Q1

REPORT

To Sales manager
From Management accountant
Date 10 December 19X1
Subject Proposed supply of 500 units of phell

Introduction

This report deals with the relevant costs associated with the production of 500 phells. It provides calculations (see Appendix) and explanations, and states an absolute minimum selling price for the 500 units.

Relevant cost statement

The Appendix to this report contains a statement of relevant costs for the production of 500 phells. It shows a total figure for relevant costs of £143,940. This is the total of future cash outflows that it is estimated will occur if production goes ahead.

Reasons and bases for items included in relevant cost statement

(a) Materials

As the company has more than sufficient supply of Jey in stock for the contract and this stock is not used in normal production, then the relevant cost is its opportunity cost. In this case the best alternative forgone is its alternative use in the business as a substitute for Lig.

Kay is a raw material in regular usage by the company, so its relevant cost is its current replacement cost.

(b) Labour

Skilled labour is in short supply, and if used on the production of phells will need to be taken off other work. Its relevant cost is the wages for skilled labour operatives plus the lost contribution (net of skilled labour cost) on other work forgone.

A certain amount of unskilled labour (900 hours) is available at no incremental cost to the company (as it is already being paid and is not fully employed). There is no relevant cost for these hours. The additional hours required, involving overtime payments, have a relevant cost which is included in the statement, as it involves additional expenditure that would not otherwise be incurred by the company.

(c) Overheads

Variable overheads are included as relevant costs as they would represent additional cost if production of phells were undertaken. Only the additional fixed costs are included as relevant costs – the existing fixed overhead absorption rate is ignored. The additional costs of hiring special finishing machinery are included as a relevant cost.

(d) Development costs

Those costs already incurred are an example of past (sunk) costs and are not relevant. The future development costs involve additional expenditure and are included as relevant costs.

Minimum price

The absolute minimum price that the company should be prepared to accept for the 500 phells is £143,940. In that case cash inflows would just match estimated cash outflows. No profit would be earned but the company would not be out-of-pocket.

Conclusion

This report has concentrated on relevant cost and the calculation of an absolute minimum price. There may be other qualitative factors to be considered, which are difficult to quantify, in the process of making a final decision on whether to go ahead with the production of 500 phells and in the determination of the selling price.

APPENDIX

Statement of relevant costs for the production and sale of 5,000 phells

	£
Materials	
Jey (500 x 4) x (9.50 – 1.50)	16,000
Kay (500 x 6) x 14.50 x 1.04	45,240
Labour	
Skilled	
Wages (500 x 5) x 8	20,000
Opportunity cost (500 x 5) x 15	37,500
Unskilled [(500 x 3) – 900] x 6 x 1.5	5,400
Overheads	
Variable (500 x 2) x 8.75	8,750
Fixed	4,000
Machine hire (2 x 2,650)	5,300
Development costs	1,750
Total relevant costs	143,940

WORKING

Calculation of opportunity cost of skilled labour

Skilled labour cost per unit = £24

$\therefore$ Number of hours per unit = $\frac{24}{8}$

= 3 hours

$\therefore$ Contribution per unit = £45

$\therefore$ Contribution per skilled labour hour = £15

$\therefore$ Opportunity cost of skilled labour = (500 x 5) x £15

= £37,500

Q2

Standard cost cards

	Absorption £	*Marginal* £
Variable manufacturing cost	8	8
Fixed manufacturing cost	12	–
Production cost	20	8
Variable selling cost	6	6
Fixed selling cost	10	–
Cost of sales	36	14
Profit/contribution	4	26
Selling price	40	40

(a) **Absorption costing profit statements**

	Jan £000	*Feb* £000	*Mar* £000	*Total* £000
Sales revenue	12.0	16.0	16.0	44.0
Opening stock	–	4.0	4.0	–
Manufacturing costs				
Variable	4.0	3.2	2.4	9.6
Fixed	6.0	6.0	6.0	18.0
	10.0	13.2	12.4	27.6
Closing stock	(4.0)	(4.0)	(2.0)	(2.0)
Production cost of sales	6.0	9.2	10.4	25.6
Selling costs				
Variable	1.8	2.4	2.4	6.6
Fixed	5.0	5.0	5.0	15.0
Cost of sales	12.8	16.6	17.8	47.2
Profit	(0.8)	(0.6)	(1.8)	(3.2)

(b) **Marginal costing profit statements**

	Jan £000	*Feb* £000	*Mar* £000	*Total* £000
Sales revenue	12.0	16.0	16.0	44.0
Opening stock	–	1.6	1.6	–
Variable manufacturing costs	4.0	3.2	2.4	9.6
	4.0	4.8	4.0	9.6
Closing stock	(1.6)	(1.6)	(0.8)	(0.8)
Production cost of sales	2.4	3.2	3.2	8.8
Variable selling costs	1.8	2.4	2.4	6.6
Cost of sales	4.2	5.6	5.6	15.4

	Jan £000	*Feb* £000	*Mar* £000	*Total* £000
Contribution	7.8	10.4	10.4	28.6
Fixed costs				
Manufacturing	6.0	6.0	6.0	18.0
Selling	5.0	5.0	5.0	15.0
	11.0	11.0	11.0	33.0
Profit	(3.2)	(0.6)	(0.6)	(4.4)

(c) **Reconciliation**

	Jan	*Feb*	*Mar*	*Total*
Production (units)	500	400	300	1,200
Sales	300	400	400	1,100
Increase/(decrease) in stock	200	–	(100)	100
Amount by which absorption profit should exceed marginal (£12/unit)	£2,400	–	£(1,200)	£1,200

The differences shown in this table correspond to the differences between the profits in (a) and (b).

The difference in profit is due to the different treatment of fixed overheads reflected in different stock valuations. Under TAC stock is valued at £20 per unit, under MC at £8 per unit, a difference of £12 per unit (the fixed overhead cost per unit). If stock levels rise over a period, TAC will show a higher profit; if they fall, MC will show a higher profit. In this case it is more a question of showing lower losses rather than higher profits.

(d) **Relative merits of absorption and marginal costing**

Stock valuations

An absorption costing system produces a stock valuation consistent with that required by SSAP9 *Stocks and long-term contracts* for published accounts. While marginal costing values stock at an amount equal to the additional costs incurred by a firm in producing that stock (some would say a more prudent valuation), adjustments would need to be made to internally-used valuations for external reporting.

Profit

As parts (a) and (b) show, under marginal costing profit depends primarily on the level of sales (profit changes from January to February but not from February to March). This is not the case under absorption costing, where profit depends upon both sales *and* production (hence three different profit figures). With absorption costing it is possible to manipulate profits by over or under-stocking.

Costing procedures

In order to operate an absorption costing system one needs to find a fixed overhead cost per unit figure. This might require complicated allocation, apportionment and absorption calculations. These are not necessary under marginal costing, although it is essential to have

an accurate split of costs into their fixed and variable elements. This may involve the use of regression analysis.

Decision-making

Marginal costing information, which clearly distinguishes between fixed and variable costs, is of most use for management decision-making. The one exception to this is with pricing decisions, where most firms base selling prices on absorption costing information.

Answer to q3: fundamental accounting concepts and creative accounting (crib)

a) Define and discuss Going concern, accruals, prudence and consistency (also perhaps mention 'no-offset'). The accounting concepts are so important because if they are not adhered to, the accounts will not reflect the true financial position of the firm. E.g. if going concern is an issue, then the values on the balance sheet are likely to be overstated, as a quick sale of assets may be necessary to satisfy eager creditors; if the accruals concept is not adhered to (with the override of prudence), then the profit and loss account of the company may be seriously inaccurate; if consistency were not followed, comparing numbers from one year to the next becomes meaningless, as it is not comparing like-with-like. Relevance to some creative accounting scandals (lack of principles!).

b) Define and discuss the term creative accounting:- sticking within the legal letter of the law re: accounting rules/ regulations, but going against the spirit of them. Discuss in relation to recent cases, including, for example, Enron (including use of special purpose vehicles, off-balance sheet items, equity accounting for subsidiaries etc) Worldcom (overstating income and understating expenses), AOL Time Warner (capitalising and amortising expenses), Tyco (theft/fraud), Ahold, Boston Chicken (treating subsidiary as an associate), Cendant (booking revenue early, delaying expenses (cancellations), capitalising and amortising expenses!), Waste Management (depreciation policy change), Sunbeam (revenue recognition), Sensormatic Electronics Corporation (overstated earnings by altering invoice dates), Qwest (accounting treatment of swaps of bandwidth, APB 29 violation), American International Group (no insurance existed...type of fraud) and Computer Associates (revenue recognition).