UNIVERSITY EXAMINATIONS

UNIVERSITEITSEKSAMENS

UNISA university of south africa

MAC2601

October/November 2015

PRINCIPLES OF MANAGEMENT ACCOUNTING

Duration : 2 Hours 100 Marks

EXAMINATION PANEL AS APPOINTED BY THE DEPARTMENT.

Use of a non-programmable pocket calculator is permissible.

Closed book examination.

This examination question paper remains the property of the University of South Africa and may not be removed from the examination venue.

This examination question paper consists of nine (9) pages.

PLEASE NOTE:

(a) This examination question paper is available in both English and Afrikaans.
(b) This examination question paper consists of FOUR (4) questions.
(c) Ensure that you are handed the correct answer book (green) by the invigilator.
(d) Start each question on a new page.
(e) Answer all the questions.
(f) Show all your calculations in questions 1 – 3.
(g) Please write legibly in black or blue ink (the use of a pencil or red pen is not permissible.)
(h) Round to two decimals in your workings unless a question states otherwise.

Suggested timetable:

Question	**Subject**	**Marks**	**Time in minutes**
1	Direct and absorption costing; nature and behaviour of costs	25	30
2	Job, process and joint product costing	40	48
3	Relevant information for short-term decisions	15	18
4	Multiple-choice questions (various topics)	20	24
Total		**100**	**120**

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QUESTION 1 **(25 Marks / 30 Minutes)**

PART A **(14 Marks / 17 Minutes)**

Steinhopp Time Pieces (Pty) Ltd manufactures and supplies time pieces, one of which is called *Lerox*. The company uses the **FIFO** (first-in-first-out) method of inventory valuation.

Actual information for the year ended 30 September 2015 was as follows for *Lerox*:

	Units
Units sold	3 800
Units produced	3 300

	R
Selling price (per unit)	240
Direct materials (per unit)	110
Direct labour (per unit)	25
Variable manufacturing overheads (per unit)	15
Fixed manufacturing overheads absorbed (per unit)	20
Variable selling costs in total	68 400
Non-manufacturing costs in total	178 400
Over/under-applied overheads	-

Budgeted information for the year ended 30 September 2016 includes the following:

	R
Selling price (per unit)	250
Direct materials (per unit)	120
Direct labour (per unit)	30
Variable manufacturing overheads (per unit)	16
Fixed manufacturing overheads (total)	75 000

<u>Additional information:</u>

1. Budgeted quantity schedule for the year ended 30 September 2016:

	Units
Sales	4 100
Opening inventory	500
Closing inventory	400

2. Variable selling costs for the budgeted year ended 30 September 2016 is expected to **increase** by R2 per unit from prior year figures.

3. Non-manufacturing costs for the year ended 30 September 2015 included both fixed administration costs and variable selling costs. The fixed administration costs are expected to increase by 10% in the budgeted year ended 30 September 2016.

REQUIRED

Prepare the **budgeted** statement of comprehensive income for the year ended 30 September **2016** according to the **absorption** costing method. (14)

PART B **(11 Marks / 13 Minutes)**

Steinhopp Golf Carts (Pty) Ltd, a subsidiary of Steinhopp Time Pieces, manufactures and supplies golf carts. The company has been awarded a contract by Menlyn Country Club to supply golf carts for the whole of the 2015 financial year.

The company provided the following information for the 2014 financial year regarding its Fabulous Golf Cart Range:

Total production cost if 4 000 units are produced in the year	R26 000 000
Total production cost if 6 000 units are produced in the year	R36 000 000

The company manufactured and sold 500 golf carts in 2015. The selling price per golf cart is R15 000. The production cost structure (variable production cost per unit and fixed production cost in total) of 2015 is the same as in 2014. This cost structure will remain the same for any production quantity between 1 and 10 000 units. Ignore non-manufacturing costs.

REQUIRED

(a) Calculate the breakeven point in units (golf carts) for the Fabulous Range for 2015. (5½)

(b) Calculate the profit or loss for 2015 based on the sales of 500 golf carts. Clearly indicate whether your answer is a profit or a loss. (2½)

(c) Calculate the number of golf carts the company should sell in 2015 to make a profit of R10 000 000. (3)

QUESTION 2 **(40 Marks / 48 Minutes)**

This question consists of <u>three</u> parts and all three must be answered. Read the information below before you attempt the different parts of the question, as it relates to the question as a whole as well as to the individual parts thereof.

The following three companies belong to the same group. Each of the companies uses a different costing system as indicated below:

Thabang Traders (Pty) Ltd	Job costing
Progressio Limited	Process costing
Ngoato (Pty) Ltd	Joint and by-product costing

PART A **(16 Marks / 19 Minutes)**

Thabang Traders (Pty) Ltd manufactures customised products for their clients. The following information was obtained for the month of September 2015:

Direct material control account - opening balance	R11 000
Direct materials purchased during September 2015	R14 000

Direct materials required by the individual jobs during the month were as follows:

	R
Job A	2 800
Job B	3 000
Job C	4 200

The direct wages for the month (all paid in cash) were as follows:

	R
Job A (80 hours)	4 100
Job B (108 hours)	5 500
Job C (124 hours)	6 400

<u>Additional information:</u>

1. Jobs A, B and C were started in September 2015.
2. Job A was completed during September 2015 and the customer invoiced for R10 000.
3. The pre-determined manufacturing overhead allocation rate is R20 per labour hour.
4. Actual manufacturing overhead costs for September 2015 are R6 000.

REQUIRED

(a) Prepare the following **general** ledger accounts of Thabang Traders (Pty) Ltd for the month of September 2015 (also balance the accounts):
   i. Material control account. (4)
   ii. Salaries and wages control account. (2½)

(b) Prepare the following **cost** ledger accounts of Thabang Traders (Pty) Ltd for the month of September 2015 (also balance the accounts):
   i. Job A (3)
   ii. Job B (2½)

(c) Calculate the total over/under-applied overheads (all jobs) for September 2015 and draft a journal entry showing how this over/under-application will usually be dealt with in the company's books at the end of the period. (4)

PART B **(12 Marks / 14½ Minutes)**

Progressio Limited manufactures a single product and uses a process costing system. The company recorded the following information for the month of September 2015:

	Units
Opening work-in-progress (1 Sept.): 70% complete	30 000
Closing work-in-progress (30 Sept.): 80% complete	25 000
New units put into production during the month	118 000
Units completed and transferred during the month	108 000

Additional information:

1. Normal losses are estimated at 5% of the units that reach/pass the wastage point.
2. Normal losses occur when the process is 90% complete.
3. Raw materials are added at the beginning of the process and conversion takes place evenly throughout the process.
4. Cost information was as follows:

	R
Opening WIP	
Raw materials	260 000
Conversion	168 000
Added in September 2015	
Raw materials	1 062 500
Conversion	994 500

REQUIRED

(a) Prepare the **quantity statement** for September 2015 based on the **first-in-first-out** method of inventory valuation. (9)

(b) Prepare the **production cost statement** for September 2015 based on the **first-in-first-out** method of inventory valuation. (3)

PART C **(12 Marks / 14½ Minutes)**

Ngoato (Pty) Ltd operates a process which produces two joint products, Yellow and Blue. In September 2015, joint production costs amounted to R20 000. There was no opening inventory and the total production for the month was sold. All joint products were processed further.

	Yellow	**Blue**
	R	**R**
Selling price per kilogram of the final product	150	165
Total cost of further processing after the split-off point	2 500	3 150
Total selling and distribution costs of the final product	1 200	1 400
Kilograms at the split-off point and of the final product	200	300

REQUIRED

Prepare a statement of comprehensive income for the month ended 30 September 2015, assuming that joint costs are allocated according to the physical standard method. Include individual columns for Yellow and Blue as well as a Total column. (12)

QUESTION 3 **(15 Marks / 18 Minutes)**

Beka's Business (Pty) Ltd operates in the sportswear industry and has a cricket division (named "Division: Cricket") that has recently been established and that is still deciding which product to sell.

Division: Cricket has to decide which **one** of the following three products to buy and sell:

1. **Cricket bats**

   If the division decides to sell cricket bats, there is a 35% chance that the division's profit for 2015 will be R500 000 and a 50% chance that the profit will be R200 000. The only other possibility is a loss of R100 000.

2. **Cricket balls**

   If this option is chosen, cricket balls will be imported and then sold locally. If the division decides to sell cricket balls, there is a 10% chance that customers will **not** like the product and this will result in a loss of R140 000. However, if customers like the product, the following possibilities could apply in the market for 2015:

	Probability	**Conditional profit for Beka's Business (Pty) Ltd**
Exchange rate improves	30%	R180 000
Exchange rate remains constant	25%	R150 000
Exchange rate deteriorates	45%	R120 000

3. **Wicket sets**

   This option will render a certain amount of profit of R170 000 based on a special order that was received.

REQUIRED

(a) Draw a decision tree for Division: Cricket and recommend which product the division should buy and sell based on quantitative factors. Show all your calculations. (15)

QUESTION 4 **(20 Marks / 24 Minutes)**

Answer the following multiple-choice questions by simply writing down the number of each sub-question and the corresponding correct alternative for each sub-question in your answer book, eg. 1.a. **Please note: When you have to round off, there is a chance that you may have to select the answer closest to yours.**

Sub-questions 1 - 4 relate to the following scenario:

Scuba Steve (Pty) Ltd manufactures various items of scuba diving equipment, including snorkels. Variable manufacturing overheads vary with direct labour **hours worked**.

The following information is available regarding snorkel production and sales during September 2015:

Actual direct labour **hours** worked	3 170
Direct **labour rate variance**	R19 971 (favourable)
Standard direct **labour rate** per hour	R81,50
Standard direct **labour cost per snorkel**	R32,60
Standard variable manufacturing **overhead rate** per labour hour	R40
Actual variable manufacturing **overhead rate** per labour hour	R43
Actual number of **snorkels produced** and sold	6 340
Number of **snorkels produced** and sold as per **fixed budget**	6 000

1) In September 2015, the **actual rate** per hour for direct **labour** was: (2)

a. R26,30
b. R38,90
c. R75,20
d. R87,80

2) The direct **labour efficiency variance** for September 2015 is: (2)

a. R63 955 (favourable)
b. R63 955 (unfavourable)
c. R51 671 (favourable)
d. R51 671 (unfavourable)

3) The variable manufacturing **overhead rate variance** for September 2015 is: (2)

a. R 9 510 (unfavourable)
b. R19 020 (favourable)
c. R19 020 (unfavourable)
d. R 9 510 (favourable)

4) A possible **reason** for the direct **labour rate variance** in September 2015 is: (2)

a. Salary and wage increases were not incorporated in the standard rate per hour.
b. Labourers were less productive than expected.
c. Utilisation of cheaper, unskilled labour.
d. Better skilled labourers were employed than before.

5) A manufacturing department is most likely to be a: (2)

a. Profit centre
b. Contribution centre
c. Cost centre
d. Income centre

6) The following statement is NOT true of a **fixed** budget: (2)

a. It is also referred to as the "original" budget.
b. It is the approved plan of action for achieving a predetermined goal.
c. It is inappropriate to use for performance measurement if actual sales and production units are much different from their budgeted levels.
d. It restates the position if a variation from the expected sales and production volumes occurs.

7) The following is NOT one of the preconditions for setting a special order price: (2)

a. The special order price should be a once-off price.
b. The special order customer should be located in the same market as the regular customers.
c. Spare capacity should be available.
d. Spare capacity should only be used for a short period of time.

8) The following is NOT associated with the activity-based costing method: (2)

a. Allocation of fixed production overheads to products based on a single volume-driven allocation base.
b. Elimination of activities that do not add value.
c. Assignment of costs for decision-making purposes.
d. More expensive to maintain than the traditional costing method.

Sub-questions 9 - 10 relate to the following scenario:

Tennis Shoes (Pty) Ltd buys tennis shoes and resells them in bulk to retailers. On **1 June 2015**, the company had 300 pairs of shoes in store, valued at R650 per pair. The following transactions took place in June 2015:

Date	**Transaction**
3	Buys another 500 pairs at R700 per pair.
8	Sells 400 pairs at a selling price of R1 000 per pair.
17	Buys another 200 pairs at R720 per pair and pays an additional R6 000 freight cost.

9) The value of inventory after the transaction of **17 June 2015**, assuming that the **first-in-first-out (FIFO) method** of inventory valuation is being used, is: (2)

a. R260 000
b. R280 000
c. R420 000
d. R430 000

10) The weighted average cost per pair of shoes after the transaction of **3 June 2015**, assuming that the **weighted average method** of inventory valuation is being used, is: (2)

a. R650,00
b. R675,00
c. R681,25
d. R710,00