GUJARAT TECHNOLOGICAL UNIVERSITY
B.VOC- SEMESTER–VI EXAMINATION – WINTER 2024

Subject Code:21160202   **Date:21-11-2024**
Subject Name: IT in Supply Chain Management
Time:02:30 PM TO 04:30 PM   **Total Marks:50**

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)**	Explain supply chain management. Describe its key components in detail.	**05**
	(b)	Explain the role of IT in transforming supply chain processes.	**05**
Q.2	**(a)**	Explain RFID technology and its applications. State the advantages and disadvantages of RFID.	**05**
	(b)	Explain the types of barcoding. Describe the implementation of barcoding in warehouse operations.	**05**
		OR	
	(b)	Explain the features and capabilities of WMS. Describe the challenges and best practices in WMS.	**05**
Q.3	**(a)**	Explain automation in logistics in detail.	**05**
	(b)	How is RPA advantageous in supply chain?	**05**
		OR	
Q.3	**(a)**	Explain the impact of autonomous vehicles and drones in logistics. Mention its benefits, challenges and future outlook.	**05**
	(b)	How does robotics influence warehousing operations? Describe Cobots in detail.	**05**
Q.4	**(a)**	Explain the fundamentals of blockchain technology in detail.	**05**
	(b)	What are the basics of decentralized ledger in SCM?	**05**
		OR	
Q.4	**(a)**	Explain the basics of smart contracts in SCM in detail.	**05**
	(b)	What are the security and trust factors in blockchain?	**05**
Q.5	**(a)**	Explain the future trends and innovation in supply chain.	**05**
	(b)	How is Industry 4.0 beneficial in SCM?	**05**
		OR	
Q.5	**(a)**	Explain cyber-physical systems in logistics in detail.	**05**
	(b)	How is 3D printing revolutionizing supply chain? Describe sustainable practices and green logistics in SCM.	**05**

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