Week 2 Questions

Ratio Formulas

Return on capital employed  ***Operating profit***

|  |  |  |
| --- | --- | --- |
|  |  | ***Equity + Non-Current Liabilities*** |
| Gross profit margin |  | ***Gross profit*** |
|  |  | ***Revenue*** |
| Operating profit margin |  | ***Operating profit*** |
|  |  | ***Revenue*** |
| Asset turnover |  | ***Revenue***  ***Equity + non-current liabilities*** |
| Inventory days | | ***Closing Inventory x 365 days*** |
|  | | ***Cost of sales*** |
| Trade receivable days | | ***Closing Trade receivables x 365 days*** |
|  | | ***Revenue*** |
| Trade payable days | | ***Closing Trade payables x 365days*** |
|  | | ***Cost of sales*** |
| Current ratio ***Current Assets***  ***Current Liabilities*** | | |

|  |  |
| --- | --- |
| Quick ratio | ***Current Assets – Inventory***  ***Current Liabilities*** |
| Gearing | ***Debt*** |
|  | ***Equity*** |
| Interest cover | ***Operating profit*** |
|  | ***Finance cost*** |
| Dividend cover | ***Profit for the year*** |
|  | ***Dividend （分红）*** |

# Question 1 (Adapted from Atrill and Mclaney)

The financial statements of Corus PLC are provided below. They are wholesale business dealing in rugs and curtains.

# Statement of Financial Position as at 31st March

(All figures in £million)

2016 2017

# ASSETS

***Non-Current Assets***

Land and Building 381 427

Fixtures and Fittings 129 160

510 587

***Current Assets***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Inventories at Cost |  |  | 300 |  | 406 |
| Trade Receivables |  |  | 240 |  | 273 |
| Cash at Bank |  |  | 4 |  | -- |
|  |  |  | 544 |  | 679 |
| **Total Assets** |  |  | **1,054** |  | **1,266** |

**EQUITYANDLIABILITIES *Equity***

0.50 ordinary shares (Note 1) 300 300

Retained Earnings 263 234

563 534

***Non-Current Liabilities*** Borrowings – 9% Loan (secured) 200 300

***Current Liabilities***

|  |  |  |
| --- | --- | --- |
| Trade Payables 261 |  | 354 |
| Tax 30 |  | 2 |
| Short term borrowing (Bank Overdraft) -- |  | 76 |
| 291 |  | 432 |
| **Total Equity and Liabilities 1,054** |  | **1,266** |

**Income Statement for year ended 31st March**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | (All figures in £million) | | |  | |
|  |  |  | 2016 | |  | 2017 | |
| Revenue (Note 2) |  |  | 2,240 | |  | 2,681 | |
| Cost of Sales (Note 3) |  |  | (1,745) | |  | (2,272) | |
| **Gross Profit** |  |  |  | **495** |  |  | **409** |
| Operating Expenses |  |  |  | (252) |  |  | (362) |
| **Operating Profit** |  |  |  | **243** |  |  | **47** |
| Interest Payments |  |  |  | (18) |  |  | (32) |
| **Profit Before Tax** |  |  |  | **225** |  |  | **15** |
| Corporate Tax |  |  |  | (60) |  |  | (4) |
| **Profit for the Year** |  |  |  | **165** |  |  | **11** |

**NOTES:**

1. The market price of the shares of Corus PLC at the end of the year was £2.50 for 2016 and £1.50 for 2017.
2. All sales and purchases are made on credit.
3. The Cost of sales figure can be detailed as follows:

|  |  |  |
| --- | --- | --- |
|  | 2016 | 2017 |
|  | £m | £m |
| Opening Inventory | 241 | 300 |
| Purchases (Note 2) | 1,804 | 2,378 |
|  | 2,045 | 2,678 |
| Closing Inventory | (300) | (406) |
| Cost of Sales | 1,745 | 2,272 |

1. At 31st March 2015, the trade receivables stood at £228 million and the trade payables at £183 millions
2. A dividend of £40 million has been paid to the shareholders in respect of each of the years.
3. The business employed 13,995 staff at 31st March 2016 and 18,623 staff on 31st March 2017.
4. The business expanded its capacity during 2014 by setting up a new warehouse and distribution centre in the north of England.
5. At 1st April 2015, the total of equity stood at £438 million and the total of equity and noncurrent liability stood at £638 million.

Required:

Comment on the performance and financial position having calculated the following ratios:

Gross profit margin： 495/2240 Operating profit margin ：243/2240

Return on capital employed: 243/（1504-291）

Asset turnover：2240/（1504-291）

Inventory days : 300\*365/1745

Trade receivable period 240\*365/2240

Trade payable period /1745

Current ratio 544/291

Quick ratio （544-300）/291

Gearing 200/563

Dividend cover 165/40

Interest Cover 243 / 9% \* 200 of loan

# Question 2

ACCA Paper December 08

Victular is a plc that would like to acquire a suitable private company. It has obtained the following draft financial statements for the two companies, Grappa and Merlot. They operate in the same industry and their managements have indicated that they would be receptive to a takeover.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  | **Grappa** |  | **Merlot** |
|  |  |  | £’000 |  | £’000 |
| Revenue |  |  | 12,000 |  | 20,500 |
| Cost of sales |  |  | (10,500) |  | (18,000) |
| Gross profit |  |  | 1,500 |  | 2,500 |
| Operating expenses |  |  | (240) |  | (500) |
| Operating profit |  |  | 1,260 |  | 2,000 |
| Finance costs |  |  | (210) |  | (600) |

**Income Statement for the year ended 31 May 2017**

Profit before taxation 1,050 1,400

Taxation (150) (400) Profit for the year 900 1,000

Note: dividend paid during the year 250 700

**Statement of Financial Position as at 31 May 17**

**Grappa Merlot**

**£’000 £’000 £’000 £’000**

**ASSETS** Non-current Assets 9,400 7,500

**Current Assets**

**EQUITY AND LIABILITIES**

**Equity**

Share Capital 2,000 2,000

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Inventories |  |  | 2,000 |  | 3,600 |
| Trade receivables |  |  | 2,400 |  | 3,700 |
| Cash |  |  | 600 |  | 0 |
|  |  |  |  | 5,000 | 7,300 |
| **Total Assets** |  |  |  | 14,400 | 14,800 |

|  |  |  |  |
| --- | --- | --- | --- |
| Trade payables | 3,100 |  | 3,800 |
| Tax | 600 |  | 200 |
| Short term loans | 400 |  | 500 |
| Overdraft | 0 |  | 1,200 |
| 0 |  | 4,100 | 5,700 |
| **Total equity and Liabilities** |  | 14,400 | 14,800 |

Revaluation reserve 900 0 Retained earnings 2,600 800

5,500 2,800

**Non-current Liabilities** Debentures 4,800 6,300

**Current Liabilities**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Return on capital employed |  |  |  | 12.3% |
| Asset Turnover |  |  |  | 1.2X |
| Gross profit margin |  |  |  | 12.5% |
| Operating profit margin |  |  |  | 10.5% |
| Current ratio |  |  |  | 1.2:1 |
| Inventory holding period |  |  |  | 69 days |
| Trade receivables days |  |  |  | 72 days |
| Trade payables payment period |  |  |  | 106 days |
| Gearing |  |  |  | 87% |
| Interest cover |  |  |  | 6X |
| Dividend cover |  |  |  | 3.6X |

The following ratios have been calculated for Grappa and can be taken to be correct:

**Required**

1. Calculate for Merlot the ratios equivalent to all those given for Grappa above.

2000/2800+6300, ,7300/5700

1. Assess the relative performance and financial position of Grappa and Merlot for the year ended 31 May 2017 to inform the directors of Victular in their acquisition decision.

# Question 3

Revulsion Plc has raised additional funds by issuing a debenture of £3,200,000 at 10 per cent per annum in order to expand the business. The additional cash was received on 1 July 2016. The financial statements of the company for the years ended 30 June 2016 and 2017 are summarised below.

**Statement of Financial Position as at 30 June**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  | **2016** |  | **2017** |
|  |  | **£000** | **£000** |  | **£000 £000** |
| Non-current assets |  |  |  |  |  |
| At cost |  | 2,800 |  |  | 3,600 |
| Accumulated depreciation |  | 600 |  |  | 740 |
|  |  |  | 2,200 |  | 2,860 |

Current Assets:

|  |  |
| --- | --- |
| Inventory 5,440 | 6,000 |
| Trade receivable 3,840 | 6,240 |
| Bank 80 | 880 |
| 9,360 | 13,120 |
| T**OTAL ASSETS** **11,560** | **15,980** |

# EQUITY & LIABILITIES

Share Capital & reserves

Issued Share Capital 6,000 6,000

Reserves 3,000 3,400

9,000 9,400

Non-current liabilities 10% Debentures 3,200

Current liabilities

Taxation 580 620 Trade Payables 1,980 2,760

2,560 3,380

**TOTAL EQUITY & LIABILITIES 11,560 15,980**

**Income Statement for the year ended 30 June**

**2016 2017**

# £000 £000

Revenue 24,000 28,000

Cost of sales 18,800 22,100

Gross profit 5,200 5,900

Administrative expenses 1120 1260

Selling and distribution 2700 2900

Operating profit 1,380 1,740

Finance costs 0 320

Profit before tax 1,380 1,420

Taxation 580 620

Profit for the year 800 800

For the year ended 30 June 2016 and 30 June 2017 dividends of £400,000 were paid.

**REQUIRED:**

1. Compute the following financial performance measures for both 2016 and 2017:
   1. Return on capital employed
   2. Operating profit percentage or margin;
   3. Gross profit percentage or margin; iv. Asset turnover.
   4. Current ratio
   5. Quick ratio;
   6. Inventory turnover in days;
   7. Trade receivables collection period in days,
   8. Gearing.

1. Use the financial statements and ratios from part (a) to provide an assessment of the financial strengths and weaknesses of the company.

1. Indicate any limitations in your analysis.