

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
General Certificate of Education
Advanced Level

## ACCOUNTING

Paper 4 Problem Solving (Supplementary Topics)

## Additional Materials: Answer Booklet/Paper

## READTHESE INSTRUCTIONS FIRST

If you have been given an Answer Booklet, follow the instructions on the front cover of the Booklet.
Write your Centre number, candidate number and name on all the work you hand in.
Write in dark blue or black pen.
You may use a soft pencil for any diagrams, graphs or rough working.
Do not use staples, paper clips, highlighters, glue or correction fluid.
Answer all questions.
All accounting statements are to be presented in good style. Workings should be shown.
You may use a calculator.
At the end of the examination, fasten all your work securely together.
The number of marks is given in brackets [ ] at the end of each question or part question.

1 Deeti and Neel have been in partnership for some years sharing profits and losses equally. Interest on capital has been at $5 \%$. Depreciation on equipment has been provided monthly at a rate of $10 \%$ per annum on the straight line basis.

On 1 January 2009 their balance sheet was as follows:

|  | \$ | \$ | \$ |
| :---: | :---: | :---: | :---: |
| Non-current (fixed) assets |  |  |  |
| Equipment |  |  | 50000 |
| Accumulated depreciation |  |  | 40000 |
|  |  |  | 10000 |
| Current assets |  |  |  |
| Inventory (stock) |  | 22000 |  |
| Trade receivables (debtors) |  | 17000 |  |
| Cash and cash equivalents (bank) |  | 6000 |  |
|  |  | 45000 |  |
| Current liabilities |  |  |  |
| Trade payables (creditors) | 9000 |  |  |
| Accrued rent | 500 | 9500 |  |
| Net current assets (working capital) |  |  | 35500 |
|  |  |  | $\underline{\underline{45500}}$ |
| Capital accounts |  |  |  |
| Deeti |  | 24000 |  |
| Neel |  | 18000 | 42000 |
| Current accounts |  |  |  |
| Deeti |  | 7000 |  |
| Neel |  | (3500) | 3500 |
|  |  |  | $\underline{\underline{45500}}$ |

Deeti and Neel wished to expand their business and on 1 July 2009 they admitted Armand into the partnership.

Armand owned premises which he transferred to the partnership on that date at an agreed valuation of $\$ 100000$. This comprised $\$ 65000$ for the land and $\$ 35000$ for the buildings.

The partnership ceased to rent premises on 30 June 2009 and sold all the existing equipment on that date.

The partnership bought new equipment on 1 July 2009 for its new building, taking out a 6\% bank loan of $\$ 40000$ on that date to finance the purchase in part.

It was agreed from 1 July 2009 that
1 The three partners would share profits equally.
2 Armand would have an annual salary of $\$ 16000$.
3 The rate of interest on capital would increase to $8 \%$.
4 Buildings would be depreciated monthly at a rate of $2 \%$ per annum.
5 The rate of depreciation on equipment would remain unchanged.
6 Goodwill at 1 July 2009 was valued at $\$ 18000$ but was not to be retained in the books.
A summary of the cash book for the year showed the following:

|  | 6 months to <br> 30 June 2009 | 6 months to <br> December 2009 |
| :--- | :---: | :---: |
|  | $\$$ | $\$$ |
| Receipts from customers | 191000 | 237000 |
| Payments to suppliers | 102000 | 119000 |
| Rent paid | 3500 | - |
| Other costs | 51000 | 57000 |
| Proceeds of sale of equipment | 6500 | - |
| Purchase of equipment | - | 62000 |
| Drawings | 11000 |  |
| $\quad$ Deeti | 15000 | 12000 |
| $\quad$ Neel | - | 14000 |
| Armand |  | 18000 |

Other information was as follows:

|  | At 30 June 2009 | At 31 December 2009 |
| :--- | :---: | :---: |
|  | $\$$ | $\$$ |
| Inventory (stock) | 21000 | 28000 |
| Trade receivables (debtors) | 14000 | 24000 |
| Trade payables (creditors) | 12000 | 20000 |

During April 2009 a bad debt of $\$ 1000$ was written off.

## REQUIRED

(a) Prepare the partners' capital accounts in columnar format for the year ended 31 December 2009.
(b) Prepare income statements (trading and profit and loss accounts) and appropriation accounts for each of the 6 month periods ended 30 June 2009 and 31 December 2009.
(c) Prepare the partners' current accounts in columnar format for the year ended 31 December 2009.
(d) Using the figures given, state one advantage and one disadvantage arising from Deeti and Neel's decision to expand by admitting Armand into the partnership.

2 The following information is available about Grist plc:
1 In 2001 it issued at $\$ 0.75$ a number of ordinary shares with a nominal value of $\$ 0.50$ each. At the same time it issued at par a number of $5 \%$ preference shares of $\$ 1$ each.
2 During 2007 Grist Ltd issued $\$ 200000$ 6\% debentures repayable in 2018.
3 On 1 January 2009 the balance on the profit and loss account was $\$ 62000$.
4 On 31 December 2009 the non-current (fixed) assets had a value of $\$ 610000$.
Further information relating to 2009 is as follows:
1 Interest cover was 16 times.
2 The tax charge for the year was calculated as $20 \%$ of profit before tax.
3 The ordinary dividends paid during the year were $\$ 54000$.
4 Earnings per share were $\$ 0.22$.
5 Dividend per share was $\$ 0.09$.
6 The directors decided to create a general reserve of $\$ 30000$.
7 The market value of the ordinary shares was $\$ 2.50$.

## REQUIRED

(a) Starting with profit from operations (operating profit), prepare a statement to calculate the retained profit for the year ended 31 December 2009.
(b) Giving as much detail as possible, prepare the balance sheet at 31 December 2009.
(c) Calculate:
(i) the dividend cover
(ii) the price earnings ratio
(iii) the dividend yield
(iv) the gearing ratio
(v) the return on capital employed.

Vaughan plc is a company in the same line of business as Grist plc and is in a similar location. The following ratios have been calculated for Vaughan plc:
Gearing ratio 63.8\%

Return on capital employed 22.1\%

Dividend cover 1.8 times

## REQUIRED

(d) Compare and comment on the performance of Grist plc and Vaughan plc in the light of these ratios.

3 Ridgeway Ltd manufactures two products, Product A and Product B. The following information is available:

1 Ridgeway Ltd employs 26 production staff who usually work 150 hours a month each at a rate of $\$ 10$ an hour.

14 work on the production of Product A.
12 work on the production of Product B.
2 In a normal month production of
Product A requires 4200 kg of raw material at $\$ 8.20$ per kg .
Product B requires 3500 kg of raw material at $\$ 8.80$ per kg.
3 An average unit of Product $A$ uses 3 kg of raw material and 2 machine hours. An average unit of Product $B$ uses 3.5 kg of raw material and 3 machine hours.

4 Monthly fixed overheads total \$42760.

## REQUIRED

(a) Calculate the overhead absorption rate on the basis of:
(i) machine hours
(ii) labour hours
(iii) total direct material cost.
(b) Using the overhead absorption rate on the basis of machine hours, calculate the selling price of one unit of Product B which gives a profit of $50 \%$ on cost.
(c) Explain what is meant by the under-absorption and over-absorption of overheads.

In March 2010 Ridgeway Ltd produced and sold 1600 units of Product A at a total sales value of \$125760.

It bought and used 4600 kg of raw material at a cost of $\$ 40480$ and it employed production staff for 2200 hours at a cost of $\$ 22440$.

The sales price variance for the month was $\$ 4672$ adverse.

## REQUIRED

(d) Calculate the following for Product A, for March 2010:
(i) materials price variance
(ii) materials usage variance
(iii) total materials variance
(iv) labour rate variance
(v) labour efficiency variance
(vi) total labour variance.

## Question 3 continues on the next page.

(e) Calculate the standard selling price per unit of product A .
(f) State four advantages of using a standard costing system.

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