



**AFRICA
UNIVERSITY**

(A United Methodist-Related Institution)

"Investing in Africa's Future"

COLLEGE OF BUSINESS, PEACE, LEADERSHIP AND GOVERNANCE

COURSE TITLE: MAC 201, COST ACCOUNTING

SEMESTER 2: FINAL EXAMINATION-APRIL 2019

LECTURER: MR R CHIHOWA

TIME: 3 HOURS

INSTRUCTIONS

Answer **ALL** questions. Total possible mark is **100**.

The marks allocated to each question are shown at the end of the question.

Credit will be awarded for logical, systematic and neat presentations. Show working.

Question 1 (25 MARKS)

The following information relates to maheu drink the only product manufactured and sold by Jakobo plc.

	\$per unit
Selling price	75
Direct material cost	20
Direct labour cost	15
Variable production overhead	5
Variable sales & marketing overhead	3

The following levels of activity took place over the first two months of the products life:

	Sales Units	Production Units
January	4,750	5,000
February	5,500	6,000

Additional information is as follows:

1. Budgeted fixed production overhead was \$210,000 per annum.
2. Actual fixed production overhead for the period was \$25,000 per month
3. Sales and marketing overhead of \$20,000 per month and administration overhead of \$18,000 per month were in line with the budget for that period.
4. All fixed overhead costs are budgeted on the basis of a projected volume of 70,000 units per year and all costs are expected to be incurred at a constant rate throughout the year.
5. The business does not expect to have any inventory at 1 January

Required:

- a) Prepare a profit statement for each month using each of the following bases:
- i. Absorption costing

- ii. Marginal costing **(17 Marks)**

- b) Calculate the (under)/over absorbed fixed production overhead for each month. **(4 Marks)**

- c) Explain the reason for any difference in the reported profit under the two bases for each month. **(4 Marks)**

Question 2 (30 Marks)

The following information relates to Looking plc. a manufacturing company that has two manufacturing departments and two service departments:

	Manufacturing Dept. 1	Manufacturing Dept. 2	Service Dept.	Service Dept.	Total \$
Allocated Overheads (\$)	32,000	28,300	12,500	12,800	85,600

General Overheads

Indirect Labour	30,000
Heat & Light	45,000
Repairs & Maintenance	34,700
Canteen Subsidy	5,100
Machine Depreciation	10,400
Machine Insurance	<u>6,250</u>
	<u>217,050</u>

The following additional information was extracted from the company's management accounting records.

	Manufacturing Dept. 1	Manufacturing Dept. 2	Service Dept.	Service Dept.
Floor area sq. m	2,000	4,000	1,000	500
Direct labour hours	30,000	5,000		
Direct labour rate per hour	10	8		
Number of staff	30	5		
Machine hours	2,500	25,000		
Machine Value	50,000	200,000	10,000	

Service Dept. overheads are to be re-apportioned as follows:

Service Dept. 1 overheads	40%	60%
Service Dept. 2 overheads	60%	40%

Data on two jobs being undertaken by the company is as follows:

	Job 21	Job 22
Direct materials cost	\$240	\$420
Machine hours	5	20
Direct labour hours		
Manufacturing Dept. 1	40	25
Manufacturing Dept. 2	4	5

Required:

- a) Prepare a statement showing the overhead cost for each department (include the basis of apportionment, where appropriate). **(15 Marks)**
- b) Calculate a suitable overhead absorption rate for each department, using a basis that you deem suitable. **(5 Marks)**
- c) Show the total cost of Job 21 and the total cost of Job 22. **(10 Marks)**

Question 3 (25 Marks)

Chachayapl. uses a standard costing system. The following information relates to the company's jojo tank product for the month of June.

	Standard data	Actual data
Sales		
Sales Volume units	10,000	9,500
Selling Price per unit (\$)	20.00	25.00
Production		
Materials used per unit (kg)	1.60	1.80
Materials price per kg (\$)	8.00	9.00
Labour hours per unit	0.50	0.70
Labour rate per hour (\$)	10.00	11.00

Required:

- a) Prepare a statement showing the budgeted profit and the actual profit for June. **(5 Marks)**
- b) Calculate the following variances **(15 Marks)**
- Sales Price
 - Sales Volume
 - Materials Price
 - Materials Usage
 - Labour Rate
 - Labour Efficiency
- c) Briefly explain the key factors that should be considered before deciding whether or not a variance should be investigated. **(5 Marks)**

Question 4 (20 Marks)

The following information relates to inventory holding and materials handling for material in a Mr Simple's business warehouse.

- Minimum usage 500 units per working week
- Maximum usage 3,000 units per working week
- Average usage 2,000 units per working week
- Lead time 15 - 25 days
- Ordering Cost \$ 300 per order
- Purchase Cost \$ 5 per unit
- Holding cost 5% of purchase cost per year
- The business works 5 days each week for 50 weeks each year.

Required:

a) Calculate the following inventory management levels:

- i. Inventory Re-Order Level
- ii. Minimum Inventory Level
- iii. Economic Order Quantity
- iv. Maximum Inventory Level **(16 Marks)**

b) Outline the key advantages and disadvantages of using inventory management levels to manage inventory. **(4 Marks)**

END OF EXAM