**Financial Management**

**Fin 202**

**Financial Statement Analysis**

**Math Practice**

**Formula**

1. **Liquidity Ratio :**

.

1. **Profitability Ratio**

X 100

1. **Debt Management**

**Illustration 1**

Calculate the Current Ratio from the following Information

|  |  |  |  |
| --- | --- | --- | --- |
| **Liabilities** | **Taka** | **Asset** | **Taka** |
| Sundry creditors | 40000 | Inventories | 120000 |
| Bills payable | 30,000 | Sundry debtors | 140000 |
| Dividend Payable | 36000 | Cash bank | 40000 |
| Accrued Expenses | 14000 | Bills expanses | 60000 |
| Short term advance | 50000 | Machinery | 20000 |
| Share capital | 150000 | Patents | 200000 |
| Deventure | 2,00,000 |  | 50000 |

1. Current Ratio
2. Quick Ratio
3. Debt to Equity Ratio

**Illustration 2**

From the following profit and loss Account and balance sheet relating to Ramesh Company

presented as on 31 st March, 2003 :

**Profit and Loss Account**

|  |  |  |  |
| --- | --- | --- | --- |
| **Details** | **Taka** | **Details** | **Taka** |
| To Opening Stock | 3,000 | Sales | 195000 |
| To Purchase | 120000 | Closing stock | 5000 |
| Wages | 7000 |  |  |
| **Gross profit** | **70000** |  |  |
| **Total** | **200000** | **total** | **200000** |
| Administrative cost | 15000 | Gross profit | 70000 |
| Selling expanse | 20000 | Dividend | 10000 |
| Loss of sale asset | 5000 |  |  |
| **Net Profit** | **40000** |  |  |
|  |  |  |  |

**Balance Sheet**

**For the year**

|  |  |  |  |
| --- | --- | --- | --- |
| **Liabilities** | **Taka** | **Asset** | **Taka** |
| Equity | 500000 | Land | 150000 |
| Reserve | 50000 | Building | 200000 |
| Profit | 70000 | Plant and machineries | 200000 |
| Sundary creditors | 80000 | stock | 80000 |
|  |  | debtors | 50000 |
|  |  | Bank balance | 20000 |
| **Total** | **700000** | **total** | **700000** |

**Calculate following:**

1. Gross profit
2. Net profit
3. Operating margin
4. Current ratio
5. Quick ratio

**Illustration 3 :**

The following Trading and Profit and Loss Account of Fantasy Ltd. for the year 31‐3‐2000 is given below:

|  |  |  |  |
| --- | --- | --- | --- |
| **Particular** | **Rs.** | **Particular** | **Rs.** |
| To Opening Stock  “ Purchases  “ Carriage and Freight  “ Wages  “ Gross Profit b/d      To Administration expenses  “ Selling and Dist. expenses  “ Non‐operating expenses  “ Financial Expenses Net Profit c/d | 76,250  3,15,250  2,000  5,000  2,00,000 | By Sales  “ Closing stock            By Gross Profit b/d  “ Non‐operating incomes:  “ Interest on Securities  “ Dividend on shares  “ Profit on sale of shares | 5,00,000 98,500 |
| 5,98,500 | 5,98,500 |
| 1,01,000  12,000 2,000  7,000 84,000 | 2,00,000  1,500  3,750  750 |
| 2,06,000 | 2,06,000 |

**Calculate following:**

1. Gross Profit Ratio
2. Operating profit ratio
3. Net profit Ratio
4. Stock Turnover

**Illustration 4 :**

*Financial ratios*: Calculate the financial ratios in the following table by using the data of Neisse Corporation given below.

|  |  |  |
| --- | --- | --- |
| **Neisse Corporation** | **12/31/98** | **12/31/97** |
| **Assets** | **$ 000** | **$ 000** |
| **Current Assets** |  |  |
| Cash and Equivalents  Accounts receivable  Inventories  Other | $ 140  294  269  58 | $ 107  270  280  50 |
| **Total current assets** | **$761** | **$707** |

|  |  |  |
| --- | --- | --- |
| **Fixed Assets** |  |  |
| Property, plant and equipment  Less accumulated depreciation | $ 1,423 -550 | $ 1,274 -460 |
| **Net fixed assets** | **873** | **814** |
| Intangibles and others | 245 | 221 |
| **Total fixed assets** | **1,118** | **1,035** |
| **Total assets** | **1,879** | **1,742** |

|  |  |  |
| --- | --- | --- |
| **Neisse Corporation** | **12/31/98** | **12/31/97** |
| **Liabilities** | **$ 000** | **$ 000** |
| **Current liabilities** |  |  |
| Accounts payable  Notes payable  Accrued expenses payable | 213  50  223 | 197  53  205 |
| **Total current liabilities** | **486** | **455** |
| **Long-term liabilities** |  |  |
| Long-term debt Deferred taxes | 471  117 | 458  104 |
| **Total log-term liabilities** | **588** | **562** |
| **Stockholders' equity** |  |  |
| Common stock, $1 par value  Capital surplus  Accumulated retained earnings  Preferred stock  Less treasury stock | 55  347  390  39  -26 | 32  327  347  39  -20 |
| **Total stockholders equity** | **805** | **725** |
| **Total liabilities and stockholders equity** | **$1,879** | **$1,742** |

**Neisse Corporation Income statement, 1998,**

**Amounts in $ thousands**

|  |  |
| --- | --- |
| Total operating revenue | $2,262 |
| Cost of goods sold | -1,665 |
| Selling, general, and administrative expenses | -327 |
| Depreciation | -90 |
| Operating income | 190 |
| Other income | 29 |
| Earnings before interest and taxes | 219 |
| Interest expense | -49 |
| Pretax income | 170 |
| Taxes (current $71, deferred $31) | -84 |
| Net income (Dividends $43, Retained earnings $43) | 86 |

**Calculate the following :**

1. Current ratio
2. Quick ratio
3. Debt ratio
4. Gross profit margin
5. Net profit margin

**Illustration 5 :**

From the following information calculate stock turnover ,ratio:

**Solution:**

|  |  |
| --- | --- |
| Gross Sales | Rs. 5,00,000 |
| Sales Return | Rs. 25,000 |
| Opening Stock | Rs. 70,000 |
| Closing Stock at Cost | Rs. 85,000 |
| Purchase | Rs. 3,00,000 |
| Direct Expenses | Rs. 1,00.000 |

**Example: 6**

|  |  |  |  |
| --- | --- | --- | --- |
| **Details** | **Taka** | **Details** | **Taka** |
| Annual Sales | 7440000 | Paid-up Capital | 1500000 |
| Gross Profit | 744000 | Reserve & Surplus | 600000 |
| Fixed Assets | 1550000 | 7% Debentures | 500000 |
| Inventories | 910000 | Bank Overdraft | 200000 |
| Sundry Debtors | 124000 | Sundry Creditors | 1200000 |
| Short-Term Investments | 160000 |  |  |
| Cash Balances | 40 000 |  |  |

Calculate the following ratio

1. Gross profit margin
2. Current ratio
3. Quick Ratio
4. Debt to equity ratio
5. Stock turnover ratio

**Solution: Illustration 1**

Current assets = Rs. 1,20,000 + 1,40,000 + 40,000 + 60,000 + 20,000

=380000

Current Liabilities = 40,000 + 30,000 + 36,000 + 14,000 + 50,000

=170000

1. Current Ratio=

=

=2.24: 1

1. Quick Ratio =

=

= 1.529 : 1

1. Debt to equity ratio =

=

=1.333

**Solution : Illustration 2**

=

=35.89%

=X 100

=20.51 %

X 100

X 100

= X100

=17.94%

Operating Cost = Cost of goods slod + Administrative cost + selling expanse

Cost of Goods sold = Opening Stock + Purchases + Direct Wages- Closing Stock

=X 100

=40%

1. X 100

**= X 100**

**= X 100**

**= 17.40 %**

**Cost of Goods sold** = Op. stock + purchases + carriage and Freight + wages – Closing Stock

= 76250 + 315250 + 2000 + 5000 ‐ 98500

=300000

=

=16.8%

=

= 3.34 times

Average Stock =

**Solution : Illustration 3**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Ratio** | **Formula** |  | **Ratio** | **Industry Average** | **Comments** |
| **Liquidity** | | | | | |
| Current Ratio |  |  |  | 4.1 | Low |
| Quick, or Acid Test | . |  |  | 2.1 |  |
| **Asset Management** | | | | | |
| Inventory Turnover | Cost of goods sold Inventories (average) |  |  | 7.4 |  |
| Fixed assets turnover | Annual sales  Net fixed assets (average) |  |  | 4.0 |  |
| Total assets turnover | Annual sales  Total assets (average) |  |  | 2.1 |  |
| **Debt Management** | | | | | |
| Debt ratio | Total debt Total assets |  |  | .35 |  |
| Interest coverage | EBIT  Interest charges |  |  | 4.5 |  |
| **Profitability** | | | | | |
| Net profit margin | Net income  Net sales |  |  |  |  |
| Gross profit margin |  |  |  |  |  |
| **Market Value** | | | | | |
| P-E ratio | Market price/share Earnings/share |  |  | 22 |  |
| Market/Book | Market price/share Book value/share |  |  | 1.3 |  |
| Dividend yield | Dividend per share Market price per share |  |  | .40 |  |

**Solution: Illustration 5**

Cost of Goods Sold = Opening Stock + Purchases + Direct Expenses - Closing Stock

= 70,000 + 3,00,000 + 1,00,000 - 85,000

= 3,85,000

Average Stock =

=

= Rs. 77,500

=

=4.97 times