



Advanced Management  
Accounting  
Module 13  
June 2009

Solutions

**Question 1**

**(a) Use of TQM**

Explanation of TQM [2 Marks]

Uses of TQM [2 Marks]

How can it be used to make cost savings:

Elimination of waste

Increased efficiency

Cost reduction

[2 Marks]

Value analysis and engineering explanation

[2 Marks]

New focus on product design and cost reduction/management

[2 Marks]

Other relevant point on cost reduction/management

such as planned programmes and crash programmes

[2 Marks]

**(b) Strategic Management accounting**

Explanation

[2 Marks]

Awareness of external operating environment

[2 Marks]

Benchmarking v competitors

[2 Marks]

Forward planning with contingency plans in place

Use of non-financial measures as well as financial measures

the balance scorecard being an example

[2 Marks]

Other relevant points

**Total Marks 20**

**Question 2 – Standard costing**

**(a) Reconciliation Statement**

Original Budgeted Profit

	Per unit					
	Units					
Sales	1200	500			600,000	
Less var costs						
SS1	300	x	500	150,000		
SS2	180	x	500	90,000		
Fabric Labour	200	x	500	100,000		
Assembly Labour	75	x	500	37,500		
Var P OH	75	x	500	37,500	415,000	
				<u>830</u>		
Contribution				370	185,000	
Less TFC			500	150	<u>75,000</u>	
Profit				220	110,000	<b>[1 Mark]</b>
Sales Vol Profit Variance		-100x220			(22,000)	Adv <b>[1 Mark]</b>
Sales Price Variance		(1200-1175)x400			(10,000)	Adv <b>[1 Mark]</b>
SS1 Price		(5-6) x 28000			(28,000)	Adv <b>[1 Mark]</b>
SS2 Price		(3-2.90)x25000			2,500	Fav <b>[1 Mark]</b>
Fab Labour Rate		(20-22)x4200			(8,400)	Adv <b>[1 Mark]</b>
Fin Labour Rate		(15-15.5)x1900			(950)	Adv <b>[1 Mark]</b>
Var POH Exp		(4200+1900)x5			(9,500)	Adv <b>[1 Mark]</b>
		-40000				
Fixed POH Exp		75000-85000			(10,000)	Adv <b>[1 Mark]</b>
SS Mix		See working			(3,000)	<b>[1 Mark]</b>
SS Yeild		See working			(20,000)	<b>[1 Mark]</b>
Fab Labour Effic		(4000-4200)x20			(4,000)	Adv <b>[1 Mark]</b>
Fin Labour Effic		(200-1900)x15			1,500	Fav <b>[1 Mark]</b>
Var POH Eff		(6000-6100)x5			(500)	Adv <b>[1 Mark]</b>
Fixed POH Vol		(400-500)x150			(15,000)	Adv <b>[1 Mark]</b>
Actual Profit/(loss)					<u>(17,350)</u>	

Workings

<u>Mix and Yield Variances</u>	AQ in AM	AQ in SM	SQ in SM
SS1	28,000	26,500	24,000
SS2	25,000	26,500	24,000
	<u>53,000</u>	<u>53,000</u>	<u>48,000</u>
	Mix		Yield
SS1	-7,500		-12,500
SS2	4,500		- 7,500
Total	<u>-3,000</u>		<u>-20,000</u>

**(b) Use of report**

Should be distributed to all relevant managers  
 Should have policies/procedures to investigate variances  
 Information should be discussed at exec level  
 Other relevant points

**[5 x1 Marks]**

**Total Marks 20**

### Question 3

#### (a) Special Order

	Financial Accounting	
SS Grade 3	137.50	
Fab labour	100.00	
Fin labour	60.00	
Var POH	45.00	
Fixed POH	90.00	
Production cost per unit	432.50	
x Units	200	
Total production cost	86,500.00	
+ Design OH	20,000.00	
+ Sales Commission	5,000.00	
Total Order Cost	111,500.00	
Sales Revenue	110,000.00	
Loss on Contract	1,500.00	<b>[4 Marks]</b>

	Relevant Costings	
SS Grade 3	50.00	Opp cost of sale
Fab labour	-	See below
Fin labour	60.00	Additional cost
Var POH	45.00	
Fixed POH	-	Not relevant
Production cost per unit	155.00	
x Units	200	
Total production cost	31,000.00	
Loss contib from 100kg table	57,000.00	
+ Design OH	-	Not relevant
+ Sales Commission	5,000.00	
Total Order Cost	93,000.00	
Sales Revenue	110,000.00	
Contribution from Contract	17,000.00	<b>[8 Marks]</b>

Opportunity cost of using labour on special order instead of 100kg tables

Fabrication hrs required for special order :5hrs x 200 table =	1,000hrs
Fabrication hrs per 100kg table =	10
Lost production of 100kg table =	100
x Standard contribution per table ex fab labour 1200-(300+180+75+75) =	<u>570</u>
(excluding Fab labour cost as it is in short supply and the 1200 hrs will be paid regardless of contract	<u>57,000</u>

#### (b) Using of Variable/Marginal costing

This method will help with short term profitability analysis  
 It will treat fixed costs as being related to time not production  
 It will examine contributions made by different products to see if they are contributing to meeting fixed costs and generating profits  
 It is a very useful tool for decision making purposes  
 Other Relevant points

**[3 x 2 Marks]**

**Total Marks 20**

#### Question 4

##### (a) Pricing

Sales	800 x 100	80,000	
Less Var Costs	800 x 30	<u>-24,000</u>	
Contribution		56,000	
Less Fixed Costs		<u>-20,000</u>	
Profit		36,000	[4 Marks]

##### (b)

$$P = a + bQ$$

$$a = \text{price where } Q = 0 \quad 100 + (800/100 \times 20) \quad 260 \quad [2 \text{ Marks}]$$

$$b = \text{rate of change} \quad 20 / -100 \quad -0.20 \quad [1 \text{ Mark}]$$

$$Q = \text{quantity}$$

$$P = 260 - 0.20Q$$

$$TR = 260Q - 0.20Q^2$$

$$MC = 30$$

[1 Mark]

$$MR = DTR / DQ = 260 - 0.4Q$$

Opt. position where  $MR = MC$

Optimal Position

$$260 - 0.40Q = 30 \quad 575 \quad [3 \text{ Marks}]$$

Substituting Q into Price form.

$$P = 260 - 0.2(575) \quad 145 \quad [2 \text{ Marks}]$$

$$\text{Price} = \text{€}145$$

Sales units 575

€

Sales 83,375

Less Var. Costs (@Target) 17,250

Contribution 66,125

Less TFC -20,000

Profit 46,125 [3 Marks]

##### (c) Other factors for price setting

Competition

Size of market

Market share v optimal profits

Packaging / quality / advertising.

[4 x 1 Marks]

**Total Marks 20**

### Question 5

(a)

Learning curve	$Y = ax^b - 0.321$	
12 units	$Y = 20x(12)^b - 0.321$	
Avg time per unit	9.007677	Total
X Dir labour rate	20	
Direct labour cost	180.15	2,161.84
Direct material cost	300.00	3,600.00
Var P OH	135.12	1,621.38
Total Variable cost	615.27	7,383.22

Sales	800	9,600.00
Contribution	184.73	2,216.78
Less TFC		-5,000.00
Loss		-2,783.22

[5 Marks]

20 units	$Y = 20 \times (19)^b - 0.321$	
Avg time per unit	7.645385	Total
x Dir labour rate	20	
Direct labour cost	152.91	3,058.15
Direct material cost	300.00	6,000.00
Var P OH	114.68	2,293.62
Total Variable cost	567.59	6,811.06

Sales	800	16,000.00
Contribution	232.41	9,188.94
Less TFC		-5,000.00
Profit		4,188.94

[5 Marks]

19 Units	$Y = 20x(19)^b - 0.321$	Total Time
Avg time per unit	7.77231	147.67

20 Units	$Y = 20x(20)^b - 0.321$	Total Time
Avg time per unit	7.645385	152.91

Time for 20<sup>th</sup> Unit (when learning ceases) 5.23hours  
 All units after this will have this stand time

Direct Labour	5.72 x 20	114.40
Direct Material		300.00
Vr P OH		85.8
Total Variable cost		500.20
Selling price		800
Contribution		299.80

24 Units		
Profit from 20 units		4,188.94
+ contribution from units 21 - 24		1,199.20
Total Profit		5,388.14

[5 Marks]

**(c)** Used where significant learning takes place  
Used in standard setting  
Weaknesses – establishing time  
Knowing when learning ceases  
Assumes steady state of learning.  
Other relevant points

**[5 x 1 Mark]**

**Total Marks 20**

**Question 6**

a) Divisional performance  
Discuss different types of divisions  
ie cost centres , profit centres, investment centres  
Use and explanation of different financial measures  
Weaknesses of such measure  
Discuss how these measures may promote short term thinking  
Discuss how these measures may lead to dysfunctional decision making  
Other relevant marks

**[5 x 2 Marks]**

b) Budgeting  
Discuss importance of budgeting  
Discuss how to use as control mechanism  
Discuss ZBB and ABB  
Relevance of them today in constrained times  
Current economic environment and impact  
discuss why companies need to manage costs and have flexible budgets

**[5 x 2 Marks]**

**Total Marks 20**