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

## ACCOUNTING

Paper 4 Problem Solving (Supplementary Topics)
May/June 2007
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 Amandeep, Bruce and Chetan have been in partnership trading as Abcan. They share profits and losses in the ratio 3:2:1 respectively. Gurpreet and Hibo have been in partnership trading as Gurbo. They share profits and losses equally.

At 31 March 2007 the summarised balance sheets of both businesses were as follows:

|  | Abcan \$ | $\begin{gathered} \text { Gurbo } \\ \$ \end{gathered}$ |
| :---: | :---: | :---: |
| Premises | 100000 | 70000 |
| Machinery | 35000 | 13000 |
| Vehicles | 78000 | - |
| Investments at cost | 12000 | - |
| Stock | 10000 | 5000 |
| Debtors | 14000 | 9000 |
| Balance at bank | 8500 | 4000 |
|  | 257500 | 101000 |
| Less Creditors | 7500 | 6000 |
|  | 250000 | 95000 |
| Less 8 \% Loan from Chetan | 30000 |  |
|  | $\underline{220000}$ |  |
| Capital accounts - Amandeep | 100000 |  |
| Bruce | 70000 |  |
| Chetan | 50000 |  |
| Gurpreet |  | 50000 |
| Hibo |  | 45000 |
|  | $\underline{\underline{220000}}$ | $\underline{\underline{95000}}$ |

The partners agreed to form a limited company, ABCOGH Ltd, to take over both businesses.
All Abcan's assets were transferred to ABCOGH Ltd with the exception of three vehicles, investments, debtors and balance at bank.

The agreed values of assets taken over by the company are:

|  | Abcan | Gurbo |
| :--- | ---: | :---: |
|  | $\$$ | $\$$ |
| Premises | 170000 | 100000 |
| Machinery | 30000 | 10000 |
| The remaining vehicles | 40000 | - |
| Stock | 9000 | 5000 |

The purchase consideration for Abcan was $\$ 240000$ as follows:
$1570007 \%$ preference shares of $\$ 1$ each to be distributed in profit sharing ratios;
2 sufficient $6 \%$ debenture stock to give Chetan the same return as he had received on his loan to the partnership;

3 the balance as ordinary shares of $\$ 1$ at a premium of $\$ 0.30$ per share distributed to the partners in proportion to their capital account balances at 31 March 2007.

Abcan collected $\$ 12900$ cash from debtors. Creditors accepted $\$ 7100$ in full settlement of amounts due to them.

The three vehicles which have been used by the partners were taken over by them as follows:

| Partner | Agreed takeover price |
| :--- | :---: |
|  | $\$$ |
| Amandeep | 10000 |
| Bruce | 7500 |
| Chetan | 7800 |

The investments at cost were purchased by Bruce at an agreed value of $\$ 13400$.
The purchase consideration for Gurbo was $\$ 134000$ as follows:
$1430007 \%$ preference shares of $\$ 1$ each to be distributed in profit sharing ratios;
2 the balance as ordinary shares to be shared equally.
Costs involved in dissolving the Abcan partnership amounted to $\$ 6400$; costs to dissolve the Gurbo partnership were $\$ 3100$.

Gurbo collected $\$ 7000$ cash from debtors. Creditors were paid the amounts due to them.

## REQUIRED

(a) Prepare partnership capital accounts at 31 March 2007 for both businesses to show the closing entries in both sets of partnership books of account.

It was agreed that the issued ordinary share capital would be held as follows:

| Amandeep | $30 \%$ |
| :--- | :--- |
| Bruce | $10 \%$ |
| Chetan | $20 \%$ |
| Gurpreet | $20 \%$ |
| Hibo | $20 \%$ |

It was further agreed that the transfer price of any ordinary shares would be $\$ 1.30$ per share.

## REQUIRED

(b) Calculate the number of ordinary shares received by each partner.
(c) Calculate the amounts of cash payable or receivable by each shareholder to achieve the required shareholding.
(d) Prepare a balance sheet for ABCOGH Ltd at 31 March 2007 immediately after incorporation.
(e) Explain briefly one possible reason why the partners decided to change their business into a limited company.

2 The following information relates to the business of Lopez Ltd for the year ended 31 March 2007:
Rate of stock turnover
(calculated using average stock) 20 days
Gross margin
50 \%
Net margin $\quad 15 \%$
Dividend paid as percentage of net profit $25 \%$
Creditors' payment period 32 days
Debtors' collection period 28 days
Current ratio 3:1

Issued share capital 500000 ordinary shares of $\$ 0.50$ each.
Profit and loss account balance at 1 April 2006 was $\$ 73424$.
Stock at 1 April 2006 was valued at $\$ 10000$.
Stock at 31 March 2007 was valued at $\$ 14000$.
The market price of an ordinary share in Lopez Ltd at 31 March 2007 was $\$ 0.80$.

## REQUIRED

Note: work to the nearest \$
(a) Prepare a trading and profit and loss account for the year ended 31 March 2007 in as much detail as possible.
(b) Prepare a balance sheet at 31 March 2007 in as much detail as possible. (Fixed assets and balance at bank are balancing figures.)

The following statistics have been prepared by a local bank. They relate to similar businesses in the same district as Lopez Ltd.

| Dividend yield | $5.6 \%$ |
| :--- | :--- |
| Dividend cover | 3 times |
| Dividend per share | 10.7 cents |
| Earnings per share (EPS) | 32 cents |
| Price earnings ratio | 5.9 |

## REQUIRED

(c) Explain what each of the five ratios indicates.
(d) Calculate the same five ratios for Lopez Ltd. Show the formulae that you have used.
(e) Discuss the five ratios calculated for Lopez Ltd and comment on what they show about the company.

3 Tesda plc is a supermarket chain. They have been offered the choice of two five-year leases on supermarkets abroad. Lack of finance means that they can choose only one of them.

The directors have projected the following forecasts:
The lease on supermarket $A$ will cost $\$ 5 \mathrm{~m}$.
The lease on supermarket $B$ will cost $\$ 8 \mathrm{~m}$.
They expect cash receipts and payments to be as follows:

| Without leasing | With | With |
| :---: | :---: | :---: |
| either new | supermarket A | supermarket B |
| supermarket |  |  |

Year
\$
\$
\$

Total receipts

| 1 | 61 m | 63.6 m | 63.9 m |
| :--- | :--- | :--- | :--- |
| 2 | 64 m | 67.7 m | 69.4 m |
| 3 | 67 m | 71.2 m | 73.3 m |
| 4 | 71 m | 75.5 m | 77.9 m |
| 5 | 75 m | 80.1 m | 83.4 m |

Total payments

| 1 | 20 m | 21.8 m | 21.8 m |
| :--- | :--- | :--- | :--- |
| 2 | 23 m | 25.0 m | 25.7 m |
| 3 | 27 m | 29.2 m | 30.3 m |
| 4 | 32 m | 34.4 m | 35.9 m |
| 5 | 38 m | 40.6 m | 42.7 m |

Assume all receipts and payments occur at the end of the respective year.
Additional information:

| Estimated additional costs | Supermarket A | Supermarket B |
| :--- | :---: | :---: |
| Additional working capital required <br> at start of lease | $\$ 0.6 \mathrm{~m}$ | $\$ 1 \mathrm{~m}$ |
| Improvements end of year 2 | - | $\$ 1.8 \mathrm{~m}$ |
| Improvements end of year 3 | $\$ 2.9 \mathrm{~m}$ | - |
| Improvements end of year 4 | $-\quad \$ 0.5 \mathrm{~m}$ per annum | $\$ 0.7 \mathrm{~m}$ per annum |
| Depreciation |  |  |

## REQUIRED

(a) Calculate the estimated annual net cash flows for
(i) Supermarket A
(ii) Supermarket B
(b) Calculate the accounting rate of return (ARR) for
(i) Supermarket A
(ii) Supermarket B

The following are extracts from present value tables for $\$ 1$ :

| Year | $8 \%$ | $14 \%$ |
| :---: | ---: | ---: |
| 1 | 0.926 | 0.877 |
| 2 | 0.857 | 0.769 |
| 3 | 0.794 | 0.675 |
| 4 | 0.735 | 0.592 |
| 5 | 0.681 | 0.519 |

The current cost of capital for Tesda plc is $8 \%$.

## REQUIRED

(c) Calculate the net present value for
(i) Supermarket A
(ii) Supermarket B
(d) Identify the supermarket that Tesda plc should lease. Explain your choice.

The net present value for each supermarket using a cost of capital of $14 \%$ is estimated to be:
Supermarket A \$1 057900 negative
Supermarket B \$2 127600 negative

## REQUIRED

(e) Calculate the internal rate of return (IRR) for the supermarket chosen in (d).

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