

**QUESTION 1**

(a) Benefits of Budgetary Control

- Allocation of resources
- Planning of activities
- Coordination and communication
- Performance measurement
- Quantitative and cost awareness
- Control of operations
- Goal orientation
- Delegation and motivation.

Objectives of Budgetary Control

- To assist in decision making
- To make management think ahead
- To obtain best profit from available resources
- To ensure availability of funds at the right time
- To control expenditure
- To set yardstick to measure actual results
- To centralize control.

Limitations of Budgetary Control

- Budgets are formulated using estimates and therefore deviations are not unexpected.
- Rigid adherence to the budgets is not as important as the manager's ability to adapt to new conditions.
- Budget should not be used or perceived by managers as simply a reward/punishment device.
- The execution of a budget is not automatic.

## SOLUTION COST AND MANAGEMENT ACCOUNTING MAY 2010

(b) Production Budget

	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>
Closing stock	300	400	500
Sales	<u>300</u>	<u>600</u>	<u>800</u>
	800	1,000	1,300
Less opening stock	<u>250</u>	<u>300</u>	<u>400</u>
Production (in Units)	<u><u>550</u></u>	<u><u>700</u></u>	<u><u>900</u></u>

(c) Standard Costing

It is a system of comparing actual results with expected results the latter being based upon pre-determined standard cost per unit. Under this system, detailed variances can be calculated and analysed by reasons, thus permitting the identification and control of particular problem areas.

Budgetary Control

This is defined as the establishment of departmental budgets relating the responsibilities of executives to the requirements of policy and the continuous comparison of actual with budgeted results either to secure by individual action the objective of that policy or to provide a basis for its revision.

- Establish performance standards, plans and budgets
- Determine organisational structure and responsibility centre
- Initiate or take action
- Compare standards/budgets with actuals
- Calculate and analyse variances
- Take control measures.

### QUESTION 2

(a) Cost of Making Computers

	GH¢
Variable cost	20
Loss in contribution in printer – 12 x 2	<u>24</u>
Cost of making	<u><u>44</u></u>

K Ltd should buy rather than make since cost of producing is GH¢44 compared with buying at GH¢40.

Workings

$$\begin{aligned} \text{Contribution per unit} &= 400 - 300 = \frac{100}{50 \text{ hrs}} \\ &= 2 \text{ per hour} \end{aligned}$$

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12 hours needed to produce a computer giving a total of  $2 \times 12 = 24$  contribution lost if the computer is to be produced.

Standard Cost Card

	GH¢
DMC (6 lts @ GH¢.06/lit)	0.360
DLC (1.5 Hrs @ GH¢.35/Hr)	0.525
Volt (1.5 Hrs @ GH¢.20/Hr)	0.300
Fixed ....	<u>1.25</u>
	<u>2.435</u>

(c) Material Price variance (SP – AP) AQ)

		GH¢
M (2.5 – 2.25) 1650	=	4,125 F
N (1.8 – 1.60) 25000	=	5,000 F
U (1.00 – 1.40) 39500	=	<u>15,800 A</u>
		<u>6,675 A</u>

Mix Variance

	Std Mix	Act Mix	MV	SP	
M	16,000	16,500	500A	2.5	1,250A
N	24,000	25,000	1,000A	1.8	1,800A
U	<u>40,000</u>	<u>38,500</u>	1,500F	1.0	<u>1,500F</u>
	80,000	80,000	-		<u>1,550A</u>

Yield Variance

Standard Yield =	$\frac{18}{20}$	=	90%
	90% of 80,000=		72,000
	Actual Yield =		
	90% of 80,000=		72,000
	Actual Yield =		<u>70,000</u>
			<u>2,000 Adv.</u>

Material cost per Unit

				GH¢
M	4	2.5	=	10
N	6	1.8	=	10.8
U	<u>10</u>	1.0	=	<u>10.0</u>
	20			<u>30.8</u>

Cost per Unit =  $30.8/18 = \underline{1.71}$

Yield Variance =  $2000 \times 1.71 = 3,420 \text{ Adv.}$

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**QUESTION 3**

		GH¢
(a)	Original Investment: Plant	1,000,000
	Working Capital	<u>250,000</u>
		<u>1,250,000</u>
	Expected returns (20%)	<u>250,000</u>

	Fixed Costs: Annual	300,000
	Depreciation	125,000
	Development Expenditure	<u>100,000</u>
		<u>525,000</u>

(i) Level of sales to produce a return of 20%

$$\begin{aligned} \text{Level of sales} &= \frac{\text{FC} + \text{Regd Return}}{\text{Contribution}} \\ &= \frac{525,000 + 250,000}{200} \\ &= \underline{3,875 \text{ Units}} \end{aligned}$$

(ii) Annual Profit at maximum Production

$$\begin{aligned} \text{NP} &= \text{Px} - (\text{a} + \text{bx}) \\ &= 6000(1000) - 525,000 - 6000(800) \\ &= \text{GH¢}675,000 \end{aligned}$$

(iii) Margin of safety (MOS)

$$\text{MOS} = \frac{\text{Expected Sales} - \text{B/E Sales}}{\text{Expected Sales}}$$

Expected sales	=	6,000 Units
B/t Sales	=	$\frac{\text{FC}}{\text{Contribution}} = \frac{525,000}{200}$
	=	<u>2,625 Units</u>
MOS (%)	=	$\frac{3,000 - 2,625}{6,000}$
	=	<u>56.25%</u>

(d) Nature and Purpose

- Concerned with the study of the relationship between costs, volume and profit.
- Examines the behaviour of costs in response to changes in the level of output.
- Compares the Total Costs with sales revenue to determine the profit or loss.
- Helps to establish the level of output at which the company makes neither profit nor loss ie break even.

(e) Limitations

- It is difficult to separate costs into fixed and variable components.
- It is not correct that TFC would remain unchanged over the entire range of volume.

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- The assumption of constant SP and unit VC is not valid.
- It is difficult to use the BEA for a multi product firm use in long range planning.

**QUESTION 4**

	<u>Close Down</u>			<u>Retain</u>	
	<u>A</u>	<u>B</u>	<u>C</u>	<u>TOTAL</u>	<u>TOTAL</u>
Revenue	86,000	92,000	142,800	320,800	390,000
Variable cost	<u>42,000</u>	<u>46,000</u>	<u>71,400</u>	<u>160,400</u>	<u>195,000</u>
	43,000	46,000	71,400	160,400	195,000
Specific cost of sales	<u>9,000</u>	<u>12,000</u>	<u>13,200</u>	<u>34,200</u>	<u>45,000</u>
	34,000	34,000	58,200	126,200	150,000
Variable sale & Ad. cost	<u>4,300</u>	<u>4,600</u>	<u>7,140</u>	<u>16,040</u>	<u>19,500</u>
	29,700	29,400	51,060	110,160	130,500
Less F/C:					
				70,000	70,000
Pdn.				<u>24,500</u>	<u>24,500</u>
S & Ad				<u>15,660</u>	<u>36,000</u>

Management should Retain Branch D, because if it is closed profit will drop from current level of GH¢36,000 to GH¢15,600.

Qualitative Factors

- Consider the idle resource that may not have immediate deployment.
- The effect of the shut down in other department and the company as a whole.
- Social impact of the closure in the community.
- Costs effect of possible future re-opening of the branch.
- Consider Long Term prospect as against Short Term challenges.

**QUESTION 5**

Workings:		GH¢
	Total Book Value (5 x 60,000)	= 300,000
	Annual depreciation of each asset	= 12,000
	Wdv of asset bought on 31/12/09	60,000
	31/12/08	48,000
	31/12/07	36,000
	31/12/06	24,000
	31/12/05	<u>12,000</u>
	Total Written Down Value	180,000
	Add Net Current Assets	<u>40,000</u>
∴	Capital Employed at 31/12/09	<u>220,000</u>

## SOLUTION COST AND MANAGEMENT ACCOUNTING MAY 2010

(a) Present ROCE =  $\frac{64,000}{220,000} = \underline{29.1\%}$

New ROCE after new investment =  $\frac{64,000 + 10,000}{220,000 + 60,000} = \frac{74,000}{280,000} = \underline{26.4\%}$

ROCE of New Investment alone =  $\frac{10,000}{60,000} = \underline{16.7\%}$

Present RI =  $64,000 - (15\% \times 220,000) = \underline{\text{GH}\text{c}31,000}$   
New RI =  $74,000 - (15\% \times 280,000) = \underline{\text{GH}\text{c}32,000}$

(b) ROCE if the asset is sold =  $\frac{64,000 - 3,900}{220,000 - 24,000} = \frac{60,100}{196,000} = 30.7\%$

ROCE after sale :  $60,100 - (15\% \times 196,000) = \underline{\text{GH}\text{c}30,700}$

(c) Recommendations:

(i) Investment to be undertaken:

The ROCE of the new investment is 16.7% which is above the company's cost of capital of 15%. Additionally, the RI after the new investment of GHc32,000 is higher than the RI before the investment at GHc31,000. Thus, even though the new investment has lower ROCE of 26.4% than the present 29.01%, the new investment is recommended.

(ii) Asset to be sold:

The sale of the asset will improve the company's ROCE from 29.1% to 30.7%. However, the ROCE of the asset to be sold is higher than the company's cost of capital. Also the sale of the asset will reduce the RI from GHc31,000 to GHc30,700. As such, the asset is not recommended to be sold.

(d) Reasons for Decentralisation

- Enhanced competition
- Speedier decisions
- Divisional performance measurement
- Training and motivating managers
- Focusing on central management
- Gathering and using local information
- Delegation