

Roll No



**PRESIDENCY UNIVERSITY
BENGALURU**

SET B

**SCHOOL OF MANAGEMENT
END TERM EXAMINATION - JAN 2024**

Semester : Semester V - 2021

Course Code : BBA2014

Course Name : Introduction to Supply Chain Management

Program : BBA

Date : 08-JAN-2024

Time : 1:00 PM - 4:00 PM

Max Marks : 100

Weightage : 50%

Instructions:

- (i) Read all questions carefully and answer accordingly.
- (ii) Question paper consists of 3 parts.
- (iii) Scientific and non-programmable calculator are permitted.
- (iv) Do not write any information on the question paper other than Roll Number.

PART A

ANSWER ALL THE QUESTIONS

5 X 2M = 10M

1. The current stated objective is to reduce transportation costs on freight inbound to Walmart's distribution centres. How might the business relationship be impacted if at some time Walmart's decides to bypass its distribution centres and move merchandise direct from suppliers and to its retail stores?
(CO1) [Knowledge]
2. Compare the transportation costs for an online business such as Amazon and a retailer such as Home Depot when selling home-improvement materials.
(CO2) [Knowledge]
3. Identify managerial levers that reduce lot size and cycle inventory in a supply chain without increasing cost.
(CO3) [Knowledge]
4. "Encouraging Reverse Logistics is a mere loss to an organization in the present ecommerce business scenario". Evaluate the statement
(CO4) [Knowledge]
5. In, What way the flow of Supply chain affects the overall success and failure of an organization for a company like Amazon? List out two significant decision factors that have a significant on supply chain efficiency.
(CO5) [Knowledge]

PART B

ANSWER ALL THE QUESTIONS

5 X 10M = 50M

6. Western Michigan is home to three office furniture manufacturing firms. When they realized that they were sourcing from many of the same suppliers, they thought that there might be an opportunity for a joint venture to consolidate inbound movement of raw materials. Describe the trade-offs that might be associated with such an initiative across competitors. Discuss the benefits and risks of such a strategy.
(CO1) [Comprehension]
7. Key to re-structuring the supply chain is the need to examine the types of relationships between partners such as suppliers and distributors. Researchers have found that low cost is the main driver in managing supply partnerships and a restructuring will often require companies to develop strong partnership relationships – Comment
(CO2) [Comprehension]
8. Given the fact that both the Navy and the Air force regularly fly pilotless aircraft for surveillance and combat missions, the idea of a driverless fork truck seems somewhat of a no-brainer. Why not pilotless cargo aircraft such as FedEx and UPS? Why not semi-trucks moving intercity without drivers? How would your answer differ if we had highways that were dedicated to truck-only traffic, either on an exclusive or time-allocated basis? Where do you think the concept of robotics will eventually end up?
(CO3) [Comprehension]
9. As firms increase variation because of differentiated packaging or labeling, product line complexity increases. Discuss and rationalise the trade-offs between increased product complexity, increases. Discuss and rationalise the trade-offs between increased product complexity, process postponement, and logistics network design.
(CO4) [Comprehension]
10. A supermarket has experienced weekly demand of milk of $D_1 = 120$, $D_2 = 127$, $D_3 = 114$, and $D_4 = 122$ gallons over the past four weeks. Forecast demand for period 5 using a four-period moving average. What is the forecast error if demand in Period 5 turns out to be 125 gallons?
(CO5) [Comprehension]

PART C

ANSWER ALL THE QUESTIONS

2 X 20M = 40M

11. MillerCoors is a U.S. manufacturer of beer brands including Miller, Coors, Molson, and Blue Moon, operating 10 breweries with a network of over 500 distributors servicing over 700,000 retail accounts, including supermarkets, bars, and restaurants. All U.S. breweries are required by law (emanating from the repeal of prohibition) to use a three-tier distribution system with a wholesaler/distributor layer between the brewery and the retail customer. An advantage of this system is that the distributor has direct local contact with retailers, which can help them develop a locally engaged market strategy. However, the distribution network must also be efficient and cost effective in order to deliver the brewer's products to retailers fresh, timely and damage free. MillerCoors collects data from its distributors for seven attributes, weighted according to business considerations—expired products, processes, product damage, in-house audits, incorrect product staging, quality certifications, and consumer complaints. Data are collected using facility inspections and retail account audits; the latter collected by visiting a sample of 15, 20 or 25 random retailers based on the size of the distributor. This results in over 6,000 of the brewer's national retail accounts being audited each year. These data are used to develop a performance ranking of distributors based on a scaled score of each of the seven quality attributes. The final rankings are developed by multiplying each distributor's score for each distributor, and then the summed distributor scores to develop a system wide comparison based on performance. One direct outcome of the evaluation process was discovering that there was excessive and inefficient package handling in the distribution system.
Questions : Identify another company with a national distribution network and discuss how it might use a similar sampling process to evaluate distributors performance.
(CO3) [Application]

12. Calculate the standard deviation of demand and performance cycle using the given information.

Demand distribution

<i>Daily</i>	<i>Frequency</i>
0	1
1	2
2	2
3	3
4	4
5	5
6	3
7	3
8	2
9	2
10	1

Replenishment Cycle distribution

<i>Days</i>	<i>Frequency</i>
6	2
7	4
8	6
9	8
10	10
11	8
12	6
13	4
14	2

(CO4) [Application]