

PROGRAM : NATIONAL DIPLOMA EXTENDED
TRANSPORT MANAGEMENT

SUBJECT : TRANSPORT 2A

CODE : TRA2A00

DATE : 31 OCTOBER 2015

TIME : 12:30 TO 15:30

DURATION : 180 MINUTES



EXAMINER : MR. LP BUYS

MODERATOR : MRS. C CILLIERS

TOTAL : 100 MARKS

PAGES : 12

INSTRUCTIONS:

THIS IS A CLOSED BOOK ASSESSMENT.

ANSWER ALL QUESTIONS ON THIS QUESTION PAPER. SUBMIT THIS QUESTION PAPER.

MAKE USE OF THE OPTICAL SCANNER SHEET TO ANSWER QUESTION 1.

ANY NON-PROGRAMABLE POCKET CALCULATOR MAY BE USED.

THE GENERAL RULES OF ASSESSMENT OF THE UJ APPLY TO THIS ASSESSMENT.

COMPLETE THE FOLLOWING STUDENT DETAILS:

INITIALS: _____ SURNAME: _____

STUDENT NUMBER: _____

CONTACT NUMBER: _____

<p>PERCENTAGE</p> <p>_____ %</p>

QUESTION 1**[20 MARKS]**

Mark the most correct answer on the optical scanner sheet provided. There is only one correct answer per question. Submit the scanner sheet with this question paper

- 1) _____ management is the management of a network of interconnected businesses involved in the provision of product and service packages required by the end customers:
 - a) Marketing
 - b) Supply Chain
 - c) Logistics
 - d) Distribution
- 2) The use of different types of transport modes within the same movement operation is referred to as _____ transport:
 - a) Intermodal
 - b) Intramodal
 - c) Seamless service
 - d) Integrated
- 3) Transport operational control does not include:
 - a) The movement of goods by a freight carrier
 - b) Goods are delivery to the customer's premises
 - c) Documentation is completed after the vehicle returns to the depot
 - d) Orders are consolidated in a cage at the distribution warehouse
- 4) The following truck information is available; Variable costs is R3 per km; Fixed costs is R150 000; and the vehicle travels 110 000 km per annum. The distance utilization is _____ per km:
 - a) R 1.36
 - b) R 4.36
 - c) R 3.13
 - d) R 6.50
- 5) A 5 ton truck is capable of moving 9 FTL per day between two locations. It is found that the truck actually moved 40 ton per day. The % OG is:
 - a) 11.1%
 - b) - 11.1%
 - c) 12.5%
 - d) -12.5%
- 6) A system is:
 - a) Real
 - b) Abstract
 - c) Conceptual
 - d) Both a and c
 - e) Both b and c
- 7) _____ management is the economic planning and control of vehicle parts and associated road transport equipment required for an ongoing service of excellence:
 - a) Procurement
 - b) Demand
 - c) Inventory
 - d) Customer service
- 8) Price equals:
 - a) Costs plus profit
 - b) Profit minus costs
 - c) Profit minus price
 - d) Break-even-point
- 9) The load capacity of a Pantechicon furniture semi-trailer will commonly be measured in _____ payload capacity.
 - a) Cubic metre
 - b) Ton
 - c) Cubic ton
 - d) Kilometre
- 10) _____ utilisation is to consolidate loads destined for the same geographical area in order to move a full truck load:
 - a) Capacity
 - b) Distance
 - c) Time
 - d) Frequency

- 11) A vehicle availability of _____ % is a reasonably good figure in most circumstances:
- 55
 - 65
 - 75
 - 85
- 12) _____ costs are the cost elements that increase or decrease in direct relation to the number of products/services sold:
- Overhead
 - Variable
 - Fixed
 - Direct
- 13) This is not an example of fixed costs:
- Tyres
 - Salaries or wages of drivers and crew
 - Rates on fixed property
 - Vehicle insurance
- 14) The longer the vehicle travels with a load the more economical the shipment operation becomes because the more _____ costs can be divided by the revenue generated by the payload:
- Operating
 - Variable
 - Total
 - Fixed
- 15) A _____ is the most basic transportation document. It is the contract of carriage between a carrier and a shipper:
- Dispatch note
 - Bill of lading
 - Freight bill
- 16) _____ vehicles are generally more maneuverable than other types of vehicles, and are the popular choice when weight rather than bulk is the main selection criteria:
- Rigid
 - Draw-bar trailer combination vehicles
 - Articulated combination vehicles
 - Inter-link vehicles
- 17) These pipe lines travel short distances accumulate products from oil wells and move them to oil batteries or natural gas processing facilities:
- Feeder Lines
 - Transmission Pipelines
 - Distribution Pipelines
 - Gathering Lines
- 18) The most serious problem experienced in the construction of pipelines is related to pipeline:
- Coatings
 - Excavation
 - Welding
 - Pipe Materials
- 19) 1 BBL USA liquid equals:
- 159 L
 - 149 L
 - 139 L
 - 119 L
- 20) The pipeline hub of South Africa is:
- Cape Town
 - Johannesburg
 - Durban
 - Port Elizabeth

QUESTION 2**[10 MARKS]**

Complete the following statements by filling in the appropriate words in the spaces provided.

- 1) The main objectives of risk management is to reduce the _____ of transport incidents causing a loss and to reduce the _____ that loss producing transport incidents may occur.
- 2) Use the _____ load capacity vehicles first if a full truck load (FTL) capacity can be achieved.
- 3) If the cargo is in good condition and everything is in order, no endorsement will be made on the cargo manifest, and it can be termed a " _____ " cargo manifest.
- 4) Vehicle load capacity is arrived at by subtracting the vehicle _____ from the vehicle _____
_____.
- 5) _____ costs are costs that can be allocated to a specific revenue generating cost centre (such as a vehicle), but which remain constant, regardless of an increase or decrease in the amount of revenue generated by that cost centre.
- 6) Operational control addresses two main areas, namely, the _____ and the _____
_____.
- 7) A " _____ " can be a location (e.g. a depot), a person (e.g. a driver) or a piece of equipment (vehicle, forklift truck) against which costs are charged.

Continue...

QUESTION 3**[10 MARKS]**

Indicate if the following statements are true or false by marking the appropriate block with a X.

STATEMENT	TRUE	FALSE
Plan the fastest (not the shortest) route between pickups and deliveries.		
Pipeline transport is the cheapest mode of transport.		
Time utilisation measures include the standing time while a vehicle is loaded or unloaded.		
Administrative consumables is an example of indirect costs.		
The gross vehicle mass (GVM) of a vehicle is the maximum mass of the vehicle without a load.		
The costs of fuel and wages contribute approximately 30 % towards the total operating costs of a vehicle.		
Time utilisation measures the time a vehicle is actually in use, compared to the time that the vehicle is available. Available time is determined by calculating the number of hours the vehicle is able to work in a given day.		
A system is a unity formed from many, often, different interdependent parts or people, subject to a common purpose and operating within a particular environment.		
The time in transit for pipeline transport is relatively fast in comparison to other modes of transport.		
Load assessment means the workload of the vehicle with regard to the effort and time needed by the driver for all activities required for a specific delivery route with specific pickup and delivery points.		

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QUESTION 4**[10 MARKS]**

Koos is the owner of a transport company. He is investigating the viability of an annual shipping contract for packets of potatoes, produced in a factory in Tembisa, which must be shipped to a retailer in Durban. The packets of potatoes are packed on disposable pallets and shrink-wrapped for protection.

Koos's truck has a payload of 20 pallets. He estimates that a shipping price of R 65 per pallet should adequately cover his cost and leave room for a small profit.

The truck rent amounts to R 3 000 per month.

The shrink-wrapping per pallet cost R 8.

The driver's wage is determined at R 5 500 per month.

Monthly administrative costs amount to R 550.

The cost of a disposable pallet is R 12.

Handling equipment for loading/off-loading of the potatoes is R 2 500 per month.

You are required to determine the following:

Total fixed costs.

Variable cost per shipment.

Break-even point per shipment.

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QUESTION 5**[10 MARKS]**

Identify the criteria that should be used for vehicle selection with relevance to its operational purpose and conditions.

Continue...

QUESTION 6**[10 MARKS]**

Identify the mode of transportation to which the following mode specific statements are applicable.

Only one X per row is allowed.

THIS MODE OF TRANSPORT:	ROAD	RAIL	AIR	MARINE	PIPELINE
Compete with rail carriers for moderate shipments over long distances.					
Is the dominant transportation mode for bulk land-locked shipments.					
The majority of commodities carried are semi-processed or raw materials transported between continents.					
Is able to transport only a limited number of products.					
Offer shippers an extremely high level of service dependability at a relatively low cost.					

Continue...

QUESTION 7**[10 MARKS]**

Identify and briefly explain the typical factors that need to be considered during a pipeline environmental impact assessment.

FACTOR	EXPLANATION

Continue...

QUESTION 8**[10 MARKS]**

Complete the operational cost template of a truck, given the information below.

	FIXED COSTS		OVERHEAD COSTS		VARIABLE COSTS	TOTAL COSTS
Licenses	R 13 500	Allocated p vehicle				
Insurance	R 22 000			Fuel		
Wages/Salaries	R 88 000			Tyres		
Interest	R 33 000			Maintenance	R 25 000	
Depreciation	R 40 000			Lubricants	R 28 000	
Totals			R 16 000			
Distance	95 000	km				
Fuel consumption	10	L/100km	Work weeks	40	Payload (Ton)	15
Fuel price	13	per L	Days/week	6	Deliveries/day	4
Tyre cost	0.35	per km	Hours/day	8		

COST	CALCULATION	ANSWER
OPERATING COST PER ANNUM		
OPERATING COST PER WEEK		
OPERATING COST PER DAY		
OPERATING COST PER HOUR		
FIXED+ OVERHEAD COST PER DAY		
FIXED+ OVERHEAD COST PER HOUR		
VARIABLE COST PER DAY		
VARIABLE COST PER HOUR		
TOTAL OPERATING COST PER KM		
TOTAL OPERATING COST PER TON		

Continue...

QUESTION 9**[10 MARKS]**

Comment on the executive summary of the National Freight Logistics Strategy document.

Continue...

ROUGH WORK