

School of Business

MBA

ETE - May 2023

Time : 3 Hours

Marks : 50

Sem IV - MSB21T5011 - International Supply Chain Management and Logistics

Your answer should be specific to the question asked

Draw neat labeled diagrams wherever necessary

1. Explain Flows in SCM. K2 CO1 (2)
2. Explain ERP. K2 CO2 (2)
3. Contrast on Inbound logistics. K4 CO3 (2)
4. Examine the objectives of warehouses K4 CO4 (2)
5. Explain various types of transportation mode. K4 CO5 (2)
6. Examine the Drivers of SCM. K4 CO1 (5)
7. Examine the parameters for evaluation of vendors. K4 CO2 (5)
8. The John Equipment Company estimates its carrying **cost** at 15% and its ordering cost at \$9 per order. The estimated annual requirement is 48,000 units at a price of \$4 per unit. K5 CO5 (6)
 - Determine is the most economical number of units to order?
 - Determine Determine the orders should be placed in a year?
 - Determine how often should an order be placed?
9. Read the following case and answer the question given in the end. K5 CO3 (8)

The Company Bradshaw International is a leading marketer of kitchenware products. Headquartered in Rancho Cucamonga, California, the company was formed in 1969 as an importer of seasonal housewares and quickly developed a reputation with customers for marketing quality products at competitive prices, while maintaining excellent service levels. The Good Cook™ brand was launched in 1987, with an operating philosophy of incorporating quality, value and service into every product. The philosophy has helped the company achieve the number one market-share position for kitchen tools and gadgets in the grocery trade. Bradshaw also markets bakeware, cookware, food storage and tabletop products under its Good Cook brand. The Good Cook brand has captured 43 percent of the market in drug and grocery stores, far ahead of all other brands in the market. Good Cook Kitchenware products are distributed to over 30,000 U.S. retail store outlets.

The Opportunity Bradshaw International distributes many of its products through Wal-Mart Stores. Wal-Mart Stores traditionally required full-case and full-pallet shipments to its 42 regional distribution centers. Wal-Mart would stock the product, pick and pack the product for each store, then ship the product to its stores. Bradshaw International was asked to participate in Wal-Mart's Direct Store Delivery Consolidation (DSDC) program. The DSDC program was designed to allow shippers to directly replenish Wal-Mart stores in less-than-case-pack quantities. In order to participate in the DSDC program, Bradshaw International had to make changes to many aspects of its distribution systems. A sophisticated pick/pack operation, fully integrated with the Warehouse Management System (WMS), would have to be implemented to handle the volume of picking and packing of individual store orders. Bradshaw also understood that changes to their Electronic Data Interchange (EDI), Order Management System (OMS), and WMS would be required.

Bradshaw International retained enVista to help with the design and integration of the DSDC program. In order to meet the DSDC program objectives, Bradshaw and enVista had to:

- Design and build a pick/pack module capable of achieving the required rates
- Select and integrate the technology (RFID, Pick-To-Light, Pick-To-Voice, etc.) that would be used by the picking team and integrate it with the WMS
- Integrate the RFID readers and verifiers with the WMS
- Modify the OMS to accommodate the new order structures
- Modify the EDI software to implement the EDI structure required by DSDC
- Modify the billing systems to generate consolidated invoices

enVista's industrial engineers used their modeling tools to:

- Profile SKU movement and activity
- Identify and size the pick and storage mediums
- Model pick and replenishment rates
- Layout the proper work flows and conveyor layouts
- Formulate the labor plan for the new operation

enVista technologists worked with Bradshaw Information Technology to:

- Specify and make the necessary configuration changes to the RedPrairie WMS
- Perform the technical integration between the RedPrairie WMS and the selected Pick-To-Light System
- Perform the technical integration between the RedPrairie WMS and the EDI software
- Specify the required technical changes to the OMS to convert the Wal-Mart orders from distribution center-based orders to store-based orders consolidated by distribution center.
- Specify data maps from order capture to order management to WMS, and on through EDI transmission that would be reusable and move the infrastructure toward industry standards. The company is now poised to take advantage of not only EDI 856 documents, but also for a majority of the EDI document sets for fulfillment and transportation. The Results Bradshaw has been shipping under the DSDC program for over a year and, although the shipping volumes have increased beyond the expected numbers, the DSDC solution has been able to keep up with the demand. Bradshaw was able to move to the DSDC program successfully with virtually zero disruption to the customer.

Questions:

Q1- Analyze the problems in the given Case.

Q2- Explain the solution provided by the enVista's consulting.

10. Enumerate the Technology intervention in International SCM. K5 CO4 (8)
11. To date, Raymond Bro. has been purchasing an item in lots of 900 units. This equates to a three-month supply. The cost per unit is \$12, the order cost is \$16 per order, and the carrying cost is 25%. K6 CO5 (8)

Elaborate how much can Raymond Bro. save per year by purchasing the item in the most economical quantities?