## Paper DA1 - Incorporating

 subject areas:
## - Interpretation of Financial Statements

- Performance Management

Monday 2 June 2008

## Time allowed

Reading and planning: 15 minutes
Writing: 3 hours
This paper is divided into three sections:
Section A ALL 20 questions are compulsory and MUST be attempted
Section B THREE questions in total to be attempted
and $\quad$ Candidates MUST attempt ONE question from
Section C Section B, ONE question from Section C and ONE
further question from either Section B or Section C
Do NOT open this paper until instructed by the supervisor.
During reading and planning time only the question paper may
be annotated. You must NOT write in your answer booklet until
instructed by the supervisor.
This question paper must not be removed from the examination hall.

## Section A - ALL 20 questions are compulsory and MUST be attempted

Please use the Candidate Registration Sheet provided to indicate your chosen answer to each multiple choice question. Each question in this section is worth 2 marks.

1 Which of the following is the primary objective of a statutory audit of financial statements?
A to confirm that no fraud has been carried out during the financial year
B to confirm the market value of assets and liabilities
C to confirm whether the financial statements are fairly presented
D to confirm that the financial statements are accurate

2 Which of the following is described as:
'the residual interest in the assets of the entity after deducting all its liabilities'?
A income
B profit
C gains
D equity

3 When preparing financial statements, there may be uncertainty as to the valuation of certain items. In such cases, the underlying accounting principle is that prudence should be applied.

How does prudence affect the valuation of assets and liabilities when there is uncertainty?
Assets should NOT be: Liabilities should NOT be:
A overstated
understated
B overstated
overstated
C understated understated
D understated overstated

The following information is relevant to questions 4 and 5:
In the financial year to 31 May 2005, Eithrees Co purchased a new head office. The costs of the purchase were:
Land on which building is located
\$300,000
Building
\$550,000
Site preparation
\$25,000
Service charge for year to 30 September 2008
\$60,000
At 31 May 2006, the market value of the head office had increased by $\$ 100,000$. This increase in value was recognised in the financial statements for that year.

After the depreciation charges for the two years to 31 May 2008 the carrying value of the head office at that date was \$902,400.

During the year to 31 May 2008 the value of the property fell by $\$ 100,000$ to $\$ 802,400$.

4 What is the original value at which the head office was recorded in the year to 31 May 2005?
A \$850,000
B $\$ 875,000$
C $\$ 910,000$
D \$935,000

5 What amount will be charged in the income statement for the year to 31 May 2008 in respect of the reduction in the value of the property?

A nil
B $\$ 18,800$
C $\$ 118,800$
D \$137,600

6 Prior to 30 April 2007 Marlies Co had paid a total of $\$ 300,000$ to fund a research project. Following positive results, it was decided in May 2007 to pay a further $\$ 600,000$ to develop the new product, and production also commenced in May 2007. The product is expected to have a commercial life of eight years. The directors wish to maximise short term profit while applying generally accepted accounting principles.

What is the minimum amount which could be charged in the income statement for the year to 30 April 2008?
A nil
B $\$ 37,500$
C $\$ 75,000$
D \$112,500

7 The most recent income statement of Waylor Co reported an operating profit of \$125,800, and a tax charge of $\$ 22,400$. Half way through the year, the company had issued 40,000 bonus shares which brought the total number of shares in issue to 440,000.

What figure should be reported for earnings per share?
A 23.5 cents
B 24.7 cents
C 28.6 cents
D 29.9 cents

8 The income statement of Barrett Co for the year to 31 March 2008 includes a charge of $\$ 72,562$ for taxation. The company's statement of financial position at 31 March 2007 reported a tax liability of $\$ 65,882$. At 31 March 2008, the tax liability was $\$ 70,591$.

What figure should be reported for tax paid in the company's statement of cash flows for the year to 31 March 2008?

A $\$ 65,882$
B $\$ 67,853$
C $\$ 72,562$
D $\$ 77,271$

9 The statement of financial position of a company may contain a number of reserves. These may be capital or revenue. Capital reserves may be realised or unrealised.

Which of the following correctly identifies the reserves which may be distributed to shareholders?
Revenue Unrealised capital Realised capital
reserves reserves reserves
A No No No
B Yes Yes Yes
C Yes Yes No
D Yes No Yes

10 At 31 March 2008, the non-current assets of Bunnie Co had a book value of $\$ 1,743,500$ and a tax value of $\$ 1,045,900$. The company's general ledger includes a credit balance of $\$ 123,980$ for deferred tax. The company pays tax at a rate of $21 \%$.

What amount should be reported in the income statement for the year to 31 March 2008 for deferred tax?
A $\$ 22,516$
B $\$ 95,659$
C $\$ 146,496$
D $\$ 242,155$

11 When the budget for the three months to 30 April 2008 was prepared, the expected level of production was 20,000 units, and the budgeted production overhead was $\$ 178,400$. This included $\$ 42,000$ of fixed costs, with the remainder estimated to vary with the level of production.

Actual production in the three months to 30 April 2008 was 21,220 units.
What is the flexed production overhead budget for the three months to 30 April 2008?
A $\$ 144,720 \cdot 40$
B $\$ 186,720 \cdot 40$
C $\$ 189,282 \cdot 40$
D $\$ 231,282 \cdot 40$

12 The production director of Malthul Co is planning to increase production capacity and needs to choose between four machines. The impact of running costs means that overall profit is directly affected by the level of usage of the machines. The following profitability matrix and associated probabilities has been prepared:

Profit in \$000

| Usage | Low | Medium | High |
| :--- | :---: | :---: | :---: |
| Probability | $25 \%$ | $37 \%$ | $38 \%$ |
| Machine A | 220 | 190 | 120 |
| Machine B | 200 | 185 | 150 |
| Machine C | 120 | 180 | 225 |
| Machine D | 160 | 175 | 235 |

Using the expected value criterion, which machine should be chosen?
A Machine A
B Machine B
C Machine C
D Machine D

## The following information relates to questions 13 and 14:

Coolbreeze Co manufactures refrigerators. The company is organised on a divisionalised basis and has two divisions (compressor and cabinet).

The compressor division transfers $65 \%$ of its output to the cabinet division for $\$ 85$ per unit, and sells the rest of its output to external companies for $\$ 92$ per unit.

The cabinet division sells the final product at an average selling price of $\$ 495$ per unit.
In the next month, it expected that the compressor division will produce 27,000 units.
The variable cost of manufacturing compressors is $\$ 62$ per unit.

13 Assuming that the divisions operate with total autonomy, which of the following is the MOST LIKELY reason for making internal transfers at a value which is less than the external selling price of the compressor division?

A Head office has imposed the transfer price
B The management of the compressor division are seeking to restrict the quantity produced
C Some additional costs are incurred on external sales
D The transfer price has been set to allow the cabinet division to compete through lower prices

14 What contribution will the compressor division generate in the next month?
A \$621,000
B $\$ 687,150$
C $\$ 743,850$
D \$810,000

15 The income statement of Jalop Co for the year to 31 March 2008 reported a profit after tax of $\$ 705,644$. This includes $\$ 320,000$ which is the total cost for a development project, which is expected to have a useful economic life of four years.

The book value of the net assets is $\$ 2,850,000$ and the economic value is $\$ 3,534,000$.
The company's weighted average cost of capital is estimated to be $14 \cdot 6 \%$.

## What is the Economic Value Added (EVA ${ }^{\text {TM }}$ ) for Jalop Co for the year to 31 March 2008?

A \$429,680
B $\$ 509,680$
C $\$ 529,544$
D \$609,544

16 Currently, each division of Wescon Co is required to generate a return on investment (ROI) of at least $20 \%$. The bonus paid to divisional managers increases in direct proportion to the ROI achieved by their division.

The ROI of the Eastern division has been above $25 \%$ for several years.
The head office management are considering replacing ROI with residual income (RI). The imputed interest charge would be calculated using book values and an interest rate of $20 \%$, with bonuses paid on any RI generated by the division.

A project with a projected ROI of $21.5 \%$ is currently being considered.
Which of the following statements is correct?
A the project would be accepted using ROI, and rejected using RI
B the project would be accepted using RI, and rejected using ROI
C the project would be accepted using both ROI and RI
D the project would be rejected using both ROI and RI

17 Capac Co uses activity based costing (ABC). Overhead costs for the next year are:
Expense Total expenditure Volume of activity

Set up costs
Raw material handling

1,139,200
488,900

3,200 set ups
5,000 materials orders

One of the company's products is manufactured in batches of 500 units, with each batch requiring one set up and 50 materials orders.

Using ABC, what is the overhead cost of 220 units?
A $\$ 10.49$
B $\$ 453.78$
C $\$ 2,307 \cdot 80$
D $\$ 5,245 \cdot 00$

18 Consider the following statements relating to just-in-time (JIT) production in a manufacturing company:
(i) introducing JIT will reduce reliance on suppliers
(ii) quality is a critical issue if JIT is to be introduced successfully
(iii) introducing JIT should reduce waste

Which of the statements are correct for a manufacturing company?
A (i) and (ii) only
B (i) and (iii) only
C (ii) and (iii) only
D (i), (ii) and (iii)

19 Which of the following items (i) to (iii) are key issues in achieving improved supply chain management?
(i) customer expectations
(ii) delivery channels
(iii) value added activities

A (i) and (ii) only
B (i) and (iii) only
C (ii) and (iii) only
D (i), (ii) and (iii)

20 In the three months to 31 March 2008, Pegem Co paid labour costs of $\$ 62,597 \cdot 60$ for 6,760 labour hours. This included 182 hours of non-productive labour. The standard labour cost of the product produced is $\$ 21 \cdot 96$, based on a standard time of 2.4 hours per unit.

What was the labour rate variance for the three months to 31 March 2008?
A $\$ 2,408 \cdot 90$ Favourable
B \$2,408.90 Adverse
C $\$ 743.60$ Favourable
D $\$ 743.60$ Adverse

## Section B - Candidates MUST attempt ONE question from Section B, ONE question from Section C and ONE further question from either Section B or Section C.

1 In your role as operations director of Jamin, a limited liability company in the retail sector, you are reviewing the company's draft financial statements for the year to 30 April 2008. These report current assets of $\$ 468,441$ and current liabilities of $\$ 542,847$.

You have been asked to comment on the following matters:
(i) A recently appointed non-executive director has noted that the company's current ratio for each of the last three years has been below $1 \cdot 0$. He is concerned about this as he has read that the current ratio should ideally be well above $1 \cdot 0$. He has also observed that, as the quick assets ratio is even lower than the current ratio, he would conclude that there are problems with the company's working capital management.
(ii) The company was involved in a legal dispute when its procedures for waste disposal were challenged on the grounds that they did not comply with regulations. The company had disputed this challenge, and the resulting court case was settled in April 2008. The court awarded damages and costs of $\$ 127,000$ against Jamin. As the directors have until 22 July to decide whether to appeal against the court's decision, the damages are not included in the draft financial statements. The company's legal advisors have noted that if the directors decide to appeal and this is unsuccessful, the amount of damages would be likely to increase. In addition, the company would be required to pay additional costs. At their most recent meeting, the directors decided not to appeal against the court's decision.
(iii) The draft financial statements report earnings per share of 292 cents. This has been calculated using the number of shares in issue at the year end. Jamin's ordinary share capital at 30 April 2008 was $\$ 2,500,000$ in shares of $\$ 2$ nominal value. This includes a 1 for 4 rights issue at $\$ 2$ per share made on 1 January 2008. The estimated value of a share prior to the rights issue was $\$ 2 \cdot 25$.

## Required:

(a) In a memo to the newly appointed non-executive director, explain why Jamin's current ratio of below $1 \cdot 0$ is not necessarily an indication of problems with working capital management.
(b) Discuss how the legal dispute should be reflected in the financial statements.
(c) Based on the above information, calculate the:
(i) current ratio at 30 April 2008; and
(ii) earnings per share for the year to 30 April 2008.

2 On 1 May 2007, Harbon Co purchased 600,000 ordinary shares in Surby Co for $\$ 610,000$. At that date, the assets and liabilities of Surby were estimated to have a market value equivalent to their net book value, except for some land which had a market value of $\$ 80,000$ above its net book value.

The directors of Harbon estimate that the value of goodwill had been impaired by \$30,000 at 30 April 2008.
The statements of financial position of the two companies at 30 April 2008 are shown below:

| Assets | Note | Harbon | Surby |
| :---: | :---: | :---: | :---: |
|  |  | \$000 | \$000 |
| Non-current assets |  |  |  |
| Property, plant and equipment |  | 1,090 | 455 |
| Investment in subsidiary |  | 610 | nil |
|  |  | 1,700 | 455 |
| Current assets |  |  |  |
| Inventories | 1 | 920 | 284 |
| Trade receivables | 2 | 345 | 174 |
| Other current assets |  | 155 | 19 |
| Cash and cash equivalents |  | 27 | 4 |
|  |  | 1,447 | 481 |
| Total assets |  | 3,147 | 936 |
| Equity and Liabilities |  |  |  |
| Share capital | 3 | 1,500 | 400 |
| Retained earnings at 1 May 2007 |  | 715 | 185 |
| Retained earnings for year to 30 April 2008 |  | 381 | 52 |
| Total equity |  | 2,596 | 637 |
| Non-current liabilities |  |  |  |
| Long-term borrowings |  | 156 | 75 |
| Current liabilities |  |  |  |
| Trade and other payables | 4 | 184 | 133 |
| Short-term borrowings |  | 89 | 75 |
| Current tax payable |  | 122 | 16 |
| Total non-current liabilities |  | 395 | 224 |
| Total liabilities |  | 551 | 299 |
| Total equity and liabilities |  | 3,147 | 936 |

## Additional information:

1 Surby had sold goods to Harbon for $\$ 72,000$. These were sold at a mark up of $25 \%$, and at 30 April 2008, $80 \%$ of the items had been sold by Harbon.
2 The total of Harbon's trade receivables includes \$95,000 due from Surby.
3 The nominal value of the issued share capital of each company is:
Harbon \$1 per share
Surby $\quad \$ 0.50$ per share
4 The total of Surby's trade payables includes \$95,000 due to Harbon.
5 The revaluation of Surby's land has not been reflected in the statement of financial position. There has been no further increase in the value of the land since 1 May 2007.

Required:
Calculate the value for each of the following:
(a) Goodwill on acquisition; (4 marks)
(b) Consolidated reserves at 30 April 2008;
(c) Minority interest at 30 April 2008;
(d) Consolidated non-current assets at 30 April 2008;
(e) Consolidated current assets at 30 April 2008;
(f) Consolidated current liabilities at 30 April 2008.

3 You are employed as a business advisor in the Economic Development department of a local authority. The overall purpose of your department is to encourage small business growth as a means of creating employment within the area for which the authority has responsibility. Your remit is to provide assistance to small businesses so that they can fulfil their regulatory responsibilities.

You have been asked to provide assistance to Ashton Family Industries, a limited liability company which has been trading since 1 May 2007. You are due to meet the owner to discuss the letter shown below regarding valuation of the company's inventory:

## Dear Mr Barrett

I would be grateful for your assistance with the matter of inventory valuation.
As you know, I have just completed my first year of trading, and while I am aware that inventory should be valued at the lower of cost and net realisable value, I do not know what these terms mean.

My problem is worse because my inventory includes raw materials and items which are partly completed, which I anticipate will be bought by customers in the near future.

I am also aware that however I value my inventory, I must comply with proper accounting procedures. Consistent with this requirement, I would like to report as high a profit as possible, as I have plans for expansion of the business in the near future, and I will need to attract funding from new investors if these plans are to be realised.

Yours sincerely
Bob Ashton
You have obtained the following information regarding inventory:

## Raw materials

The cost of raw materials has increased during the year. The company has good relationships with most suppliers which means that it does not need to hold most items in inventory. The exception is a component of which 140 units were held at 30 April 2008. Receipts and usage of this item during the year were:

## Receipts

## Date

2 May 2007
1 October 2007
1 February 2008
22 April 2008

## Volume

180 units
250 units
160 units
110 units

## Volume

160 units
245 units
155 units

## Usage

Date
May-September 2007
October 2007-January 2008
February-April 2008

## Unit cost

$\$ 135.50$ per unit $\$ 139.00$ per unit $\$ 142.00$ per unit $\$ 147.90$ per unit

## Work-in-progress

All raw materials are assembled at the start of production. The work-in-progress has taken a total of 75 machine hours at 30 April 2008. You have estimated that the materials and labour cost included in work in progress is $\$ 85,800$.

When he commenced business, Bob Ashton expected that his production facility would operate for 1,800 hours during the first year of operation. His records show that 2,000 production hours were completed. The budgeted overhead costs for the year were $\$ 125,400$ and the actual overhead costs in the year were $\$ 122,400$.

## Required:

In preparation for your reply, draft brief notes which:
(a) Explain the terms 'cost' and 'net realisable value' as they relate to the valuation of inventory, and how the method of inventory valuation can influence the reported profit of a business such as Ashton Family Industries.
(8 marks)
(b) Identify and describe two methods which could be used to value the inventory of raw materials. (6 marks)
(c) Consistent with generally accepted accounting practice, calculate the value of the inventory held by Ashton Family Industries which will maximise reported profit for the first year of trading.

## Section C - Candidates MUST attempt ONE question from Section B, ONE question from Section C and ONE further question from either Section B or Section C.

4 (a) The directors of Nesta, a listed company, are considering the initial selling price for a new product. The company's pricing policy is to calculate the selling price of a product to generate a profit of $20 \%$ of sales price, after recovering development costs over the first two years following the launch of the product.

Based on the company's current pricing policy, the directors wish to calculate the potential selling price at sales levels of 900 units and 750 units in the first two years.

It has been suggested that the company is likely to achieve a higher volume of sales if a policy of target cost pricing is introduced. The directors have commissioned market research to estimate the expected selling price which would lead to a sales volume of 1,000 units over two years.

The following data for the product has been prepared:

| Materials cost | (per unit) | $\$ 710$ (see note 1) |
| :--- | ---: | ---: |
| Labour cost | (per unit) | $\$ 480$ (see note 2) |
| Variable overheads (per unit) |  | $\$ 320$ |
| Fixed costs |  | (per annum) |
| Product development |  | $\$ 720,000$ (see note 3) |

Note 1 The material cost has been calculated on the basis that the directors plan to use a number of suppliers for each material required, in order to minimise the risk of materials being unavailable.
Note 2 Specialised labour will be required for production of the new product.
Note 3 Fixed costs comprise both central costs and costs which relate to the provision of new production facilities which will not be required if production of the new product is not undertaken. The new production facilities include the storage facilities for raw material inventory, and the training costs for new recruits.
Note 4 The product is now fully developed, and no further development expenditure will be required.

## Required:

(i) For both of the potential total sales levels ( 900 units and 750 units), calculate the selling price per unit which would be required to meet the objective of a $20 \%$ profit margin over the first two years.
(5 marks)
(ii) Assuming that the market research indicates that the selling price at which the total sales level of 1,000 units can be achieved is below either of the prices you have calculated in (i), explain the concept of target cost pricing and recommend the action that could be taken to achieve the required margin.
(b) At a recent meeting, the directors decided to consider whether the current policy of requiring products to achieve a specific net profit margin over a two year period was appropriate. You have been asked to attend the next meeting to advise the directors on the extent to which the strategies of market penetration and market skimming may be successful for Nesta. You have been asked to base your observations on the planned new product.

## Required:

Prepare briefing notes which explain the strategies of market penetration and market skimming, and indicate the extent to which each of these strategies could be used for the new product.
(8 marks)

5 You have recently been appointed to the post of development manager with Monkey Business, a newly formed not-for-profit organisation. The overall objective of the organisation is to protect the natural habitat of various monkeys in the wild. This is done through working alongside businesses with commercial interests in regions which include such habitats.

Through a programme of awareness raising and education, Monkey Business seeks to encourage commercial organisations to minimise the negative impacts of their activities on the monkeys' habitats, and to make contributions to enable more protected areas to be established.

As the organisation is in the process of commencing operation, you have been given the responsibility for a number of initiatives which are intended to establish operating policies. These include the development of a value-for-money (VFM) model.

You have been asked to brief the directors on these issues.

## Required:

Draft a set of briefing notes for circulation to the directors, which:
(a) explain the concept of value-for-money (VFM) as it relates to Monkey Business, and recommend how each element of VFM could be measured;
(b) describe the problems which may arise in applying the VFM model; and
(c) suggest how the problems you have identified in (b) might be overcome.

6 You are a business improvement consultant with a client base in the services sector. You are carrying out an assignment with Head 2 Toe. The company rents facilities in 4 and 5 star hotel chains and offers a menu of grooming and relaxation treatments to both hotel guests and non-residents. When the company was formed, the financial forecasts indicated that strong profits could be expected. The directors have considerable experience in the industry, but this is their first experience of the business being based in a hotel, having previously worked in outlets situated in urban shopping areas.

The directors recently held a brainstorming session to generate suggested ways of improving profitability. Your brief is to advise them on which of the suggestions should be implemented. The directors noted that a key factor in the lower than expected profitability is that, for all outlets, the sales volume is below projected levels.

The suggested initiatives are:

## Targeted price reductions to smooth demand

In all outlets, stylists and therapists are underutilised at certain times. It is proposed to reduce prices at these times to stimulate demand.

Use better quality products as the basis for an increase in prices
As the client satisfaction is influenced by the quality of products used, it has been suggested that better quality products should be used. This would allow prices to be increased without any loss in sales volume.

## Guest appearances by high profile stylists

By inviting 'celebrity' stylists and therapists, additional interest would be generated. This would enhance the reputation of the outlets and would increase sales volumes.

You have obtained the following information:
(i) The business activities can be grouped under three main headings: ladies hairdressing, gents hairdressing and spa treatments.
(ii) Costs can be summarised in the following categories:

Remuneration of stylists and consultants
Other staff costs
Treatment products
Rent of premises
Other premises costs
Administration
Advertising
(iii) The remuneration of stylists and therapists is a combination of a minimum salary, plus a commission based on the sales revenue they generate personally. On average they are paid $45 \%$ of the sales revenue, based on prices set centrally by Head 2 Toe. The reduction in personal income due to periods of idle time has led to a number of resignations.
(iv) Other staff are paid a set wage for a 35 hour week.
(v) As well as periods of idle time, you have noted that, at other times, there is excess demand, with potential bookings being turned away.
(vi) Premises costs, including rent, are subject to contracts negotiated with the hotels. The costs are reviewed every five years. The first contract review will be in 2012.
(vii) $85 \%$ of administration costs are estimated to be fixed, with the remainder being variable.
(viii) Advertising is centrally controlled, and is apportioned to the outlets and activities based on sales revenue.

## Required:

(a) Discuss the extent to which each of the initiatives suggested are likely to be successful.
(b) Based on the available information, recommend the action that the directors should take to improve
profitability.

## End of Question Paper

