

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- SEMESTER-VI (NEW) EXAMINATION – WINTER 2024****Subject Code:3161716****Date:02-12-2024****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 the industrial internet?	03
	(b) What are the challenges in industry 4.0?	04
	(c) Discuss about the different drivers behind industry 4.0.	07
Q.2	(a) Define the following terms.	03
	(i) Internet of Things	
	(ii) Industrial Internet of Things	
	(iii) Internet of Services	
	(b) Compare traditional manufacturing and smart manufacturing.	04
	(c) Write detail note on industry 4.0 manufacturing process security.	07
	OR	
Q.3	(c) Explain in detail the revolution in textile industries.	07
	(a) List the countries are involved in development of IoT.	03
	(b) Explain data analysis as a new resource for organization.	04
	(c) What is the digitalization? Discuss in detail about new digital economy.	07
	OR	
Q.3	(a) What is smart device and product?	03
	(b) Discuss trend of Industrial big data and predictive analysis for smart business.	04
	(c) Explain robotic automation and collaborative robots.	07
Q.4	(a) What do you mean by smart factory? What are the advantages of running smart factories?	03
	(b) Explain cloud computing in brief.	04
	(c) Explain role of mobile computing and support system for industry 4.0.	07
	OR	
Q.4	(a) List the various Industry 4.0 related Disciplines.	03
	(b) Enumerates types of cyber-crime. Discuss in brief.	04
	(c) Discuss in detail about Cyber-Physical systems.	07
Q.5	(a) What do you mean by Big Data? Give a brief explanation of the characteristics of Big Data.	03
	(b) Discuss comparison between industry 4.0 factory and today's factory.	04
	(c) Explain drivers and key enablers with challenges for industry 4.0.	07
	OR	
Q.5	(a) List various wireless communication standards for industries.	03
	(b) Explain smart logistics in industry 4.0.	04
	(c) What is cyber security? Explain key cyber security threat associated with cloud computing.	07
