

**THURSDAY: 24 April 2025. Afternoon Paper.**

**Time Allowed: 3 hours.**

**Answer ALL questions. Marks allocated to each question are shown at the end of the question. Do NOT write anything on this paper.**

**SECTION A**

**QUESTION ONE**

- (a) Identify **FIVE** key factors to consider when preparing business production plans. (5 marks)
  - (b) Outline **FIVE** financial assumptions that support effective financial planning in SMEs. (5 marks)
  - (c) Highlight **FIVE** ways an SME can design an efficient distribution network. (5 marks)
  - (d) Identify **FIVE** qualitative methods for demand forecasting in SMEs. (5 marks)
- (Total: 20 marks)**

**SECTION B**

**QUESTION TWO**

- (a) Examine **FIVE** ways supplier relationship management influences the operational efficiency of SMEs. (10 marks)
  - (b) Assess **FIVE** advantages of aligning SME operations with evolving government policies and regulations. (10 marks)
- (Total: 20 marks)**

**QUESTION THREE**

- (a) Analyse **FIVE** strategies SMEs can implement to enhance customer trust and loyalty in a competitive market. (10 marks)
  - (b) Explain **FIVE** labour practices that may negatively impact supply chain sustainability in SMEs. (10 marks)
- (Total: 20 marks)**

**SECTION C**

**QUESTION FOUR**

**Read the case study below and answer the questions that follow.**

**ECO SPHERE LOGISTICS (ESL)**

Eco Sphere Logistics (ESL), a rapidly growing SME based in Nairobi, Kenya, specialises in sustainable last-mile delivery services using electric vehicles and carbon-neutral logistics solutions. Founded by Maraka Moru, ESL has built a strong reputation for its commitment to environmental responsibility and innovative service delivery. Operating in a highly competitive urban logistics market, the company serves e-commerce platforms, retailers and SMEs that prioritise sustainability. Customers increasingly demand not only speed and reliability but also greater transparency and demonstrable eco-friendly practices. To differentiate itself, ESL offers real-time tracking for enhanced supply chain visibility, carbon-neutral delivery options leveraging electric and hybrid vehicles and personalised customer service to strengthen client relationships.

As ESL rapidly expands, managing its electric vehicle (EV) fleet has become a key challenge. The high initial costs of EVs and the limited availability of charging stations in Nairobi create barriers to scaling operations. Additionally, fluctuating electricity prices and charging station accessibility directly impact the company's cost structure and operational efficiency. Ensuring the sustainability of fleet operations while maintaining cost-effectiveness remains a pressing concern.

The company also relies on both local and international suppliers for vehicle parts, battery components and maintenance services. The unpredictability of spare part availability and long lead times pose risks to operational continuity. To address this, ESL seeks to establish long-term partnerships with sustainable suppliers who can ensure quality, affordability and reliability. Strengthening supplier relationships will help streamline the procurement process and improve service delivery.

To enhance traceability and build trust with clients who require proof of sustainable logistics, ESL is exploring blockchain technology for supply chain transparency. However, blockchain adoption introduces complexities such as data security risks, integration challenges with existing logistics systems and high implementation costs. At the same time, the company is investing in AI-driven route optimisation to improve delivery efficiency and reduce operational costs, making its logistics network more adaptive and resilient. Balancing inventory management is another critical aspect of operations. Maintaining an optimal supply of spare parts is essential to avoid disruptions while keeping storage costs low. To achieve this, ESL is exploring just-in-time (JIT) inventory management, which would reduce holding costs while ensuring operational reliability.

Kenya's evolving policies on carbon emissions and sustainable transport create both opportunities and challenges for ESL. While tax incentives and government support for green energy initiatives offer financial benefits, compliance with stringent environmental regulations adds to operational costs. Staying ahead of policy changes and aligning operations with regulatory frameworks is essential for maintaining a competitive edge. To address these challenges and strengthen its market position, ESL is implementing several strategic initiatives.

The company is leveraging blockchain and IoT technology to improve tracking, security and transparency across its logistics network. It is also partnering with renewable energy providers to establish dedicated charging hubs, reducing reliance on public charging stations. Additionally, ESL is forming strategic alliances with local manufacturers for vehicle maintenance and battery recycling to ensure a sustainable supply chain. By prioritising eco-friendly suppliers and optimising procurement processes, the company aims to enhance cost-effectiveness while maintaining its sustainability goals.

*(Disclaimer: This case study is solely for educational and examination purposes.)*

**Required:**

- (a) Propose **FIVE** primary activities that ESL should focus on to manage its value chain effectively based on Porter's value chain model. (10 marks)
  - (b) Evaluate **FIVE** factors that could increase supply chain risks for ESL. (10 marks)
  - (c) Recommend **FIVE** strategies ESL can use to manage employee resistance when introducing new sustainable technologies. (10 marks)
  - (d) Suggest **FIVE** funding options available for SMEs like ESL to invest in sustainable supply chain solutions. (10 marks)
- (Total: 40 marks)**

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