Answers

Diploma in Financial Management Examination – Module A
Paper DA1, incorporating subject areas:
Interpretation of Financial Statements
Performance Management

December 2006 Answers and Marking Scheme

Section A

1	**C**	**6**	**B**	**11**	**D**	**16**	**B**
2	**D**	**7**	**A**	**12**	**D**	**17**	**C**
3	**D**	**8**	**A**	**13**	**D**	**18**	**C**
4	**B**	**9**	**B**	**14**	**A**	**19**	**C**
5	**C**	**10**	**D**	**15**	**D**	**20**	**A**

5 Based on the value of $1,756,500 and a utilisation ratio of 2·88, turnover is $5,058,720.
The increase of $317,746 increases the value of non-current assets to $2,074,246, leading to a utilisation ratio of 2·44 (5,058,720 ÷ 2,074,246).

7 (i) is incorrect as internally generated goodwill is not recognised
(ii) is incorrect as internal costs may be included in the value of capitalised development expenditure
(iii) is incorrect as goodwill is subject to an impairment test, not amortisation

10

	Opening liability	$143,700	
+	Charge for year	$119,400	
–	Cash paid	$136,800	(balancing figure)
=	Closing liability	$126,800	

11 Selling price per unit $28·75
Variable cost per unit $15·30 ($19·50 – $4·20)
Contribution per unit $13·45

Expected Sales volume = (230,000 x 30%) + (368,000 x 70%) = 326,600

Thus expected contribution = 326,600 x $13·45 = $4,392,770

12 (i) is incorrect as negotiated prices will depend on the negotiating skills of divisional managers
(ii) is incorrect as market based prices provide no incentive to buy internally, as items can be bought as cheaply externally.

13

Reported profit			$478,000
Reported value of assets	$2,756,000		
x Cost of capital	11%	=	$303,160
Thus residual income			$174,840

14

NOPAT			$447,000
Economic value of assets	$3,150,000		
x Cost of capital	11%	=	$346,500
Thus EVA ®			$100,500

Section B

1 (a) The correct accounting treatment of items held in inventory at the balance sheet date is that such items should be valued at the lower of cost and net realisable value.

Cost is defined as expenditure incurred in the normal course of business to bring inventory to its present location and condition.

This means that production overheads should be included in the valuation of work in progress, but that general overheads (such as marketing or administrative overheads) should not. The value of production overheads to be included in the valuation of inventory should be calculated at the normal level of activity of the organisation.

Net realisable value is the expected selling price less any costs which will be incurred in preparing inventory for sale and any costs of sale.

This means that provided there are no items which for which net realisable value is less than cost, and the amount of overhead to be included has been calculated at the normal level of activity, inventory has been correctly valued.

(b) For items which are bought at different prices, FIFO is one of the two main methods of calculating the value of inventory.

Using this method, it is assumed that items which were acquired first are used first. This means that the inventory is assumed to comprise the items which were acquired most recently. If prices are rising, this method will tend to produce a higher value of inventory than weighted average. In turn, this will mean that profit will be maximised.

Weighted Average
Using this method it is assumed that for each part, the total cost of items held is equally spread over all of the items in inventory. There are two main ways of calculating such an average. The simpler is Periodic weighted average. This method calculates the total cost of items acquired in the period. The total value is divided by the number of items received to obtain the value attributed to each item.

An alternative is to re-calculate the average value each time items are received. There will often be little difference in the value of inventory calculated by each of these methods. However, as the inventory value is an average, and assuming that prices are rising, either method will result in a lower inventory valuation than FIFO, and consequently, a lower profit.

This means that the use of FIFO is appropriate, but it should be noted that the decision to use FIFO as the measurement basis has established the company's accounting policy. It is not permissible to change an accounting policy, unless the change would improve the fair presentation of results. To change the policy simply to improve reported profit is unacceptable.

(c) Construction contracts are not valued at cost as the effect of such treatment would be to report profit on contracts completed, rather than the profit on work carried out in the period. For this reason, the revenue earned and costs incurred should be reported in proportion to the stage of completion of the contract. This means that some of the profit to be earned on the contract will be reported before the contract is completed.

However, to ensure that profits which will never be earned are not reported, there are a number of points which must be noted.

First it must be possible to predict the outcome of the contract with a degree of certainty. If this is not possible, no profit should be reported.

Second, if a contract is expected to make a loss, the loss should be reported as soon as possible.

It should be remembered that each contract should be considered separately. This means that a potential loss on one contract cannot be offset by the profit on another contract.

(d) This means that the effect of the two contracts on profit is:

YRE 744	
Contract value	$600,800
Cost to date	$289,900
Cost to complete	$156,100
Total cost	$446,000

Thus a profit is expected.

Costs to date are 65% of total cost, thus 65% of expected revenue, or $390,520 should be recognised in the income statement.

This will mean that an overall profit of $100,620 will be reported in the income statement.

TGR 311	
Contract value	$400,000
Cost to date	$180,000
Cost to complete	$256,000
Total cost	$436,000

Thus a loss of $36,000 is expected, and must be recognised in the income statement.

The overall effect of the correct treatment of both contracts is that profit will increase by $64,620.

Mark allocation:

(a)	1 mark per valid point, to MAXIMUM of		6	
(b)	1 mark per valid point, to MAXIMUM of		7	
(c)	1 mark per valid point, to MAXIMUM of		3	
(d)	One contract will be profitable, the other will not	1		
	Calculation of profit	1		
	Calculation of loss	1		
	Overall effect on profit	1	4	**20**

2 To Chairman
From Non-executive director
Re Draft Financial Statements
Date 4 December 2006

(a) The general principle which should be applied when reporting expenses in the income statement is that all expenses should be included in the calculation of profit and therefore earnings.

It would seem that the suggestion that certain expenses should be separately disclosed, and therefore excluded from the calculation of earnings per share (EPS), is based on a misunderstanding of the nature of separate disclosure.

The fundamental requirement is that financial statements should be prepared so that the effect of transactions is presented faithfully. This means that if certain charges are material, and the understanding of the reader would be enhanced by separate disclosure, such disclosure should be made.

However, separate disclosure means that a note to the financial statements will give details of the nature and value of the expense. It does not mean that the expense should be excluded from EPS.

Mark allocation	2 marks per valid point to a maximum of	6	
	Memo format	1	7

(b) I would make the following observations on the expenses you have referred to:

Sale of machine
The loss on the sale of the machine is around 3% of earnings. Consequently, it is difficult to argue that the loss is material. This means that separate disclosure is not necessary. In addition, the disposal of fixed assets is a normal, and often repeated, activity.

This leads to the conclusion that the expense is a normal ongoing expense, and its inclusion in cost of sales is appropriate. Therefore no action is needed.

Reorganisation costs
The reorganisation costs are almost certainly material, as they represent almost 17% of earnings. While not an item that will occur on an annual basis, reorganisation is not uncommon, and would therefore be considered to be a part of the ordinary activities of the organisation. This observation is strengthened by the fact that there has been no change in the underlying business carried on.

The conclusion is therefore that while the expense is not particularly unusual, its materiality means that it is likely to be of assistance to the reader of the financial statements if information about the expense was provided.

Therefore, no adjustment to profit is required, and the expense is correctly included in the cost of sales. Separate disclosure should be made in a note to the financial statements.

Warranty provision
As it is the organisation's practice to provide for warranty obligations, this item is a recurring charge. However, the key question is whether the correction should be considered to be a prior period error. As a prior period error will lead to a restatement of the opening reserves, it will not affect the calculation of earnings for the current year. Prior period errors are defined as omissions or misstatements which have occurred due to incorrect use of reliable information which either was available or could have been obtained when the previous financial statements were prepared. Significantly, the definition in IAS 8 includes mathematical mistakes, which is a distinctly different to the approach under UK GAAP.

Therefore, as the misstatement arose due to mathematical error, the correct treatment is to restate the opening reserves. Therefore the current year profit and earnings will not be affected by the correction of the misstatement. Once again, details of the expense should be provided in a note to the financial statements.

Mark allocation	1 mark per valid point to a maximum of	6	
	1 mark for conclusion on treatment x 3	3	
	Memo format	1	10

(c) Based on the comments above, the correct reported EPS will be 31·2c.

This has been calculated as follows:

	$
Earnings per draft financial statements	205,500
Adjustments to earnings:	
Warranty provision	28,500
Corrected earnings	234,000
Number of shares:	
Earnings per draft financial statements	205,500
EPS per draft financial statements	27·4c
thus, number of shares (205,500 ÷ 0·274)	750,000
EPS $234,000 ÷ 750,000 shares	= 31·2c

Mark allocation:

(c)	Corrected earnings	1	
	Number of shares	1	
	EPS	1	3
			20

3 (a) (i) For financial information to be relevant, it must:

have an influence on the decisions that the users of financial statements would make; and be provided within a time frame that allows users to make use of it.

In terms of how information influences decisions, this may be either by assisting the user to predict what may happen in the future, based on what has happened in the past, or by confirming an assumption or evaluation the user has made in the past.

(ii) Reliability means that the information provides a faithful representation. To consider this further, faithful representation means that the information is free from both bias and material error and that no material information is omitted.

Mark allocation

(i)	2 marks for each valid point to a maximum of	4	
(ii)	2 marks for each valid point to a maximum of	4	8

(b) (i) The conceptual issues which must be resolved are:

in the case of the painting, recognition of both revenue and an asset	1	
in the case of the computer system, the valuation basis which should be applied to an asset.	1	2

(ii) In considering the painting, there appears to be a degree of uncertainty, as at the year end there is the potential for a sale to be completed.

The key issue is whether the transfer to the customer on 29 September represents a sale by Nouveau, or whether the sale was completed when the customer agreed to purchase or on the date the contract was signed.

On balance, the transaction on 29 September was on a 'sale or return' basis. This suggests that until a sale has been clearly completed, the painting remains the property of Nouveau. Although the ultimate customer agreed to buy the painting in November, she could have withdrawn from the sale up to the point at which the contract was signed. A further observation is that the date at which Nouveau's customer could have returned the painting had passed by the year end.

Taking all of these factors into account the most prudent approach would be to treat the painting as a stock item, valued at cost, in Nouveau's financial statements.

With regard to the computer system, the key decision is whether the valuation basis should be historical cost or current value.

If historical cost is used, the asset should be depreciated over its useful economic life.

If current value is to be used, the key question is – 'what is the current value?'. The major problem with this approach is deciding, with any degree of certainty, what value should be applied. One approach would be to use the replacement value, based on a comparable system, or market value.

In either case, the facts indicate that establishing an objective value would be difficult, particularly as by the balance sheet date, comparable systems have additional features.

The main argument for increasing the value is that Nouveau has been able to obtain free upgrades. Although it may be possible to place a value on such upgrades, Nouveau was not required to transfer economic benefits.

On balance therefore, it seems that the upgrades should be viewed as a benefit arising from good negotiating by Nouveau, and that upgrades should not be recognised in the financial statements.

Thus, the objective historic cost value should be used, with depreciation over the useful economic life of the system.

Mark allocation	1 mark per valid point to a maximum of	4	
	Conclusion painting	2	
	system	2	8

(iii)	The gain on the painting for the 2006 year is nil.	$^1/_2$	
	The asset should be valued at cost of $61,000	$^1/_2$	
	The depreciation expense of $20,000 should be recognised	$^1/_2$	
	resulting in a carrying value of $20,000	$^1/_2$	2
			20

4 **(a)** A mission statement is effectively a statement of intent, and sets out the basic rationale for the company's existence. If this is understandable, and accepted, it can provide a clear focus for the activities of each sector of the company as well as individuals within the company. It also acts as a clear statement of intent for suppliers, customers and investors.

By clarifying the overall intent of the organisation, a mission statement can provide freedom for individuals to take action which will achieve the overall objective.

It will also provide the framework within which operational plans will be prepared and a standard against which performance can be judged. By setting such a framework a mission statement can play an important part in defining the culture of an organisation.

Benefits which may arise from developing a mission statement include:

clarity – the expression of intent ensures that objectives are clear

goal congruence – by providing a focus for activities, the mission statement can help to ensure that all activities are directed towards a common objective

improved motivation – the sense of purpose, combined with the freedom discussed above will tend to produce a better motivated workforce

benchmark – an initial assessment of initiatives in terms of how they will contribute to achieving the overall objective is facilitated by the existence of a mission statement. This will avoid resources being wasted on the investigation of initiatives which do not fit with the existing strategy.

Despite the comments above, mission statements are not universally accepted. Problems can include:

not understood – if the mission statement is not understood, it can lead to confusion, rather than clarity.

not accepted – the mission statement may be seen as a top management initiative, and as such may lack widespread support.

outdated – external changes may lead to the mission statement becoming outdated, although if revisions are too frequent, this may lead to confusion.

viable initiatives rejected – an initiative which may be perfectly viable, and might even open up a new area of activity may be rejected because it does not fit with the existing mission.

Mark allocation	1 mark per valid point, to a maximum of	7

(b) There is no agreement as to whether a strategy should be developed first, followed by a suitable structure, or whether the strategy should follow the chosen structure.

In this case, such a theoretical debate is irrelevant, as the strategy has been established.

In addition, the key factors for success have been identified as product quality and distribution channels. It is also clear that these factors must be supported by strong marketing, procurement, finance and human resource functions.

Therefore, a functional structure seems appropriate, along the following lines:

Responsibility centre	Type of centre
Quality, including procurement and production	Cost
Distribution	Cost
Marketing	Revenue
Finance	Cost
Human resources	Cost

This structure is suitable as profitability will follow from ensuring that customers' needs for quality products are met within a framework in which costs are tightly controlled. By ensuring that a suitable mix of targets are defined for the activities of the quality responsibility centre, it will be possible to meet that objective.

The other responsibility centres, as support functions, must provide such support within a cost framework, while marketing will generate revenue. However the need to maintain quality standards will act as a constraint on marketing simply seeking short term revenue growth. Such growth will only be sustained by meeting customers' needs.

Mark allocation:	1 mark for each appropriate responsibility centre to a maximum of	4	
	1 mark for each valid comment to a maximum of	4	8

NB Marks were also awarded for other valid structures, provided some justification was given.

(c) A structured approach to performance measurement will lead to key activities being identified. Once this has been done, targets can be set to provide motivation and a benchmark against which performance can be monitored. Reasons for good performance can be identified and developed or exploited, while problems can be identified and strategies developed to overcome such problems.

Such targets will link activities to the organisation's strategy, and thereby contribute to strategic objectives being achieved.

Thus, performance measurement will identify and communicate acceptable behaviour and activities.

By identifying appropriate lead indicators (such as in this case, quality) it will be possible to ensure that problems are identified and resolved at the earliest opportunity.

It should be noted that in order to avoid confusion, targets should not conflict with one another, and that it is counterproductive to have a large number of targets.

Mark allocation	identify key activities	1	
	motivation	1	
	benchmark	1	
	link strategy and action	1	
	affects behaviour	1	
	problem resolution	1	
	positive reinforcement	1	
	avoid conflict	1	
	not a large number	1	
	possible	8	maximum 5
			20

5 (a) Increase production capacity

	Robin	Eagle	Hawk	
per unit:	**$**	**$**	**$**	
Selling price	400·00	470·00	320·00	
Variable costs:				
Materials	92·60	83·20	57·90	
Labour (at $54·50/hr)	65·40	49·05	76·30	
O'heads (at $34·70/hr)	138·80	190·85	86·75	
Total variable cost	296·80	323·10	220·95	
Contribution	103·20	146·90	99·05	
Sales Volume (pa)	5,200	3,100	6,700	
Contribution (pa)	$536,640	$455,390	$663,635	= $1,655,665

Thus total contribution for three years =			$4,966,995
less Fixed Costs ($680k x 3)	$2,040,000		
Incremental costs	$1,400,000	$3,440,000	
Thus Profit generated			$1,526,995

Mark allocation:	Material cost	$\frac{1}{2}$	
	Labour cost	$1\frac{1}{2}$	
	Overhead cost	$1\frac{1}{2}$	
	Contribution pu	$1\frac{1}{2}$	
	Total contribution	1	
	Fixed costs	1	
	Incremental costs	1	
		8	maximum 6

Improve product quality

per unit:	Robin $	Eagle $	Hawk $	
Increase in:				
sales price	20·00	23·50	16·00	
Var. o'head	6·94	10·41	3·47	
Contribution	13·06	13·09	12·53	
Revised contribution	116·26	159·99	111·58	
Sales volume	5,800	4,400	7,900	
Total contribution (pa)	674,308	703,956	881,482	$2,259,746
Thus Total contribution for three years			$6,779,238	
Less: Fixed costs		$2,040,000		
Incremental costs		$2,155,000*	$4,195,000	
Thus Profit generated			$2,584,238	

*($875k + $640k + $640k)

Mark allocation:	Increase in:	
	Sales price	$1\frac{1}{2}$
	Overhead cost	$1\frac{1}{2}$
	Contribution pu	1
	Total contribution	1
	Fixed costs	1
	Incremental costs	1
		7 maximum 6

Preferred supplier status

	Robin	Eagle	Hawk
Contribution pu.	$103·20	$146·90	$99·05
Machine hours p.u.	4	5·5	2·5
Contribution/mach hr	$25·80	$26·71	$39·62
Rank	3	2	1

5,200 Eagle	provides contribution of	($146·90 x 5,200)	$763,880
	Requires	(5,200 units x 5·5 hrs)	28,600 hours
	Thus	(44,000 – 28,600)	15,400 hours left
	Thus	(15,400 hrs ÷ 2·5 hrs p.u.)	6,160 Hawks produced
	Contribution	(6,160 units x $89·05 p.u.)	$610,148
	Total contribution ($763,880 + $610,148)		$1,374,028 per annum
	for three years =	$4,122,084	
	less: Fixed costs	$2,040,000	
	thus Profit generated	$2,082,084	

Mark allocation:	Contribution/mach hour	$1\frac{1}{2}$
	Ranking	$1\frac{1}{2}$
	Choice of product	1
	Volume of Hawk produced	1
	Total contribution	1
	Fixed costs	1
		7 maximum 6

(b) Based on the calculations above, the best option is to improve product quality, as this will maximise profit. However the possibility that additional contribution can be generated by also increasing production capacity should also be considered, as these options are not mutually exclusive.

Mark allocation	choice consistent with calculations	1	
	consideration of also increasing capacity	1	2
			20

6 (a) (i) Variable cost-plus pricing uses the variable cost of manufacturing the product as the starting point for the calculation of selling price. Essentially selling price is calculated by adding a mark up to variable cost. The mark up must be set at a level which will recover fixed costs and provide a reasonable profit.

In contrast, target pricing begins with the selling price which it is anticipated the customer will be willing to pay. This means that the benefits and features of the product, as perceived by the customer, must be considered in both the product design phase and in setting the selling price. Once the selling price is set, the desired profit is deducted to arrive at the target cost. The product must be manufactured within that cost constraint.

A key difference between the two approaches is that target pricing takes customer preferences into account. For that reason, it is likely that the product will gain higher levels of customer acceptance.

Target pricing therefore, is appropriate when reliable marketing information is available, so that customer preferences can be considered. It is also effective if demand is sensitive to price.

Whilst variable cost-plus pricing is subject to considerable criticism, it may still be appropriate if demand is inelastic and fixed costs represent a small proportion of total cost.

Mark allocation 1 mark per valid point to a maximum of 8

(ii) Price per kg, using pricing policy

	$		
Materials	7·90		
Labour	8·60		
Machine running	4·42	(W1)	1
Materials handling	2·37	(W2)	1
Order processing	0·65	(W3)	2
Variable cost	23·94		
add 50%	11·97		
Selling price	35·91		1
Customer's maximum	36·50		

Thus customer's price is consistent with pricing policy. 1

W1	Machine running	$276,250 ÷ 5,000 hours	= $55·25 per hour
		8 hours for 100 kg	= $4·42 per kg
W2	Materials handling	$118,500 ÷ 2,000 deliveries	= $59·25 per delivery
		4 deliveries for 100 kg	= $2·37 per kg
W3	Order processing	$390,000 ÷ 3,000 orders	= $130 per order
	Customer requires	10,000 kg ÷ 200 kg	= 50 orders per month
	Order cost per month		= $6,500
	for 10,000 kg		= $0·65 per kg

(b) any action which will reduce costs without reducing the customer's perception of utility will be effective. This means that attention should be directed towards reducing the impact of non value added costs. This leads to the need to fundamentally question the product design to ensure that such costs are eliminated. In part this may be achieved by outsourcing a number of non-core activities.

More specific actions will include:

Reducing the cost, but not the effectiveness, of packaging
Minimising the number of components used in the manufacturing process by the use of standardisation
Minimising the material cost
Redesign of work flows to reduce labour costs
Redesign production processes to allow the use of lower grade labour
Reducing the level of waste and scrap
Improved utilisation of facilities through revised working practices.

Mark allocation:

Reference to utility
non value-added
product design
other specific actions
1 mark each to a maximum of 6

20