QUESTION 1

(a) **MERITS**

i. ABC is flexible enough to trace cost to processes, customer's areas of managerial responsibility as well as product cost.

ii. ABC recognizes that, it is activities that cause cost and not product.

iii. ABC focuses on real nature of cost behaviour and helps in reducing costs and identifying activities which do not add value to the product.

iv. It also provides reliable indication of long run variable product cost which is relevant to decision making.

v. More realistic product costs are provided especially in advanced manufacturing system.

vi. More overheads can be traced to product.

(b) **Limitations of Traditional Costing System.**

i. Traditional system often tends to rely on arbitrary allocation of indirect cost.

ii. Traditional system rely extensively on volume based allocation instead of activity based.

iii. Traditional system is most in appropriate under improved production system using high technology and modern system that may result in increasing indirect and overhead cost.

iv. Traditional system is most unlikely to over price some products due to the inappropriateness of the measurements used.

(c.) i. **ABC Profitability Statement**

	Accra GHS	Kumasi GHS	Tamale GHS
Gross Margin	30,000	32,000	31,000
Less :			
Sales expenses GHS10/visit	1,200	1,100	1,300
Ordering expenses GHS2/ order	1,600	3,200	2,100
Delivery expenses GHS2/order	1,600	3,200	2,100
Collection expenses GHS5/bill raised	1,200	3,000	3,150
	5,600	10,500	8,650
Profit	24,400	21,500	22,350
Rank	1st	3rd	2nd

(c.) ii. **Traditional Profitability Statement**

	GHS	GHS	GHS
Gross Margin	30,000	32,000	31,000
Cost (Customer cost) (24,750/3)	8,250	8,250	8,250
Profit	21,750	23,750	22,750
Ranking	3rd	1st	2nd

QUESTION 2

a. i. Fixed Overhead Variance:
Absorbed Overhead – Actual Overheads
Absorbed Overhead 5,000 x 5 = 25,000
Actual Overhead = 22,500
= 2,500 F

ii. Fixed O/H Expenditure Variance:
Budgeted O/H – Actual O/H
(22,500 – 22,500) = 0

iii. Fixed O/H Volume Variance:
B. O/H – Absorbed O/H
(BQ – AQ) Q per unit
(4,500 – 5,000)5 = 2,500 F

OR

(BH – SH)SR
(9,000 – 10,000)2.5 = 2,500 F

iv. Volume Capacity Variance
(BH – AH)SR
(9,000 – 8,200)2.5 = 2,000 A
OR
(SQ – AQ)SR
(4,100 – 4,500)5 = 2,000 A

Volume Efficiency:
(SH – A/H)SR
(1,000 – 8,200)2.5 = 4,500 F
OR
(SQ – AQ)
(4,100 – 5,000)5 = 4,500 F

v. Sales Margin Volume Variance
(BQ – AQ) standard Profit
(4,500 – 5,000)4 = 2,000 F

Sales Margin Price Variance
(Standard Profit – Actual Profit)AQ
(4 – 6)5,000 = 10,000 F
Note that Actual Profit = Actual S.P. – Standard Cost per unit
= 22 – 16 = 6

(b.)

- Assign responsibilities to procurement and production departments.
- Deal with variances on timely basis.
- Ensure the inefficiency of one department is not shifted to the other.
- Determine the interdependence of variances

QUESTION 3

SABBAT LIMITED

(a) i. Profit and Loss Statement for six month ending June 2010 using Marginal Costing System.

	JAN	FEB	MARCH	APRIL	MAY	JUNE
	GHS'000	GHS'000	GHS'000	GHS'000	GHS'000	GHS'000
Sales Revenue	3,000	2,400	3,600	3,000	2,800	3,200
Less						
Opening stock	-	-	240	-	-	240
Production cost	1,200	1,200	1,200	1,200	1,360	1,120
Closing stock	-	(240)	-	-	(240)	(80)
Cost of sales	1,200	960	1,440,	1,200	1,120	1,280
Contribution	1,800	1,440	2,160	1,800	1,680	1,920
Fixed Manuf. Cost	(3000	(300)	(300)	(300)	(300)	(300)
Non- Manuf Cost	(100)	(100)	(100)	(100)	(100)	(100)
Net Profit	1,400	1,040	1,760	1,400	1,280	1,520

ii. Using Absorption Costing System

	JAN GHS'000	FEB GHS'000	MARCH GHS'000	APRIL GHS'000	MAY GHS'000	JUNE GHS'000
Sales Revenue	3,000	2,400	3,600	3,000	2,800	3,200
Production cost:						
Variable	1,200	1,200	1,200	1,200	1,360	1,120
Fixed	300	300	300	300	340	280
Total Prodn. Cost	1,500	1,500	1,500	1,500	1,700	1,400
Opening stock	-	-	300	-	-	340
Closing stock	-	(300)	-	-	(300)	(100)
Cost of sales	1,500	1,200	1,800	1,500	1,400	1,600
Under/Over Absor.	-	-	-	-	40	(20)
Total cost	1,500	1.200	1,800	1,500	1,440	1,580
Gross Profit	1,500	1,200	1,800	1,500	1,440	1,580
Non-Manuf. Cost	(100)	(100)	(1000	(100)	(100)	(100)
Net Profit	1,400	1,100	1,760	1,400	1,340	1,480

The total profit for the period should be the same but this has not been the case because of the over and under absorption of fixed cost in May and June.

Fixed cost is budgeted at GHS 300,000 for 1,500 units making GHS 200 per unit, but 1700 units were produced in May implying additional GHS 400 of fixed cost as follows:

(GHS 200 x (1,700 – 1,500) = GHS 40

Also in June only 1,400 units were produced giving a total fixed cost of GHS 280,000 instead of GHS 300,000 (i.e. a reduction of GHS 20.

These produce a difference of GHS 200 in profit.

b.

1. Cost Centre:

   A cost centre is a business segment or a unit of an organization whose manager is responsible for sots under his/her control.

   The manager is not responsible for revenue or investment of funds. Service departments such as accounting. administration and human resource are usually considered as cost centre.

2. Profit Centre:

   This is any business segment or a unit of an organization in respect of which a manager has control over both cost and revenue.

A branch manager of a bank may have control over both cost and revenue under his outfit but has no control to invest new funds so as to increase the profit for his/her outfit. Such a decision may be made from the head office.

3. Investment Centres:

An investment centre is any segment of an organization whose managers has control over cost, revenue and invests in operating assets. For example the chief executive of a district will control over cost, revenue and investments.

QUESTION 4

(a)

i. Relevant Range

This is the range of output at which a firm expects to operating in the future.

It may also be referred to as the output level which the firm has had the experience of operating in the past and for which information is available.

Within this range it is assumed that variable cost per unit is the same (constant) throughout the entire range of output, and total fixed cost in therefore linear.

ii. Contribution

This is the difference between sales revenue and variable cost.

It is the measure of the amount of revenue that a product has towards the payment of a fixed cost and profit after meeting the variable costs.

iii. Break-Even Point

This is the level of output (activity level) at which the firm makes neither profit nor loss.

At the Break-even point total is equal to total revenue; hence there is neither profit nor loss.

Break-even point can be measured in terms of units of output and in terms of sales revenue (Ghana cedis)

iv. Margin of Safety

Margin of safety refers to the level of output above the breakeven point.

It provides a measure of output range within which profit is made.

It is calculated as:

Total Output – Output level at Break-even point

Margin of safety serves as test of how safe the firm is in terms of shipping into losses.

(b)
Assumptions not realistic in practice

- Linear behaviour of costs and revenues.
- Costs accurately resolved into fixed and variable costs.
- Constants fixed costs.
- Multiple provident situations.
- No changes in stock levels.

(c)

Using the concepts of high and low, Total cost when production is at 3,000 and 1,500 will be
3,000 units – TC – Sales – Profit
:. = GHS 699,990 – GHS 209,990
= GHS 490,000

1,500 units = GHS 350,000 – GHS 70,000
= GHS 280,000

:. change in TC = GHS 490,000- GHS 280,000
= GHS 210,000

Change in Units = 3,000 - 1,500
:. VC per unit = GHS 210,000
GHS 1,500
= GHS 140 per unit

ii. Total Variable cost therefore will be:
TUC = VC per unit x Quantity
TVC = GHS 140 x 3,000 units
TVC = GHS 420,000

iii. Total Fixed Cost = TC-TVC
= GHS 490,000- GHS 420,000
= GHS 70,000

QUESTION 5

a. Machine

The historic cost of the machine is a sunk cost and not relevant. The depreciation details relate to accounting conventions and are not relevant.

The relevant cost is the opportunity cost caused by the reduction in resale over the one year duration of the contract:

GHS 7,000 – GHS 1,000 = GHS 6,000

Material A

Although there is sufficient in stock, the use of 500 units for the contract replenishment at the current market price since it is regularly used within the firm.

Therefore Relevant Cost = 500 x GHS 1.50

=GHS 7.50

Material B

If the contract were not accepted 400 units of B could be sold at GHS 2.10 per unit. The balance of 900 units would be bought at the current replacement price of GHS 2.60.

Therefore Relevant cost = 400 x GHS 2.10 = 840

= 900 x GHS 2.80 = 2,520

= 3,360

Material C

If the 400 units were used on the contract they could not be sold so the opportunity cost is the current resale price of GHS 0.60 per unit.

Therefore Relevant cost = 400 x GHS 0.60

= GHS 240

Material D

Similar reasoning to A, i.e. replenishment at current replacement price.

Relevant cost = 1,400 x GHS 2

= GHS 2,800

b. Stages in the decision making process

- Definition of objectives.
- Consideration of objectives.
- Evaluation of alternatives in the light of the objectives.
- Selection of the course of action.