AFRICA
UNIVERSITY
(A United Methodist-Related Institution)

"Investing In Africa's Future"

FACULTY OF MANAGEMENT AND ADMINISTRATION

COURSE TITLE: **MAC 201 COST ACCOUNTING**

SEMESTER 1: **FINAL EXAMINATION-NOVEMBER 2013**

LECTURER **MR I. RARAMI**

TIME: **3 HOURS**

INSTRUCTIONS

Answer all four (4) questions

Start each question on a new page in your answer booklet.

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

Show all your workings

Credit will be given for presentations that are neat, logical and grammatically well constructed.

Use of a non-programmable calculator is permissible.

Answer all questions in Answer Books provided

QUESTION 1

a). Zvakanaka Kuwacha (Pvt) Ltd , a Mutare based company has the following production overhead costs:

	Machining	Assembly	Finishing	Total
	$	$	$	$
Production overheads	52022	29370	14750	96142

Bakasa Bakasa the management accountant has decided that absorption rate for each cost centre is to be calculated using the following information:

Cost Centre	Absorption Basis	Incurred
Machining	Machine hour rate	10000 machine hours
Assembly	Direct Labour hour rate	5000 labour hours
Finishing	Percentage of direct wages	$15000direct wages.

He told his junior Tanyaradzwa that, a regular washing machine takes 5 hours machining, 2 hours assembly and incurs $7.50 wages cost in the finishing department.

He also told his junior that a regular washing machine incurs a direct material cost of $220 per unit and a direct labour cost of $55 per unit.

Required:

i). Calculate the overhead absorption rates for the three cost centres. [6]

ii). Calculate the total overheads absorbed by the machine. [4]

iii). Calculate the total production cost per unit. [4]

b). In January 2012, the budget for Raj Raj machine shop shows the following:

Overheads $60 000.

Volume of activity 12 000machine hours.

In December the machine shop incurred $5400 of the overhead and 1050 machine hours were worked.

Required:

i). Calculate the predetermined absorption rate. [2]

ii). Calculate the overhead under or over absorbed in January . [3]

iii). What causes the under or over absorption in this case. [4]

QUESTION 2

a). Fine Fine products has three production departments: A,B, and C and two production service departments X and Y.
Overhead costs have been attributed to these departments as follows:

Department	**$'000'**
A	120
B	80
C	65
X	24
Y	15

An analysis of the services provided by each service department shows the following percentages of total time spent for the benefit of each department:

Service Dept	**Production/Service Departments**				
	A	B	C	X	Y
X	30%	30%	20%	--	20%
Y	50%	10%	30%	10%	--

Show the apportionment of production service department costs to production departments using the repeated distribution method. [13]

b). Good Dood (Pvt) Ltd has produced the following production and sales data for the past 3 months:

	August	**September**	**October**
Output	30000	33000	50000
Sales	25000	32000	40000

Unit selling prices and variable production overheads are $20 and $8 respectively. Fixed production overheads and fixed selling and administration overheads amount to $300000 and $210000 respectively.

Required:
Draw up profit statements for the three months on the absorption costing basis. [15]

c) Handizivi has provided you with the following information, concerning his costs and revenue.

Sales revenue	$200000
Variable costs	$100000
Fixed costs	$ 20000

He asked you Vanoziva to calculate the following for him:

i). Break-even sales in value [2]
ii). Break-even sales in volume [2]
iii). The contribution sales ratio [2]
iv). The margin of safety in value [2]
v). The margin of safety ratio [2}
vi). The sales volume to required to increase profits to $120000 [2]

QUESTION 3

a).A firm produces a single product known as Hope. The actual usage of the direct material was 4200kg at $22.50 per kg while the standard usage was 4500kg at $20 per kg.

You are required to calculate:

i). The direct material usage variance. [2]
ii). The direct material price variance [2]
iii). The direct material total variance [2]

b). A.B.C Limited uses between 75 and 90 litres of oil per day. Delivery times vary between 2-3 days. It has set its re-order level at 270 litres, and orders 500 litres each time.

You are required to calculate:

i). The minimum level [2]
ii). The maximum level [2]
iii). The re-order level [2]
iv). The average stock level [2]

c).Mr Economist is facing storage and pilferage problems at his warehouse. As a cost accountant he gave you the following information, to calculate his economic order quantity. [3].

Annual demand	5000 units
Ordering cost	$150 per order
Annual holding cost	$2 per unit

QUESTION 4

a). Pass Well manufacturers starts processing on 1 October 2013. In the month of October he starts work on 20000 units of production. At the end of October there are 1500 units still in process and it is estimated that work in process is only one-third complete as regards labour. All materials have been input to the process. The costs for the period are:

Materials	$10 000
Labour	$ 9 000
Total	$19500

Calculate :

i). Total equivalent units [4]
ii) Cost per equivalent unit [1]
iii). Total cost for the period. [2]

b). Read Well firm incurred the following joint costs, to produce joint products X.Y.Z

	$
Direct Material costs	17000
Direct Labour costs	13000
Production Overhead costs	10000
Total joint costs	40000

The output from the joint production process for one month were as follows:

Joint Product	X	4500kg
	Y	3000kg
	Z	2500kg

The products do not have a market at the split-off point. They can be processed into more refined products as follows:

Joint Product	Further Processing costs	Refined Product	Market Price
Joint Product X	$9 000	XX	$6
Y	$4 500	YY	$6
Z	$7 500	ZZ	$12

You are required to:

i). Apportion the joint costs in the ratio of net realisable values at split-off point. [3]
ii). Prepare columnar income statement for the refined products on the assumption that ninety percent of production is sold. [10]

END OF PAPER