



**Advanced Management  
Accounting  
Module 13  
November 2009**

**Suggested Solutions**

## Question 1

### (a) 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

[2 Marks]

Use of non-financial measures as well as financial measures the balanced scorecard being an example

[2 Marks]

Other relevant points

### (b) Weaknesses of Management Accounting

Too internally focused

Out of date cost apportionment methods

Over reliance on standard costing

Slow to recognise changes in manufacturing practice

Responses:

Activity based costing

Balanced scorecard

Lifestyle costing

Integration of management accountants on cross functional teams

[10 Marks]

## Question 2

### (a) Pricing

Sales Director

		€	
Sales	(3000 x 12500)	37,500,000	
Less var cost	(250 x 125000)	(3,125,000)	
Contribution		<u>34,375,000</u>	
Less Fixed Costs		(2,500,000)	
Profit		<u>31,875,000</u>	[3 Marks]

Optimal pricing model

$$P = a + bQ$$

a = price where Q = zero

8000

[2 Marks]

b = rate of change

1000/(2500) -0.40

[1 Mark]

Q = quantity

$$P = 8000 - 0.40Q$$

$$TR = 8000Q - 0.40Q^2$$

$$MC = 250$$

[1 Mark]

$$MR = DTR/DQ = 8000 - 0.8Q$$

Op. Position where MR = MC

Optimal position

$$8000 - 0.80Q = 250$$

9,688

[3 Marks]

Substituting Q into price fn.

$$P = 8000 - 0.4(9688)$$

4124.80

[2 Marks]

$$\text{Price} = \text{€}4125$$

Sales units

9,688

€

Sales

39,960,938

Less Var. Costs (@target)

2,421,875

Contribution

37,539,063

Less TFC

(2,500,000)

Profit

35,039,063

Less Sales Director price profit

31,875,000

Extra Profit

3,164,063

[3 Marks]

### (b) Other factors for price settings

Competition

Size of market

Market share v optimal profits

Packaging/quality/advertising

Problems establishing price demand relationship

[5 x 1 Mark]

**Total Marks 20**

### Question 3

#### (a) Life cycle costing

Explanation of what it is

Measure costs over total life from conception to termination

Useful to work out average cost and set price as an average over total life span rather than front loading prices in early stages to recover development costs

Skill-ware could look at total costs over 3 years

	€000	
Development	15000	
Support 3 x 2.5m	7500	
Variable costs per seat	250	
Total Cost function		$250Q \times 22,500,000$

From this info they can use the price demand function to work out various incomes and profit levels. **[6 Marks]**

#### (b) Modified Av-Gold

Relevant costing approach

Simulator	100 x 500	50,000	
Grade1 s/w	450 x 100	45,000	
Grade2 s/w	Not relevant	-	
IT charge	Not relevant	-	
Other General F IH	Not relevant	-	
Total Relevant cost		95,000	
Number of seats		300.00	
Cost per seat		316.67	
Variable costs		250.00	
Total relevant cost per seat		<b>566.67</b>	
Suggested Price		750.00	
Contribution per seat		183.33	

Any price in excess of 317 should yield positive contribution

**[4 Marks]**

Financial Costing approach

Simulator	100 x 500	50,000.0	
Grade1 s/w	450 x 50	22,500.0	
Grade2 s/w	300 x 30	9,000.0	
IT charge	750 x 100	75,000.0	
Other general F IH	750 x 50	37,500.0	
Total relevant cost		<u>194,000.0</u>	
Number of seats		300	
Cost per seat		646.67	
Mark-up		40%	
Selling Price		905.33	<b>[4 Marks]</b>

Price recommended €750 so that the 50% discount is given and skill ware will make almost the same margin than it normally does on these type of contracts **[2 Marks]**

**(c)**CEO concerns

Offering lower prices to this customer may lead to others looking for same deals and damage pricing structures.

Conflict of interest between the sales manager trying to maximise sales commission at expense of overall profitability. **[2 x 2 Marks]**

**Total Marks 20**

#### Question 4

##### (a) Learning curve

Wardrobe	Cum Time	Avg Time per unit	%learning	
1	8	8	90%	
2	14.4	7.2	90%	
4	25.92	6.48	90%	
8	51.84	6.48	100%	<b>[2 Marks]</b>

Learning effect is 90% with the learning stopping after the first four units

Sideboard	Cum Time	Avg Time per unit	%learning	
1	4	4	95%	
2	7.6	3.8	95%	
4	14.44	3.61	95%	
8	27.43	3.42875	95%	<b>[2 Marks]</b>

Kitchens – no learning effect all kitchens take 20 hours

##### (b) Wardrobe

3 units total time =  $8 \times (3)^{-0.152} \times 3 = 20.31$   
4 units total time = 25.92 hrs  
Time for 4<sup>th</sup> unit and every unit after = 5.61 hours

Cost	6 x 15	90	
Selling Price	6 x 25	150	
Profit per wardrobe		60	<b>[6 Marks]</b>

##### (c) Sideboard

7 units total time =  $4 \times (7)^{-0.074} \times 7 = 24.24$ hrs  
8 Units total time = 27.43hrs  
Time for 4<sup>th</sup> unit and every unit after = 3.19hrs

Cost	4 x 15	60	
Selling Price	4 x 25	100	
Profit per sideboard		40	<b>[6 Marks]</b>

Weaknesses of optimal pricing model

Amy not be constant reductions in practice

A lot of variable at play when assembling furniture to do with quality of manufacture

Customers may feel that assembly prices are very high compared to cost of furniture as flat pack tends to be relatively cheap.

**[4 Marks]**

**Total Marks 20**

### Question 5

#### (a) Reconciliation Statement

Original Budgeted Profit

Var Costs	Per 10 kgs	Per kg	Per 1000 kgs	
DM A	24	2.4	2400	
DM B	18	1.8	1800	
DL	20	2	2000	
VAR P OH	5	0.5	500	
Flexed Budget Var cost			6700	
Plus Fixed OH			2500	
Flexed Budget cost for actual output			9200	<b>[1 Mark]</b>

DM A Price	600 x 4 -2700	-300	Adv	<b>[1 Mark]</b>
DM B Price	650 x 3 -1885	65	Fav	<b>[1 Mark]</b>
Dir Labour Rate	240 x 10 – 2160	240	Fav	<b>[1 Mark]</b>
Var P OH	240 x 2.5 - 600	0		<b>[1 Mark]</b>

Usage Variances

DM Mix	See working	25	Fav	<b>[2 Marks]</b>
DM Yield	See working	-175	Adv	<b>[2 Marks]</b>
Dir Labour	200 – 240 x 10	-400	Adv	<b>[1 Mark]</b>
Var P OH	200 – 240 x 2.5	-100	Adv	<b>[1 Mark]</b>
Fixed POH		-300		<b>[1 Mark]</b>
Total Variances		-945		
Total Actual Amount		10145	10145	

<u>Mix and Yield Variances</u>	AQ in AM	AQ in SM	SQ in SM
DM A	600	625	600
DM B	650	625	600
	1250	1250	1200

	Mix	Yield
DM A	100	-100
DM B	-75	-75
Total	25	-175

#### (b) Good summary information.

Managers can see what relates to them. Can spot trends.  
 Managers can make decisions based on information provided.  
 Links in with responsibility.

**[4 x 1 Mark]**

#### (c) Weaknesses

May be out of dates. Too much information. Info not directed at relevant people. Non-comprehension of information by staff.

**[4 x 1 Mark]**

**Total Marks 20**

### Question 6

(a)  
(i) Division A  
 $520 / 2660$   
 $= 19.55\%$  [2 Marks]

(ii) Increase in Profit  $180000 - 120000$   
 $= 60$

New Profit 580  
New total Assets 3260

New ROI 17.79% [3 Marks]

(i) Division B  
 $100 / 2760$   
ROI  $= 3.62\%$  [2 Marks]

(ii) contribution from new sales 150  
Less Adv -120  
Extra profit 30

ROI  $130 / (2760 + 180)$   
 $= 4.42\%$  [3 Marks]

### (b) Comentary

Division A project is acceptable to group but Division A manager may reject as it reduces the divisions overall profit.

Division B project return is below the group ROI of 15% but it does increase the Division B ROI so manager may accept the profits [2 x 3 Marks]

### (c)

ROI is not a good measure to use because it can lead to dysfunctional decision making as can be seen from the above example.

It can also encourage managers with a steady profit to not invest in replacement of fixed assets they can show an increasing ROI. [2 x 2 Marks]

**Total Marks 20**