UNIVERSITY OF JOHANNESBURG

QUALIFICATION	:	**B COM HONOURS**
MODULE	:	**ROAD TRANSPORT COSTING AND DISTRIBUTION**
CODE	:	**TRE8X10**
DATE	:	**NOVEMBER 2017 MAIN EXAMINATION**
DURATION	:	**180 MIN**
TIME	:	**08:30 – 11:30**
TOTAL MARKS	:	**180**

EXAMINER(S)	:	**PROF GC PRINSLOO**
(EXTERNAL) MODERATOR(S)	:	**MR JA VAN RENSBURG**
NUMBER OF PAGES	:	**4**

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.
- Answer each section on a different answer sheet.

QUESTION 1 **[10 MARKS]**

List sequentially and complete the "*Vehicle Concepts*" description where required in your examination script (NOT ON QUESTION PAPER). See page 3.

QUESTION 2 **[40 MARKS]**

Complete the attached "*Vehicle Cost Schedule*". **(The use of calculators is permitted)** See page 4.

QUESTIONS 3 **[10 MARKS]**

Give formulae description for the follow 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]**

Evaluate the impact of the changing business environment on management accounting.

QUESTION 5 **[20 MARKS]**

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

QUESTION 6 **[20 MARKS]**

Analyse and compare net present value and internal rate of return.

QUESTION 7 **[20 MARKS]**

Evaluate the multiple functions of budgets.

QUESTION 8 **[40 MARKS]**

Budgeting is a major management activity.

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

QUESTION 1

VEHICLE CONCEPTS

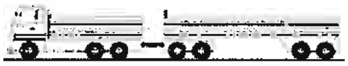
Page C1

Concept	Vehicle			Concept	Vehicle		
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	(Co[illegible]2 [illegible] 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 [illegible]	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 00[illegible] 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

QUESTION 2

14 | RFA VEHICLE COST SCHEDULE | Edition 55

Concept - 14
Seven Axle Combination
6x4 Rigid+4 Axle Trailer
DROPSIDE Body



ANNUAL FIXED (STANDING) COSTS	R	cpk	%	%
Cost of Capital (Finance)	104,200			
Depreciation	180,582			
Insurance				
On Vehicle Staff	671,502	479.0	45.2%	20.9%
Overheads - Administration				
Overheads - Operational				
Licence	33,898	24.1		
Other	0	0.0	0.0%	0.0%
TOTAL ANNUAL FIXED COSTS	1,394,192	995.8		43.4%
VARIABLE (RUNNING) COSTS	**R**	cpk	%	**%**
Fuel	920,357			28.7%
Lubricants				
Maintenance	491,728			
Tyres	292,141			
Other	0	0.0	0.0%	0.0%
TOTAL VARIABLE COSTS	1,817,238	1,298.0		56.6%
TOTAL ANNUAL COSTS	3,211,430	2,293.9	—	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	53.4	69.6	123.0

INDICES and INCREASES	INDICES RFA 20 Base Mar 96 = 1000	INCREASES From Edition RFA 54
Total Annual Fixed Cost	2459	5.9%
Finance + Depreciation	1702	5.4%
On Vehicle Staff	4596	1.5%
Total Variable Cost	3240	5.9%
Fuel Cost	5851	7.3%
Maintenance Cost	6852	5.0%

% INCREASE / DECREASE	Annual From Edition RFA 53	Previous From Edition RFA 54
Total Annual Fixed Cost	5.7%	5.2%
Total Variable cost - Incl Fuel & Oil	8.1%	5.3%
Total Variable cost - Excl Fuel & Oil	7.1%	4.0%
Total Annual Cost - Incl Fuel & Oil	7.5%	6.9%
Total Annual Cost - Excl Fuel & Oil	6.9%	5.5%

ASSUMPTIONS : Concept - 14
Seven Axle Combination 6x4 Rigid+4 Axle Trailer
DROPSIDE Body Apr-17

PRIME MOVER OR RIGID					
Cost Price (excl VAT)				R	1,353,145
Residual Value				%	25.0%
Finance - Cost of Capital (Interest)				%	10.5%
- or Monthly Repayment				R	0
Depreciation - Distance km	0	or	Time	yrs	5.0
Insurance (% of Cost Price)				%	7.5%
Tare	10,580	kg	Licence	R	19,128
Number of Steering Axle(s)				no	1
Number of Tyres (excl spare)				no	10
Tyre Size				-	315/80R22.5
Tyre Price - New Tyre (excl VAT)				R	22,085
- Retread (excl VAT)				R	3,151
New Tyre Life - Front & Rear			60,000	km	100,000
Retread Tyre Life - Front & Rear			60,000	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	552,188
Residual Value				%	5.0%
Finance - Cost of Capital (Interest)				%	10.5%
- or Monthly Repayment				R	0
Depreciation - Time				yrs	10.0
Insurance (% of Cost Price)				%	5.0%
Tare - First Trailer	9,100	kg	Licence	R	14,560
Tare - Second Trailer	0	kg	Licence	R	0
Number of Axle(s)				no	4
Number of Tyres (excl spares)				no	16
Tyre Size				-	315/80R22.5
Tyre Price - New Tyre (excl VAT)				R	22,085
- Retread (excl VAT)				R	2,863
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	40,732
Assistants - No & Monthly Cost		no	1	R	15,227
ANNUAL FIXED OVERHEADS					
Administration				R	158,991
Operational				R	105,994
Other Fixed Standing Costs				R	0
VARIABLE COSTS					
Fuel Consumption				Litre / 100 km	57.0
Fuel Price				Cent / Litre	1,153.3
Lubricants (as % of fuel cost)				%	2.5%
Maintenance				cpk	351.2
Other Variable Running Costs				cpk	0.0
UTILISATION					
Annual Kilometres				km	140,000
Payload Utilisation & Annual Laden km	%		70.0%	%	75.0%
Days Worked per Annum				days	265
Chargeable Hours per Work Day				hrs	12.0

14-7 Axle Drop | **Average Payload 35.5 Ton**