scientific calculators are allowed.**

			MARKS
Q.1	**(a)**	Which are the network and communication technologies can be used to implement an IoT application?	**03**
	(b)	Explain issues of IOT.	**04**
	(c)	Discuss in detail Smart city application of IOT.	**07**
Q.2	**(a)**	What is IIoT for Smart manufacturing?	**03**
	(b)	Write Introduction to Cyber-Physical Systems.	**04**
	(c)	Explain smart parking system with architecture of system.	**07**
		OR	
	(c)	Explain Strategies for User-Driven Cyber-Physical Systems.	**07**
Q.3	**(a)**	Enlist the benefits of adopting an industry 4.0 model.	**03**
	(b)	What is Internet of Things? What are the applications of IoT?	**04**
	(c)	Explain the architecture of the Internet of Things.	**07**
		OR	
Q.3	**(a)**	Explain functional model of IoT	**03**
	(b)	Discuss in brief Smart Manufacturing Operation Planning and Control.	**04**
	(c)	Explain the application of IIOT in Predictive Maintenance.	**07**
Q.4	**(a)**	What is the main objective of IIoT in manufacturing?	**03**
	(b)	What is the relation between IIoT and Big Data?	**04**
	(c)	Discuss Technical Dimension of Cyber-Physical Systems	**07**
		OR	
Q.4	**(a)**	Enlighten the concept of Augmented Reality.	**03**
	(b)	Discuss smart health using IoT.	**04**
	(c)	Discuss Human Dimension of Cyber-Physical Systems	**07**
Q.5	**(a)**	What are the components of a cyber-physical system?	**03**
	(b)	What are the system requirements for HMI?	**04**
	(c)	Explain following with suitable examples: (i) Priority Management (ii) Automated Maintenance	**07**
		OR	
Q.5	**(a)**	Discuss the characteristics of CPS in Manufacturing.	**03**
	(b)	What are the Challenges for the Industrial Internet of Things?	**04**
	(c)	Explain M2M Interaction in brief and discuss different interface standards for M2M Interaction.	**07**

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