Series 3 Examination 2009

# CERTIFICATE IN ACCOUNTING (IAS)

**Level 3**

**Wednesday 3 June**

Subject Code: 3902

Time allowed: **3 hours**

**INSTRUCTIONS FOR CANDIDATES**

- Answer **any 4** questions. There are no compulsory questions.
- All questions carry equal marks.
- Study the "**REQUIRED**" section of each question carefully and extract the data required for your answers from the information supplied.
- Write your answers in blue or black ink/ballpoint. You can only use pencil for graphs, charts, diagrams etc.
- Begin your answer to each question on a new page.
- All answers must be correctly numbered, but need not be in numerical order.
- Workings must be shown.
- You may use a calculator, provided the calculator gives no printout, has no word display facilities, is silent and cordless. The provision of batteries and their condition is your responsibility.
- Marks may be lost through lack of neatness and poor presentation.

**QUESTION 1**

Caen, a private company, started business on 1 May 2009 buying and selling a single product. Details of purchases and sales during May 2009 were as follows:

| Date | Transaction | Litres | Purchase Price (per litre) $ | Selling Price (per litre) $ |
|---|---|---|---|---|
| 1 | Purchase | 70 | 19.00 | |
| 8 | Purchase | 50 | 19.50 | |
| 15 | Purchase | 40 | 20.00 | |
| 16 | Sale | 100 | | 36.00 |
| 18 | Purchase | 50 | 20.25 | |
| 21 | Purchase | 60 | 20.00 | |
| 25 | Purchase | 40 | 20.50 | |
| 31 | Sale | 80 | | 38.00 |

**REQUIRED**

(a) Calculate, for Caen, the total value of closing inventory at 31 May 2009 using **each** of the following inventory pricing methods:

(i) FIFO
(ii) periodic weighted average cost (recalculated at the end of each month and correct to 2 decimal places)
(iii) perpetual weighted average cost (recalculated after each purchase and correct to 2 decimal places).

(16 marks)

(b) Calculate, for Caen, the gross profit for May 2009 using the FIFO method of valuing inventory.

(4 marks)

(c) State whether each of the following costs should be included when calculating the cost of finished goods inventory for a manufacturer:

(i) Carriage in
(ii) Carriage out
(iii) Storage
(iv) Depreciation of factory machinery
(v) Marketing salaries.

For each item, state only 'yes' or 'no'.

(5 marks)

**(Total 25 marks)**

**QUESTION 2**

On 1 January 2006 Quorn, a private company, purchased 75% of the shares in Ware, a private company, for $780,000. At that time the accumulated profit of Ware was $300,000. Ware's share capital consists of 1,000,000 Ordinary Shares of $0.50 each and accumulated profit is its only reserve.

The summarised Income Statements of the two companies for the year ended 31 December 2008 were as follows:

| | **Quorn** | | **Ware** | |
|---|---|---|---|---|
| | **$000** | **$000** | **$000** | **$000** |
| Revenue | | 2,700 | | 1,000 |
| Cost of sales | | 1,350 | | 470 |
| Gross profit | | 1,350 | | 530 |
| Distribution costs | 370 | | 150 | |
| Administrative expenses | 140 | 510 | 80 | 230 |
| Net profit | | 840 | | 300 |
| Dividend from Ware | | 75 | | - |
| | | 915 | | 300 |
| Dividends paid | | 270 | | 100 |
| Profit for year | | 645 | | 200 |
| Accumulated profit brought forward | | 380 | | 540 |
| Accumulated profit carried forward | | 1,025 | | 740 |

**Other Information**

(1) Goodwill is amortised evenly over 10 years

(2) During the year ended 31 December 2008 Quorn sold goods, which had cost Quorn $70,000, to Ware for $120,000. At 31 December 2008 40% of the value of these goods remained in Ware's inventory.

**REQUIRED**

Calculate:

(a) The goodwill arising on the acquisition of Ware by Quorn on 1 January 2006.

(4 marks)

(b) The consolidated revenue and consolidated cost of sales for the Quorn group for the year ended 31 December 2008.

(8 marks)

(c) The accumulated profit brought forward of the Quorn group at 1 January 2008.

(5 marks)

(d) The goodwill appearing in the Balance Sheet of the Quorn group at 31 December 2008.

(2 marks)

Dividends are often paid by subsidiary companies. In this case, Ware has paid a dividend of $100,000.

**REQUIRED**

(e) Explain how this dividend has affected:

(i) the minority shareholders of Ware

(ii) the consolidated Income Statement of the Quorn group for the year ended 31 December 2008.

(2 marks)

**QUESTION 2 CONTINUED**

Holding companies may acquire subsidiary companies for many reasons. An example would be to increase market share.

**REQUIRED**

(f) Give **two** other reasons for the acquisition of subsidiary companies.

(4 marks)

**(Total 25 marks)**

## QUESTION 3

Bodo, a private company, manufactures and sells three products, whose selling prices and variable costs per unit are as follows:

| | D | E | F |
|---|---|---|---|
| | **$** | **$** | **$** |
| Selling price | 5.00 | 2.60 | 6.00 |
| Variable cost | 2.40 | 1.40 | 2.80 |

The current annual sales volumes are:

D 30,000 units, E 16,000 units, F 12,000 units.

Bodo is currently breaking even.

**REQUIRED**

(a) Calculate Bodo's annual fixed costs.

(7 marks)

It has been suggested that, if product E was discontinued, the annual sales volume of D would increase by 20% and the annual sales volume of F would increase by 5%. No fixed costs would, however, be saved.

**REQUIRED**

(b) Calculate whether or not, on financial grounds, this suggestion should be adopted.

(6 marks)

Alternatively it has been estimated that if Bodo entered into a contract to spend $15,000 per year on advertising, annual sales and selling prices would be as follows:

D 40,000 units at $4.80
E 18,000 units at $2.40
F 13,000 units at $6.00

Both variable costs per unit and other annual fixed costs would remain the same.

**REQUIRED**

(c) Calculate the estimated annual profit of Bodo resulting from the advertising expenditure and selling price cuts, and advise the company as to whether or not they would be worthwhile.

(9 marks)

(d) State **two** possible disadvantages of spending $15,000 per year on advertising.

(3 marks)

**(Total 25 marks)**

## QUESTION 4

Following are the summarised Balance Sheets of Diss, a private company, at 31 December:

| | 2007 | | 2008 | |
|---|---|---|---|---|
| | **$000** | **$000** | **$000** | **$000** |
| Land and buildings - cost | 800 | | 800 | |
| - acc dep. | 112 | 688 | 120 | 680 |
| Machinery - cost | 430 | | 620 | |
| - acc dep. | 170 | 260 | 191 | 429 |
| Vehicles - cost | 150 | | 150 | |
| - acc dep. | 80 | 70 | 90 | 60 |
| Investments - cost | | 490 | | 470 |
| | | 1,508 | | 1,639 |
| Inventory | 217 | | 251 | |
| Receivables | 380 | | 320 | |
| Bank | 72 | 669 | 147 | 718 |
| | | 2,177 | | 2,357 |

| | | | | |
|---|---|---|---|---|
| | **$000** | **$000** | **$000** | **$000** |
| Ordinary shares of $1 | | 950 | | 1,100 |
| Share premium | | 200 | | 350 |
| Accumulated profits | | 47 | | 124 |
| | | 1,197 | | 1,574 |
| 10% Debentures | 700 | | 500 | |
| Bank loan | 30 | 730 | - | 500 |
| Payables | 220 | | 247 | |
| Final dividend | 30 | 250 | 36 | 283 |
| | | 2,177 | | 2,357 |

**Notes relating to 2008**

(1) Machinery, costing $80,000, was sold for $31,000, resulting in a loss of $12,000
(2) Some debentures were redeemed at par on 31 December
(3) The bank loan was repaid on 1 January
(4) The investments sold during the year produced a profit of $9,000
(5) Investment income for the year, received during the year, was $8,000
(6) An interim dividend of $14,000 was paid in June.

**REQUIRED**

For the year ended 31 December 2008 in respect of Diss:

(a) Calculate the profit from operations.

(5 marks)

(b) Prepare a Cash Flow Statement in accordance with IAS 7. No other notes to the cash flow statement are required.

(20 marks)

**(Total 25 marks)**

## QUESTION 5

Mars and Ziggy were in partnership sharing profits/losses in the ratio 3:2 respectively after allowing for a salary of $3,000 per year for Ziggy. On 1 July 2008, Spider joined the partnership and from that date profits were shared equally, after allowing for a salary of $6,200 per year for Mars, and no salary for either Ziggy or Spider.

Mars and Ziggy did not draw up accounts at 30 June 2008, but the Income Statement for the year ended 31 December 2008 was as follows:

| | | $ | $ |
|---|---|---|---|
| Revenue | | | 1,500,000 |
| Less | Cost of sales | | 1,155,000 |
| Gross profit | | | 345,000 |
| Less | Light and heat | 14,000 | |
| | Rent | 32,000 | |
| | Depreciation | 15,900 | |
| | Salaries | 69,000 | |
| | Selling expenses | 30,000 | |
| | General expenses | 20,000 | 180,900 |
| Net profit | | | 164,100 |

**Notes relating to 2008**

(1) Revenue was twice as high in each of the months January, February and March as it was in each of the months in the rest of the year
(2) The gross profit to revenue ratio was 20% to 31 March and 25% for the rest of the year
(3) Light and heat and general expenses accrued evenly throughout the year
(4) Rent increased by 50% on 1 May
(5) Depreciation was charged at 20% per year on a reducing balance basis up to 30 June and at 30% per year on the same basis for the rest of the year. The only change in non current assets was a purchase for $12,000 on 1 July. The book value of non current assets at 30 June was $54,000
(6) Salaries accrued evenly over the year except that Spider, the new partner, was an employee until 30 June, earning an annual salary of $18,000
(7) Selling expenses varied directly in proportion to revenue.

**REQUIRED**

Set out the Income Statements and Appropriation Accounts of the partnership in columnar format for the period 1 January to 30 June 2008 and for the period 1 July to 31 December 2008. Assume that all months have an equal number of days.

**(Total 25 marks)**

 

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# ACCOUNTING(IAS)

## LEVEL 3

## SERIES 3 EXAMINATION 2009

## Suggested Answers


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**SERIES 3 EXAMINATION 2009**
**ACCOUNTING (IAS)**
**(LEVEL 3)**

**ANSWER 1**

**CAEN**

**(a)**

**(i) FIFO method**

| Date | Particulars | Litres | Unit cost $ | Balance $ |
|---|---|---|---|---|
| 2009 | | | | |
| May 1 | Purchase | 70 | 19.00 | 1,330.00 |
| 8 | Purchase | 50 | 19.50 | 975.00 |
| 15 | Purchase | 40 | 20.00 | 800.00 |
| | | 160 | | 3,105.00 |
| 16 | Sale | (70) | 19.00 | (1,330.00) |
| | Sale | (30) | 19.50 | (585.00) |
| | | 60 | | 1,190.00 |
| 18 | Purchase | 50 | 20.25 | 1,012.50 |
| 21 | Purchase | 60 | 20.00 | 1,200.00 |
| 25 | Purchase | 40 | 20.50 | 820.00 |
| | | 210 | | 4,222.50 |
| 31 | Sale | (20) | 19.50 | (390.00) |
| | Sale | (40) | 20.00 | (800.00) |
| | Sale | (20) | 20.25 | (405.00) |
| 31 | Closing inventory | 130 | | 2,627.50 |

**(ii) Periodic weighted average cost method**

$$\text{Unit cost} = \frac{\text{Total purchase value}}{\text{Total purchase units}}$$

$$= \frac{70 \times 19 + 50 \times 19.5 + 40 \times 20 + 50 \times 20.25 + 60 \times 20 + 40 \times 20.5}{70 + 50 + 40 + 50 + 60 + 40}$$

$$= \frac{6{,}137.5}{310}$$

$$= \$19.80$$

Closing inventory = $19.80 × 130 = $2,574

## ANSWER 1 (CONTINUED)

**(iii) Perpetual weighted average cost method**

| Date | Purchases | | Sales | Balance | | |
|---|---|---|---|---|---|---|
| | Units | Amount $ | Units | Units | Unit cost $ | Amount $ |
| 2009 | | | | | | |
| May 1 | 70 | 1,330 | | 70 | 19.00 | 1,330.00 |
| 8 | 50 | 975 | | 120 | 19.21 | 2,305.00 |
| 15 | 40 | 800 | | 160 | 19.41 | 3,105.00 |
| 16 | | | 100 | 60 | 19.41 | 1,164.60 |
| 18 | 50 | 1,012.5 | | 110 | 19.79 | 2,177.10 |
| 21 | 60 | 1,200 | | 170 | 19.87 | 3,377.10 |
| 25 | 40 | 820 | | 210 | 19.99 | 4,197.10 |
| 31 | | | 80 | 130 | 19.99 | 2,598.70 |

Closing inventory = $2,598.70

**(b)**

| | | $ | $ |
|---|---|---|---|
| Sales | (100 × 36 + 80 × 38) | | 6,640 |
| Less : | **Cost of sales** | | |
| | Purchases (a)(ii) | 6,137.5 | |
| | Less : Closing inventory | 2,627.5 | 3,510 |
| **Gross profit** | | | 3,130 |

**(c)** **(i)** Yes
**(ii)** No
**(iii)** No
**(iv)** Yes
**(v)** No

**ANSWER 2**

**QUORN**

**(a) Goodwill**

| | | $000 | $000 |
|---|---|---|---|
| Cost of investment | | | 780 |
| Less : | Share of net assets | | |
| | Share capital | 500 | |
| | Accumulated profit | 300 | |
| | | 800 | |
| | | × 75% | 600 |
| Goodwill arising on acquisition | | | 180 |

**(b) (i) Consolidated revenue**

| | $000 |
|---|---|
| Quorn | 2,700 |
| Ware | 1,000 |
| | 3,700 |
| Less : Intra-group sales | 120 |
| | 3,580 |

**(ii) Consolidated cost of sales**

| | $000 |
|---|---|
| Quorn | 1,350 |
| Ware | 470 |
| | 1,820 |
| Less : Intra-group sales | 120 |
| | 1,700 |
| Add : Unrealised profit on unsold inventory | |
| (120 × 40% – 48 × 70/120) | 20 |
| Consolidated cost of sales | 1,720 |

**(c) Group accumulated profit b/f**

| | $000 |
|---|---|
| Quorn's profits b/f | 380 |
| Add : Ware post acquisition profit (540 – 300) × 75% | 180 |
| | 560 |
| Less : Goodwill written off (180 × 2/10) | (36) |
| | 524 |

**(d) The goodwill appearing in the Balance Sheet**

| | $000 |
|---|---|
| Goodwill | 180 |
| Less : Amortization of goodwill (180 × 3/10) | 54 |
| Goodwill at 31 December 2008 | 126 |

## ANSWER 2 (CONTINUED)

(e) (i) The minority shareholders can share Ware's profit in form of dividend.
Minority shareholders' share of dividend would be transferred to the minority interest account. The amount would be \$25,000 (\$100,000 × 25%).

(ii) This dividend is excluded from the Consolidated Income Statement.
Both Quorn's 'Dividend from Ware \$75,000' and Ware's 'Dividend paid \$100,000' are excluded from Consolidated Income Statement.

(f) Two other reasons for the acquisition of subsidiary companies are :
- business expansion by acquiring well established firms in other areas.
- reduce competition by buying out competitors.

## ANSWER 3

**BODO**

**(a)**

| | **D** | **E** | **F** | **Total** |
|---|---|---|---|---|
| | \$ | \$ | \$ | \$ |
| Selling price | 5.0 | 2.6 | 6.0 | |
| Less : Variable cost | 2.4 | 1.4 | 2.8 | |
| Unit contribution | 2.6 | 1.2 | 3.2 | |
| Volume sold (units) | 30,000 | 16,000 | 12,000 | |
| Total contribution | 78,000 | 19,200 | 38,400 | 135,600 |

∵ At break even, profit = 0 and total contribution = fixed costs
∴ **Fixed costs = \$135,600**

**(b)** Profit = Total contribution – Fixed costs

| | | **D** | | **F** | **Total** |
|---|---|---|---|---|---|
| | | \$ | | \$ | \$ |
| Unit contribution | | 2.6 | | 3.2 | |
| New volume | [30,000 × (1 + 20%)] | 36,000 | [12,000 × (1 + 5%)] | 12,600 | |
| | | 93,600 | | 40,320 | 133,920 |
| Less : Fixed costs | | | | | 135,600 |
| Loss | | | | | (1,680) |

**The new suggestion should not be adopted because it will cause a loss of \$1,680.**

**ANSWER 3 (CONTINUED)**

(c)

| | D | E | F | Total |
|---|---|---|---|---|
| | $ | $ | $ | $ |
| Selling price | 4.8 | 2.4 | 6.0 | |
| Variable cost | 2.4 | 1.4 | 2.8 | |
| Unit contribution | 2.4 | 1.0 | 3.2 | |
| Sales volume (units) | 40,000 | 18,000 | 13,000 | |
| Total contribution | 96,000 | 18,000 | 41,600 | 155,600 |
| Less : Fixed costs | | | | |
| – Others | | | | (135,600) |
| – Advertising | | | | (15,000) |
| Profit | | | | 5,000 |

**The company should adopt this suggestion because it makes $5,000 profit.**

**(d) Possible disadvantages :**

- More units must be sold to achieve break even point.
- Increase fixed costs will be risky in economic recession.

**ANSWER 4**

**DISS**

**(a) Profit from operations**

| | $000 | $000 |
|---|---|---|
| Accumulated profits : closing | | 124 |
| Accumulated profits : opening | | (47) |
| Profit for the year | | 77 |
| Add : Dividend – Interim 08 | 14 | |
| Dividend – Final 08 | 36 | |
| Interest on debentures | 70 | 120 |
| | | 197 |
| Less : Investment income | | 8 |
| | | 189 |

**ANSWER 4 (CONTINUED)**

**DISS**

**(b) Cash Flow Statement for the year ended 31 December 2008**

| | $000 | $000 |
|---|---|---|
| **Cash flows from operating activities** | | |
| Operating profit (a) | 189 | |
| Depreciation – Land and Building (120 – 112) | 8 | |
| – Machinery [191 – 170 + (80 – 31 – 12)] | 58 | |
| – Vehicle (90 – 80) | 10 | |
| Loss on disposal of machinery | 12 | |
| Profit on sale of investment | (9) | |
| Operating profit before working capital changes | 268 | |
| Increase in inventory (251 – 217) | (34) | |
| Decrease in receivables (320 – 380) | 60 | |
| Increase in payables (247 – 220) | 27 | |
| Cash generated from operations | 321 | |
| Less : Interest paid (700 × 10%) | (70) | |
| Net cash from operating activities | | 251 |
| **Cash flows from investing activities** | | |
| Purchase of machinery (620 – 430 + 80) | (270) | |
| Sale of machinery | 31 | |
| Sale of investment (490 – 470 + 9) | 29 | |
| Investment income received | 8 | |
| Net cash used in investing activities | | (202) |
| **Cash flows from financing activities** | | |
| Proceeds from share issue [(1,100 + 350) – (950 + 200)] | 300 | |
| Redemption of debenture (700 – 500) | (200) | |
| Repayment of bank loan | (30) | |
| Dividend paid (14 + 30) | (44) | |
| Net cash from financing activities | | 26 |
| **Net increase in cash and cash equivalents** | | 75 |
| Cash and cash equivalents at 1 January 2008 | | 72 |
| Cash and cash equivalents at 31 December 2008 | | 147 |

**ANSWER 5**

**MARS AND ZIGGY**

**Income Statements and Appropriation Accounts for the period ended**

| | 30 June 2008 | | 31 December 2008 | |
|---|---|---|---|---|
| | $ | $ | $ | $ |
| Revenue (9:6) | | 900,000 | | 600,000 |
| Less : Cost of sales | | 705,000 | | 450,000 |
| Gross profit (600,000 × 20% + 300,000 × 25% ; 600,000 × 25%) | | 195,000 | | 150,000 |
| Less : Light and heat (1:1) | 7,000 | | 7,000 | |
| Rent (7:9) | 14,000 | | 18,000 | |
| Depreciation (W1) | 6,000 | | 9,900 | |
| Salaries (W2) | 39,000 | | 30,000 | |
| Selling expenses (9:6) | 18,000 | | 12,000 | |
| General expenses (1:1) | 10,000 | 94,000 | 10,000 | 86,900 |
| | | 101,000 | | 63,100 |
| Less : Salary | | | | |
| Ziggy (3,000 × 1/2) | | (1,500) | | - |
| Mars (6,200 × 1/2) | | - | | (3,100) |
| | | 99,500 | | 60,000 |
| Share of profit | | | | |
| - Mars (3/5 / 1/3) | 59,700 | | 20,000 | |
| - Ziggy (2/5 / 1/3) | 39,800 | | 20,000 | |
| - Spider ( 0 / 1/3) | - | 99,500 | 20,000 | 60,000 |

**Workings**

**(1) Depreciation**

| | $ |
|---|---|
| January to June (54,000 ÷ 90% – 54,000) | 6,000 |
| July to December (54,000 +12,000) × 30% × 1/2 | 9,900 |
| | 15,900 |

**(2) Salaries**

| | $ |
|---|---|
| January to June (69,000 – 18,000 × 1/2) × 1/2 + 9,000 | 39,000 |
| July to December (69,000 – 18,000 × 1/2) × 1/2 | 30,000 |
| | 69,000 |

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