



MODULE : LOGISTICS MANAGEMENT 2B
CODE : LBE2B01 / LMA22B2
DATE : 03 DECEMBER 2015
DURATION : 180 MINUTES
TIME : 3 HOURS
TOTAL MARKS : 140

EXAMINER : MR PJ KILBOURN
MODERATOR : PROF J WALTERS
NUMBER OF PAGES : 9 Pages

INSTRUCTIONS TO CANDIDATES:

- Answer all the questions
- The use of calculators (non cellphone or tablet) is permitted.
- Question papers must be handed in.
- This is a closed book assessment.
- Read the questions carefully and answer only what is asked.
- Number your answers clearly.
- Write neatly and legibly
- Structure your answers by using appropriate headings and sub-headings.
- The general University of Johannesburg policies, procedures and rules pertaining to written assessments apply to this assessment.

SECTION B – LONG QUESTIONS **[90 MARKS]**

QUESTION 1

[10 Marks]

You are the newly appointed logistics manager of a distribution warehouse in Midrand. You decide that the first thing to do is a risk assessment to establish the key risk areas. Discuss the following as part of your assessment approach:

- 1.1. Fire (2)
- 1.2. Security (8)

QUESTION 2

[10 Marks]

Packaging has both marketing and logistics related benefits and is far more than simply putting something in a container. Each type of packaging has a specific purpose and often requires a large technological investment. There are eleven benefits of packaging. Name and discuss five of these benefits.

QUESTION 3

[20 Marks]

A company has asked you to investigate various storage/racking options for their warehouse. They also need information about materials handling equipment. Critically discuss the following storage and materials handling options:

- 3.1. Static storage racks (3)
- 3.2. Block stacking (2)
- 3.3. Narrow-aisles racks (3)
- 3.4. Live storage racks (3)
- 3.5. Reach truck (3)
- 3.6. Forklift truck (3)
- 3.7. Turret truck (3)

QUESTION 4

[6 Marks]

As the logistics solution lead on a project you identified various inefficiencies at the client's warehouse operation in Durban. The warehouse manager is not sure why you're highlighting this as a finding in your report. Describe the three principles that underlie the efficient operations of any warehouse facility to the warehouse manager.

QUESTION 5**[10 Marks]**

You are a newly appointed graduate at a consulting company and have been allocated to a supply chain project. The project manager doesn't have much logistics experience. You've been tasked to assist her with the development of a logistics planning and control framework for the client. Describe the logistics planning and control cycle with specific reference to the four elements thereof.

QUESTION 6**[8 marks]**

Kumalo Transport is a road freight transport provider with a fleet of 100 vehicles operating mostly in the manufacturing industry. One of the vehicles in the fleet is a four-axle combination vehicle. This vehicle has covered 120 000 km for the year ending February 2015. The February 2015 costs of the vehicle are shown in the table underneath.

| | |
|----------------------------------|----------|
| Overhead costs per annum | R122 000 |
| Standing vehicle costs per annum | R290 000 |
| Running costs (c/km) | 722,8c |

You are requested to determine the following:

- 6.1 The total vehicle costs per kilometer for the above mentioned vehicle. (2)
- 6.2 The total vehicle costs per kilometer for the above mentioned vehicle for 150 000 km (2)
- 6.3 The total cost per kilometer varies between 120 000 km and 150 000 km. Which efficiency principle applies here? Briefly explain the relevant principle. (3)
- 6.4 If Kumalo Transport decide to resort to a marginal cost strategy for a trip of 5000 km and charging avoidable costs plus 20%, what should the tariff be per kilometer? (1)

QUESTION 7**[12 Marks]**

Understanding economies of scale as it applies to transport is a critical requirement for sound transport management. Demonstrate your understanding through a discussion of economies of scale in transport in respect to the following:

- 7.1 Increasing vehicle sizes and maximum utilization of their capacity economies of scale) (5)
- 7.2 Increasing fleet sizes and maximum use of its capacity (3)
- 7.3 Economies of density (4)

QUESTION 8**[9 Marks]**

- 8.1) Define a unit load (2)
- 8.2) Explain the advantages of using unit loads in logistics systems (5)
- 8.3) Explain the **disadvantages** of containers (2)

QUESTION 9**[5 Marks]**

Various efficiency considerations influence whether an organisation should make use of a third-party transport service provider (rather than own/private transport) or not. Briefly discuss five considerations pertaining to this issue.

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