



*"Investing in Africa's Future"*

## **FACULTY OF MANAGEMENT AND ADMINISTRATION**

**COST ACCOUNTING – MAC 201**

**END OF FIRST SEMESTER EXAMINATIONS**

**NOVEMBER/DECEMBER 2016**

**LECTURER: N. E CHIRIMA**

**DURATION: 3 HRS**

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### ***INSTRUCTIONS***

ANSWER ALL QUESTIONS

MARKS ARE SHOWN AT THE END OF EACH QUESTION

ALL WORKINGS SHOULD BE SHOWN IN THE AFRICA UNIVERSITY ANSWER BOOKLET

CREDIT WILL BE AWARDED NEATLY AND LOGICALLY PRESENTED WORK

ANSWER EACH QUESTION ON A NEW PAGE

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### QUESTION ONE [20 marks]

Kupa Ltd makes and sells a product "k" for which standard cost is as follows:

		<u>\$ per unit</u>
Direct Materials	4 kgs at \$12 per kg	48
Direct Labour	5 hours at \$7 per hour	35
Variable Production overhead	5 hours at \$2 per hour	10
Fixed Production overhead	5 hours at \$10 per hour	50
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The variable production overhead is deemed to vary with the hours worked. Overhead absorbed into production on the basis of standard hours of production and the normal volume of production for the period just ended is 20 000 units (100 000 standard hours of production).

For the period under consideration, the actual results were:

<u>Production of "k"</u>	<u>18 000 units</u>
	\$
Direct Material Used - 76 000kg at a cost of	836 000
Direct Labour cost incurred – for 84 000 hours worked	604 000
Variable production overhead incurred	172 000
Fixed Production overhead incurred	1 030 000

### REQUIRED

- Compute the relevant variances. [10 marks]
- Name and explain five applications of standard costing or variance analysis in the operation of a management system. [10 marks]

## QUESTION TWO [20 marks]

Budgeted fixed overheads for a cost centre in a factory for a period were:

Apportioned costs                      \$74 610

Allocated costs                         \$98 328

A predetermined machine hour rate is established for the absorption of fixed production overhead into product cost. 1 900hrs were budgeted machine hours for the cost centre during the period. Actual overheads (apportioned and allocated) in the period were \$173 732. The volume variance was \$4 551 favourable.

Required:

- a. Compute for the period:
  - i. The predetermined fixed overhead absorption rate [2 marks]
  - ii. The actual machine hours [4 marks]
  - iii. The over/ under absorption of fixed overhead. [4 marks]
- b. Differentiate between:
  - i. A cost and an expense [3 marks]
  - ii. Financial accounting, cost accounting and management accounting [7 marks]

## QUESTION THREE [10 marks]

Budgeting has been criticised as:

- A cumbersome process which occupies considerable management time.
- Concentrating unduly on short term financial control.
- Having undesirable effects on the motivation of managers.
- Emphasising formal organisation structure.

Required:

- a. Explain these criticisms. [ 8 marks]
- b. Explain what changes can be made in response to these criticisms to improve the budgeting process. [12 marks]

#### QUESTION FOUR [10 marks]

A Job Order incurred the following costs:

Department A: 420 Labor hours at \$4.50

Department B: 786 Labor hours at \$3.00

Direct Materials \$3 520

Factory Overheads are absorbed on labor hours and the rates are \$9 per hour for Department A and \$4 per hour for Department B. The firm uses a cost plus system for setting selling prices and expects a 25% gross profit (Sales minus Factory Cost). Administration overheads are absorbed at 10% of selling price. Assuming that 1000 units were produced, compute:

- a. The selling price per unit [4 marks]
- b. The total amount of administrative overheads recovered by the Job Order. [2 marks]
- c. The net profit per unit [1 mark]
- d. Compare and contrast the Process Product Costing System and the Job Order Product System. [3 marks]



**QUESTION FIVE [20 marks]**

Hoply Company has decided to introduce a new product. The new product can be manufactured by either a capital intensive method or a labour intensive method. The manufacturing method will not affect the quality of the product. The estimated manufacturing costs under the two methods are as follows:

	Capital Intensive		Labour Intensive	
Raw Materials per unit		\$5. 00		\$5. 60
Direct Labour per unit	0.5 Direct Labour Hours @ \$12	\$6. 00	0.8 Direct Labour Hours @ \$9	\$7. 20
Variable overhead per unit	0.5 Direct Labour Hours @ \$6	\$3. 00	0.8 Direct Labour Hours @ \$6	\$4. 80
Directly traceable additional annual fixed manufacturing costs		\$2 440 000		\$1 320 000

Hoply Company's market research department has recommended an introductory unit sales price of \$30. The additional annual marketing expenses are estimated to be \$500 000 plus \$2 for each unit sold regardless of manufacturing method.

**Required:**

- a) Calculate the estimated breakeven point in annual unit sales of the new product if Hoply Co. uses
  - i. The capital intensive manufacturing method [4 marks]
  - ii. The labour intensive manufacturing method [4 marks]
- b) Determine the annual unit sales volume at which Hoply Co would be indifferent between the two manufacturing methods. Explain the circumstances under which the company should employ each of the two manufacturing methods. [4 marks]

- c) Identify the business factors that Hoply Company must consider before selecting the capital intensive or labour intensive manufacturing method. [2 marks]
- d) Outline the assumptions underlying the Cost – Volume – Profit analysis. [6 marks]

**QUESTION SIX [20 marks]**

A national examination authority must process millions of results for students who have set for their qualifying exams annually. When marked scripts are handed in, marks have to be processed. The processed data is then compared to the raw marks on the scripts and checked for accuracy. The time allowed to process a result slip is based on an "average script" as the time taken on one script varies depending on clarity of work presented, number of questions undertaken and answered among other factors. Some work measurement experts have been closely monitoring the process and are seeking ways to improve productivity. One million scripts have been received on the 15<sup>th</sup> of November. On 18 November, all materials and supplies required for the processing of the results have been released. However, 40% of the result slips were yet to undergo a final inspection and 60% had been completed.

Required:

- a. Suppose the final inspection represents 20% of the overall processing time, compute the total work done in terms of equivalent units of students' results. [4 marks]
- b. The materials and supplies consumed cost \$150 000. For the sake of computations, regard materials and supplies as direct materials. The cost of conversion was computed at \$1 380 000. Compute the unit costs of direct materials and conversion costs. [4 marks]
- c. Compute the cost of processing the result slips not yet complete. [2 marks]

**END OF PAPER**