KASNEB

CPA

MANAGEMENT ACCOUNT

6th JUNE 2013

QUESTION ONE

a) Bahatisha Ltd currently manufactures a single product branded 'Zed'. Due to stiff competition in the industry, the company plans to launch additional products in the market.

The production director has identified three products which are mutually exclusive namely; Aye, Bee and Cee. The production director believes that demand for the products would vary depending on competitor reaction, as follows:

Competitor reaction	Probability
Strong	30%
Normal	20%
Weak	50%

Additional information

1. The net present value for each of the possible outcomes is as follows:

	Net present value		
Competitor reaction	**Product Aye**	**Product Bee**	**Product Cee**
	Sh. '000'	**Sh. '000'**	**Sh. '000'**
Strong	360	720	1,080
Normal	540	1,080	720
Weak	900	1,440	900

2. Perfecto Ltd, a market research company, believes that it can provide perfect information on potential competitor reaction in this market.
3. The company will use the expected value approach to make the decision.

Required:

Advise the management on the maximum amount that should be paid for the information from Perfecto Ltd.

(10 marks)

b) Acepark Ltd is a manufacturing company located in the East African region. The company comprises two departments namely; A and B. department A produces product X which is sold to extrernal customers as a final product and also used as an input in department B which produces product Y.

The external demand forecast for the two products for the month of July 2013 is as follows:

	External Demand forecast	Unit selling price
Product	**Units**	**Sh.**

X	4,000	80
Y	2,000	200

Additional information:

1. Each unit of product Y produced requires 1 unit of product X as an input.
2. There is an 80 units change in demand of product X for every Sh. 1 change in its selling price and a 20 units change in demand for product Y for every Sh. 1 change in its selling price.
3. The marginal cost of producing product X is Sh. 40 while that of producing product Y is Sh. 50 exclusive of the transfer cost of product X
4. Departmental managers are paid an incentive bonus based on each department's respective performance.

Required:

i. The unit selling price and output of products X and Y that would maximize the profit of the company. (4 marks)

ii. The unit selling price and output of products X and Y that would maximize the profit of the company given that product X is transferred to department **B** at the market price. (6 marks)

(Total: 20 marks)

QUESTION TWO

a) **In** the context of management accounting, explain three functions of management information systems system. (6 marks)

b) Tion Ltd manufactures and sells a single product whose standard cost and selling price per unit are as given below:

	Sh.
Direct materials (8 kilogrammes at Sh. 108 per kilogramme)	864
Direct labor (1.25 hours at Sh. 180 per hour)	225
Variable overheads (1.25 hours at Sh. 60 per direct labour hour)	75
Standard selling price	1,840

Additional Information:

1. The budgeted fixed production overheads were Sh. 1,700,000.
2. The budgeted production and sales were 10,000 units while the actual production and sales were 9,000 units.
3. The actual production costs in the month of May 2013 were as follows:

	Sh.
Direct materials (74,000 kilogrammes at Sh. 112 per kilogramme)	8,288,000
Direct labor (10,800 hours at Sh. 190 per hour)	2,052,000
Variable overheads	700,000
Fixed production overheads	1,680,000

4. The actual selling price per unit was Sh. 1,840
5. Tion Ltd operates a standard marginal costing system and a just-in-time (JIT) purchasing and production system.

Required:

A statement reconciling the actual profit or loss to ht budgeted profit or loss. Show all the variances.
(14 marks)

(Total: 20 marks)

QUESTION THREE

Safiri Ltd manufactures seat covers for the automobile industry. The company has a number of plants in the region including a plant in Eldoret. Seat covers made of leather are sewn at the Eldoret plant.

The Eldoret plant manager also serves as the regional production manager for the company. His budget as the regional production manager is charged to the plant.

An external vendor has offered bid to supply Safiri Ltd with leather seats covers equivalent to the entire annual output of the Eldoret plant Sh. 42 million. The plant manager was surprised at the low bid because the budget for the plant's operating costs for the financial year ending 30 June 2014 had been Sh. 48.6 million. If this offer is accepted, the plant will be closed down.

The budget for the Eldoret plant's operating costs for the financial year ending 30 June 2014 is as follows:

	Sh. '000	Sh. '000
Materials		16,000
Labour:		
Direct	13,400	
Supervision	800	
Indirect plant	3,800	18,000
Overhead:		
Depreciation: Equipment	2,600	
Building	4,200	
Pension expenses	3,200	
Plant manager and staff salaries	1,200	
Corporate expenses (note 6)	3,400	14,600
Total cost		48.600

Additional information:

1. Purchase orders for bulk quantities have been placed with major suppliers to ensure receipt of sufficient materials for the financial year ending 30 June 2014. If these orders are cancelled as a consequence of the plant closing, termination charges would amount to 25% of the cost of direct materials.
2. Approximately 350 workers will lose their jobs if the plant is closed. This includes all of the direct plant workers and supervisors, management, staff and other skilled workers classified as indirect plant

workers. Nearly all the production workers would have difficulty in finding a job that matches the Eldoret's base pay of Sh.25 per hour, which is highest in the area. A clause in the contract with the trade union may help some employees if the plant is closed. The estimated cost to administer this service would be Sh. 1.6 million.

3. Some employees would probably choose early retirement because Safiri Ltd has an excellent pension plan. In fact, Sh. 1.4 million of the annual pension expense would continue to be incurred whether the plant is open or not.
4. The plant manager and his regional staff would not be affected by the closure of the firm. They would still be responsible for running three plants in other areas.
5. If the plant was closed, the company would realize approximately Sh. 4 million as salvage value for the equipment in the plant. If the plant remains open, there are no plans to make any significant investment in new equipment or buildings. The old equipment is adequate for the job and should last indefinitely.

Required:

a)

- **i.** **The annual budgeted costs that are relevant to the decision regarding the closing of the plant. (5 marks)**
- **ii.** **The** annual budgeted costs that are relevant to the decision. Explain your answer. (6 marks)
- **iii.** Any nonrecurring costs that would arise due to the closing of the plant. (2 marks)

b) Based on (a) above, advice the management of Safiri Ltd on whether the plant should be closed. Show computations to support your answer. (3 marks)

c) Identify any two factors that Safiri Ltd should consider before making a decision. (2 marks)

d) Ignoring the costs, identify two advantages that accrue to Safiri Ltd from continuing to obtain seat covers from its Eldoret plant. (2

QUESTION FOUR

Mingi Ltd is a manufacturing company that has many trading divisions. Return on investment (ROI) is the main measure of each division's performance. Each divisional manager's salary is linked only to their division's ROI.

The following information summarizes the financial performance of Lenga Juu division for the year ended 31 December:

	2010 **Sh. "000"**	2011 **Sh. "000"**	2012 **Sh. "000"**
Turnover	1,000	1,000	1,000
Cost of sales	600	600	600
Gross profit	400	400	400
Other operating costs	300	260	245
Operating profit before tax	100	140	155
Capital invested as at the end of the year	1,000	800	640

Additional information:

1. The item "other operating costs" includes asset depreciation calculated at the rate of 20% per annum on a reducing balance basis.
2. The capital invested as at the end of the year is the net book, value of the division's non-current assets.
3. All of the above values have been adjusted to remove the effects of inflation.
4. There have been no additions or disposals of non-current assets within Lenga Juu division during this period.

Required:

a) Using the return on investment (ROI), discuss the performance of the division over the three year period. (6 marks)

b) The manager of Lenga Juu division is considering investing in a replacement machine. The machine that would be sold at its net book value of Sh. 100,000 as at 31 December 2012.

Additional information:

1. The new machine would cost Sh. 250,0000
2. The useful life of the new machine is expected to be 5 years
3. The new machine would be depreciated using reducing balance method at the rate of 20% per annum.
4. The new machine would reduce the division's cost of sales by 10%.
5. The salvage value of the machine will be equal to its net book value
6. The company has evaluated the investment and correctly determined that it has a positive net present value (NPV) of Sh. 61,340.
7. The divisional cost of capital in 8% per annum.

Ignore taxation.

Required:

i. Justify why the manager of Lenga Juu division is likely to go ahead with the investment. Show your computations. (10 marks)

ii. Using the residual income **(RI)** as the performance measure, advise the division's manager on whether to invest in the replacement machine. (4 marks)

(Total: 20 marks)

QUESTION FIVE

a) Decision makers in organizations could use the physical flow information and cost information provided by environmental management accounting (EMA) to make decisions that impact both the environmental and financial performance of the organization. Both the private business and government organizations could benefit from this.

Required:

i. With reference to the above statement, define environmental management accounting (EMA). (2 marks)

ii. Explain three benefits of environmental management accounting to the industry. (6 marks)

b) **In** the context of cost estimation and forecasting, evaluate the four components of a time series model. (12 marks)