



**POST GRADUATE UNIVERSITY EXAMINATIONS**

**SCHOOL OF MANAGEMENT AND LEADERSHIP**

**DEGREE OF MASTER OF BUSINESS ADMINISTRATION**

**LSO 505: TRANSPORTATION AND DISTRIBUTION MANAGEMENT**

**DATE: 8<sup>TH</sup> APRIL 2026**

**DURATION: 3 HOURS**

**MAXIMUM MARKS: 60**

**INSTRUCTIONS:**

1. Write your registration number on the answer booklet.
2. **DO NOT** write on this question paper.
3. This paper contains **FOUR (4)** questions.
4. Question **ONE** is compulsory.
5. Answer any other **TWO** questions.
6. Question **ONE** carries **30 MARKS** and the rest carry **15 MARKS** each.
7. **Write all your answers in the Examination answer booklet provided.**

## QUESTION ONE

**Read the Case Study below carefully and answer the questions that follow:**

### **TRANSPORTING FOOD ITEMS REQUIRES EXTRA CARE AND EXPERTISE AT JAMBO LOGISTICS**

Poultry producers, navigate a complex array of supply and delivery challenges to ensure their food arrives fresh, wholesome, and on-time. When transporting poultry products, drivers must adhere strictly to the Food Safety Act. Drivers must be highly trained in food safety and compliance with expertise in material handling and storage. Further, the proper refrigerated trailer or refrigerated truck temperature must be maintained and monitored throughout the trip. Given the need for highly trained drivers, well-maintained refrigerated trucks and trailers, and continuous trailer temperature monitoring, some producers are shifting transportation of their products from an in-house model to an outsourced transportation model run by a third-party logistics provider to what is called [dedicated contract carriage](#) (DCC).

Jambo Logistics works with a leading poultry producer and handles transportation to and from up to seven processing plants, as well as a wide number of plants who perform the cutting and trim processing. The supplier has a 24/7 operation to ensure their customers receive the freshest poultry products possible. The poultry producer needed a partner that was dependable, versatile, and able to handle time-sensitive deliveries, as well as adhere to food safety, quality and food safety Act requirements.

As an experienced logistics and supply chain partner with decades of experience in the food industry, Jambo logistics is able to increase the productivity of the food supply chain using the latest technology to help better plan daily operations. With both shuttle and over-the-road trucking operations, an extensive range of vehicles, including tractors and reefer

trailers, along with equipment maintenance tracking, Jambo Logistics was able to get the poultry supplier up and running quickly once it elected to outsource the trucking operation. Overall, the poultry producer now experiences an 8% savings to their overall budget and a 15% reduction in driver turnover.

To meet the requirements, Penske established efficient truck routes and implemented more routine stops. Jambo Logistics also provided an additional value-added service by allocating an extra driver once a month to follow through on new protocols designed to meet food integrity and freshness guidelines. The extra driver provides additional manpower to ensure trailer integrity and make certain its food-service ready.

### **Understanding the Importance of Delivery Preparation**

To prepare for deliveries, grocers need to schedule labour to ensure staffing to load and unload items from the truck and onto the store shelves. As a result, on-time deliveries are critical. Jambo Logistics helps grocers prepare to receive deliveries by utilizing innovative geo-fencing technology, whereby a truck's onboard computer sends an email alert to a store when a driver is within a certain range of the store. Follow up alerts are then sent allowing store personnel to get Jambo Logistics organized and ready for the delivery also developed a mobile application to provide real-time visibility of ongoing shipments. With this app, the customer is able to:

- Receive updates on routes operated by Penske Dedicated Contract Carriage (DCC)
- Set up watch lists of routes they want to monitor closely
- View a map showing current locations of their vehicles

### **Preventive Maintenance Impacts Bottom Line**

Preventive maintenance for trucks and trailers is at the core of a strong maintenance program and Jambo Logistics ensures any kind of mechanical repairs are routinely completed. This is essential in maintaining trailer temperatures throughout the cold chain by keeping refrigerated equipment

in top mechanical condition. Using both Jambo Logistics and another vendor for its reefer vehicles, the chicken producer now enjoys a 20% reduction in its overall reefer maintenance and a 33% decrease in reefer fuel consumption due to proactive maintenance practices instilled through ' Jambo Logistics s DCC trucking operations.

**Required:**

- a) In reference to the case study, poultry producers, navigate a complex array of supply and delivery challenges. Explain the supply and delivery challenges.

**(10 Marks)**

- b) From the case study, as an experienced logistics and supply chain partner with decades of experience in the food industry, describe how Jambo logistics is able to increase the productivity of the food supply chain.

**(10 Marks)**

- c) Preventive maintenance for trucks and trailers is at the core of a strong maintenance program at Jambo Logistics. Analyze the benefits of fleet management.

**(10 Marks)**

**QUESTION TWO**

- a) Examine E- supply chain building blocks and global chain

**(5 Marks)**

- b) Describe the application and benefits of Enterprise Resource Planning (ERP) system in logistic management.

**(10 Marks)**

**QUESTION THREE**

- a) Discuss the concept of green supply chain management.

**(10 marks)**

- b) Examine supply chain workflow automation in organization (5 marks)

#### QUESTION FOUR

- a) Transport as a whole plays an important and pervasive role in the economic development of any country. Explain the role of transport on the growth of economic development aspects of a country. (10 marks)
- b) Examine the need for value chain in supply chain. (5 marks)