FACULTY/COLLEGE	College of Business and Economics
SCHOOL	Johannesburg Business School
DEPARTMENT	Transport and Supply Chain Management
CAMPUS(ES)	APK
MODULE NAME	Road Transport Costing and Distribution
MODULE CODE	TRE8X10
SEMESTER	Second
ASSESSMENT OPPORTUNITY, MONTH AND YEAR	Final Summative Assessment Opportunity November 2019

ASSESSMENT DATE	November 2019	**SESSION**	08:30 – 11:30
ASSESSOR(S)	Prof. G.C. Prinsloo		
MODERATOR(S)	Mr JA van Rensburg		
DURATION	3 hours (180 min)	**TOTAL MARKS**	180

NUMBER OF PAGES OF QUESTION PAPER (Including cover page)	5

INFORMATION/INSTRUCTIONS:

- Answer all questions
- 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 and correctly as per the question paper.
- Write neatly and legibly on both sides of the paper in the answer book, starting on the first page.

QUESTION 1 **[10 MARKS]**

List sequentially and complete the "*Vehicle Concepts*" description where required in your examination script (NOT ON QUESTION PAPER). See page 4 of this examination paper.

QUESTION 2 **[40 MARKS]**

Complete the attached "*Vehicle Cost Schedule*". **(The use of calculators is permitted).** See page 5 of this examination paper (COMPLETE ON QUESTION PAPER). Remember to mark with student number.

QUESTIONS 3 **[10 MARKS]**

Give formulae description for the following cost concepts:

a) Cost of Capital
b) Depreciation per annum
c) Insurance Cost
d) License Cost
e) Fuel Cost
f) CPK Maintenance
g) Fixed Cost per day
h) Variable cost per hour
i) Overheads administration
j) CPK Fuel

QUESTION 4 **[20 MARKS]**

In the process of managing a Road Transport enterprise the Management normally utilises two different sets of accounting information to steer the organisation. Illustrate how you will apply this statement in a Road Transport Enterprise of your choice, with due attention to:

a) The users of the information and
b) The differences encountered between the two kinds of accounting information

QUESTION 5 **[20 MARKS]**

Costing evolved from a traditional costing system to the current practice of activity-based costing. Evaluate and compare the two systems.

QUESTION 6 **[20 MARKS]**

Investment in a Transport Operation is judged by the same parameters as an investment in any other business venture. By using the following concepts, explain how you will utilise it for such judgement on investment:

a) Opportunity cost of an investment
b) Compounding and Discounting
c) The concept of Net Present value

QUESTION 7 **[20 MARKS]**

Analyse and compare Net Present Value and Internal Rate of Return.

QUESTION 8 **[40 MARKS]**

Budgeting is a major management activity.

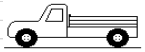
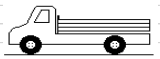
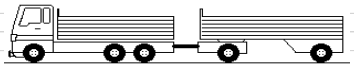
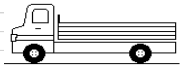
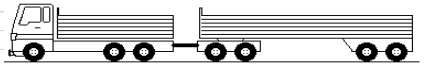
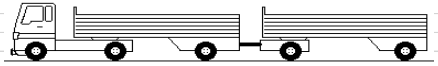
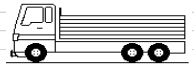
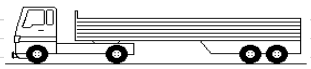
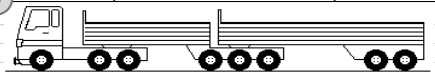
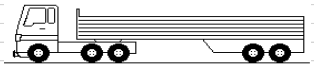
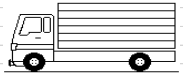
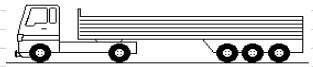
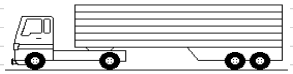
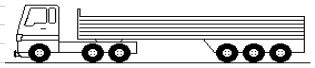
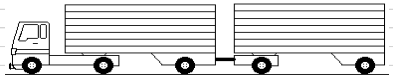
a) Identify comprehensively the stages in the budgeting process.
b) State criticism against budgeting.

TOTAL: [180 MARKS]

ADDENDUM : QUESTION 1

VEHICLE CONCEPTS

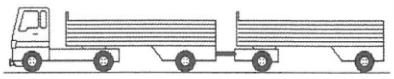
Page C1

01	 (2400 kg or Less)	Permissible Unladen PAYLOAD up to	2 400 1 400 1 000	**12**	 (4x2 Rigid+2 Axle Trailer)	Permissible Unladen PAYLOAD up to	28 000 11 400 16 600
02	 (2400 to 5000 kg)	Permissible Unladen PAYLOAD up to	5 000 2 680 2 320	**13**	 (6x4 Rigid+2 Axle Trailer)	Permissible Unladen PAYLOAD up to	43 000 15 780 27 220
03	 (5001 to 7500 kg)	Permissible Unladen PAYLOAD up to	7 000 3 100 3 900	**14**	 (6x4 Rigid+4 Axle Trailer)	Permissible Unladen PAYLOAD up to	55 200 19 680 35 520
04	 (7501 to 10000 kg)	Permissible Unladen PAYLOAD up to	10 000 4 210 5 790	**15**	 (Doubles Combination)	Permissible Unladen PAYLOAD up to	43 000 17 150 25 850
05		Permissible Unladen PAYLOAD up to	13 700 5 610 8 090	**16**	 (Concept 08+2 Axle Trailer)	Permissible Unladen PAYLOAD up to	44 000 19 550 24 450
06		Permissible Unladen PAYLOAD up to	24 000 8 660 15 340	**17**	 (Concept 08+2 Axle Trailer)	Permissible Unladen PAYLOAD up to	56 000 21 730 34 270
07	 (4x2 TT+Single Axle ST)	Permissible Unladen PAYLOAD up to	25 000 10 720 14 280	**18**	 (6x4 TT+Tandem/Tandem ST)	Permissible Unladen PAYLOAD up to	56 000 22 125 33 875
08	 (4x2 TT+Tandem Axle ST)	Permissible Unladen PAYLOAD up to	34 000 14 440 19 560	**19**	 (6x4 TT+Tridem/Tandem ST)	Permissible Unladen PAYLOAD up to	56 000 23 180 32 820
09	 (6x4 TT+Tandem Axle ST)	Permissible Unladen PAYLOAD up to	43 000 16 250 26 750	**20 PMA**	 4x2 Rigid	Permissible Unladen PAYLOAD up to	13 700 5 390 8 310
10	 (4x2 TT+Tridem Axle ST)	Permissible Unladen PAYLOAD up to	40 000 15 420 24 580	**21 PMA**	 Four Axle Artic (4x2 TT+Tandem Axle ST)	Permissible Unladen PAYLOAD up to	34 000 13 650 20 350
11	 (6x4 TT+Tridem Axle ST)	Permissible Unladen PAYLOAD up to	49 500 17 520 31 980	**22 PMA**	 (Doubles Combination)	Permissible Unladen PAYLOAD up to	43 000 18 350 24 650

ADDENDUM : QUESTION 2

15 RFA VEHICLE COST SCHEDULE Edition 59

Concept - 15
Five Axle Combination
Doubles Combination
DROPSIDE Body



ANNUAL FIXED (STANDING) COSTS	R	cpk	%	%
Cost of Capital (Finance)	104,577			
Depreciation	201,085			7.2%
Insurance				
On Vehicle Staff	658,678	598,8	48,5%	23,6%
Overheads - Administration				
Overheads - Operational				
Licence	23,280			
Other	0	0.0	0.0%	0.0%
TOTAL ANNUAL FIXED COSTS	1,357,736	1,234.3	100.0%	
VARIABLE (RUNNING) COSTS	R	cpk	%	%
Fuel	803,175	730.2	56.2%	28.8%
Lubricants				
Maintenance	356,499			
Tyres	250,327			
Other	0	0.0	0.0%	0.0%
TOTAL VARIABLE COSTS	1,430,080	1,300.1	100.0%	51.3%
TOTAL ANNUAL COSTS	2,787,816	2,534.4	---	100.0%

COST SUMMARY	From Total Annual		
	Fixed Cost	Variable Cost	Total Cost
Cost per Day R			
Cost per Hour R			
Cent / Ton . km At 70.0% Payload Utilisation and 75.0% Annual Laden km			

INDICES and INCREASES	INDICES RFA 20 Base Mar 99 = 1000	INCREASES From Edition RFA 58
Total Annual Fixed Cost	4439	6.2%
Finance + Depreciation	2500	2.1%
On Vehicle Staff	6324	8.8%
Total Variable Cost	7514	-1.7%
Fuel Cost	7301	-5.0%
Maintenance Cost	7417	3.0%

% INCREASE / DECREASE	Annual From Edition RFA 57	Previous From Edition RFA 58
Total Annual Fixed Cost	6.1%	6.2%
Total Variable cost - Incl Fuel & Oil	11.6%	-1.7%
Total Variable cost - Excl Fuel & Oil	5.5%	3.0%
Total Annual Cost - Incl Fuel & Oil	8.9%	2.0%
Total Annual Cost - Excl Fuel & Oil	5.9%	5.2%

ASSUMPTIONS : Concept - 15
Five Axle Combination Doubles Combination
DROPSIDE Body Apr-19

PRIME MOVER OR RIGID					
Cost Price (excl VAT)				R	1,098,900
Residual Value				%	25.0%
Finance - Cost of Capital (Interest)				%	10.3%
- or Monthly Repayment				R	0
Depreciation - Distance km	0	or	Time	yrs	5.0
Insurance (% of Cost Price)				%	7.5%
Tare	7,550	kg	Licence	R	12,132
Number of Steering Axle(s)				no	1
Number of Tyres (excl spare)				no	6
Tyre Size				-	315/80R22.5
Tyre Price - New Tyre (excl VAT)				R	24,130
- Retread (excl VAT)				R	3,359
New Tyre Life - Front & Rear			80,000	km	100,000
Retread Tyre Life - Front & Rear			80,000	km	100,000
Number of Retreads - Front & Rear			0.0	no	2.0
TRAILERS OR SEMI TRAILERS					
Cost Price (excl VAT) (1st + 2nd Trailer)				R	941,631
Residual Value				%	0.0%
Finance - Cost of Capital (Interest)				%	10.3%
- or Monthly Repayment				R	0
Depreciation - Time				yrs	10.0
Insurance (% of Cost Price)				%	5.0%
Tare - First Trailer	4,350	kg	Licence	R	4,920
Tare - Second Trailer	5,250	kg	Licence	R	6,228
Number of Axle(s)				no	3
Number of Tyres (excl spares)				no	12
Tyre Size				-	315/80R22.5
Tyre Price - New Tyre (excl VAT)				R	24,130
- Retread (excl VAT)				R	3,052
New tyre life				km	120,000
Retread tyre life				km	120,000
Number of Retreads				no	2.0
ON VEHICLE STAFF					
Drivers - No & Monthly Cost		no	1	R	38,904
Assistants - No & Monthly Cost		no	1	R	15,986
ANNUAL FIXED OVERHEADS					
Administration				R	144,370
Operational				R	96,247
Other Fixed Standing Costs				R	0
VARIABLE COSTS					
Fuel Consumption			Litre / 100 km		49.0
Fuel Price			Cent / Litre		1,490.1
Lubricants (as % of fuel cost)				%	2.5%
Maintenance				cpk	324.1
Other Variable Running Costs				cpk	0.0
UTILISATION					
Annual Kilometres				km	110,000
Payload Utilisation & Annual Laden km	%		70.0%	%	75.0%
Days Worked per Annum				days	245
Chargeable Hours per Work Day				hrs	12.0