



## **INTERNATIONAL DIPLOMA IN LOGISTICS AND TRANSPORT**

### **SUSTAINABLE SUPPLY CHAINS, DIGITALISATION, AND LOGISTICS**

#### **WAREHOUSING & TRANSPORT MANAGEMENT**

##### **WTM02**

##### **JUNE 2025 EXAMINATION**

#### **Instructions to Candidates**

- Duration of examination: **3 HOURS**
  - **Answer any FIVE questions.**
  - Questions may be answered in any order.
  - Mark allocation is indicated along each question.
  - Credit will be given for citing relevant examples.
  - Write legibly.
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#### **QUESTION 1**

- a) Identify and explore digital technologies an organisation can use to improve supply chain visibility, efficiency and transparency.

**(12 marks)**

- b) Explain the relationship between digitisation and digitalisation. **( 8 marks)**

## QUESTION 2

A company operates a warehouse with the following data:

- i. Total warehouse area: 5,000 square meters.
- ii. Storage area utilization: 70%.
- iii. Average inventory turnover: 8 times per year.
- iv. Annual demand: 24,000 units.
- v. Cost per square meter for storage: \$10 per month.
- vi. Handling cost per unit: \$2.

**You are required to:**

- (a) Calculate the total annual storage cost for the warehouse. **(3 marks)**
- (b) Determine the average inventory level in the warehouse. **(3 marks)**
- (c) Calculate the total annual handling cost for the inventory. **(4 marks)**
- (d) Discuss how optimizing warehouse layout and inventory management techniques can reduce costs and improve efficiency. **(10 marks)**

## QUESTION 3

Unpack how sustainable practices can be used to attract and retain environmentally conscious customers. **(20 marks)**

## QUESTION 4

A logistics company is planning a transportation route for delivering goods. The following data is provided:

- i. Distance to be covered: 1,200 kilometers.
- ii. Fuel consumption rate: 5 kilometers per litre
- iii. Fuel cost: \$1.50 per litre.
- iv. Driver wages: \$20 per hour.
- v. Average speed: 60 kilometers per hour.

vi. Maintenance cost: \$0.10 per kilometer.

**You are required to:**

- (a) Calculate the total fuel cost for the trip. **(3 marks)**
- (b) Determine the total driver wages for the trip. **(3 marks)**
- (c) Calculate the total maintenance cost for the trip. **(4 marks)**
- (d) Discuss how adopting sustainable transport practices, such as fuel-efficient vehicles, can reduce costs and environmental impact. **(10 marks)**

### **QUESTION 5**

Evaluate local and international regulations that govern warehouse and transport management of a local organization in Chiredzi. **(20 marks)**

### **QUESTION 6**

Analyse the role of information technology in modernizing warehouse operations for a company in Zimbabwe. **(20 marks)**