Answers

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

Section A

- 1 D 2 D 3 D 4 D 5 С 6 В 7 В 8 С 9 В 10 В 11 Α 12 D 13 С 14 Α 15 Α 16 В
- 17 C
- 18 C
- 19 C
- 20 A
- 3 Inventory should be valued at the lower of cost or net realisable value. This means that the painting should be valued at \$1,200 (selling price is lower than cost), the necklace should be valued at \$900 (cost) and the ear-rings at \$800 (cost).
- 4 Cash generated by operating activities is calculated by adding the depreciation charge to the operating profit before interest and taxation, and adjusting for the net movement in inventory, receivables and payables. In this case, as the net value has reduced, this is a cash inflow. Thus the cash generated by operating activities is:

	\$
Retained profit	1,856,954
Depreciation	165,700
Taxation	572,855
Interest	211,744
Net movement	27,965
	2,835,218

- 5 The purpose of an audit is to express an opinion regarding the fair presentation of the financial statements. The directors are required to assess whether the going concern basis can be applied as the basis on which the financial statements are prepared, and the auditors will consider if this is reasonable, but they cannot guarantee it. Users will use the financial statements to make economic decisions, so this is a reason for preparing the financial statements in the first place, not for carrying out an audit. The audit will provide reasonable assurance that the financial statements are fairly presented.
- **6** Paying a dividend in cash will reduce equity, leading to an increase in the gearing ratio.

If the dividend is paid by issuing shares, there will be no effect on gearing as equity will not change, because the decrease in retained profits is offset by the increase in share capital.

7 Earnings = \$524,054 i.e. Operating profit less interest and taxation. (Although the dividend has been paid to shareholders, it is part of 'earnings'.)

There are 500,000 shares in issue, thus earnings per share is: $$524,054 \div 500,000 = 104.81$ cent

8 ROCE = Net profit margin x Asset utilisation or $14.7\% \times 2.3 = 33.81\%$

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9	Net book value of assets	\$1,728,500	
	Tax written down value	\$1,407,200	
	Accelerated capital allowances	\$321,300	
	Deferred tax liability at 23%	\$73,899	
	Balance brought forward	\$75,720	
	Movement	\$1,821	(as balance has reduced, this will give
			rise to a credit entry in the income statement)

10 Financial information is reliable if it can be depended on to provide faithful representation, and it is free from bias and material error.

An aspect of understandability is the way in which information is presented, while comparability can only be achieved if information is presented in a manner which allows users to recognise similarities and differences.

Therefore, reliability is a function of the way in which financial information is prepared, rather than presented, while presentation directly affects both understandability and comparability.

11	Period	Volume	
		(units)	\$
	1	11,260	40,845
	2	12,580	45,135
	Increase in period 2	1,320	4,290

Thus variable cost per unit is $4,290 \div 1,320 = 3.25$ per unit Substituting this into either period 1 or period 2, fixed cost is 4,250Thus for 14,100 units, the variable cost is 45,825Thus total cost is 50,075

12 In order to maximise short term profit, the scarce resource (material A) should be utilised in order to maximise the contribution per kg.

The contribution per unit produced is:

- Cee \$14
- Dee \$15

The contribution per kg of material A is:

- Cee \$4
- Dee \$3

Thus production of Cee is preferred. There is only sufficient material A to satisfy the market demand for Cee so no production of Dee should be undertaken.

13	Manufacturing	Revenue	19,500 at \$0·85 5,500 at \$0·92	\$16,575 \$ 5,060	\$21,635
		Costs	25,000 at \$0·47 Fixed	\$11,750 \$ 3,700	\$15,450
		Profit			\$ 6,185
	Marketing	Revenue	19,500 at \$1·33		\$25,935
		Costs	Transfer 19,500 at \$0·28 Fixed	\$16,575 \$ 5,460 \$ 2,580	\$24,615
		Drofit			¢ 1 220
		FIUIIL			φ 1,520

14 Recruitment of untrained staff will reduce the efficiency of the workforce, leading to an adverse labour efficiency variance, while the need to buy specialised materials from a new supplier at short is likely to mean that there will be no opportunity to negotiate a keen price or a bulk discount.

15 EVA = Net operating profit after tax (NOPAT) less capital charge Net operating profit after tax:

	Operating profit – Tax	\$6·380m \$1·460m	=	\$4·920m
	Economic value of assets x Cost of capital	\$31·70m 15%	=	\$4·755m
	Thus EVA		=	\$0·165m
16	Capital employed before project Current profit (ROI of 15.5%) Profit from project Profit including project	\$2,680,000	\$4 \$ \$4	15,400 53,000 68,400
	Investment in project Capital employed after project	\$320,000 \$3,000,000		
	Imputed cost of capital at 13% Thus Residual Income		5\$ \$	390,000 578,400

17 Option C is correct because if a product is expected to have a short life cycle, it will be important to recover development costs quickly. This will be done by charging higher prices on entry.

Options A, B and D are incorrect as:

- A In order to penetrate a market, it is necessary to charge a low price on entry. This will encourage sales volume and thus build market share.
- B By building a high market share quickly, market penetration, not market skimming, will reduce the time taken to complete the introductory phase of the product life cycle.
- D If a product is unique, the correct policy is to maximise profits in the early stage of the life cycle, through market skimming, before competitors or substitutes enter the market.
- **18** A scheme based on production volume will not encourage a focus on quality. Indeed, such a scheme may lead to a deterioration in quality.

Sales revenue and profitability and not directly controlled by production activities, and are therefore irrelevant targets for production staff.

A focus on reducing the level of rework is most likely to lead to an improvement in product quality.

- **19** The maximin decision rule means that the option which has the best of the payoffs under the least favourable circumstances should be selected. In this case the lowest payoff occurs when market demand is low. The best payoff in these circumstances is provided by project 385.
- **20** As inventory is not held for long periods the risk of obsolescence is reduced. While costs *may* be reduced in the longer term, the short term impact is likely to be that suppliers will seek a premium for making small regular deliveries, leading to an increase in costs in the short term.

Section B

- 1 From A. Consultant
 - To Directors of Newsome Co
 - Ref Non-current asset accounting
 - Date 6 June 2007

This memo gives an overview of the nature and accounting treatment of depreciation, impairment and revaluation of non-current assets.

Depreciation

Depreciation is the systematic allocation of the carrying value (in the case of Newsome this has to date been the cost) of a noncurrent asset to the costs incurred in each accounting period over its useful economic life. From this it follows that as land does not have a limited useful economic life, it is not necessary to charge depreciation on land. Buildings however do have a limited useful economic life, and therefore must be depreciated.

The 'systematic allocation' is achieved by applying a predetermined policy. In Newsome's case this is the straight line or reducing balance basis used for different classes of non-current assets.

The amount of depreciation for each accounting period is charged to the income statement, and also reduces the carrying value of the non-current assets.

Impairment

It should be noted that impairment is not an alternative term for depreciation, although impairment will usually lead to a charge to the income statement.

Impairment occurs when the recoverable amount of a non-current asset falls below its carrying value.

The recoverable amount of an asset is the higher of:

- the amount that would be obtained if the asset were sold immediately, less any costs of sale and
- the value in use (measured as the present value of the cash flows generated by the use of the asset, and its eventual sale).

From the above it can be seen that impairment is caused by factors other than ongoing usage of the asset.

As noted above, impairment will usually lead to a charge to the income statement. If an asset has previously been revalued, and a credit balance remains on the revaluation reserve - in respect of that asset - the impairment charge can be offset against that balance. Any excess of the impairment charge over the remaining balance on the revaluation reserve will be charged to the income statement.

Revaluation

It is open to the directors to choose whether or not to reflect the increase in value of non-current assets. However, if a policy of revaluation is adopted, then all assets in that class must be revalued.

It should also be noted that following revaluation, there is an ongoing need to revalue, and to base depreciation on the revised value, over the revised useful economic life.

Any increase in value does not create additional profit in the period in which the revaluation takes place. Rather the increase in value is credited to a revaluation reserve.

Mark allocation:	1 mark per valid point, e.g.:
Depreciation	allocation of carrying value to accounting period
	charge to income statement
	reduces carrying value
	not required if useful economic life is not limited
	application of predetermined policy
Impairment	not an alternative term for depreciation
	fall in recoverable amount below carrying value
	defining recoverable amount
	caused by events other than ongoing usage
	charge to income statement
	unless balance in revaluation reserve
	reduction in carrying value
Revaluation	not a requirement
	but if chosen all assets in same class to be revalued
	increase in value to reserve – not income statement
	assets to be depreciated based on valuation,
	over revised useful economic life

1 mark for appropriate memo format

to a MAXIMUM of

11

(b) The value of the non-current assets in the balance sheet will depend on whether or not the directors chose to reflect the increase in the value of the land and buildings.

On the basis of the available information, the machines do not appear to be impaired as they continue to be used by the company to create value.

Thus, the values would be:

	Cost	Valuation
	\$	\$
Land (not depreciated)	800,000	1,100,000
Factory	600,000	620,000
Warehouse	350,000	400,000
Offices	820,000	950,000
	2,570,000	3,070,000
Depreciation on cost over 25 years	70,800	
Accumulated depreciation at 30 April 2006	637,200	
Depreciation on valuation over 20 years		98,500
Accumulated depreciation at 30 April 2007	708,000	98,500
Net book value at 30 April 2007	1,862,000	2,971,500

Machines	Net book value at 30 A Depreciation charge for	\$ 1,250,000 250,000		
	Net book value at 30 A	1,000,000		
Total value	Based on cost Based on valuation	\$2,862,000 \$3,971,500		
Mark allocation	Cost valuation of land a Depreciation for year Depreciation at 30 April Net book value at 30 A Recognition that either of	nd buildings 2007 oril 2007 cost or valuation	1 2 1 1	
	could be used Depreciation of machines Net book value of machines Total value		1 1 1 1	9
			_	20

2 (a) Option 1

This option would mean that Invee would become a subsidiary of Paremo. This is because Paremo would be in a position to exercise control over Invee as a result of holding the majority of the shares and controlling the board of directors.

It would lead to an additional asset for \$229,600 being reported on the balance sheet of Paremo, to reflect the cost of the shares being acquired. The value of Paremo's cash at bank would be reduced by a similar amount.

There would be no impact on the financial statements of Invee, as all that will have happened is that the identity of the holders of some of the shares will have changed.

It would also be necessary to prepare consolidated financial statements to reflect the activities of the combined entities, although there would be no legal entity created by the investment.

The consolidated accounts would report the combined assets and liabilities of both entities, but the investment reported in the balance sheet of Paremo would cancel out against the share capital and the profit (at the date of the acquisition) of Invee.

Also, as Paremo would not hold all the shares in Invee, it will be necessary to report the value of the combined net assets which are held outside the group. This is referred to as 'Minority Interest'.

Option 2

In this case, Paremo will be able to influence the activities of Invee, but may not be able to exercise control. This means that Invee would be an associate of Paremo.

As in option 1, Paremo will report an investment at cost in its balance sheet, and the cash balance will fall by the cost of the investment.

Once again, there will be no effect on the financial statements of Invee.

Although it will be necessary to prepare consolidated financial statements, the treatment of the net assets of Invee will be different. In this case the equity method of accounting is used. This means that the net assets will be reported as a single figure, which represents the share of the net assets controlled by Paremo.

As only the group's share of the net assets is reported, there will be no minority interest.

The cost of the investment in Paremo's balance sheet will also cancel out against the share capital and profit (at the date of the acquisition) of Invee.

Mark allocation 1 mark per valid point to a MAXIMUM of

Paremo Group Consolidated Balance	e Sheet as at 31 July 2	2008	
	\$000	\$000	
Non-current assets Tangible non-current Goodwill	assets (W1)	700·0 120·4	
Current assets Inventory Receivables Cash (240	122·0 161·0) – 229·6) 10·4		
		293.4	
		1,113.8	
Equity Share capital Retained profit (W2) Minority interest	(W3)	460·0 382·6 52·2	
		0310	
Current liabilities Payables Overdaft	212·0 7·0	219·0 1,113·8	
Working 1 Goodwill Cost of investment			
70% of 80,000 sl	nares at \$4·10 =	\$229,600	
Share capital Profit	\$80,000 \$76,000		
	\$156,000 x 70%	= \$109,200	
Goodwill		\$120,400	
Working 2 Consolid Paremo	ated profit	\$370,000	
Share of Invee: Profit for year \$ 18	3,000 x 70%	\$12,600	
		\$382,600	
Working 3 Minority Share capital Profit	interest \$80,000 \$94,000		
	\$174,000 x	30% \$52,200	
			_

3 (a) (i) Events after the balance sheet date are events which occur between the balance sheet date and the date the financial statements are approved by the directors and materially affect the financial statements.

There are two types of such events.

Adjusting events are those which provide evidence of conditions which existed at the balance sheet date, while nonadjusting events concern events which did not exist at the balance sheet date.

The treatment of each type of event is broadly described by the name. Adjusting events will lead to an adjustment (i.e. a charge to the income statement and the creation of a liability on the balance sheet) to the financial statements, while non-adjusting events do not. That is not to say that non-adjusting events are ignored, as information about the effect of the event will be given in a note to the financial statements.

(ii) A provision is defined as a liability of uncertain timing or amount. A contingent liability is a possible liability but whether or not it will actually arise will only be confirmed by an event in the future, which is outside the control of the reporting entity.

For a provision to be recognised, and thus create a charge in the income statement and a liability on the balance sheet, three conditions must be fulfilled. These are:

- an event has already occurred;
- as a result of that event, it is probable that the entity will be required to transfer economic benefits to a third party; - the value of the economic benefits can be measured with reasonable reliability.
- 1 mark per valid point to a MAXIMUM of

8

(b) Accident The accident had happened at the balance sheet date. Therefore the communication from the insurance company provided additional evidence of conditions which existed at the balance sheet date. This means that the loss should be included in the financial statements. It is possible to argue that the amount of the loss is not material and therefore no adjustment is necessary. This would be the case if there were no other potential adjustments. In order to assess materiality properly, it is necessary to consider the overall effect of all potential adjustments. Robbery This loss did not occur until after the balance sheet date, and therefore it does not relate to the 2007 year. The argument that the profits are better than expected is irrelevant as the financial statements should only reflect transactions which took place during the year. This charge should therefore be removed from the financial statements. If the amount of the loss was considered to be material, details of the loss would be disclosed in a note to the financial statements. In this particular case, it is unlikely that the amount of the loss would be considered to be material. Compensation The company has accepted liability for an event which occurred during the year. It will therefore be required to pay compensation. The fact that the court case will not take place until 2008 is not relevant. The key question is how much compensation will eventually be paid. As discussed above, the liability should be recognised at the best available estimate of the amount to be paid. This will be the estimate provided by the legal representatives. 9 Mark allocation 1 mark per valid point, to a maximum of (c) To summarise, the total possible adjustments are: \$

Accident	create charge	70,000		
Robbery	remove charge	(35,700)		
Claim	recognise liability	250,000		
		284,300	1	
This is prot	bably material, and as su	uch, the financial statements		
should be a	adjusted		1	
Thus	Operating profit	\$2,253,500	1	
	Shareholders funds	\$13,401,400	1	
			—	
			4	
Maximum				3
				20

Section C

- 4 (a) Traditional budgeting can often exhibit the following problems:
 - It can often lead to centralisation, with the budget becoming the most important control mechanism. (i)
 - (ii) This can result in a lack of creativity, as managers and other staff becoming reluctant to suggest initiatives as the overriding need is to meet the budget - which can often mean maintaining the status quo, rather than seeking new approaches.
 - (iii) The focus on maintaining the status quo rather than change, can lead to lower motivation, which in turn can harm performance.
 - (iv) For an organisation operating in a changing environment, this can be dangerous, as it can lead to the organisation's strategy and operations being inappropriate for the environment, as response to change is often too late.

- (v) As authority is not devolved, staff can become alienated, which will add further to the lack of motivation.
- (vi) The lack of devolvement will also mean that junior managers have no opportunity to develop a range of appropriate skills. This can lead to a combination of poor organisational performance and staff turnover as managers seek other posts which will provide the necessary development opportunities.
- (vii) The fact that budgeting is often set within an annual time frame can be a problem, as the nature of organisational activities is continuous. The imposition of an arbitrary time frame can be detrimental to performance.Mark allocation 1 mark per valid point to a maximum of 6
- (b) (i) Perhaps the key response to the problems noted above is leadership from senior managers. Such leadership will be demonstrated by a willingness to make the necessary changes. This must be clearly signalled by actions and initiatives.
 - (ii) One action which will demonstrate the leadership noted above is to recruit managers and staff who wish to take responsibility, and who accept and work towards achieving corporate goals.
 - (iii) It will also be important to ensure that development opportunities are offered to all staff subsequent to their appointment.
 - (iv) This will mean that control will be exercised through shared values and boundaries.
 - (v) Shared values will act as a coordinating mechanism, but will also provide a degree of freedom.
 - (vi) Establishing clear boundaries will ensure that all staff know the extent of their authority and responsibility.
 - (vii) Boundaries can be set by creating clear responsibility centres. This will indicate the key variables which each manager is expected to control and manage.
 - (viii) It will also be important to create an outward looking culture, so that the focus is on markets and customers. The need to meet customer requirements will act as a further coordinating mechanism.
 - (ix) Within this culture of responsibility, targets should be set so that they are challenging, but attainable.
 - (x) Based on achieving these targets, rewards which are perceived by staff as attractive and worthwhile should be available.
 Mark allocation 1 mark per valid point to a maximum of 9
- (c) If the strategies discussed above are implemented, a number of benefits should follow:
 - (i) Motivation will be increased, as staff will feel that they are involved in decision making and that their contributions are valued.
 - (ii) The focus on external influences and the devolved authority will lead to faster and more appropriate responses to such influences.
 - (iii) The devolvement of authority will produce local initiatives which will better meet the specific market needs.
 - (iv) The focus on the market, and devolved authority will improve communication.
 - (v) This will mean that decision makers are better informed, which should lead to better decisions.
 - (vi) All of these points will improve customer satisfaction, which in turn, will lead to improved performance.

Mark allocation 1 mark per valid point to a maximum of

5

5	(a)	(i)	Revenue	\$000	Holidays 7,685∙00		Tickets 3,770∙00	Flights 3,045·0	Total 00 14,500.00	
			Direct costs less Advertising Variable costs	\$000 \$000 \$000	5,870·00 1,766·21 4,103·79		2,670·00 773·69 1,896·31	2,260.0 433.0 1,827.0	00 10,800.00 00 2,972.90 00 7,827.10	
			Contribution	\$000	3,581.21		1,873.69	1,218·C	00 6,672·90	
			as % of revenue =	:	46.6		49.7	40	46.02	
			Processing hours Central costs Hrs at \$65/hr	\$000 000	1,157·00 17·8		845·00 13·0	767·C 11·8	00 3 42·6	
			Contribution/hr	\$	201.19		144.13	103.2	2 (rounded to nearest cer	nt)
			Mark allocation	Variable Contribu Processi Contribu	costs Ition ng hours Ition per hour	1 1 1 2				
								5		

(ii)	Fixed costs: Advertising Increase	\$00 2,972 250	00 0-0			
	Central costs Increase	2,769 215	0.0 (\$1,157 + \$8 5.0	345 + \$767)		
	Upgrade of system	273	↔0 (\$819k ÷ 3)			
	Forecast fixed cost	s 6,479	0.9			
	Profit Current Increase (10%) Target profit Required contribut	\$00 931 93 1,024 ion 7,504	00 ·0 (\$658 + \$258 ·1 ·1 ·0 (\$1,024·1 + \$	5 + \$18) \$6,479·9) = 46·029	% of revenue	
	Thus Revenue (\$0	00) = \$	$7,504 \times \frac{100}{46.02} = 3$	\$16,305·95		
	Mark allocation	Revised Upgrade Profit Require Revenue	fixed costs – Adv/Cen e d contribution e	tral 1 1 1 1 1	5	
(iii)	Current revenue % of total	\$000	Holidays 7,685.00 53	Tickets 3,770.00 26	Flights 3,045.00 21 2,424.25	Total 14,500·00
	Contribution as % of revenue Contribution Contribution/hr \$	\$000	46.6 4,027.25 201.19	4,239 [.] 55 49 [.] 7 2,107 [.] 06 144 [.] 13	40 1,369·70 103·22	16,303.93
	Hours required		20,017	14,619	13,270	47,906
			Hours available: Before upgrade 13% increase	42,600 5,538		
			After upgrade	48,138		
			Thus surplus hours	232		
	Mark allocation	Target n % contr % of to Contribu Compar Logical	evenue ibution al revenue ution in \$ e hours required/avail decision	1 1 1 able 1 1	6	

(b) Sales mix

The assumption that the sales mix will be unchanged may not prove to be justified. Each line of business generates widely differing contribution per processing hour. This means that any shift in the sales activity from holidays to flights will have a detrimental effect on profitability.

Cost behaviour

The analysis is based on only two classifications of cost – fixed and variable. This may be a simplistic analysis. If costs have been incorrectly classified, the analysis will be inaccurate.

Cost estimates

The accuracy of the analysis is highly dependant on the accuracy of the directors' estimates of increases in the fixed costs.

- Mark allocation 2 marks per valid point to a maximum of 4
 - 20

6 (a) Current policy

Overhead costs Jobs	\$1,810, 48,	000 000			1			
27 nours per job = 1,296,000 labour nours					T			
Thus cost per labour hour $\frac{\$1,\$10,000}{1,296,000} = \$1.397$					1			
Each job requires 27 hours Thus overhead cost per job is $1\cdot 397 \times 27 = 37\cdot 72$								
ABC								
Cost	\$	Cost driver	Volume	Cost per unit of cost driver				
Machine costs Maintenance:	840,000	Machine hours	24,000	\$35·00	1			
Set up	150,100	Production runs	200	\$750.50	1			
Preventative	158.000	Machine hours	24.000	\$6.58	1			
Repairs	86,900	Machine hours	24,000	\$3.62	1			
Mat Handling	260,000	Deliveries	1,040	\$250.00	1			
Sales order processing:								
Internet	189,000	Orders	36,000	\$5·25	1			
Telephone	126,000	Orders	12,000	\$10.50	1			
Cost per order								
Machine cost $48,000$ orders = $48,000$ jobs								

Set up	Each job required 48,000 orders i.e. 240 order	h job requires $1/2$ hour at \$35.00 per hour = 000 orders require 200 set ups 240 orders per set up			1
	Cost per set u Thus cost per	p is \$750.50 order = $\frac{$750.50}{240}$	=	\$3·13	1
Preventative/ Repairs	Both based or Total cost = $x^{1/2}$ ho	n machine hours 6·58 + \$3·62 = \$10·20 pe ur per job	er hour =	\$5·10	1
Materials Handling	1,040 deliveri Cost per order	es for 48,000 orders is \$250			
	Cost per job	<u>\$250</u> x 1,040	=	\$5·42	1
Total				\$31.15	1
Overhead cost Overhead cost	per telephone per internet or	order = $31.15 + 10.50$ der = $31.15 + 5.25$	=	\$41·65 \$36·40	1 1
					17

to a MAXIMUM of

(b) To John Jackson From A Consultant Ref Use of ABC Date 8 June 2007

The key idea of Activity Based Costing (ABC) is that overhead costs are caused by activities. This means that costs should be analysed into groups (which are referred to as cost pools). Each cost pool should have a unique cause (referred to as a cost driver). By calculating the cost per unit of cost driver, and measuring the usage of each cost driver by each unit of output, it is possible to calculate the cost of each unit of output more accurately.

The major drawback is that the calculations are more complicated than the simple 'cost per machine hour' basis you are currently using.

From my calculations, the overhead cost of an average job using your current approach is \$37.71. Using an ABC approach this is overestimating the overhead cost for orders received over the internet, and underestimating the cost of telephone orders.

This is not a major issue with regard to internet orders as the overestimate of cost is \$1.31 per order. This is less than 4% of the overhead cost, and is therefore likely to be insignificant in the context of the total cost.

The underestimate of the cost of telephone orders is more significant as it is almost 10% of the overhead cost. In theory, there is a danger that this could lead to selling prices being understated. This could result in a reduction in profit margins. However, this is unlikely to have a major impact on the final price quoted to the customer.

The major reason that there is not a significant difference in the overhead cost under each method of calculation is that \$1,084,900 or 60% of total overheads appears to be driven by machine usage.

One possible approach is to continue to calculate the overhead cost of jobs on the basis of a cost per machine hour of \$84 and to allow a discount of \$5 per order for orders made via the internet.

Mark allocation	1 mark per valid point			
	1 mark for memo format	to a MAXIMUM of	5	