INTERNATIONAL DIPLOMA IN LOGISTICS AND TRANSPORT

SUPPLY CHAIN MANAGEMENT
DIP02

MARCH 2025 SUPPLEMENTARY EXAMINATION

Note to Candidates

Candidates are advised to spend NOT more than 45 minutes on each question

Instructions to Candidates

- Duration of examination **3 HOURS**
- **Answer ALL Questions in Section A and any THREE questions in Section B**
- Questions may be answered in any order.
- Allocations of marks is indicated along each question.
- Credit will be given for citing relevant examples.
- Write legibly.

SECTION A

QUESTION 1 (Compulsory)

Case study

The Lebanon Gasket Company (LGC) hired Tom Walsh as the plant manager of its Topeka, Kansas, USA, facility in January 2004. LGC was Impressed by Walsh's 20 years of experience as a manufacturing engineer, including four years of employment as a manager in Toyota's major USA manufacturing facility. Walsh was given responsibility to turn around a plant that had been suffering from declining profits and margins, excessive waste and inventory levels, unsatisfactory on-time customer delivery performance, and shrinking market share.
His game plan for overcoming these problems was to focus on one core strategy — operational excellence. He intended to abandon the mass production mind-set that had guided the Topeka plant since its inception in 1979 in favour of the lean thinking approach that he had seen work effectively at Toyota.
After 18 months on the job, Walsh and his co-workers had accomplished many goals related to the plant's lean transition. Two value streams and four manufacturing cells were up and running. The lean training program was proceeding on schedule. The production, engineering, and maintenance employees had started to buy-in to lean thinking. Customer

order-to-delivery cycle time had drastically improved, which, in turn, was growing sales. Nonetheless, the financial results were disappointing. The absorption income statements indicated that the plant's return on sales had continued to decline from the 11.5% that was reported for the fourth quarter of 2004. To make matters worse, organizational infighting was at an all-time high-the Finance Department was blaming the Production Department for the plant's declining performance and vice versa.

As Walsh was shown the plant's 2005 quarterly income statements, he reflected on his stressful intervention duties between Finance and Production, he wondered aloud: "Where do I go from here?" Perhaps it was time to have a conversation with his finance manager to explore the role accounting should play in a lean enterprise.

(Source: Strategic Finance. Sep. 2005, Vol. 87 Issue 3, p.9, p.45)

Using the above case study, suggest and justify items that could have been included for the training programme to enable staff to "buy-in" to lean thinking within the Lebanon Gasket Company.

(25 marks)

SECTION B

Answer any THREE questions.

QUESTION 2

(a) For an organisation of your choice in the transport and logistics sector consider the reasons and benefits for needing to operate with the concept of demand management.

(15 marks)

(b) List the elements that will increase supply chain costs as a result of volatility of customer demand. **(10 marks)**

QUESTION 3

(a) With reference to an organisation in Zimbabwe with which you are familiar, discuss how far the value chain concept is being applied. **(15 marks)**

(b) In which ways does this value chain concept provide any current and/or potential sources of competitive advantage. **(10 marks)**

QUESTION 4

Examine the success factors for the Six Sigma process. **(25 marks)**

QUESTION 5

Define how SMEs in Zimbabwe can leverage between supply chain planning and customer service levels in growing their businesses to become profitable. **(25 marks)**

QUESTION 6

Choose a product/service of an organisation you are familiar with and identify the supply chain costs associated with the process involved in movement/delivery from the upstream to the downstream, showing the split between fixed, variable and overheads. **(25 marks)**