Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER–VI(NEW) EXAMINATION – WINTER 2022

Subject Code:3161926   **Date:22-12-2022**
Subject Name:Industry 4.0
Time:02:30 PM TO 05:00 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)	What is Industry 4.0?	03
	(b)	What are the benefits of Industry 4.0	04
	(c)	Main Concepts and Components of Industry 4.0	07
Q.2	(a)	What are the difference between Industry 4.0 and 3.0?	03
	(b)	Design principal for Industry 4.0	04
	(c)	Which is the proposed Framework for Technology Roadmap about Industry 4.0	07
		OR	
	(c)	Discuss preparing India for Industry 4.0	07
Q.3	(a)	Note on cloud robots	03
	(b)	Discuss Autonomous Robots	04
	(c)	Write a note on Industrial robotics application on Manufacturing ,maintenance and assembly	07
		OR	
Q.3	(a)	Brief on Internet of Robotic things	03
	(b)	List out Advance sensor technology used in Robots	04
	(c)	Discuss Human Robots collaborative manufacturing.	07
Q.4	(a)	Sectors in India which have adopted Industry 4.0	03
	(b)	Industry 4.0 what are the challenges?	04
	(c)	What are Cyber-Physical Systems explain in detail.	07
		OR	
Q.4	(a)	Role of 3 D printing in Industry 4.0	03
	(b)	Explain financing condition for Industry 4.0 in India	04
	(c)	Write a short note on Artificial Intelligence with reference to Industry 4.0	07
Q.5	(a)	Enlist industrial application of AR	03
	(b)	Write difference between AR & VR	04
	(c)	What is big data? Write applications of Big data	07
		OR	
Q.5	(a)	State methods for protection of corporate data	03
	(b)	Write a short note on Artificial Intelligence with reference to Industry 4.0	04
	(c)	Write a case study of any Industry implemented Industry 4.0	07

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