# National University of Science and Technology 

## FACULTY OF COMMERCE

## DEPARTMENT OF ACCOUNTING

## SECOND SEMESTER EXAMINATION: 2012

## DATE: <br> MAY 2012

SUBJECT:
ACCOUNTING 2B: CAC 2206

## TIME ALLOWED: THREE HOURS

MARKS:
100

## INFORMATION FOR CANDIDATES

1. Answer all questions
2. All workings should be shown
3. Begin each Full question on a new page
4. All answers should be presented in good style

## Question 1 [25 marks]

On 1 January 2012, the summary of the Statement of Financial Position of SW Ltd was as follows:

Non Current Assets

a) The following are expected during the next three months:

Sales Purchases Expenses

|  | $\boldsymbol{\$}$ | $\boldsymbol{\$}$ | $\boldsymbol{\$}$ |
| :--- | :---: | :---: | :---: |
| January | 150000 | 100000 | 20000 |
| February | 200000 | 150000 | 25000 |
| March | 300000 | 280000 | 30000 |

b) Sales collections have the following patterns:
i. During the month of sale $80 \%$ ( a $4 \%$ discount is given for payment in this period
ii. In the subsequent month $20 \%$
c) Payment for purchase is made in the month of purchase in order to take advantage of a $10 \%$ prompt settlement discount, calculated on the purchase figures shown above
d) Stock levels are expected to remain same throughout the period.
e) Depreciation of machinery is calculated at the rate of $12 \%$ per annum on cost. The appropriate portion for each month from January to March is included in the expenses figures above.
f) Expenses are paid for in the month in which they were incurred.
g) The proposed dividend will be paid in January
h) Loan interest for the three months will be paid in March.

## Required

a) Prepare a cash budget for each of the three months from January to March 2012
b) Prepare a budgeted Statement of Comprehensive Income for the period.
c) Prepare a Statement of Financial Position as at 31 March 2012.

## Question 2 [25 marks]

A company is reviewing its stock policy and has the following alternatives available for the evaluation of stock number 230
i. Purchase stock twice monthly 100 units.
ii. Purchase monthly, 200 units.
iii. Purchase every three months, 600 units.
iv. Purchase six monthly , 1200 units
v. Purchase annually, 2400 units.

## Additional information

a) It is ascertained that the purchase price per unit will be $\$ 1$ for deliveries up to 500 units. A $5 \%$ discount is offered by the supplier on the whole order where deliveries are 501 up to 1000 and $10 \%$ discount for deliveries in excess of 1000.
b) The ordering costs are $\$ 5$ per order
c) The holding costs are 25 cents per unit of average stock quantity held.

## Required

a) Advise management on the optimum order size
b) What are the main aims of Just in Time (JIT)

## Question 3[25 marks]

The following information provides details of the costs, volume and cost drivers for a particular period in respect of ABC Ltd.

|  | Product A | Product B | Product C | Total |
| :--- | :---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |
| Production and sales (units) | 30000 | 20000 | 8000 |  |
| Raw material usage per unit | 5 | 5 | 11 |  |
| Direct material cost per unit | $\$ 25$ | $\$ 20$ | $\$ 11$ | $\$ 1238000$ |
| Direct labour hours per unit | $11 / 3$ | 2 | 1 | 88000 |
| Machine hours per unit | $11 / 3$ | 1 | 2 | 76000 |
| Direct labour cost | $\$ 8$ | $\$ 12$ | $\$ 6$ |  |
|  |  |  |  |  |
| Number of production runs | 3 | 7 | 20 | 30 |
| Number of deliveries | 9 | 3 | 20 | 32 |
| Number of receipt | 15 | 35 | 220 | 270 |
| Number of production orders | 15 | 10 | 25 | 50 |

## Overheads costs

## \$

Set up
Machines
Receiving
Packing
Engineering

30000
760000
435000
250000
373000
18

The company has allocated overheads to products on the basis of direct labour hours. However the majority of the overheads are related to machine hours rather than to direct labour hours. The company has recently redesigned its costing system by recovering overheads using machine hours. Both the current and the previous cost system reported low profit margins for product A , which is the company's highest selling product.

## Required

i. Compute the product costs using the traditional costing system, absorb overheads on the basis of direct labour hours.
ii. Compute product costs using an activity based costing system (ABC) [13]
iii. What are the merits and criticisms of ABC

## Question 4 [25 marks]

P Electronics manufactures 51 cm colour television sets (TVs).The following information is available for 2011:

Units manufactured and sold
Selling price per unit
Variable costs per unit
Plant improvements
Testing and inspection per unit Liability claims

Rework cost per TV
Reworked TVs
Product improvements
Warranty repair cost per TV
Repaired TVs
Estimated lost sales from poor quality Labour rate per hour: Plant improvement
: Testing and inspection
: Product improvement

14000 units
\$1 200
\$ 720
20000 hours
1 hour
\$200 000
\$180
3105 units
10000 hours
\$200
1296 units
1000 units
$\$ 60$ per hour
$\$ 40$ per hour
$\$ 50$ per hour

## Additional information

a) Due to bad quality TV sets, the company lost a customer who normally purchase 1000 units per annum. If the loss of sales could have been prevented, the annual sales would have been 15000 units per annum
b) $P$ Electronics 'capacity under current conditions is 15000 units per annum. If all reworks can be eliminated, the capacity can be improved to 16000 units. The company can implement a process modification that would ensure $100 \%$ quality and no rework or warranty repairs. The new process would cost an additional $\$ 900000$ per annum. The demand for $P$ Electronics' TV sets is 14000 units per annum
c) Madhula Furnitures ( a prospective new customer ) is willing to purchase 2000 units per annum if $P$ Electronics implements the new design this will increase the annual demand to17 000 units. The contribution margin per TV will be $\$ 200$ on the 2000 units. The lost customer also suggested that he will always like in the past purchase 1000 units per annum provided the new design is implemented. This implies that if the company accepts the offer the 1000 units cannot be delivered to existing customers since the production capacity is only 16000 units per annum.

## Required

a) Calculate the cost of quality per quality category and show the ratio of each cost of quality as a percentage of sales
b) Should $P$ Electronics implement the new design, state clearly where the savings and additional costs are arising from.
c) Suppose P Electronics' designers implement the new design. Advise management if they should accept the offer of Madhula Furnitures.

## END OF EXAMINATION PAPER

