Code No: R21A0589 **Set No. 3**

COGNIZANT TECHNOLOGY SOLUTIONS
MULESOFT DEVELOPER, January 2026
RETAIL DOMAIN FUNDAMENTALS FOR INTEGRATION
(LEVI'S INTEGRATION SUPPORT -M)

Time: 3 Hours Max. Marks: 70

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 25 marks. Answer all questions in Part A.
Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 9 marks.

PART - A

(25 Marks)

1. **[2M]** Define **ATP** (Available to Promise) in the context of inventory checking.
2. **[3M]** What is the difference between a **SKU** (Stock Keeping Unit) and a **UPC** (Universal Product Code)?
3. **[2M]** Define **Dropshipping**. How does it differ from traditional retail fulfillment?
4. **[3M]** Explain the concept of "Safety Stock" and why it is necessary in a WMS.
5. **[2M]** What is a **Planogram** in store operations?
6. **[3M]** Differentiate between **Authorization** and **Capture/Settlement** in a credit card transaction.
7. **[2M]** Define **BOPIS** (Buy Online, Pickup In-Store).
8. **[3M]** What is a **Golden Record** in the context of Master Data Management (MDM) for customers?
9. **[2M]** Define **Reverse Logistics** (Returns Management).
10. **[3M]** What does "Last Mile Delivery" refer to, and why is it the most expensive part of the supply chain?

PART - B

(45 Marks)

UNIT - I

11. **[9M]** Explain the core lifecycle of Retail: **Buy** $\rightarrow$ **Move** $\rightarrow$ **Sell**.
    - **Buy:** How retailers procure goods (Merchandising/PO).
    - **Move:** Logistics and Warehousing.
    - **Sell:** Channels (E-com, Store, Marketplace).

OR

12. **[9M]** What is **Omnichannel Retail**? Contrast it with "Multichannel Retail". Explain the technical challenge of maintaining a "Single View of Inventory" across website, mobile app, and physical stores.

UNIT - II

13. [9M] The **OMS (Order Management System)** is often called the "Brain" of retail. Discuss its critical functions:

(a) **Order Orchestration:** Routing orders to the best fulfillment node.

(b) **Inventory Aggregation:** Pooling stock from DCs and Stores.

(c) **Customer Service:** Handling cancellations and appeasements.

OR

14. [9M] Describe the **Order Lifecycle** states in detail. Start from "Order Placed" and explain the transitions through "Fraud Check", "Allocation", "Pick/Pack", "Shipped", and "Delivered". What triggers the transition at each stage?

UNIT - III

15. [9M] Explain the operational flow within a **Warehouse Management System (WMS)**:

(a) **Inbound:** ASN (Advance Shipping Notice), Receiving, and Put-away.

(b) **Outbound:** Wave Planning, Picking (Zone/Batch), Packing, and Manifesting.

OR

16. [9M] Scenario: A retailer uses a "Hub and Spoke" distribution model. Explain how inventory moves from a Supplier $\rightarrow$ Regional Distribution Center (RDC) $\rightarrow$ Local Store. What is "Cross-docking"?

UNIT - IV

17. [9M] The modern **POS (Point of Sale)** is more than a cash register. Discuss its role in:

(a) **Endless Aisle:** Ordering out-of-stock items for the customer.

(b) **Clienteling:** Accessing customer history to provide personalized service.

(c) **Store Inventory Management:** Cycle counts and receiving store transfers.

OR

18. [9M] Explain the concept of **Ship-from-Store (SFS)**. Why do retailers implement it? What are the operational challenges for store staff acting as warehouse pickers?

UNIT - V

19. [9M] Describe the **Payment Processing Lifecycle**.

(a) The role of the **Payment Gateway** vs. the **Payment Processor**.

(b) What is **Tokenization** and why is it critical for PCI-DSS compliance?

(c) Why is the "Capture" usually done at shipment rather than at order placement?

OR

20. [9M] Explain the relationship between the **Retail Front-end** and the **ERP Finance Backend** (e.g., SAP). How do Sales, COGS (Cost of Goods Sold), and Returns affect the General Ledger (GL)?