UNIVERSITY
OF
JOHANNESBURG

Department of Commercial Accounting
Cost and Financial Management 1A
CFM11A1

Last Assessment Opportunity
June 2016

Time:	3 hours	**Marks:**	100

Assessors:	Mrs M Vermaak
	Mrs J West
	Ms M Maselesele
	Mr D du Plessis
	Mr R Rhodes

Internal moderator:	Mrs L Pelcher

INSTRUCTIONS:
- This paper consists of 10 pages (including the cover page).
- Answer all questions. Show all calculations and workings clearly.
- Start each question on a new page.
- Do not use Tippex or write in pencil.
- Silent, non-programmable calculators may be used.
- Round all calculations appropriately as applicable
- **INDICATE YOUR GROUP AND INDEX NUMBER (FROM THE INDEX BOOKLET) IN THE <u>TOP MIDDLE OF YOUR SCRIPT</u>.**

QUESTION	TOPIC	MARKS	TIME
1	Introduction	5	9 minutes
2	Cost classification & Calculation	10	18 minutes
3	Material	8	14 minutes
4	Material	12	22 minutes
5	Labour	20	36 minutes
6	Cost Behaviour	10	18 minutes
7	Overheads	20	36 minutes
8	ABC	15	27 minutes
		100	**180 minutes**

QUESTION 1	5 MARKS

Answer True or False to the following questions:

1.1   A fixed cost remains unchanged irrespective of the level of output.   (½)

1.2   A variable cost remains constant in total if the level of output changes.   (½)

1.3   A semi-variable cost changes when the level of output changes.   (½)

1.4   Rent paid on factory premises is an example of a fixed cost.   (½)

1.5   Indirect materials is an example of a fixed cost.   (½)

1.6   The salary of the financial accountant is a commercial cost.   (½)

1.7   The maintenance on factory machinery is a production cost.   (½)

1.8   The cost of tea and coffee served in the factory canteen is a commercial cost. (½)

1.9   Telephone rental plus metered calls is a mixed cost.   (½)

1.10   Bonuses paid to factory workers is an administrative cost.   (½)

QUESTION 2   **10 MARKS**

Tracy has a small company manufacturing children's wooden furniture. She has given you the information below and asked that you help organise the data so that it makes sense for her management information.

Expense	Total spent
Wood carvers wage	R125 000
Rent paid for the production premises	R72 000
Electricity paid for the production premises	R12 500
Wood issued to the wood carvers	R26 000
Lease on the administration computer	R1 800
Advertising on the local radio station	R4 000
Audit fees paid	R2 000

REQUIRED:

(Show all formulas and calculations)

2.1	Calculate the prime costs.	(2)
2.2	Calculate the manufacturing overhead costs.	(2)
2.3	Calculate the conversion costs.	(2)
2.4	Calculate the total manufacturing costs.	(2)
2.5	Calculate the total non-manufacturing costs.	(2)

Question 3	8 MARKS

A company manufacturing flower boxes on a continuous basis requests that you assist them in determining the economic order quantity of pre-cut wooden bases, one of their raw materials. The following information is available:

Normal lead time	3 weeks
Maximum lead time	5 weeks
Average weekly usage	1082 bases
Purchase price per unit	R23
Annual storage cost per unit	R1.50
Cost of placing an order	R280
Cost of Capital	15%
Production weeks per year	48 weeks

Note: The average weekly usage and the maximum weekly usage do not differ substantially.

$$EOQ = \sqrt{(2 \times D \times O) \div (H + (P \times i))}$$

REQUIRED:
(Show all formulas and calculations)

3.1	Economic Order Quantity	(3)
3.2	Safety Inventory	(3)
3.3	Average Inventory (Economic)	(2)

QUESTION 4	12 MARKS

Photo First has decided to sell canvases in addition to their portrait painting service. They started keeping a record of the inventory by keeping an inventory ledger card.

Photo First uses a weighted average method (WAM) to value its material.

The following information is available for August 2015:

Aug 02   Inventory on hand 300 units at R75 per unit.

Aug 06   Invoice received from Frames Ltd for 560 units at a total cost of R50 400.

Aug 08   Issued to manufacturing department 260 units.

Aug 11   Delivery made from Paint All Ltd of 880 units at a cost of R105 per unit.

Aug 13   300 of the units received on the 11th Aug were returned to the supplier due to wrong colour delivered.

Aug 16   Manufacturing department returned 60 units issued to manufacturing on the 9th August.

REQUIRED:

4.1   Use the weighted average method (WAM) to determine the value of the closing inventory of the raw material on 16 August. Use an inventory ledger card in the following format to present your answer: (9)

	Description	Receipts			Issues			Balance		
Date		Units	Unit Price	Value	Units	Unit Price	Value	Units	Unit Price	Value

4.2   Prepare the Inventory valuation using the FIFO method for the first three transactions.   (3)

QUESTION 5	20 MARKS

Mr. Munchies sells fast food. The kitchen staff work eight hour shifts. The normal working hours is 40 hours per week. The overtime premium for overtime is 1.5 times the normal rate, for overtime worked from Monday to Saturday. If employees work on a Sunday the premium is double the normal rate. Employees must first work the minimum hours per week before they can claim overtime.

Each employee receives a housing allowance of 10% of their normal pay. Employees also contribute 7.5% of their normal pay towards pension fund and R200 per week towards medical aid. The business is registered for UIF. The company contributes 6% towards the pension fund and R150 per week towards medical aid. PAYE rate is 18%.

The employees receive a bonus of 25% of their annual normal pay when they take their annual leave of 2 weeks. All employees will be on leave for the week between the 25th and 31st of December in addition to their annual leave. There will be 12 public holidays which fall during the week in 2016. Idle time is estimated to be 8%.

Mr. Munchies employs 5 staff members in the kitchen who earn R85 per hour and 2 front counter staff who earn R90 per hour. On average all staff work the same hours each week.

The timesheets for the last week in April 2016 is presented below:

	1 Kitchen staff member	1 Front counter staff member
Monday	9	8
Tuesday	11	10
Wednesday	8	8
Thursday	10	10
Friday	8	8
Saturday	5	6
Sunday	2	4

REQUIRED:

5.1   Calculate the net wage payable for one front counter staff member.   (8)

5.2   Calculate the labour recovery rate for kitchen staff.   (12)

QUESTION 6   **10 MARKS**

Daniel, the owner of Daniels car wash has found that his income changes depending on the number of cars he washes per month. Daniel wants to predict what his costs are going to be in the future, and has asked you to assist him with some calculations. He has given you the following information for the previous three months:

	January	February	March
No of cars washed	1 500	1 900	2 000
Income for the month	R61 000	R60 000	R76 000

(Show formulas and calculations)

REQUIRED:

6.1   Use the high-low method to calculate the variable cost per unit.   (4)

6.2   Calculate the total fixed cost per month.   (3)

6.3   Use the answers from question 6.1 and 6.2 to predict the total cost for April if
        Daniel plans to wash 2 200 cars.   (3)

QUESTION 7   **19 MARKS**

CupCakes CC started a year ago and specialises in baking gourmet cupcakes for any event or occasion. Cupcakes are baked on order and is based on the specifications and requirements of the customers. All the cupcakes are baked on the premises and the production takes place in two departments – Mixing and Baking. Mixing is labour intensive and Baking is highly automated. The warehouse department is a service department to the production departments.

All cupcakes are decorated according to client specifications and the icing for each batch of cupcakes is therefore mixed individually. CupCakes CC only uses fresh ingredients and have negotiated with their suppliers to deliver all ingredients when needed within a two hour time frame. All suppliers require cash on delivery. CupCakes CC also spent a large amount on the marketing of their now famous cupcakes in the first month.

The success of CupCakes CC is due to chef Jean Pierre's innovative ideas for which he is rewarded with a substantial monthly salary. All other employees are paid on a weekly basis for the hours worked except the company's cost accountant, Julia who is also paid a fixed monthly salary. Uniforms are only worn by the production departments.

The following information has been prepared by Julia, the company's cost accountant:

	Mixing	Baking	Warehouse	Total
Production overheads	R777 140	R1 054 333	R193 640	R2 205 113
Details of other costs:				**Total**
Rent of property (Floor area)				R1 409 400
Uniform expenses (no of employees)				R197 000

Additional information	Mixing	Baking	Warehouse
Number of machine hours	211 500	420 000	11 500
Number of employees	112	48	60
Labour hours	294 000	126 000	10 000
Floor area occupied (m^2)	3 000	1 500	500
Value of machinery	R240 000	R500 000	R40 000

REQUIRED:

7.1   Allocate the manufacturing costs to all the departments to determine the cost per department.   (9)

7.2   Allocate the cost of the service department to the production departments using labour hours as a basis.   (4)

7.3   Calculate the overhead recovery rate for both the Mixing and Baking departments.   (4)

7.4   Classify each of the following costs as a <u>fixed</u> or <u>variable cost</u> over the short term:

          a) Butter icing used to decorate the cupcakes

          b) Rent of the property

          c) Monthly salary paid to the chef

          d) Electricity costs

                                      (2)

QUESTION 8	15 MARKS

A company manufactures two products P and Q, using similar equipment and processes. An extract of the production data for June 2015 is as follows:

	P	Q
Units produced in June	150	300
Direct labour hours per unit	2	4
Machine hours per unit	6	3
Machine set-ups in the period	12	16
Number of production runs	18	60

	P	Q
Direct material cost per unit	R140	R160

Direct labour cost is R115 per hour.

Overhead cost and cost drivers are as follow:

	Total cost	Cost driver
Production scheduling	R90 000	Number of Machine hours
Set-up cost	R24 500	Number of set-ups
Material handling	R47 580	Number of production runs

This company uses ABC to allocate the overhead costs.

REQUIRED:

8.1   Calculate the overhead recovery rate per cost pool.   (3)

8.2   Calculate the overhead cost in total and per unit for products P.   (8)

8.3   Calculate the total cost per unit of product P.   (4)

[TOTAL MARKS 100]