Department of Commercial Accounting

# Cost and Financial Management 2B 

## CFM22B2

## LAST ASSESSMENT OPPORTUNITY

## NOVEMBER 2014

Time: 180 minutes
Marks: 100
Assessors: Mrs M Vermaak
Mr RJ Rhodes

Moderator: $\quad$ Mr R Boersma (Internal)

## INSTRUCTIONS:

- This paper consists of 6 pages (including the cover page)
- Answer all questions. Show all formulae, calculations and workings clearly.
- Please start each question on a new page.
- Silent, non-programmable calculators may be used.
- Where applicable, round all calculations to two decimal places, unless stipulated otherwise.

| Question | Topic | Marks | Time |
| :---: | :--- | :---: | :---: | :---: |
| 1 | Process costing | 30 | 54 Minutes |
| 2 | Job costing | 15 | 27 Minutes |
| 3 | Joint and by-products | 20 | 36 Minutes |
| 4 | ABC Costing | 15 | 27 Minutes |
| 5 | Direct and Absorption Costing | $\mathbf{2 0}$ | 36 Minutes |
|  |  | $\mathbf{1 0 0}$ | $\mathbf{1 8 0}$ |

## QUESTION 1:

Crock Shoes Limited manufactures a plastic compound shoe in two processes using the WAM for process A and the FIFO inventory calculation method for process B.

Materials are added to the process as follows:
Process A:

- Material $X$ - at the beginning of the process.
- Material Y - from $35 \%$ to $45 \%$ of the process.

Process B:

- Material Z - at the beginning of the process.
- Material W - at $80 \%$ of the process.

All conversion costs are incurred uniformly throughout the processes. No spoilage takes place.

The following relates to the activities for March 2014:

| Units | Process A | Process B |
| :--- | ---: | ---: |
| Beginning WIP | $\mathbf{5 0 0 0}$ | 8000 |
| Stage of Completion | $\mathbf{3 5 \%}$ | $55 \%$ |
| Started | $\mathbf{8 6 0 0 0}$ | $?$ |
| Ending WIP | $\mathbf{6 0 0 0}$ | 10000 |
| Stage of completion | $\mathbf{4 0 \%}$ | $70 \%$ |
|  |  |  |
| Beginning WIP: | R40 000 |  |
| Transferred in cost | R24 000 |  |
| Conversion costs | R595 000 |  |
| Costs added during March: | R372 000 |  |
| From Process 1 | R429 000 |  |
| Material Z | R433 000 |  |
| Material W |  |  |
| Conversion costs |  |  |

## REQUIRED:

1.1. Draw the timeline for Process $A$, clearly indicating the material input and map the flow of units.
1.2. Prepare the following cost and production statement for Process A by completing:
1.2.1.Step 1: Flow of units
1.2.2. Step 2: Equivalent units
1.3. Draw the timeline for Process 2, clearly indicating the material input and map the flow of units.
1.4. Prepare the cost and production statement for Process B by completing:
1.4.1. Step 1: Flow of units
1.4.2.Step 2: Equivalent units
1.4.3.Step 3: Cost flow
1.4.4.Step 4: Cost per equivalent units
1.4.5.Step 5: Cost and production statement

## QUESTION 2:

15 MARKS

Creative Design Ltd (CDL) make wrought iron and steel balustrades, fences, security gates and burglar bars - custom designed for their clients. The following information is available in respect of two customers (Murphy and Ndlovu) for August 2014, the first month of business. CDL completed customer Murphy's job during August.

Materials to the value of R42 600 were purchased in August. During August R16 950 worth of direct material was issued to customer Murphy's job and R17 360 to customer Ndlovu's job. Indirect material to the value of R4 360 was issued to production.

Summary of the payroll for August shows that we worked 249 hours on customer Murphy's job and 273 hours on customer Ndlovu's order. Indirect labour costs amounted to R2 800 for the month. The labour recovery rate is applied at R50 per labour hour.

Manufacturing overhead costs are absorbed on a direct labour hour basis. The budgeted manufacturing overhead cost was estimated at R324 000 per annum with a normal capacity of 600 labour hours per month. The amount over or under-applied manufacturing overhead costs is charged against cost of goods sold at the end of each month.

The following additional manufacturing overhead costs was debited to the manufacutirng control account during August 2014.
i. Electricity and water R33 130
ii. Depreciation of equipment R5 200
iii. Rent of premises R5 000

## REQUIRED:

2.1 Calculate the manufacturing overhead recovery rate;
2.2 Calculate the applied manufacturing overhead cost per job;
2.3 Prepare the Job cost card for the customer Ndlovu job
2.4 Prepare the work in process account for customer Murphy's job
2.5 Determine the under/over applied manufacturing overhead cost;

## QUESTION 3:

## 20 MARKS

Mazini Game farm has a butchery which processes the game that customers hunted on the farm. After the carcasses has been cut into different cuts of meat customers can choose between having the meat processed as biltong or dry wors. The customers have then choice to take the biltong at split-off point and (spice the biltong themselves) or to ask the butchery to further process the biltong (spice and dry). The dry wors must be processed further. The bones and intestines will be sold off and treated as other income. There is no inventory held on the farm.

The joint cost of processing the carcasses amount to R60 000. Data pertaining the three products are as follows.

| Products | Kilograms of meat | Further processing costs | Selling price per kilogram <br> of meat after further <br> processing |
| :--- | :--- | :--- | :--- |
| Biltong | 600 | R15 per kg | R110 |
| Dry wors | 400 | R600 | R120 |

## REQUIRED:

3.1 Allocate the joint costs to the two products in total and per unit using:
a) Physical units
b) Relative Market value at split-off point
3.2 Calculate the gross profit for biltong if we use the total cost per product calculated in 3.1 b).
3.3 If we sell the biltong at split-off point for R90 per kg calculate the gross profit (use market value at spilt off-point for the allocation of the joint cost).
3.4 Recommend to Mazini whether to sell at split-off point or if they should continue with further processing of the biltong.

## QUESTION 4:

15 MARKS

Mr Beach Buggy manufactures fibreglass parts for the car industry. The following budgeted information is available for three of the company's key parts:

|  | Bumpers | Fenders | Bonnets |
| :--- | ---: | ---: | ---: |
| Units produced | 36000 | 30000 | 20000 |
| Direct Material | R70 per unit | R2 400 000 | R100 per unit |
| Direct Labour | R60 per hour | R70 per hour | R2 160 000 |
| Cost Drivers |  |  |  |
| No of purchases orders | 4000 | 3600 | 2400 |
| No of machine set-ups | 600 | 520 | 480 |

The manufacturing overhead cost is allocated as follows: R2 800000 to receiving cost pool and R2 400000 for the machine set-up cost pool. The company is using $A B C$ to allocate the manufacturing overhead costs to the products.

## REQUIRED:

4.1 Calculate the manufacturing overhead recovery rate per activity.
4.2 Allocate the manufacturing overhead cost per activity to the different products in total and per unit.
4.3 Calculate the total cost for one Fender.

## QUESTION 5:

Barra Electronics Ltd, manufactures and sells electronic door bells.
The following costs were incurred during October 2014:

| Total direct material cost | R51 000 |
| :--- | ---: |
| Direct labour per unit | R4.00 |
| Variable manufacturing overheads per unit | R2.20 |
| Actual total fixed manufacturing overheads | R128 000 |
| Total fixed marketing cost | R40 000 |
| Variable marketing cost per unit | R1.50 |
| Total fixed administration cost | R25 000 |
| Total variable administration cost | R34 000 |
| Sales price per unit | R25.00 |

Barra use machine hours to allocate fixed manufacturing overheads. The fixed manufacturing overhead allocation rate is R5.00 per machine hour. It takes $11 / 2$ machine hours to produce one unit. On 1 October 2014 there were 5000 products in opening inventory. During October 2014, Barra produced 17000 products and the closing inventory was 6000 products.

## REQUIRED:

5.1 Compile income statements using both the direct and absorption costing methods. Show the variable and total unit cost of the product for each of the methods.
5.2 Reconcile the profit between the direct and the absorption costing statements.

