National University of Science and Technology

FACULTY OF COMMERCE

DEPARTMENT OF ACCOUNTING

SECOND SEMESTER SUPPLEMENTARY EXAMINATION: 2014

DATE:	**2014**
SUBJECT:	**MANAGEMENT AND COST ACCOUNTING**
	CAC 2205
TIME ALLOWED:	**THREE (3) HOURS**
MARKS:	**100**

INSTRUCTIONS TO THE CANDIDATES

1. Answer **all** questions
2. Begin each Full question on a new page

INFORMATION FOR CANDIDATES

1. All workings should be shown
2. All answers should be presented in good style

Question 1 [25 marks]

On 1 January 2013 the summary of Ch Ltd was as follows

			$
Share capital			40 000
Reserves			20 000
Loan 15% p,a			40 000
Proposed dividend			1 000
Overdraft			9 000
			110 000
Non current assets			
	Cost	Acc depreciation	NBV
Machinery	80 000	19 200	60 800
Current assets			
Stocks		24 200	
Debtors		25 000	49 200
			110 000

Additional information:

1. The following are expected during the next 3 months

	Sales	Purchases	Expenses
Jan	150 000	100 000	20 000
Feb	200 000	150 000	25 000
March	300 000	280 000	30 000

2. All sales are on credit and the collections have the following pattern: during the month of sale 80% (a 4% discount is given for payment in this period). And in the subsequent month 20%
3. Payments for purchases is made in the month of purchases in order to take advantage of a 10 % prompt settlement discount calculated on the gross purchase figures shown above.
4. Stock levels are expected to remain constant throughout the period
5. Depreciation of machinery is calculated at a rate of 12% p.a on cost. The appropriate portion for each month January to March is included in the expenses figure above.
6. Expenses are paid for the month in which they are incurred
7. The proposed dividend will be paid in January
8. Loan Interest for 3 months will be paid in March.

Required

a) Prepare a cash budget for each of the 3 months January to March 2014. **[18]**
b) Prepare a forecast income statement and a Statement of Financial Position**[7]**

Question 2 [25 marks]

P Ltd is a manufacturing company and has to decide whether to accept an order from Q Ltd to make 100 white painted trays at a selling price of $1 each. A pressing machine would be used for one hour to make the trays from some surplus tinplate which P Ltd has in stock. The trays would then be painted white and given a coating of heat proof varnish.

The following information has been obtained from P Ltd's costing system

	$
Revenue	100
Costs	
Tinplate from stock (original cost)	200
White paint from stock (original cost)	25
Heat proof varnish (special purchase)	10
Labour (two hours at $10 per hour)	20
Power (one hour at $15 per hour)	15
Depreciation (one hour at $20 per hour)	20
Production overhead (two hours at $25 per hour	50
Total cost	340
Loss	240

- **(i)** P Ltd has no other use for tinplate. The tinplates could be sold to the scrap dealer for $23
- **(ii)** The varnish used for Q Ltd order will be purchased specially
- **(iii)** As P Ltd uses the white paint for other work, any paint that is used for the Q Ltd job will have to be replaced. It will cost $31 to replace the paint.
- **(iv)** The worker who would make the tin trays is paid $400 for a 40 hour week even if he has no work to do. The worker will have nothing else to do at the time the trays would be produced.
- **(v)** The figure for the cost of power is only an estimate as it is very difficult to obtain a precise figure for power costs.
- **(vi)** P Ltd calculates the annual depreciation on each item of production equipment and shares this cost between products which use that particular equipment. As the pressing machine originally cost $100 000 and is expected to last for 10 years (with zero residual value), the provision for depreciation is $10 000 per year. It is expected that the machine will be used for 500 hours per year hence the $20 per hour charge (10000/500).
- **(vii)** The production overhead absorption rate of $25 per labour hour is based on budgeted fixed costs of $500 000 per year and budgeted labour hours of 20 000 per year.

The general manager has decided to reject the order.

Required

(a) Without providing any calculations, list the various considerations that should be taken into account while deciding whether to accept a once off order. **[5]**

(b) Using the information provided above calculate the relevant costs of carrying out the order and advice the company. **[20]**

Question 3 [25 marks]

Industrial Tools manufactures a single product. Which has a variable cost of $16 and is currently sold for $40, the reported profit this year was $800 000 after charging overheads of $400 000. The newly appointed general manager suggested that if the selling prices of the product were reduced sales would increase. He suggests that one of the following policies should be pursued for next year.

Policy	Reduce selling price by	Volume increase
1	5%	10%
2	7.5%	20%
3	10%	30%

Required

a) Calculate the volume sold in this year **[3]**
b) Calculate the forecast profit from each of the policies **[7]**
c) Calculate the contribution to sales ratio for each policy **[6**]
d) Calculate the margin of safety percentage for each policy **[7**]
e) State which policy you would recommend **[2**]

Question 4[25 marks]

XYZ Ltd is a company engaged in manufacture of a magic light which is made on fully automatic machines, using two chief raw materials, X and Y. The company employs semi-skilled labour to work the machines. To survive in the competitive market, the management has decided to review the costs and sales prices of their product quarterly, with the help of a standard costing system.

The standard fixed overheads allocated to production are $62 500. Budgeted sales set for a quarter are 50 000 lights.

The company has provided the following standard data for a three month period.

Per unit	**$**
3.75 g X @ $1.70 per g	6.375
2.25 g Y @ $1.20 per g	2.70
0.675 hrs semi skilled labour @ $6.00 per hr	4.05
Sales price per light	18.00

Actual figures relating to costs and sales for the period of October to December are:

	$
182 926 g X	300 000
100 800 g Y	126 000
28 800 hours semi skilled labour (hours actually worked: 28 350)	175 680
Total Sales	871 200
Fixed overheads allocated to production	64 000

The quantity actually sold during this quarter was 48,000 lights.

Required:

(a) Calculate the following variances:
  - (i) Sales volume contribution variance,
  - (ii) Sales Price Variance,
  - (iii) Material price, mix and yield variances for both raw materials,
  - (iv) Labour rate, efficiency and idle time variances. [10]

(b) Reconcile the budgeted profit to the actual profit. [5]

(c) Explain briefly the possible causes of:
  - (i) The material usage variance
  - (ii) The labour rate variance
  - (iii) The sale volume profit variance [6]

(d) Explain the meaning and relevance of interdependence of variances when reporting to managers. [4]

END OF EXAMINATION PAPER