# National University of Science and Technology 

## FACULTY OF COMMERCE

## DEPARTMENT OF ACCOUNTING

SECONDSEMESTER MAINEXAMINATION PAPER: 2013/2014

DATE:
APRIL 2014

SUBJECT: STRATEGIC MANAGEMENT ACCOUNTING:
CAC4205

TIME ALLOWED:
THREE (3) HOURS

MARKS:
100

## INSTRUCTIONS TO CANDIDATES

1. Answer ALLquestions
2. Use the examination answer book provided
3. Begin each question on a new page
4. Submit all answer books
5. Maths tables are provided

## Question 1

## Target cost - Comfort Ltd

Comfort Plc manufactures office chairs. It has been observed that sales for the current year have fallen, compared to the previous year. Therefore, Tom Warne, the marketing manager at Comfort conducted a market research to find out the reasons for the decrease. He discovered that a competitor has started selling a set of 10 chairs at a lower price i.e. $\$ 2,000$. He estimated that in order to maintain the demand, the company will need to rework the pricing decisions and cost structures.
Therefore, the directors asked the accounting team to compare Comfort's cost accounting system with the competitors' system. Jim, the accountant at Comfort Ltd, analysed the competitors' cost accounting system. He determined that the competitor has adopted a target costing approach for its product. Hence, the directors have decided to implement target costing to manage costs and maintain the market position. However, Jim is not aware of the target costing concept.

## Required:

As a management accountant you are required to:
(a) Describe the target costing process that Comfort Ltd should take on.
(b) Explain the implications of using target costing on cost control.

Currently Comfort sells a set of 10 chairs for $\$ 2275$. In order to meet the competition, Comfort's management has decided to sell each set for $\$ 2000$. The management expects to maintain a $25 \%$ return on its sales. It has budgeted the sale of 10,000 sets of chairs at $\$ 2000$ per set for the coming period.
Due to fluctuations in the business volume, Comfort has more labour than what is required. Comfort's cost department has estimated that $5 \%$ of the hourly rate is paid to the carpenters for idle time.
The following is a cost structure for Comfort.
i. Raw material i.e. wooden sheets required to make one set of chairs has been purchased for $\$ 20$ per sheet. 10 sheets are required to make one set of 10 chairs.
ii. Polish that is used to finish the chairs is purchased at $\$ 15$ per bottle. One complete bottle is required to polish one chair.
iii. Other accessories used for the chair are brought in at the rate of $\$ 12$ per chair.
iv. 5 hours are needed to complete one chair. Carpenters are paid at the rate of $\$ 5$ per hour.
v. Assembly workers are paid at the rate of \$4 per hour for assembling one chair. 30 minutes are needed to assemble one chair.
vi. Overheads are absorbed on the basis of total labour hours worked on carpentry work. Comfort's carpentry department generally works for 80,000 hours per year.

The following data relates to the last two month's production overheads:
Month Production Overheads
1 \$ 80,000

## Labour hours in Carpentry department

2
\$ 120,000
5000

## Required:

(c) From the above cost data, calculate the expected cost per unit of each set. Also identify the difference between the expected cost and the target cost per unit of each set.
(15 Marks)

## Question 2

## Sensitivity analysis - Smart Kids Ltd

(a) Smart Kids Limited (SKL) designs and sells soft toys for kids. Its marketing policy involves innovation and as a result each year SKL comes up with a new innovative character in soft toys. This year the company has come up with a character called 'Bobby D' for kids. They expect to sell 30,000 Bobby Ds at the rate of $\$ 40$ per unit. The direct cost of labour associated with the manufacturing of soft toys is $\$ 20$ per unit. The overhead costs associated with the project are \$6 per unit and the direct materials used is $\$ 7$ per unit.

## Required:

(i) Calculate the cash flow from the project. Also, evaluate the sensitivity of the project's cash flow to a change in the following project variables:

- an increase in the overhead cost by $2 \%$
- a decrease in the labour cost by 5\%
- a decrease in the selling price by $\$ 0.50$ and a following increase in the sales volume by $4 \%$
(10 Marks)
(ii) 'Risk and uncertainty should be considered in making decisions with regard to investment projects'. Explain the importance of this statement in the context of Smart Kids and how these may affect their markets since they launch a new character every year. Also mention the qualitative techniques that can help Smart Kids to reduce uncertainty.

Discuss using sensitivity analysis as a way of evaluating project risk. (10marks)

## (b) Expected value of profit - Better Budgets Ltd

Better Budgets Ltd is preparing its budget for 2010. In the preparation of the budget, it does not want to take any chances but would like to envisage all sorts of possibilities and incorporate them in the budget. Their considered estimates are as follows:
(i) If the worst possible happens, sales will be 8,000 units at a price of $\$ 19$ per unit, the material cost will be $\$ 9.5$ per unit, direct labour $\$ 2$ per unit and the variable overhead will be $\$ 1$ per unit. The fixed cost will be $\$ 60,000$ per annum.
(ii) If the best possible happens, sales will be 15,000 units at price of $\$ 20$ per unit. The material cost will be $\$ 7$ per unit, direct labour $\$ 3$ per unit and the variable overhead will be $\$ 1$ per unit. The fixed cost will be $\$ 48,000$ p.a.
(iii) It is most likely, however, that sales will be 2,000 units above the worst possible level at a price of $\$ 20$ per unit. The material cost will be $\$ 8$ per unit, direct labour $\$ 3$ per unit and the variable overhead will be $\$ 1$ per unit. The fixed cost will be $\$ 50,000$ p.a.
(iv) There is $20 \%$ probability that the worst will happen, a $10 \%$ probability that the best will happen and a 70\% probability that the most likely outcome will occur.

## Required:

What will the expected value of profit be according to the budget for 2010 ?

## Question 3

## Decision tree analysis - Allrounder Ltd

Allrounder Ltd is a producer of leather handbags, stationery items and upholstery. Now, they are planning to expand their business further by including crockery in their product line and want to start the venture by producing signature dinner sets. However, they are faced with a decision regarding the material to be used to produce the dinner sets. They are unable to choose between glass and bone china.
They have come up with the following information (for 1000 signature dinner sets):

- It would cost them $\$ 500,000$ if they use glass and $\$ 600000$ if they use bone china.
- Regardless of the material used, if high demand exists in the market, the net income is expected to be $\$ 1,550,000$. But in case of low demand, the net income would fall to as low as $\$ 750,000$.
- If bone china is used, then the probability of high demand would be 0.75 . If glass is used, then this probability would fall to 0.60 .
- Allrounder Ltd has an option of conducting research to record the positive or negative market response in relation to the type of material. The research would cost $\$ 65000$. From previous research undertaken, it can be noticed that the likelihood of positive response has been 0.80. Furthermore, if the research does indicate a positive result, the probability of high demand would increase to 0.90. However, if the research indicates a negative result, Allrounder would call off the idea of the new venture. Allrounder Ltd has decided that in case a positive result is indicated by the research, bone china would be used for producing the dinner sets.


## Required:

(a) Suggest the best course of action Allrounder Ltd should undertake, using the decision tree analysis.
(15 marks)
(b) Outline the circumstances under which decision tree analysis can be used. (10 Marks)

## Question 4

## Divisional performance assessment and ROI - Mystique Ltd

Mystique Ltd is an electronics store that has a number of stores across London. The manager of the company is an ambitious person, and is looking to expand his activities, by continuously adding the number of stores. Mystique assesses the performance of each of their stores individually. The expected return on investment (ROI) of Mystique is $10 \%$. Some of the stores have been able to achieve an ROI above this target. The market for Mystique is rapidly increasing. The stores of the company, at an average, have a gross profit ratio of around 40\%.

Below is financial data given for two of Mystique Ltd's stores for the last year: Store A, Trafalgar Square and Store B, Oxford Street

|  | Store A <br> $\mathbf{( \$ ' 0 0 0 )}$ | Store B <br> $\mathbf{( \$ ' 0 0 0 )}$ |
| :--- | :---: | :---: |
| Sales | 860 | 675 |
| Gross profit | 362 | 285 |
| Net profit | 75 | 50 |
| Assets employed (investment) | 585 | 360 |

## Required:

a) Discuss the past financial performance of store $A$ and $B$ using ROI and any other measure you feel appropriate from the given data. Using your findings discuss whether each of the measures you used correctly reflects the stores' actual performance.
(15 marks)
b) Discuss the disadvantages of comparing divisional performance.

