GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER–VI (NEW) EXAMINATION – SUMMER 2023

Subject Code:3161926   **Date:26-07-2023**

Subject Name:Industry 4.0

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)	What is Industry 4.0?	03
	(b)	What is the difference between Industries 4.0 and 3.0?	04
	(c)	How is India preparing for Industry 4.0	07
Q.2	(a)	Discuss Benefits of Industry 4.0.	03
	(b)	Design principal of Industry 4.0	04
	(c)	Write briefly about Proposed Framework for Industry 4.0	07
		OR	
	(c)	Explain about Artificial Intelligence with reference to Industry 4.0	07
Q.3	(a)	List down all industrial revolutions and discuss in brief.	03
	(b)	Enlist the various challenges for Industry 4.0 transformation	04
	(c)	What are Cyber-Physical Systems explain in detail.	07
		OR	
Q.3	(a)	Brief on Internet of things in Industry 4.0.	03
	(b)	Discuss Autonomous Robots	04
	(c)	What are Advanced Sensor Technologies in Robots? Enlist and explain	07
Q.4	(a)	List Industrial robotics applications	03
	(b)	What is big data? Write applications of Big data	04
	(c)	Explain Human-Robot Collaborative Manufacturing	07
		OR	
Q.4	(a)	What do you understand by smart factories	03
	(b)	Role of 3 D printing in Industry 4.0	04
	(c)	Write a case study of any Industry implemented Industry 4.0	07
Q.5	(a)	Write difference between AR & VR	03
	(b)	What is the availability of skilled workers for Industry 4.0	04
	(c)	Explain Industry 4.0 Services.	07
		OR	
Q.5	(a)	Enlist where India have adopted Industry 4.0	03
	(b)	Explain financing condition for Industry 4.0 in India	04
	(c)	State methods for protection of corporate data in Industry 4.0	07

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