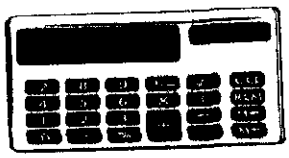
UNIVERSITY EXAMINATIONS



UNIVERSITEITSEKSAMENS

UNISA university of south africa

ACN203S
RAC203G

October/November 2011

COST ACCOUNTING AND CONTROL

100 Marks

Duration 2 Hours

EXAMINERS FIRST	MR WJ COETZEE MISS JM VAN ZYL	MRS Y REYNEKE
SECOND	MS S BUCHNER	MR RK NZHINGA

Use of a non-programmable pocket calculator is permissible

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This paper consists of 9 pages

N.B .

1 This paper consists of FOUR (4) questions
2 All questions must be answered
3 Basic workings, where applicable, must be shown
4 Ensure that you are handed the correct examination answer book (blue for accounting) by the invigilator
5 EACH QUESTION ATTEMPTED MUST BE COMMENCED ON A NEW (SEPARATE) PAGE
6 The required percentage to pass this module is 50%

PROPOSED TIMETABLE:

Question	Subject	Marks	Time in minutes
1	Process costing	20	24
2	Direct and absorption costing	20	24
3	Standard costing	20	24
4	Sundry questions (three independent parts)	40	48
		100	**120**

[TURN OVER]

QUESTION 1 (20 marks)(24 minutes)

Rautenbach Remedies (Pty) Ltd manufactures medicine A process costing system is being used Medicine A is being produced in a single process

Normal wastage occurs when the process is 60% complete and is estimated to be 5% of the inputs that reach the wastage point Material is added at the beginning of the process and conversion costs are incurred evenly throughout the process The first-in-first-out (FIFO) method of stock valuation is being used

	At 1 January 2011	**At 31 December 2011**
Work-in-process	20 000 units	15 000 units
% of completion – material	100%	100%
% of completion – labour	30%	45%
% of completion – overheads	30%	45%
Cost of material included in stock	R45 300	?
Cost of labour included in stock	R68 200	?
Cost of overheads included in stock	R32 000	?

Additional information

- Fully completed units at 31 December 2011 were 32 000
- 36 000 units were put into production during the year
- Costs incurred during 2011 material R59 000, conversion costs R102 000

REQUIRED:

Prepare the following statements for the year ended 31 December 2011

(a) Quantity statement (8)

(b) Production cost statement (round off cost per unit to two decimal places) (3)

(c) Cost allocation statement (use cost per unit from (b) and round off all other amounts to the nearest Rand) (9)

QUESTION 2 (20 marks)(24 minutes)

The following information was extracted from the accounting records of Scholar Dollar (Pty) Ltd, a school uniform manufacturing company, for the year ended 31 December 2010 and their 2011 budget

	Actual 2010 Units	**Budgeted 2011 Units**
School uniform sales for the year	5 000	7 000
Completed uniforms at beginning of the year	Nil	?
Manufactured during the year	6 000	6 400
	R	**R**
Fixed costs		
Manufacturing costs	30 000	35 000
Selling and administrative costs	20 000	20 000
Variable cost per unit		
Manufacturing costs	20	24
Selling and administrative costs	10	10
Selling price per unit	60	60

REQUIRED:

(a) Prepare the budgeted income statement for the year ended 31 December 2011 according to the **absorption costing method** if the company makes use of the **weighted average method** of stock valuation
(Round answers to the nearest Rand) (10)

(b) Prepare the budgeted income statement for the year ended 31 December 2011 according to the **direct costing method** if the company makes use of the **FIFO-(First-in-first-out) method** of stock valuation (8)

(c) Evaluate whether the following statements regarding the direct costing method are true/false

(i) When production exceeds sales, the direct costing method will show a lower net profit than the absorption costing method (1)

(ii) According to the direct costing method, fixed manufacturing costs are included in the cost of a product (1)

QUESTION 3 (20 marks)(24 minutes)

Alfa Romeo manufactures cars and uses a standard costing system

The standard cost per Alfa Romeo Spider (a luxury sports car)	**R**
Direct material Plastic (320 kg @ R90 per kg)	28 800
Direct material Metal (1 100kg @ R158 per kg)	173 800
Direct labour (900 hours @ R149 per hour)	134 100
Variable manufacturing overheads that vary with hours worked (900 hours @ R62 per hour)	55 800
Variable selling and distribution overheads	23 800
Budgeted selling price per car	520 375

The following are the actual results for November 2011 in which 21 cars were manufactured and sold.	**R**
Sales amounted to	10 717 938
Cost of Direct material Plastic (310 kg @ R95 per kg)	618 450
Cost of Direct material Metal (1 150 kg @ R154 per kg)	3 719 100
Cost of Direct labour (R145 per hour)	2 770 950
Variable manufacturing overheads that vary with hours worked	1 146 600
Variable selling and distribution overheads	532 350

QUESTION 3 (continued)

REQUIRED:

Calculate the following variances

(a) Total variance for Direct Material Plastic (1)

(b) Material (plastic) quantity variance if the material purchase price variance for plastic is R32 550 unfavourable (1)

(c) Material (metal) purchase price variance (2½)

(d) Material (metal) quantity variance (2½)

(e) Labour rate variance (2½)

(f) Labour efficiency variance (2½)

(g) Variable manufacturing overheads rate variance in respect of overheads that vary with hours worked (2½)

(h) Variable manufacturing overheads efficiency variance in respect of overheads that vary with hours worked (2½)

(i) Sales price variance (1½)

(j) Variable sales and distribution overheads expenditure variance (1½)

QUESTION 4

THIS QUESTION CONSISTS OF THREE INDEPENDENT PARTS:

PART A (15 marks)(18 minutes)

Botha (Pty) Ltd manufactures three joint products (product Cornia, product Kiekie and product Fafa) in a single production process

All three products can be sold at split-off point or be processed further

An input of three kilogram produces five units of product Cornia, four units of product Kiekie and three units of product Fafa

Input for the for the month 12 000 kg

The three products can be sold as follows

	At split-off point R (per unit)	**After further processing R (per unit)**
Cornia	2,50	15,75
Kiekie	9,50	25,20
Fafa	1,75	5,25

Further processing costs

	R
Cornia	242 500
Kiekie	264 160
Fafa	41 500

REQUIRED.

(a) Calculate the output (in units) for each product (7½)

(b) Determine whether each product should be processed further (7½)

QUESTION 4 (continued)

PART B (15 marks)(18 minutes)

Yuppy Puppy (Pty) Ltd specialises in providing luxury products/services to pet-owners Management has been exploring the idea of starting a Pet-friendly Travel Club

In 2010, the yearly fixed cost for this new initiative was R200 000, which includes the cost of advertising, hire of pet-friendly vehicles and the travel coordinator's salary

Variable cost consists of the cost of a "trip" which was negotiated with transport specialists in 2010 as R50 per trip

Pet-friendly Travel Club proved to be a viable project in 2010 In 2011 drastic cost increases are expected and management needs your help with some vital calculations

An increase of 20% in fixed costs and a 10% increase in variable costs per unit are expected in 2011, while it is estimated that "trips" will be sold at R200 per trip

Assume the company has 50 operating weeks per year

REQUIRED:

(a) Calculate the marginal income per trip for 2011 (2)

(b) How many trips per week has to be sold in 2011 if the company wants to make an after-tax profit of R36 000 on this project for 2011? (Assume a tax rate of 28%) (5)

(c) Calculate the pre-tax profit for 2011 if the sales volume is 25% more than the break-even volume for 2011 (5)

(d) Given an expected sales volume of 1 800 trips and a break-even volume of 1 656 trips, calculate the margin of safety ratio (2)

(e) Evaluate whether the following statement regarding cost-volume-profit analysis is true/false

"Margin of safety = Sales quantity – Break-even quantity" (1)

QUESTION 4 (continued)

PART C (10 marks)(12 minutes)

Masisi Towels Manufacturers is a community based company situated close to the Phafuri gate of the Kruger National Park The following information was extracted from the accounting records for the year ended 30 June 2011

	Budgeted	Actual
Insurance Factory buildings	25 000	24 500
Indirect labour Tholo department	100 000	105 000
Canteen costs	7 500	9 000
Direct material costs		
Ndou department	375 000	350 000
Ndau department	250 000	270 500

Basis of allocation	Ndou	Ndau	Phala	Tholo
Area - m^2	750	650	350	250
Number of employees	10	8	5	2

Ndou and Ndau are production departments, whereas Phala and Tholo are service departments

Service departments' costs are allocated to production- and service departments on the following basis and sequence

Tholo – number of employees

Phala – direct material costs

QUESTION 4 (continued)

REQUIRED:

Calculate the primary and secondary allocations of overheads
(Round off to the nearest Rand) (10)

Use the following framework to answer your question

Primary and secondary allocation of overheads

Overhead	Basis	Production		Service		Total
		Ndou	Ndau	Phala	Tholo	
		R	R	R	R	R

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