Final Examinations Summer 2005

June 07, 2005
SPECIFIED PAPER OF
ADVANCED ACCOUNTING \& FINANCIAL REPORTING;
MANAGEMENT ACCOUNTING; BUSINESS FINANCE DECISIONS.
Q. 1 Chemi Limited (CL) is engaged in manufacturing, purchasing and marketing chemicals, including investments in other chemical manufacturing operations.

During the year ended 31 December 2004, CL changed its accounting policy with respect to the following:
(i) In previous years, the investments in associates were based on fair value method, where such investments were initially recognized at cost and carried at fair value to the balance sheet. Fair values of investments were determined on the basis of market value at the balance sheet date. Adjustments arising from re-measurement to fair value were reflected through statement of changes in equity. This policy has been changed to bring it in line with the Group's policy which states that investments are initially recognized at cost and at subsequent reporting dates, the recoverable amounts are estimated in order to determine the extent of impairment losses and carrying amounts of investments are adjusted accordingly. Impairment losses are recognized as expenses.
(ii) Upto previous year, dividends and other distributions proposed after balance sheet date but before the financial statements were authorized for issue were recorded as liability. After the change in the $4^{\text {th }}$ Schedule of the Companies Ordinance 1984, from the current year onwards, dividends and other distributions are to be recognized as a liability in the period in which they are declared.

Following information is available from the financial statement of CL:

|  | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 3}$ | $\mathbf{2 0 0 2}$ |
| :--- | :---: | :---: | :---: |
| Market value of shares of A Limited an associated <br> company as at 31 $1^{\text {st }}$ December (Rupees per share) | 45 | 47 | 50 |
| Recoverable amount as per IAS 36 of A Limited <br> (Rupees per share) | 40 | 44 | 48 |
| Net profit after tax as per old policy (Rupees in <br> thousand) | $4,004,044$ | $3,144,509$ | Not given |
| Capital reserve - (Rupees in thousand) | 160,000 | 160,000 | Not given |

Dividend declaration has been as under:

For 2002 declared in 2003
For 2003 declared in 2004
For 2004 declared in 2005

Rupees 8.00 per share
Rupees 10.00 per share
Rupees 12.00 per share

Bonus shares declared and issued in 2003 @ 15\%
Share Capital of CL as at 1 January 2003 - 256, 495,902 shares of Rs. 10/- each Unappropriated profits as at 1 January 2003 - Rs.8,218,203,000/-
Investment in A Limited - 100 million shares at Rs.50/- per share.
The effective tax rate applicable to the company may be assumed at $35 \%$.

## Required:

A statement of changes in equity for the year ended 31 December 2003 and 2004 as per IAS 8 together with relevant notes. (You may round off all rupee figures to the nearest thousand).
Q. 2 Ahmed Limited (AL) is a manufacturer of leather shoes and allied products. On January 1, 2003 it acquired the shares of the following companies:

- Bilal Limited (BL) - purchased $90 \%$ voting interest;
- Jamal Limited (JL) - purchased 60\% voting interest.

BL further acquired 30\% shares of JL on January 1, 2004.
Following balances appear in the books of AL, BL and JL as at December 31, 2004:

Investment in BL
Investment in JL
Plant and machinery
Equipment
Liabilities
Capital
Retained earnings
Dividends declared
Sales
Cost of sales and expenses
Dividend income

AL BL JL
Rupees in thousands

| 500,000 | - | - |
| ---: | ---: | ---: |
| 250,000 | 150,000 | - |
| 680,000 | 648,800 | 500,000 |
| - | 1,200 | - |
| $(300,000)$ | $(110,000)$ | $(100,000)$ |
| $(600,000)$ | $(450,000)$ | $(300,000)$ |
| $(400,000)$ | $(120,000)$ | $(80,000)$ |
| 200,000 | 20,000 | 10,000 |
| $(1,200,000)$ | $(800,000)$ | $(600,000)$ |
| 894,000 | 663,000 | 570,000 |
| $(24,000)$ | $(3,000)$ | - |

Other information relating to past periods is as follows:

| Retained earnings (January 1, 2003) | $(300,000)$ | $(90,000)$ | $(40,000)$ |
| :--- | ---: | ---: | ---: |
| Net profit for 2003 | $(140,000)$ | $(60,000)$ | $(50,000)$ |
| Dividend declared 2003 | 40,000 | 30,000 | 10,000 |
| Retained earnings (December 31, 2003) | $(400,000)$ | $(120,000)$ | $(80,000)$ |

Note: Figures in brackets represent credit balances.

## Required:

You are required to prepare consolidated balance sheet and profit and loss account for the year ended December 31, 2004.
Q. 3 Explain the terms contingent liabilities and contingent assets as per IAS 37.
Q. 4 A firm has just been awarded a contract to build a small machine. The prototype tha was constructed to win the contract costed Rs.30,000 in materials and Rs.20,000 in labour. The management is of the view that the labour cost will be subject to a $93 \%$ learning rate.

## Required:

(a) Management expects to build seven machines during the next period. What budgeted amount of material and labour cost should we expect to incur.
(b) Assume that the initial contract was for a total of 32 machines, but after the first eight machines were delivered (including the prototype), the company cancelled the contract. If the cost of goods sold has been valued at expected average cost for all units in contract, what was the amount of deferred learning curve cost that had to be written off at the time the contract was cancelled?
Q. 5 AA Products Ltd is a manufacturer of surgical instruments and other products for the health and medicine markets. The company was formed in 1982 by Mr. Mubashir, a former doctor in a large teaching hospital, and Ms. Anisa, a manufacturing process engineer. Their combined skills allowed them to find and exploit a growing market for precision instruments in Pakistan. The company was floated on the Karachi Stock Exchange in 1987. Each of the two founders owns 26\% of share capital, a further of $10 \%$ is held by other directors and $38 \%$ is owned by other individual institutional investors. Summary of financial statements for the company are shown below:

Profit and Loss Account for the year ended 31 December

| Rs in thousands | $\mathbf{2 0 0 3}$ |  |
| :--- | ---: | ---: |
| Turnover | $\mathbf{2 7 , 5 0 0}$ | $\mathbf{2 0 0 4}$ |
| Total costs (excluding interest) | 19,985 | 24,000 |
| Profit before interest | 7,515 | 9,860 |
| Interest payable (on long-term debt) | 630 | 1,000 |
| Profit before tax | 6,885 | 8,860 |
| Tax @ 35\% | 2,410 | 3,101 |
| Profit after tax | 4,475 | 5,759 |
| Dividends | 2,000 | 2,300 |
| Unappropriated profit | 2,475 | 3,459 |

## Balance Sheet as at 31 December

Rs in thousands
Fixed Assets (Net Book Value)
Net Current Assets
Total Assets

| 2003 | 2004 |
| ---: | ---: |
| 20,900 | 26,500 |
| 2,964 | 3,823 |
| 23,864 | 30,323 |

Financed by:
Ordinary share capital
Retained profit
Long-term debt @ 9\%
Long-term debt @ 10\%
Total financing
Share price at 31 December
Rs 80
Rs 112

Although the company has achieved reasonable growth and profit before intere and taxes from existing operations is expected to grow by $15 \%$ in 2005, Mubashir and Anisa think there is great potential for their products in a variety of markets. The company has developed an innovative production method which will allow them to produce products of highest quality at a lower average price than their competitors. The instruments will be sold in packs of 10. Sales estimates for 2005 are as follows:

| Sale (number of packs) | Probability |
| :---: | :---: |
| 5,000 | 0.1 |
| 12,500 | 0.3 |
| 20,000 | 0.4 |
| 25,000 | 0.2 |

The estimated selling price per pack is Rs. 500 .

## New capital investment and need for financing

Although the variable costs of production are likely to be substantially lower than with the old method, the fixed costs are likely to be high. Extension of the premises will be necessary. An initial capital investment of Rs. 14 million is needed plus additional working capital of Rs. 6 million. The new production methods will incur fixed costs, including depreciation of Rs. 2.5 million per annum and average variable cost of Rs. 200 per pack of instruments.

## Capital structure and its effect on share valuation

AA product Ltd currently has outstanding debt of Rs. 10 million which carries an interest rate of $10 \%$. Should the company wish to raise a further Rs. 10 million or Rs. 20 million in addition to the existing debt, the interest rates payable are likely to be $12 \%$ or $14 \%$ respectively. The Board agrees that they should maintain a minimum of Rs. 10 million of long-term debt. To go below this amount would forgo tax relief obtained on debt interest payments.

After consulting with their financial advisors, it was eventually agreed that increasing their debt:total asset ratio might affect the price earnings ratio as follows:

Debt:Total asset ratio Estimated P/E ratio
Upto 30\% 10.5
Over $30 \%$ and upto $40 \% \quad 10.0$
Over $40 \%$ and upto $50 \%$ 9.2
Above 50\% 8.5

## Financing options

Three financing methods are being considered to raise the capital needed for the new production process. These are:
(1) Rs. 20 million equity
(2) Rs. 10 million debt plus Rs. 20 million equity
(3) Rs. 20 million debt

The financial advisors indicated that ordinary shares will need to be issued at a discount of around $15 \%$ to their current market price if the issue is to stand any chance of success. Debt is issued at par. Issue costs are to be ignored. The company's P/E ratio today is 9.0. Tax rates are not expected to change in the foreseeable future.

## Required:

(a) Calculate
i) Earnings per share and return on closing shareholders fund for 2003 and 2004.
ii) Estimated present share price and the discounted share price at which equity will be issued.
iii) Estimates of sales volume and sales value of the new product for 2005.
iv) The incremental profit in 2005 from sales of the new product.
v) The total profit before interest and tax in 2005.
(b) Calculate for ALL THREE potential capital structures
i) The profit after tax.
ii) Gearing of the company.
iii) The estimated ordinary share price.
iv) The market value of equity.
v) The combined market value of debt and equity which might be expected in 2005, using only information provided in the question.

Note: You are not required to apply Modigliani and Miller's or Miller's theories of capital structure to the scenario.
Q. 6 Atif is a trainee in your firm, and has been studying for his upcoming exams. He is puzzled about the Efficient Markets Hypothesis. Although he can very well understand the three forms of efficient Capital Markets, he cannot understand the need for defining these three types. Atif asks you the following questions:
(a) Why should Capital markets be efficient? What set of assumptions imply an efficient Capital Market? Is it fair to say that efficient capital markets mean that all stocks should lie on the Security Market Line so that their expected rates of return are consistent with their perceived risk?
(b) What is a Capital Market Line?
(c) How many indifference curves can exist for an individual investor? Also are there any instances where these indifference curves can cross each other.
Q. 7 RT Ltd has forecast the following cash movements for the next six months:

Cash available now (Month - 0)
Inflow in month - 2
Outflow in month - 4
Outflow in month - 6

Rs 2,000,000
Rs 4,000,000
Rs $2,000,000$
Rs 4,000,000

Assume that all movements take place on the last day of each two month period.
The structure of short-term interest rates is as follows:

| Current |  | Expected in 2 months |  | Expected in 4 months |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Maturity | Annual yield | Maturity <br> period |  | Annual yield | Maturity <br> period |
| 2 months | $7.3 \%$ | 2 months | $8.0 \%$ | 2 months | yield |
| 4 months | $7.4 \%$ | 4 months | $8.1 \%$ | 4 months | $8.3 \%$ |
| 6 months | $7.5 \%$ | 6 months | $8.2 \%$ | 6 months | $8.3 \%$ |

The Company invests surplus cash balances in marketable securities. Company policy is to hold such securities to maturity once they are purchased. Every purchase transaction of marketable securities costs Rs 100.

## Required:

(a) Calculate which securities should be purchased to maximize before tax income
(b) Discuss the criteria that would influence a company's procedure for selecting marketable securities.

## (THE END)

