COMPULSORY ASSIGNMENT 01/2016 (semester 2)

Semester	Assignment nr	Due date	Unique number
Second	1	17/08/2016	753124

Before you start this assignment:

- Please study the relevant sections in the study material as indicated on page 15 of Tutorial letter 101 before answering the assignment.

- Please take note that MAC2601 study material is regarded prior knowledge and that all the work covered in MAC2601 is examinable in MAC3701 (whether or not it was revisited in MAC3701).

- The assignment will start with revision from MAC2601. It is important to remember that MAC2601 is a prerequisite for MAC3701 and we assume in MAC3701 that you are familiar with all the prescribed MAC2601 work. MAC2601 forms an important foundation on which MAC3701 builds.

- You are reminded that your assignment should be your own work.

THE MARK YOU EARN FOR COMPULSORY ASSIGNMENT 1 WILL CONTRIBUTE 25% TOWARDS YOUR SEMESTER MARK, WHICH WEIGHS 20% IN THE CALCULATION OF YOUR FINAL MARK.

This assignment must be completed on the mark-reading sheet supplied. Mark-reading sheets may be submitted either by post or electronically via *my*Unisa. Please refer to the *myStudies@Unisa* brochure on how to use and complete a mark-reading sheet. For information on how to submit an assignment through *my*Unisa refer to paragraph 6.6 of Tutorial Letter 101/2016.

Please remember to enter the **correct** unique number of the assignment on the mark-reading sheet.

This assignment consists of **20 multiple-choice questions**. Each question must be considered independently, unless specific reference is made to information in another question. Each question has only one correct answer.

The following information must be used for purposes of answering questions 1 to 3.

The following information was extracted from the accounting records of Cricket Combat Ltd for the first quarter ended 31 July 2016 and the budget for August 2016 respectively:

	Actuals First Quarter			Budget 2016
	May	**June**	**July**	**August**
	Units	**Units**	**Units**	**Units**
Sales	50 000	60 000	80 000	72 000
Manufactured	50 000	75 000	80 000	60 000

	Actuals First Quarter			Budget 2016
	May **R**	**June** **R**	**July** **R**	**August** **R**
Selling price per unit	20	20	19	22
Total manufacturing cost	540 000	630 000	840 000	800 000
Variable manufacturing cost per unit	?	?	?	12
Variable selling and distribution cost per unit	3	3	3	3
Total fixed selling and distribution cost	25 000	25 000	25000	25000

Additional information:

1. Cricket Combat Ltd uses the FIFO-method for inventory valuation.
2. The high-low method should be used to determine the fixed and variable elements of the total manufacturing cost.
3. There was no opening inventory on hand at the beginning of May 2016.

QUESTION 1

The variable and fixed components of the total manufacturing cost of Cricket Combat Ltd for the quarter ended 31 July 2016 is:

(1)   R 9/unit and R90 000 in total respectively.
(2)   R12/unit and R80 000 in total respectively.
(3)   R10/unit and R40 000 in total respectively.
(4)   R11/unit and R60 000 in total respectively.
(5)   None of the above options.

QUESTION 2

Assume that Cricket Combat Ltd makes use of a direct costing system.

The budgeted net profit before tax for Cricket Combat Ltd for the month ending 31 August 2016 is:

(1)   R534 000.
(2)   R543 000.
(3)   R425 500.
(4)   R429 000.
(5)   None of the above options.

QUESTION 3

Assume that Cricket Combat Ltd makes use of an absorption costing system.

The budgeted net profit before tax for Cricket Combat Ltd for the month ending 31 August 2016 is:

(1)   R543 000.
(2)   R534 000.
(3)   R429 000.
(4)   R425 500.
(5)   None of the above options.

The following information must be used for purposes of answering questions 4 to 6.

Phone-a-friend Ltd is a retailer of a single type of cell phone device. The expected sales demand of these cell phones for 2016 is 6 000 cell phones. The company operates for 12 months in the year consisting of only 20 working days each month and sales are expected to take place evenly throughout the year.

Phone-a-friend Ltd purchases these cell phones for R360 per unit. The inventory supervisor informed you that orders usually get filled within 5 working days and that it is Phone-a-friend's policy that safety inventory should cover the demand for 5 working days.

The following cost information is applicable for 2016:
Direct inventory holding cost: R10 per cell phone per annum
Insurance cost: 5% of direct inventory holding cost per cell phone per annum
Warehouse and storage cost: 2% of direct inventory holding cost per cell phone per annum
Material handling costs: 1% of direct inventory holding cost per cell phone per annum

The clerical cost of preparing a purchase order, receiving cell phone deliveries and paying invoices are R250 per purchase order.

The expected opportunity cost of investment in inventories (after tax cost of capital) of Phone-a-friend Ltd for 2016 is 8% per annum.

QUESTION 4

The economic order quantity (EOQ) of Phone-a-friend Ltd for 2016 for the cell phones is…

(1)   275 cell phones.
(2)   276 cell phones.
(3)   278 cell phones.
(4)   279 cell phones.
(5)   None of the above options.

QUESTION 5

The total inventory holding costs of Phone-a-friend Ltd for 2016 for the cell phones are:

(1)   R10 414,80.
(2)   R15 879,60.
(3)   R10 395,00.
(4)   R 7 939,80.
(5)   None of the above options.

QUESTION 6

The re-order point of Phone-a-friend Ltd for 2016 for the cellphones if the safety inventory is maintained is:

(1)   125 cell phones.
(2)   250 cell phones.
(3)   130 cell phones.
(4)   150 cell phones.
(5)   None of the above options.

The following information must be used for purposes of answering questions 7 and 8.

The cost accountant of Alpha Ltd recently decided to compare the overhead allocation of the company using two different methods. Currently the company makes use of an activity-based costing (ABC) method, but the cost accountant is considering using the traditional costing method as it could lead to cost-savings.

The following extract was taken out of the ABC-system of Alpha Ltd for July 2016:

Fixed overheads **per unit** in terms of the ABC-system:

Activity	Delta R	Echo R	Foxtrot R
Electricity	21,00	24,00	36,50
Building insurance	2,25	4,25	2,50
Personnel administration	7,75	7,00	8,00
Material handling	5,00	6,75	4,00
Total fixed overheads per unit	**36,00**	**42,00**	**51,00**

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The total number of activities, as set out below, represent the total monthly production levels for a normal production month per product type:

	Delta	Echo	Foxtrot
Kilowatt hours	105,00	120,00	182,50
Floor area utilised by each product (m²)	450,00	850,00	500,00
Number of workers on each product	10,00	18,00	24,00
Number of material requisitions	168,00	192,00	292,00
Machine hours **per unit**	2,00	6,00	7,00
Actual number of units produced	60,00	75,00	90,00

The actual fixed overhead cost was the same as the budgeted fixed overhead cost.

The total budgeted machine hours for July 2016 was 1 200 hours.

QUESTION 7

The budgeted fixed overhead cost per unit of product Delta for the month of July 2016 is:

Make use of a traditional costing approach using machine hours as your basis to allocate the fixed overheads.

You may assume that the units produced in July 2016 are equal to normal production levels.

(1)   R57,75 per machine hour.
(2)   R16,50 per machine hour.
(3)   R 8,25 per machine hour.
(4)   R33,00 per machine hour.
(5)   None of the above options.

QUESTION 8

The budgeted fixed overhead cost per unit of product Foxtrot for the month of July 2016 is:

Make use of a traditional costing approach using machine hours as your basis to allocate the fixed overheads.

You may assume that the units produced in July 2016 are equal to normal production levels.

(1)   R57,75 per machine hour.
(2)   R16,50 per machine hour.
(3)   R 8,25 per machine hour.
(4)   R33,00 per machine hour.
(5)   None of the above options.

The following information must be used for purposes of answering question 9.

Learning Curve Crazy Ltd has received an order to manufacture 16 units of a new type of specialised product. It is estimated that the first unit will take 100 hours to manufacture and that a learning curve of 80% will be applicable for the manufacturing of the first 16 units.

QUESTION 9

The total number of hours needed to meet the order's requirements are:

Round all your workings to the nearest hour.

(1)   1 600 hours.
(2)   408 hours.
(3)   1 280 hours.
(4)   656 hours.
(5)   None of the above options.

QUESTION 10

State which of the following statements are true:

(a) A learning curve of 90% indicates that the cumulative average time per unit will decrease with 10% if the production quantity is doubled.

(b) A learning curve experience can be referred to as the effect of experience on cost.

(c) The learning curve can be expressed in an equation form as $Y = ax^b$.

(d) The learning curve can be used to estimate labour costs and those other costs that vary in direct proportion to labour costs. It does not apply to material costs, non-variable costs or items that vary with output rather than input.

The following statements are **true**:

(1)   b, c and d.
(2)   a, b and c.
(3)   a, b, c and d.
(4)   a, b and d.
(5)   None of the above options.

The following information must be used for purposes of answering questions 11 and 12.

The following information is available for Kids Party Cakes Ltd. The total cost of the cakes varies with the number of kids cakes ordered every month. The cakes are all a standard size and enough for 20 children but different customers choose different themes for these cakes and although the basic ingredients for the cakes stay the same, the final price per cake might differ.

Month	Activity level (number of cakes ordered)	Cost of cakes
		R
January	25	8 000
February	35	10 500
March	50	11 000
April	30	9 600
May	50	12 800
June	30	8 700

QUESTION 11

The correlation coefficient of Kids Party Cakes Ltd for the 6 months period is:

Round your figures to 2 decimals in all your workings.

(1)   1,00.
(2)   0,98.
(3)   0,95.
(4)   0,91.
(5)   None of the above options.

QUESTION 12

The estimated variable cost per cake using regression analysis is:

Round your figures to 2 decimals in all your workings.

(1)   R220,00.
(2)   R275,45.
(3)   R144,86.
(4)   R 39,32.
(5)   None of the above options.

QUESTION 13

State which of the following statements are true:

(a) A quantity statement represents a summary of the flow of physical units in a process costing system. The quantity statement contains no information about the cost of these units.

(b) When using the weighted average method of inventory valuation, the cost of the opening inventory is added to the costs of the inventory added in the current period so that all the units which are completed have the same unit cost.

(c) When using the FIFO-method of inventory valuation, the opening inventory which are subsequently completed are kept separate from the costs of the units which are begun and completed in the current period.

(d) The short-cut method may be used in a process costing system when all the units in the output column of the quantity statement have been subjected to spillage in the current period.

The following statements are **true**:

(1)   b, c and d.
(2)   a, b, c and d.
(3)   a, b and c.
(4)   a, b and d.
(5)   None of the above options.

The following information must be used for purposes of answering questions 14 to 16.

Sugar Syrup Ltd manufactures a single product by means of a single manufacturing process and uses a process costing system. Material is added at the beginning of the process, while conversion costs are incurred evenly throughout the process.

The following information is available for July 2016:

Work-in-process   - 1 July 2016   16 000 units
  • material   - 100% complete   R66 500
  • conversion cost   - 20% complete   R20 360

180 000 units put into production during July 2016:
  • material   R874 300
  • conversion costs   R724 040

Units completed and transferred: 140 000 units

Work-in-process   - 31 July 2016   12 000 units
  • material   - 100% complete
  • conversion cost   - 60% complete

Additional information:

1. Normal losses are estimated at **20%** of the input that reaches the wastage point.
2. Losses occur when the process is **35%** complete.
3. Sugar Syrup Ltd values their inventory according to the **weighted average method**.

QUESTION 14

The equivalent conversion cost per unit for Sugar Syrup Ltd for the month of July 2016 is:

Round your answer to the nearest cent.

(Note: You have to use the short-cut method if all the requirements for its usage are met).

(1)   R6,00 per unit
(2)   R5,00 per unit
(3)   R5,50 per unit
(4)   R6,50 per unit
(5)   None of the above options.

QUESTION 15

The total rand value assigned to the closing work-in-process units of Sugar Syrup Ltd for the month of July 2016 in the cost allocation statement is:

Round all amounts to the nearest cent.

(Note: You have to use the short-cut method if all the requirements for its usage are met).

(1)   R   108 000.
(2)   R   37 200.
(3)   R1 540 000.
(4)   R   96 000.
(5)   None of the above.

QUESTION 16

If losses no longer occur when the process is 35% complete, but at the **beginning** of the process and Sugar Syrup Ltd now values their inventory according to the FIFO-method, what would the equivalent units in terms of conversion be for the month of July 2016:

(1)   196 000 units.
(2)   180 000 units.
(3)   144 000 units.
(4)   188 000 units.
(5)   None of the above.

[TURN OVER]

Yummy Ltd manufactures three joint products, Gummy, Jelly and Bubbly in a single production process. All three of these products can either be sold at split-off point or only after further processing.

An input of 3 kilogram produces 5 units of product Gummy, 4 units of product Jelly and 3 units of product Bubbly.

Input for the month of July 2016: 12 000kg.

There was no opening raw material in inventory at the beginning of July 2016.

The 3 products can be sold as follows:

	Sales value at split-off point R (per unit)	Sales value after further processing R (per unit)	Further processing costs in total R
Gummy	2,50	15,75	242 500
Jelly	9,50	25,20	264 160
Bubbly	1,75	5,25	41 500

QUESTION 17

The output (in units) of product Bubbly for July 2016 is:

(1)   20 000 units.
(2)   16 000 units.
(3)   12 000 units.
(4)   36 000 units.
(5)   None of the above.

QUESTION 18

The following products should be processed further:

(1)   Gummy and Jelly.
(2)   Jelly and Bubbly.
(3)   Gummy, Jelly and Bubbly.
(4)   Gummy and Bubbly.
(5)   None of the above.

QUESTION 19

State which of the following statements are true:

   (a) The costs incurred up to the split-off point are described as joint costs. Joint costs include all material, labour and overheads incurred to get the product to the split-off point.

   (b) By-products are those products that result incidentally from the main joint product. By-products do not make a significant contribution to the market value of all the outputs of the manufacturing process.

   (c) The point in the process where the individual products are clearly identifiable is known as the split-off point.

   (d) It is usually assumed that any proceeds from the sale of a by-product are treated as a reduction of the joint costs and therefore the cost of the joint products.

The following statements are **true**:

(1)   a, b, c and d.
(2)   a, b and c.
(3)   a, c and d.
(4)   a, b and d.
(5)   None of the above options.

QUESTION 20

State which of the following statements are false:

(a) According to the net realisable value (NRV) at split-off point method, the market value of the final product is taken and reduced by any costs incurred for processing of the product beyond the split-off point and by any selling and distribution costs incurred to sell the final product. These NRV values are then used to establish the ratio in which the joint costs are to be apportioned. In this way an estimated market value (net of all further costs) for the products at the split-off point is achieved.

(b) Joint products contribute a relatively small amount to the total market value of all the outputs of a manufacturing process.

(c) In deciding whether to process the output from a joint process further or simply to sell it after split-off, joint cost allocations are usually irrelevant for decision-making.

(d) According to the physical standard method, joint costs are allocated to by-products in proportion to the physical quantity of each product produced.

The following statements are **false**:

(1)   a, b and d.
(2)   b and d.
(3)   b, c and d.
(4)   b only.
(5)   None of the above options.