UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
General Certificate of Education
Advanced Subsidiary Level and Advanced Level

## ACCOUNTING

Paper 4 Problem Solving (Supplementary Topics)
October/November 2008
2 hours
Additional Materials: Answer Booklet/Paper

## READ THESE 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 Wong was a sole trader. Gruber and Gupta were in partnership and did not have a partnership agreement.

Both of the businesses had been experiencing falling profits for a number of years due to large supermarkets opening in their town. They agreed that GWG Ltd be formed on 1 April 2008 to take over both businesses in order that they could better compete with larger businesses.

The new company has an authorised share capital of 500000 ordinary shares of $\$ 1$ each.
The summarised balance sheets of Wong and Gruber and Gupta at 31 March 2008 are shown.

|  | Wong |  | Gruber and Gupta |  |
| :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ |  | \$ |
| Fixed assets |  |  |  |  |
| Net book value - premises |  | 16000 |  | 50000 |
| equipment |  | $\underline{20000}$ |  | 30000 |
|  |  | 36000 |  | 80000 |
| Current assets |  |  |  |  |
| Stock | 6000 |  | 15000 |  |
| Trade debtors | 3000 |  | 11000 |  |
| Bank balance | 1000 |  | - |  |
|  | 10000 |  | 26000 |  |
| Current liabilities |  |  |  |  |
| Trade creditors | 4000 |  | 2000 |  |
| Bank overdraft | - | 6000 | 5000 | 19000 |
|  |  | $\underline{42000}$ |  | 99000 |
| Capital accounts - Wong |  | 42000 |  |  |
| Gruber |  |  |  | 40000 |
| Gupta |  |  |  | 60000 |
| Current accounts - Gruber |  |  |  | 500 |
| Gupta |  |  |  | (1500) |
|  |  |  |  | $\underline{99000}$ |

Profits earned over the past 5 years were:

| Year ended 31 March | Wong <br> $\$$ | Gruber and Gupta <br> $\$$ |
| :---: | :---: | :---: |
| 2004 | 29000 | 55000 |
| 2005 | 25000 | 49000 |
| 2006 | 17000 | 42000 |
| 2007 | 13000 | 25000 |
| 2008 | 11000 | 19000 |

The purchase consideration had been agreed at 3 times the average profits for the past five years. The purchase consideration was settled by each of Wong, Gruber and Gupta receiving:
\$25 0007 \% debentures (2028) issued at par, and 24000 ordinary shares of $\$ 1$ each in GWG Ltd.

## Additional information:

1 Debtors and creditors were not taken over by GWG Ltd. Wong and Gruber and Gupta each undertook to collect their own debtors and pay their own creditors.

2 Wong's debtors paid $\$ 2800$ in full settlement and Gruber and Gupta collected $\$ 10000$ from their debtors.

3 Wong paid his creditors $\$ 3600$ while Gruber and Gupta paid their creditors in full.
4 Wong sold his equipment for $\$ 18000$ cash.
5 Costs of dissolution for Wong's business were $\$ 700$ and for Gruber and Gupta $\$ 2100$.
6 The remaining assets were taken over by GWG Ltd at the following agreed values:

|  | Wong | Gruber and Gupta |
| :--- | :---: | :---: |
|  | $\$$ | $\$$ |
| Fixed assets - premises | 50000 | 80000 |
| equipment | - | 20000 |
| Stock | 5000 | 14500 |

7 Gruber and Gupta each have enough personal cash resources to make up any deficit which may arise on their capital accounts.

## REQUIRED

(a) Prepare a realisation account, a bank account and a capital account to close Wong's books of account.
(b) Prepare a realisation account, a bank account and capital accounts to close the partnership books of account.
(c) Prepare the balance sheet of GWG Ltd at 1 April 2008 immediately after the formation of the company and before any other transactions had taken place.

2 The directors of Khan plc provided the following information:


Notes to the balance sheet

## Note 1

|  | 30 June 2007 | 30 June 2008 |
| :--- | :---: | :---: |
| Freehold land and buildings | $\$ 000$ | $\$ 000$ |
| Cost | 1200 | - |
| Valuation | - | 1250 |
| Accumulated depreciation | $\underline{240}$ | $\underline{25}$ |
| Net book value | $\underline{960}$ | $\underline{1225}$ |

During the year ended 30 June 2008 the freehold land and buildings were revalued at $\$ 1250000$. There were no disposals of freehold land or buildings during the year.

## Note 2

| Plant and machinery | $\$ 000$ | $\$ 000$ |
| :--- | :---: | :---: |
| Cost | 769 | 981 |
| Depreciation | $\underline{279}$ | $\underline{329}$ |
| Net book value | $\underline{490}$ | $\underline{652}$ |

There were no disposals of plant or machinery during the year.

## Note 3

|  | 30 June 2007 | 30 June 2008 |
| :--- | :---: | :---: |
| Vehicles | $\$ 000$ | $\$ 000$ |
| Cost | 425 | $?$ |
| Depreciation | $\underline{160}$ | $?$ |
| Net book value | $\underline{265}$ | $\underline{239}$ |

During the year ended 30 June 2008 vehicles costing $\$ 124000$ were sold for $\$ 18000$. The accumulated depreciation on these vehicles to 30 June 2007 amounted to $\$ 110000$. Vehicles costing $\$ 218000$ were purchased during the year.

## Note 4

The $8 \%$ debentures (2008) were redeemed on 30 June 2008. They had originally been issued on 1 July 1993. An issue of \$500 0009 \% debentures was made on 1 July 2007.

## Note 5

600000 ordinary shares of $\$ 0.50$ each were issued at $\$ 1$ each on 16 June 2008; all monies due were received by 30 June 2008.

## Note 6

The proceeds of the ordinary share issue were used to redeem the redeemable preference shares on 30 June 2008 at a premium of $\$ 0.05$. The preference shares were originally issued at $\$ 1.10$ each. A final dividend of $\$ 24000$ on the preference shares was paid on that date.

## Additional information:

An interim ordinary dividend of \$34 000 was paid on 11 February 2008.

## REQUIRED

(a) Calculate the company's trading profit before interest and tax for the year ended 30 June 2008.
(b) Prepare a cash flow statement for the year ended 30 June 2008 in accordance with current accounting practice.
(c) State one reason why the directors of a limited company would prepare a cash flow statement.

3 The managers of Namllih Ltd planned to produce and sell 1500 briefcases in August 2008. They actually produced and sold 1125 briefcases.

The following information is available.
The standard costs for producing 1500 briefcases were:
Direct materials $\quad 1400 \mathrm{~m}^{2}$ at a cost of $\$ 2.10$ per m${ }^{2}$
Direct labour $\quad 2460$ hours at $\$ 4.20$ per hour
The actual costs were:
Direct materials $\quad 1210 \mathrm{~m}^{2}$ at $\$ 2.05$ per m${ }^{2}$
Direct labour $\quad 1800$ hours at $\$ 4.10$ per hour

## REQUIRED

(a) Calculate:
(i) material price variance
(ii) material usage variance
(iii) total materials variance
(iv) labour rate variance
(v) labour efficiency variance
(vi) total labour variance
(b) Explain how any two of the variances calculated in (a) may be connected.

The managers of Namllih Ltd believe that demand for their product will fall over the next few months if they do not lower the selling price of each briefcase. They intend to purchase a machine that will cut and prepare the leather used to make the briefcases at a lower cost.

There are currently two machines on the market capable of doing exactly what the company requires. Each machine will be used for 4 years, after which it will be scrapped. Machine $A$ is made locally and costs $\$ 40000$. Machine B is manufactured in Indonesia and costs $\$ 44000$.

Whichever machine is purchased output will increase by 875 briefcases per month and the directors are confident that they could all be sold for $\$ 13.50$ each.

The total annual costs of producing the extra 875 briefcases using machine A will be $\$ 120000$ in the first year of use and these costs will rise by $5 \%$ each year thereafter.

The annual costs of producing the extra 875 briefcases using machine B in the first year will also be $\$ 120000$ but costs are expected to rise by $\$ 5000$ each year thereafter.

The current cost of capital for Namllih Ltd is $7 \%$.
The present value of $\$ 1$ is shown.

|  | $7 \%$ | $14 \%$ |
| :--- | ---: | ---: |
| Year 1 | 0.935 | 0.877 |
| Year 2 | 0.873 | 0.770 |
| Year 3 | 0.816 | 0.675 |
| Year 4 | 0.763 | 0.592 |

The net present value of machine A using a discount rate of $14 \%$ is negative $\$ 740.68$.
The net present value of machine B using a discount rate of $7 \%$ is $\$ 5697.25$.
Using $14 \%$ as the discount rate the net present value of machine $B$ is negative $\$ 100.50$.

## REQUIRED

(c) Calculate the net present value for machine A at $7 \%$ cost of capital.
(d) Advise the directors of Namllih Ltd which machine they should purchase. Give reasons for your advice.
(e) Calculate the internal rate of return for your chosen machine. Show your workings.
[Total: 40]

## BLANK PAGE

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (UCLES) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

University of Cambridge International Examinations is part of the Cambridge Assessment Group. Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge

