COURSE NAME:	E-COMMERCE ANALYST
TOTAL DURATION:	45 Hrs
MODE OF DELIVERY	PHYSICAL CLASSROOM TRAINING AT RESPECTIVE COLLEGES
TRAINER TO STUDENT RATIO:	1:50
TOTAL MARKS:	75

TABLE 1	
OVERALL COURSE OBJECTIVE:	● Evaluate critical components of e-commerce logistics, including supply chain operations, warehousing, and last-mile delivery, to identify optimization opportunities. ● Design innovative logistics strategies that address real-world challenges and enhance operational efficiency in e-commerce. ● Integrate emerging technologies such as artificial intelligence, IoT, and blockchain to revolutionize logistics processes and support strategic goals. ● Critique existing logistics frameworks and propose sustainable practices to improve environmental impact and operational efficiency. ● Formulate comprehensive solutions to complex logistics problems, aligning with business objectives and evolving consumer needs.
LEARNING OUTCOME:	● Critically evaluate supply chain performance metrics and design efficient logistics systems to address challenges in e-commerce operations. ● Analyze large datasets using advanced analytical tools to identify trends, optimize inventory management, and improve decision-making in logistics. ● Apply emerging technologies such as AI

for demand forecasting, IoT for tracking, and blockchain for transparency to improve logistics operations.
- Develop strategies for last-mile delivery that enhance operational efficiency and customer experience, including route optimization and reverse logistics.
- Identify opportunities for sustainability in logistics operations and propose actionable solutions to minimize environmental impact while maintaining efficiency.

TABLE 2: MODULE WISE COURSE CONTENT AND OUTCOME				
SL. NO	MODULE NAME	MODULE CONTENT	MODULE LEARNING OUTCOME	DURATION (HRS)
1	**Introduction to E-commerce Logistics**	Overview of E-commerce Logistics - Evolution and Growth of E-commerce - Fundamentals of E-commerce Supply Chains - Logistics Challenges in E-commerce - Role of Logistics in E-commerce Success.	Students will be able to evaluate and create strategies for managing supply chains in e-commerce, mastering the skills to streamline operations, optimize logistics, and meet customer demands effectively.	7
2	**Supply Chain Management in E-commerce**	E-commerce Supply Chain Overview - Challenges in E-commerce Supply Chain Management - Demand Forecasting and Inventory Management in E-commerce -	Participants will analyze and design advanced last-mile delivery and fulfilment strategies to optimize efficiency and meet consumer demands in e-commerce logistics.	10

		Supplier Relationship Management in E-commerce - Logistics and Distribution Strategies in E-commerce - Omni-channel and Multi-channel Strategies – E-commerce Returns and Reverse Logistics - Sustainability in E-commerce Supply Chains		
3	**Last-Mile Delivery and Fulfilment Strategies**	Last-Mile Delivery Overview - Challenges and Importance of Last-Mile Logistics - Last-Mile Delivery Models and Strategies - Route Optimization and Planning for Last-Mile - Urban Logistics and City Distribution - Customer Experience in Last-Mile Delivery - Reverse Logistics in Last-Mile Operations.	Students will create and evaluate optimized warehousing and inventory management strategies tailored to e-commerce, ensuring operational efficiency and customer satisfaction.	10
4	**Warehousing and Inventory Management for E-commerce**	E-commerce Warehousing Overview - Role and Importance of Warehousing in E-commerce - Types of E-commerce Warehouses- Warehouse Layout	Upon completion, participants will proficiently manage warehousing and implement optimized inventory strategies tailored for the demands of e-commerce, ensuring efficient operations	8

		and Design for E-commerce- Inventory Management Strategies for E-commerce- Warehousing Technologies in E-commerce- Order Fulfilment and Picking Strategies.	and customer satisfaction	
5	**Technology Integration, Innovation, Challenges and Opportunities in E-commerce Logistics**	Role of Technology in E-commerce Logistics – Basics of Data Analytics in E-commerce– Fundamentals of Artificial Intelligence in E-commerce – Basics of Blockchain Technology in E-commerce Logistics - IoT (Internet of Things) Applications in E-commerce – Overview of Augmented Reality and Virtual Reality in E-commerce - Challenges and opportunities and Future Directions - Innovations for Sustainable E-commerce Logistics	Participants will explore the integration of cutting-edge technology, navigate innovation, address challenges, and leverage opportunities within the dynamic landscape of e-commerce logistics	10
Total				45

TABLE 3: OVERALL COURSE LEARNING OUTCOME ASSESSMENT CRITERIA AND USE CASES			
Learning Outcome	**Assessment Criteria**	**Performance Criteria**	**Use Cases**
Students will evaluate and synthesize strategies for managing supply chains in e-commerce, designing solutions to streamline operations, optimize logistics, and analyse customer demands effectively.	- Evaluate the evolution and growth of e-commerce logistics. - Analyze key logistics challenges in e-commerce. -Design strategies to optimize e-commerce supply chains.	- Design logistics strategies to streamline e-commerce operations. - Formulate solutions to address logistics challenges and synthesize improvements.	**Use Case 1:** Your online store is receiving customer complaints about delayed deliveries. Evaluate your supply chain and suggest solutions to speed up delivery times and reduce complaints. **Use Case 2**: A new e-commerce business wants to expand its delivery network. Design a basic logistics plan to meet increasing customer demand and ensure timely deliveries.
Participants will analyse and design advanced last-mile delivery and fulfilment strategies, integrating efficiency and customer satisfaction in e-commerce	- Analyze demand forecasting and inventory management in e-commerce. - Evaluate challenges in e-commerce supply chain	Formulate optimized last-mile delivery strategies. - Evaluate supplier relationships and inventory management strategies for	**Use Case 1**: A customer orders a product but receives it late because of delivery inefficiencies. Analyze your delivery process and suggest ways to improve it so

logistics.	management. - Design advanced last-mile delivery and fulfilment strategies.	operational efficiency.	that customers receive orders on time. **Use Case 2**: Your e-commerce company wants to start offering free delivery on all orders. Design a strategy to manage this without increasing costs, using efficient shipping methods.
Students will create and evaluate optimized warehousing and inventory management strategies, synthesizing solutions to ensure operational efficiency and customer satisfaction.	- Evaluate last-mile delivery models and strategies. - Assess challenges in last-mile logistics and formulate solutions. - Analyze customer experience in last-mile delivery and design improvements.	- Design route optimization plans for efficient last-mile delivery. - Develop solutions for reverse logistics and assess their impact.	**Use Case 1**: A large e-commerce retailer is struggling with late deliveries in city areas. Create a new plan to improve delivery times by using local warehouses or delivery hubs. **Use Case 2**: Your e-commerce warehouse is often out of stock of popular items. Evaluate your inventory system and recommend changes to ensure items are always available for customers.
Participants will	Analyze the role	-Implement	**Use Case 1**:

synthesize and implement optimized warehousing and inventory management strategies, creating solutions tailored to e-commerce demands for operational efficiency.	of different types of e-commerce warehouses and evaluate their functions. - Design and implement inventory management strategies to optimize operations. - Evaluate order fulfilment and picking strategies.	advanced inventory control techniques and optimize warehouse layout for efficiency. -Create strategies to improve order fulfilment and warehouse operations	Your e-commerce store is often out of stock for popular products. Create a better inventory system to ensure products are available when customers need them. **Use Case 2**: The warehouse is getting too full, and space is limited. Implement a new warehouse layout to maximize space and make the picking process faster.
Participants will explore and synthesize cutting-edge technologies, innovating solutions to address challenges and leveraging opportunities in the evolving landscape of e-commerce logistics.	- Analyze the impact of emerging technologies (AI, IoT, blockchain) in e-commerce logistics. - Evaluate opportunities and challenges in tech integration. - Innovate solutions for sustainable e-commerce logistics.	- Design strategies to integrate AI and data analytics for better forecasting and decision-making. - Formulate innovative solutions to improve sustainability in logistics.	**Use Case 1**: Your e-commerce business is facing problems with inventory accuracy. Implement barcode scanning technology to track stock levels in real-time. **Use Case 2**: Your company is experiencing delays in international shipping. Use blockchain technology to

			improve the tracking and security of international shipments.

TABLE 4: LIST OF FINAL PROJECTS THAT COMPREHENSIVELY COVER ALL THE LEARNING OUTCOME	
SL.NO	**FINAL PROJECT**
1	**Purchase Order (PO) Report:** This project helps to create PO detailing items, quantities, prices, and terms made by a buyer to a seller.
2	**Sales Order (SO):** This project helps to create SO includes the confirmation of a customer's purchase, outlining terms and initiating the fulfilment process by the seller.
3	**Packing Slip:** This project helps to create the list of items shipped in a package, aiding verification upon delivery and inventory management.
4	**Invoice:** This project deals with the creation of Invoice Document itemizing products or services provided to a customer, including payment terms.
5	**Proof of Delivery (POD):** This project helps the students to verify the successful delivery, typically including recipient's signature and delivery details.

TABLE 5: COURSE ASSESSMENT RUBRICS (TOTAL MARKS: 75)					
DESCRIBE THE CRITERIA OF THE BELOW CATEGORY PERFORMANCE					
Assessment Criteria	**Learning Outcomes**	**Fair (1-5)**	**Good (6-10)**	**Excellent (10-15)**	**Total Marks**
Data Analysis and Pattern Identification	Analyze large datasets to identify trends, patterns, and correlations relevant to	Demonstrates limited ability to analyze datasets; trends and patterns are identified with gaps.	Analyzes datasets effectively, identifying trends and patterns relevant	Conducts in-depth analysis of datasets, identifying trends, patterns, and correlations with high	15

		business objectives using appropriate tools.		to business objectives.	accuracy.	
Interpretation of Digital Marketing Metrics	Interpret digital marketing metrics and KPIs to assess campaign performance and ROI.	Provides basic interpretation of metrics; conclusions lack depth and strategic relevance.	Effectively interprets metrics, drawing meaningful conclusions with minor gaps in strategic adjustments.	Thoroughly interprets metrics, providing insightful and actionable conclusions for strategic adjustments.	15
Evaluation of Customer Segmentation Strategies	Evaluate customer segmentation strategies for targeting and personalization, recommending improvements.	Provides a basic evaluation of segmentation strategies with generic recommendations.	Evaluates segmentation strategies effectively, offering relevant and practical improvement suggestions.	Offers comprehensive evaluation, presenting innovative and data-driven recommendations for improvement.	15
Assessment of Supply Chain Metrics	Assess supply chain performance metrics to identify optimization opportunities and implement	Limited assessment of supply chain metrics; solutions are generic and lack feasibility.	Effectively assesses metrics, identifying opportunities and proposing feasible efficiency solutions.	Conducts a thorough assessment, proposing innovative, data-driven solutions for supply chain optimization.	15

		efficiency-enhancing solutions.				
Evaluation of Website and Marketing Funnel Metrics	Evaluate website and marketing funnel metrics to identify barriers to conversion and propose actionable solutions.	Identifies basic barriers with limited actionable solutions.	Effectively evaluates metrics, identifying barriers and proposing practical solutions to improve outcomes.	Conducts a comprehensive evaluation, proposing innovative and impactful solutions to overcome barriers.	15