



MODULE : LOGISTICS MANAGEMENT 2B

CODE : LBE2B01/LMA12A2

DATE : 09 JANUARY 2017

TIME : 180 MINUTES

TOTAL MARKS : 140 MARKS

EXAMINER : MR GJ HEYNS

MODERATOR : DR PJ KILBOURN

NUMBER OF PAGES : 9 PAGES

INSTRUCTIONS TO CANDIDATES:

- 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 [90 MARKS]

QUESTION 1

(27 marks)

Rail providers must make themselves more attractive to freight customers

THERE can be no question of forcing movers of bulky commodities to switch from road to rail, so the service offered by freight rail providers must be improved. This is according to Hlengiwe Sayd, the Department of Transport's director for rail policy and strategic management, who was speaking at the South African Rail Industry Summit in Boksburg on Thursday. Ms Sayd was responding to calls for increased regulation of trucks on the country's road. The Department of Transport was considering regulations banning heavy trucks from SA's roads during certain hours, in a bid to stem road accidents.

Last year the department released its National Rail Policy green paper, which advocates moving rail-friendly cargo from road to rail. Rail's market share in freight terms was similar to its share of passengers, with the bulk of commuters opting for road transportation. Ms Sayd acknowledged calls to regulate cargo on roads, but said the department also recognised the important role that trucks had to play, particularly in "door-to-door" movement of freight. She said trucks could become a "rail feeder" in certain parts of the country.

"You cannot force customers to use rail. Rail has to provide a good service to get an automatic movement from road to rail," said Ms Sayd. Transnet Freight Rail executive manager for strategic knowledge Elvin Harris said while the state-owned rail and logistics company had plans under its market-demand strategy to move cargo from road to rail, it was not looking to move all freight in this direction.

The market demand strategy is Transnet's R340bn-380bn plan to upgrade and invest in the country's ports and rail infrastructure, with one of its objectives being to move rail-friendly freight from road to rail. "About 30%-35% of cargo is rail friendly. Our target is to move all of that... We are never going to get back to the days where rail moved 90% of cargo. But if we can get to the stage where we are moving the 30%-35%, then we would have done a fantastic job," said Mr Harris.

Source: Adapted from Business Day (21 April 2016) and written by Andiswa Maqutu

- 1.1. What is road and rail transports' approximate share of the total annual freight transport market in South Africa? (2 marks)
- 1.2. To successfully implement their market-demand strategy, TFR must understand the operational and economic characteristics of both rail and road transport modes. Discuss five typical strengths and five typical limitations of rail transport. (10 marks)
- 1.3. Discuss road transport efficiency by referring to the existence (if any) of economies of distance and economies of vehicle size in road freight operations (10 marks)
- 1.4. As alluded to in the article, Government can use economic regulation to support their policy objective to move freight from road to rail. Discuss five additional reasons why government involves itself with transport (5 marks)

QUESTION 2**(15 marks)**

The efficient and effective operation of a warehouse requires the use of various types of equipment and the combination of a complex series of processes.

- 2.1 Discuss the following two warehouse processes, (i) **receiving of stock** and (ii) **stock counting** (10 marks).
- 2.2 Name ten (10) other processes inherent to all warehouse facilities. (5 marks).

QUESTION 3**(9 marks)**

A set of nine principles act as guidelines for promoting efficient freight transport operations when routing and scheduling **long-distance trips**. Discuss any three principles (6) and list the remaining six principles (3).

QUESTION 4**(7 marks)**

There are many different types of warehouse facilities that each reflect their operational focus in the supply chain. Discuss the major differences that may exist between **manufacture's warehouse**, **distribution centres** and **cross-dock facilities**.

QUESTION 5**(10 marks)**

Pallet storage racks can be configured in various ways to increase storage density.

- 5.1 Discuss (i) narrow-aisle rack and (ii) mobile rack configurations (8)
- 5.2 List a further two rack configurations used in facilities (2)

QUESTION 6**(10 marks)**

Explain Total Quality Management (TQM) and discuss the quality principles on which it is based

QUESTION 7**(12 marks)**

Discuss the following logistics management concepts:

- 7.1 Spreaders and twistlocks (3)
- 7.2 Value of service pricing (4)
- 7.3 Demurrage and detention (5)

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