

**School of Business****Bachelor of Business Administration  
Semester End Examination - Jun 2024****Duration : 180 Minutes  
Max Marks : 100****Sem IV - D1UA413T - Logistics and Distribution Management**General Instructions*Answer to the specific question asked**Draw neat, labelled diagrams wherever necessary**Approved data hand books are allowed subject to verification by the Invigilator*

- 1) A manufacturing firm is struggling to streamline its outbound logistics processes, resulting in delayed shipments and increased transportation costs. Identify optimising outbound logistics opportunities that can contribute to improving the company's financial performance. K3(3)
- 2) Volume of transportation and movement distance can impact the revenue. Analyse the impact of combined application of economy of scale and economy of distance principle in transportation operation and pricing. K4(4)
- 3) Identify the expected overall operational performance improvement in a busy warehouse utilising the principles of warehouse management. K3(6)
- 4) Discuss the application and suitability of drones in distribution management. K6(6)
- 5) Propose an IT (information technology) application in warehouse and its main benefits. K6(6)
- 6) An e-commerce company that is experiencing rapid growth and an increase in customer demand for same-day delivery services. However, the company's current distribution network is struggling to keep up with the demand, leading to delays in order fulfillment and customer dissatisfaction. K4(8)
- 7) Examine a strategy to improve distribution agility in response to the current challenges. K3(9)
- Due to inefficient outbound logistics processes, XYZ Manufacturing Company is struggling to deliver finished products to its customers on-time. As a result, customer complaints are on the rise, and the company's reputation is at stake. Illustrate the impact of these

logistical inefficiencies on the financial of XYZ's and propose strategies to improve outbound logistics to enhance customer service.

- 8) A packaging company that supplies materials to various industries, including food and beverage, retail, and manufacturing. The company is committed to promoting sustainability in packaging solutions to minimize environmental impact, while meeting the needs of its clients. K3(9)

Identify the sustainability practices that can be implemented in packaging that will impact both environmental sustainability and customer satisfaction.

- 9) A FMCG manufacturer is facing issues in distribution. Assess the potential risks and challenges associated with implementing a new distribution channel design and propose mitigation strategies to address these challenges proactively. K5(10)

- 10) Bright paints is manufacturer and distributor variety of paints in north India. Recently customer complains have increased and product returns have increased. The company is facing the complex issue of reurn management. The company has decided to hire a 3PL form for its reverse logistics based on certain criteia. Logistics manager has rated the criteria and 3PL companies as given in Table below. Analyse the data using a suitable technique, to select the best 3PL company for reverse logistics management. K4(12)

Criteria	Description	Rating (1-10)
C1	Cost of Service	7
C2	On-time delivery	6
C3	Financial stability	5
C4	Physical resources and infrastructure	7
C5	Technology and system integration	8
C6	Geographical coverage	5

3PL	C1	C2	C3	C4	C5	C6
3PL17	8	6	7	5	6	
3PL27	6	5	6	7	6	
3PL35	5	4	5	6	7	
3PL46	6	6	4	5	5	

- 11) A transporation firm having its main hub at Noida Sector 50 from where it serves 14 customer locations in Noida and Greater noida. Customers have placed restrictions to receive the delivery at particlat time window slot with start and end time so that their other work do not suffer. As per data given in table below, you are required to design a optimum vehicle schedule that minimises the number of vehicles required using concurrent scheduler method. K6(12)

## Vehicle Scheduling

Customer	Start Time	End Time
A	8.15 AM	9.15 AM
B	8.30 AM	9.15 AM
C	9.15 AM	10.20 AM
D	9.45 AM	10.45 AM
E	10.00 AM	11.20 AM
F	11.00 AM	11.45 AM
G	01.05 PM	01.45 PM
H	01.20 PM	02.25 PM
I	01.45 PM	02.45 PM
J	02.00 PM	02.45 PM
K	02.45 PM	03.45 PM
L	03.30 PM	04.05 PM
M	04.20 PM	04.45 PM
N	04.45 PM	05.30 PM

- 12) Johson Electronics, a multinational electronics company that imports and distributes high-value electronic components. You are hired as logistics manager and exploring the possibility of utilizing a bonded warehouse to streamline customs procedures, optimize inventory management, and reduce import duties for the company's imported goods.

K5(15)

Recommend a strategic plan for implementing and managing the bonded warehouse facility, considering factors such as regulatory compliance, inventory control, and cost-effectiveness for the company's logistics operations