



© Copyright Reserved

Serial No.....

Institute of Certified Management Accountants of Sri Lanka

Managerial Level May 2012 Examination

Examination Date : 13th May 2012 **Number of Pages :** 05
Examination Time: 9.30 a:m. – 12.30 p:m. **Number of Questions:** 05

Instructions to candidates:

1. Time allowed is **three (3) hours.**
2. Total: **100 Marks.**
3. Answer **all** questions in Part I and any **three (3)** questions from Part II.
4. The answers should be in the **English Language.**

<u>Subject</u>	<u>Subject Code</u>
Integrative Management Accounting	(IMA / ML 1 - 301)

PART I

Question No. 01 (40 Marks)

SAM Plc. is considering investing in a pleasure park which consists of a covered dome and external fun rides. The cost of the dome, which is a covered frame that can be dismantled and erected elsewhere or stored, is Rs. 50 million.

The company is considering alternative two sites, namely, Matara or Galle, for opening the pleasure park. The present cost of acquiring the land and building and installing the equipment at the two sites are given below.

	Matara (Rs. million)	Galle (Rs. million)
Land and Building	40	30
Installation of Equipment	10	9

In order to gather information, the company did a market survey and according to its findings, the number of expected visitors together with estimated probabilities thereon is as follows.

	Matara		Galle	
	Probability	Million	Probability	Million
Number of visitors per year for the first four years	0.5	2.0	0.4	2.0
	0.5	1.0	0.6	1.0
Number of visitor per year for the second four years	0.5	1.7	0.4	1.7
	0.5	0.8	0.6	0.8

Each visitor to the Matara site is expected to spend Rs.2,500/- on average. This comprises Rs.1, 000/- entrance fee which includes access to fun rides, Rs.1,000/- on souvenir merchandise and Rs.500/- on food and drink. Each visitor to the Galle site is expected to spend Rs.2,300/- on average. This comprises Rs.900/- entrance fee, Rs.1,000/- on merchandise and Rs.400/- on food and drink.

The average cost of servicing each visitor for providing rides, merchandise and food and drink, is estimated to be Rs 1,000 at both sites.

After the first four years, the dome could be kept in operation for a further four years or dismantled. If the dome were to be dismantled after the first four years, it could be stored at an annual cost of Rs.800,000/- a year or sold for Rs.5,000,000/- or transferred to the other alternative site. If it is transferred to the other site, the expected number of visitors and the revenue to be earned and expenditure to be incurred for servicing visitors at that site would be as similar to the prediction for the first four years.

The cost of dismantling the dome and equipment after the first four years would be Rs.4, 500,000/- and cost of moving and re-erecting it at the other site would be Rs.10, 000,000/-. The market value of land and building at the end of year 4 would be:

	Rs. (Million)
Matara	42
Galle	33

At the end of the year 8, the dome's resale value would be zero and the market value of land and building would also be the same as given for the end of year 4. The final cost of dismantling the dome and equipment would be Rs.3, 000,000/-. The company's cost of capital is 10%.p.a.

You are required to:

- (a) Assuming that SAM Plc. intends to terminate the project after four years:
 - (i) Draw a decision tree to show the options available to SAM Plc. **(06 Marks)**
 - (ii) Calculate which option would generate higher net present value. **(06 Marks)**
- (b) Assuming that SAM Plc. chose the most advantageous option for years 1 to 4, as determined in your answer to (a) (ii) above:
 - (i) Draw a decision tree for years 5 to 8, showing the options available to SAM Plc. if project is not terminated after four years. **(06 Marks)**
 - (ii) Show through your calculations as to which of these options generate the higher net present value over years 5 to 8. **(06 Marks)**
- (c) Advise the company as to which options it should select in order to maximize the net present value to be generated over the full 8 years of the project and state what net present value would be. **(08 Marks)**
- (d) SAM Plc. intends to adopt activity based costing (ABC) in order to cost its activities. Discuss whether this would be a suitable system to be used in order to assess the visitor profitability of the project. **(08 Marks)**

(Total 40 Marks)

End of Part I

PART II

Answer any three (3) questions

Question No. 02 (20 Marks)

KAM Plc. manufactures a line of electric garden tools that are sold in general hardware stores. The company's Finance Manager, Mr. Senason, has just received the sales forecast for the coming year for KAM Plc.'s three products: hedge clippers, line trimmers, and leaf blowers. KAM Plc. has experienced considerable variations in sales volumes and variable costs over the past two years, and therefore, Mr. Senason believes the forecast should be carefully evaluated from a cost-volume-profit viewpoint. The preliminary budget information for the year 2013 is given below:

	Hedge clippers	Line trimmers	Leaf blowers
Sales (Units)	5 million	5 million	10million
Unit selling price (Rs)	90	110	150
Variable manufacturing cost per unit	40	40	80
Variable selling cost per unit	20	10	50

For 2013, KAM Plc.'s fixed manufacturing overhead is budgeted at Rs.600,000,000/- and the company's fixed selling and administrative expenses are forecasted to be Rs.180,000,000/-. KAM Plc. has to pay tax at 40%.

You are required to:

- (a) Determine KAM Plc.'s budgeted net income for 2013. **(04 Marks)**
- (b) Assuming the sales mix in terms of quantity remains as budgeted, determine how many units of each product of KAM Plc. must sell in order to reach the breakeven point in 2013. **(06 Marks)**
- (c) Calculate the sensitivity of the selling price and explain its significance to KAM Plc. **(05 Marks)**
- (d) Immediately after preparing the original estimates, at the first budget estimates review meeting it was revealed that the variable manufacturing cost of leaf blowers would go up by 20%, and the variable selling cost of line trimmers could be expected to go up by Rs 4 per unit. However, management has no intention to change the selling price of either product. In addition, management has learned that its leaf blower has been perceived as the best value product in the market and therefore, the Company can expect to sell three times as many leaf blowers as each of its other products. Under these circumstances, determine that how many units of each product of KAM Plc. would have to sell in order to reach the breakeven point in 2013.

(05 Marks)

(Total 20 Marks)

Question No. 03 (20 Marks)

Asoka Plc. has two divisions, CM division which manufactures chips and AMP division which assembles mobile phones. CM division currently manufactures many different types of chips, one of which is used by AMP division for its mobile phones. There is no external market for the particular chip used in AMP division for mobile phones and its transfer price is set on the basis of total cost plus 20% mark- up.

The budgeted profit before tax for the AMP division for the next year shows the following results:

	Mobile phone range		
	M 1101 (Rs.)	M 1102 (Rs.)	M 1103 (Rs.)
Sales	10,000,000	9,500,000	11,750,000
Less : Total variable cost	5,200,000	6,300,000	3,375,000
Total fixed cost	2,000,000	5,400,000	5,875,000
Profit before tax	2,800,000	(2,200,000)	2,500,000

The total variable costs shown above include the cost of the chips. AMP division uses a traditional costing system based on labour hours. The management of Asoka Plc. is contemplating as to whether all divisions should implement an Activity Based Costing (ABC) system rather than to continue with the traditional absorption costing system.

Asoka Plc. operates a performance measurement system based on divisional profits.

In order to increase profit for the forthcoming year, AMP division has requested permission to buy chips from an external supplier.

You are required to:

- (a) List four benefits of an Activity Based Costing (ABC) system that could be gained over traditional costing system. **(04 Marks)**
 - (b) Discuss difficulties that might be experienced when implementing ABC in the Divisions. **(06 Marks)**
 - (c) Discuss the current transfer pricing system and explain alternative systems that might be more appropriate for the forthcoming year. **(05 Marks)**
 - (d) Explain the impact that the introduction of an ABC system could have on the transfer price and on divisional profits. **(05 Marks)**
- (Total 20 Marks)**

Question No. 04 (20 Marks)

CBA Plc. was started ten years ago to provide business equipment solutions. It has separate divisions for research, marketing, product design, technology and communication services, and now manufactures and supplies a wide range of office equipment such as copiers, scanners, printers, and fax machines. It has been evaluated its performance using monthly financial reports that analyses profitability by type of equipment. The Managing Director of CBA Plc. has recently attended a seminar where it had been discussed that the 'Balance Scorecard' system would be a useful way of measuring performance. Further, it had been recommended that performance measurement could be improved by introducing 'Benchmarking'.

You are required to:

- (a) Explain the Balance Scorecard and how it could be made use by CBA Plc. to measure its performance. **(10 Marks)**
 - (b) Explain 'Benchmarking' and how it could be used to improve the performance of CBA plc. **(10 Marks)**
- (Total 20 Marks)**

Question No. 05 (20 Marks)

"The budget is a key tool for planning, control and decision making in virtually every organization. Budgeting systems are used to force planning, to facilitate communication and coordination, to allocate resources, to control profit targets and operations and to evaluate performance and provide incentives".

You are required to:

- (a) Explain how a budget facilitates communication and coordination. **(04 Marks)**
- (b) Cite an example and explain how a budget could be used to allocate resources in a university. **(06 Marks)**
- (c) How does activity based budgeting differ from traditional budgeting method? **(05 Marks)**
- (d) Why it is accepted that participative budgeting is considered an effective management tool? **(05 Marks)**

(Total 20 Marks)

End of Part II

End of Question Paper
