

FINANCIAL ANALYSIS AND PLANNING

UNIT – I : APPLICATION OF RATIO ANALYSIS FOR PERFORMANCE EVALUATION, FINANCIAL HEALTH AND DECISION MAKING

Question 1

Explain the need of debt-service coverage ratio.

(PCC-May 2007)(2 marks)

Answer

Debt Service Coverage Ratio: Lenders are interested in this ratio to judge the firm's ability to pay off current interest and installments.

$$\text{Debt service coverage ratio} = \frac{\text{Earnings available for debt service}}{\text{Interest + Instalment}}$$

Where,

Earning for debt service = Net profit

- + Non-cash operating expenses like depreciation and other amortizations
- + Non-operating adjustments like loss on sale of
- + Fixed assets + Interest on Debt Fund.

Question 2

Diagrammatically present the DU PONT CHART to calculate return on equity.

(PCC-May 2007)(3 marks)

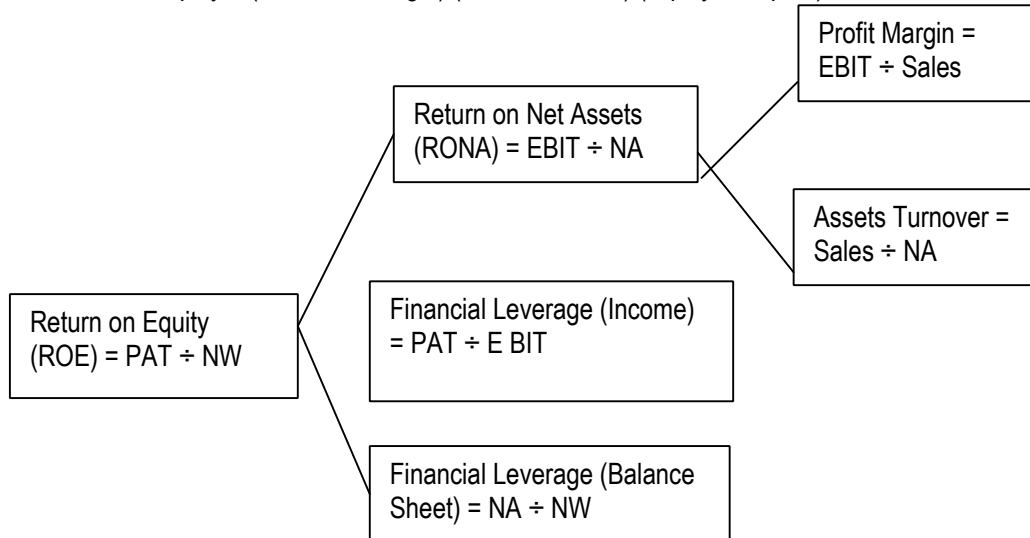
Answer

Du Pont Chart

There are three components in the calculation of return on equity using the traditional DuPont model- the net profit margin, asset turnover, and the equity multiplier. By examining each input individually, the sources of a company's return on equity can be discovered and compared to its competitors.

Financial Management

Return on Equity = (Net Profit Margin) (Asset Turnover) (Equity Multiplier)



Question 3

How return on capital employed is calculated? What is its significance?

(PCC-Nov. 2008)(2 marks)

Answer

Return on Capital Employed (ROCE): It is the most important ratio of all. It is the percentage of return on funds invested in the business by its owners. In short, it indicates what returns management has made on the resources made available to them before making any distribution of those returns.

$$\text{Return on Capital Employed} = \frac{\text{Return}}{\text{Capital Employed}} \times 100$$

Where,

$$\begin{aligned} \text{Return} &= \text{Net Profit} \\ &\quad \pm \text{Non-trading adjustments (but not accrual adjustments for amortization of preliminary expenses, goodwill, etc.)} \\ &\quad + \text{Interest on long term debts} + \text{Provision for tax} \\ &\quad - \text{Interest/Dividend from non-trade investments} \\ \text{Capital Employed} &= \text{Equity Share Capital} \\ &\quad + \text{Reserve and Surplus} \\ &\quad + \text{Pref. Share Capital} \\ &\quad + \text{Debentures and other long term loan} \end{aligned}$$

- Misc. expenditure and losses
- Non-trade Investments.

Intangible assets (assets which have no physical existence like goodwill, patents and trade marks) should be included in the capital employed. But no fictitious asset should be included within capital employed.

Question 4

What is quick ratio? What does it signify?

(PCC-Nov. 2008)(2 marks)

Answer

Quick Ratio: It is a much more exacting measure than the current ratio. It adjusts the current ratio to eliminate all assets that are not already in cash (or near cash form). A ratio less than one indicates low liquidity and hence is a danger sign.

$$\text{Quick Ratio} = \frac{\text{Quick Assets}}{\text{Current Liabilities}}$$

Where,

$$\text{Quick Assets} = \text{Current Assets} - \text{Inventory}$$

Question 5

What do you mean by Stock Turnover ratio and Gearing ratio? (PCC-Nov. 2008)(3 marks)

Answer

Stock Turnover Ratio and Gearing Ratio

Stock Turnover Ratio helps to find out if there is too much inventory build up. An increasing stock turnover figure or one which is much larger than the "average" for an industry may indicate poor stock management. The formula for the Stock Turnover Ratio is as follows :

$$\text{Stock Turnover ratio} = \frac{\text{Cost of Sales}}{\text{Average inventory}} \text{ or } \frac{\text{Turnover}}{\text{Average inventory}}$$

Gearing Ratio indicates how much of the business is funded by borrowing. In theory, the higher the level of borrowing (gearing), the higher are the risks to a business, since the payment of interest and repayment of debts are not "optional" in the same way as dividends. However, gearing can be a financially sound part of a business's capital structure particularly if the business has strong, predictable cash flows. The formula for the Gearing Ratio is as follows:

$$\text{Gearing Ratio} = \frac{\text{Borrowings (all long term debts including normal overdraft)}}{\text{Net Assets or Shareholders' funds}}$$

Question 6

How is Debt service coverage ratio calculated? What is its significance?

(PCC-June 2009)(2 marks)

Answer

Calculation of Debt Service Coverage Ratio (DSCR) and its Significance

The debt service coverage ratio can be calculated as under:

$$\text{Debt Service Coverage Ratio} = \frac{\text{Earnings available for debt service}}{\text{Interest} + \text{Installments}}$$

$$\text{Or, Debt Service Coverage Ratio} = \frac{\text{EBITDA}}{\text{Interest} + \frac{\text{Principal Repayment Due}}{1 - T_c}}$$

Debt service coverage ratio indicates the capacity of a firm to service a particular level of debt i.e. repayment of principal and interest. High credit rating firms target DSCR to be greater than 2 in its entire loan life. High DSCR facilitates the firm to borrow at the most competitive rates.

Question 7

Discuss the composition of Return on Equity (ROE) using the DuPont model.

(PCC-June 2009)(3 marks)

Answer

Composition of Return on Equity using the DuPont Model

There are three components in the calculation of return on equity using the traditional DuPont model- the net profit margin, asset turnover, and the equity multiplier. By examining each input individually, the sources of a company's return on equity can be discovered and compared to its competitors.

- (a) *Net Profit Margin:* The net profit margin is simply the after-tax profit a company generates for each rupee of revenue.

$$\text{Net profit margin} = \text{Net Income} \div \text{Revenue}$$

Net profit margin is a safety cushion; the lower the margin, lesser the room for error.

- (b) *Asset Turnover:* The asset turnover ratio is a measure of how effectively a company converts its assets into sales. It is calculated as follows:

$$\text{Asset Turnover} = \text{Revenue} \div \text{Assets}$$

The asset turnover ratio tends to be inversely related to the net profit margin; i.e., the higher the net profit margin, the lower the asset turnover.

- (c) *Equity Multiplier*: It is possible for a company with terrible sales and margins to take on excessive debt and artificially increase its return on equity. The equity multiplier, a measure of financial leverage, allows the investor to see what portion of the return on equity is the result of debt. The equity multiplier is calculated as follows:

$$\text{Equity Multiplier} = \text{Assets} \div \text{Shareholders' Equity}.$$

Calculation of Return on Equity

To calculate the return on equity using the DuPont model, simply multiply the three components (net profit margin, asset turnover, and equity multiplier.)

$$\text{Return on Equity} = \text{Net profit margin} \times \text{Asset turnover} \times \text{Equity multiplier}$$

Question 8

Explain briefly the limitations of Financial ratios.

(PCC-Nov. 2009)(2 marks)

Answer

Limitations of Financial Ratios

The limitations of financial ratios are listed below:

- (a) *Diversified product lines*: Many businesses operate a large number of divisions in quite different industries. In such cases, ratios calculated on the basis of aggregate data cannot be used for inter-firm comparisons.
- (b) *Financial data are badly distorted by inflation*: Historical cost values may be substantially different from true values. Such distortions of financial data are also carried in the financial ratios.
- (c) *Seasonal factors* may also influence financial data.
- (d) *To give a good shape to the popularly used financial ratios (like current ratio, debt- equity ratios, etc.)*: The business may make some year-end adjustments. Such window dressing can change the character of financial ratios which would be different had there been no such change.
- (e) *Differences in accounting policies and accounting period*: It can make the accounting data of two firms non-comparable as also the accounting ratios.
- (f) *There is no standard set of ratios against which a firm's ratios can be compared*: Sometimes a firm's ratios are compared with the industry average. But if a firm desires to be above the average, then industry average becomes a low standard. On the other hand, for a below average firm, industry averages become too high a standard to achieve.

(Note: Students to write any four limitations)

Question 9

ABC Limited has an average cost of debt at 10 per cent and tax rate is 40 per cent. The Financial leverage ratio for the company is 0.60. Calculate Return on Equity (ROE) if its Return on Investment (ROI) is 20 per cent.

(PCC-May 2007)(2 marks)

Financial Management

Answer

$$\begin{aligned}\text{ROE} &= [\text{ROI} + \{(\text{ROI} - r) \times \text{D/E}\}] (1 - t) \\ &= [0.20 + \{(0.20 - 0.10) \times 0.60\}] (1 - 0.40) \\ &= [0.20 + 0.06] \times 0.60 = 0.1560\end{aligned}$$

$$\text{ROE} = 15.60\%$$

Question 10

The Sales Manager of AB Limited suggests that if credit period is given for 1.5 months then sales may likely to increase by Rs. 1,20,000 per annum. Cost of sales amounted to 90% of sales. The risk of non-payment is 5%. Income tax rate is 30%. The expected return on investment is Rs. 3,375 (after tax). Should the company accept the suggestion of Sales Manager? (PCC-May 2008)(2 marks)

Answer

Profitability on additional sales:

	Rs.
Increase in sales	1,20,000
Less: Cost of sales (90% sales)	1,08,000
Less: Bad debt losses (5% of sales)	<u>6,000</u>
Net profit before tax	<u>6,000</u>
Less: Income tax (30%)	<u>1,800</u>
	<u>4,200</u>

Advise: Net profit after tax Rs. 4,200 on additional sales is higher than expected return. Hence, proposal should be accepted.

Question 11

From the information given below calculate the amount of Fixed assets and Proprietor's fund.

Ratio of fixed assets to proprietors fund = 0.75

Net Working Capital = Rs. 6,00,000 (PCC-Nov. 2009)(2 marks)

Answer

Calculation of Fixed Assets and Proprietor's Fund

Since Ratio of Fixed Assets to Proprietor's Fund = 0.75

Therefore, Fixed Assets = 0.75 Proprietor's Fund

$$\begin{aligned}\text{Net Working Capital} &= 0.25 \text{ Proprietor's Fund} \\ 6,00,000 &= 0.25 \text{ Proprietor's Fund} \\ \text{Therefore, Proprietor's Fund} &= \frac{\text{Rs. } 6,00,000}{0.25} \\ &= \text{Rs. } 24,00,000\end{aligned}$$

Proprietor's Fund = Rs. 24,00,000

$$\begin{aligned}\text{Since, Fixed Assets} &= 0.75 \text{ Proprietor's Fund} \\ \text{Therefore, Fixed Assets} &= 0.75 \times 24,00,000 \\ &= \text{Rs. } 18,00,000\end{aligned}$$

Fixed Assets = Rs. 18,00,000

UNIT – II : CASH FLOW AND FUNDS FLOW ANALYSIS

Question 1

The Balance Sheet of JK Limited as on 31st March, 2005 and 31st March, 2006 are given below:
Balance Sheet as on (Rs. '000)

Liabilities	31.03.05	31.03.06	Assets	31.03.05	31.03.06
Share Capital	1,440	1,920	Fixed Assets	3,840	4,560
Capital Reserve	—	48	Less: Depreciation	<u>1,104</u>	<u>1,392</u>
General Reserve	816	960		2,736	3,168
Profit and Loss Account	288	360	Investment	480	384
9% Debenture	960	672	Cash	210	312
Current Liabilities	576	624	Other Current Assets		
Proposed Dividend	144	174	(including Stock)	1,134	1,272
Provision for Tax	432	408	Preliminary Expenses	96	48
Unpaid Dividend	<u>—</u>	<u>18</u>		<u>—</u>	<u>—</u>
	<u>4,656</u>	<u>5,184</u>		<u>4,656</u>	<u>5,184</u>

Additional Information:

- During the year 2005-2006, Fixed Assets with a book value of Rs. 2,40,000 (accumulated depreciation Rs. 84,000) was sold for Rs. 1,20,000.
- Provided Rs. 4,20,000 as depreciation.
- Some investments are sold at a profit of Rs. 48,000 and Profit was credited to Capital Reserve.
- It decided that stocks be valued at cost, whereas previously the practice was to value stock at cost less 10 per cent. The stock was Rs. 2,59,200 as on 31.03.05. The stock as on 31.03.06 was correctly valued at Rs. 3,60,000.
- It decided to write off Fixed Assets costing Rs. 60,000 on which depreciation amounting to Rs. 48,000 has been provided.
- Debentures are redeemed at Rs. 105.

Required:

Prepare a Cash Flow Statement.

(PCC-May 2007)(15 marks)

Answer

Cash flow Statement (31st March, 2006)

(A) Cashflows from Operating Activities

Profit and Loss A/c		
(3,60,000 – (2,88,000 + 28,800))		43,200
Adjustments:		
Increase in General Reserve	1,44,000	
Depreciation	4,20,000	
Provision for Tax	4,08,000	
Loss on Sale of Machine	36,000	
Premium on Redemption of	14,400	
Debenture		
Proposed Dividend	1,74,000	
Preliminary Exp. w/o	48,000	
Fixed Assets w/o	<u>12,000</u>	<u>12,56,400</u>
Funds from Operation		12,99,600
Increase in Sundry Current Liabilities		48,000
Increase in Current Assets		
12,72,000 – (11,34,000 + 28,800)		<u>(1,09,200)</u>
Cash before Tax		12,38,400
Tax paid		<u>4,32,000</u>
Cash from Operating Activities		<u>8,06,400</u>

(B) Cash from Investing Activities

Purchases of fixed assets	(10,20,000)	
Sale of Investment	1,44,000	
Sale of Fixed Assets	<u>1,20,000</u>	<u>(7,56,000)</u>

(C) Cash from Financing Activities

Issue of Share Capital	4,80,000	
Redemption of Debenture	(3,02,400)	
Dividend paid	(1,26,000)	<u>51,600</u>
Net increase in Cash and Cash equivalents		1,02,000
Opening Cash and Cash equivalents		<u>2,10,000</u>
Closing Cash		<u>3,12,000</u>

Financial Management

Fixed Assets Account			
Particulars	Rs.	Particulars	Rs.
To Balance b/d	27,36,000	By Cash	1,20,000
To Purchases (Balance)	10,20,000	By Loss on sales	36,000
		By Depreciation	4,20,000
		By Assets w/o	12,000
		By Balance	31,68,000
	<u>37,56,000</u>		<u>37,56,000</u>
Depreciation Account			
Particulars	Rs.	Particulars	Rs.
To Fixed Assets (on sales)	84,000	By Balance b/d	11,04,000
To Fixed Assets w/o	48,000	By Profit and Loss a/c	4,20,000
To Balance	<u>13,92,000</u>		
	<u>15,24,000</u>		<u>15,24,000</u>

Question 2

The Balance Sheet of X Ltd. as on 31st March, 2007 is as follows:

Liabilities	Rs. ('000)	Assets	Rs. ('000)
Equity share capital	6,000	Fixed Assets (at cost)	16,250
8% Preference share capital	3,250	Less: Depreciation written off	<u>5,200</u>
Reserves and Surplus	1,400	Stock	1,950
10% Debentures	1,950	Sundry debtors	2,600
Sundry Creditors	<u>3,250</u>	Cash	<u>250</u>
Total	<u>15,850</u>		<u>15,850</u>

The following additional information is available:

- The stock turnover ratio based on cost of goods sold would be 6 times.
- The cost of fixed assets to sales ratio would be 1.4.
- Fixed assets costing Rs. 30,00,000 to be installed on 1st April, 2007, payment would be made on March 31, 2008.
- In March, 2008, a dividend of 7 per cent on equity capital would be paid.

- (v) Rs. 5,50,000, 11% Debentures would be issued on 1st April, 2007.
- (vi) Rs. 30,00,000, Equity shares would be issued on 31st March, 2008.
- (vii) Creditors would be 25% of materials consumed.
- (viii) Debtors would be 10% of sales.
- (ix) The cost of goods sold would be 90 per cent of sales including material 40 per cent and depreciation 5 per cent of sales.
- (x) The profit is subject to debenture interest and taxation @ 30 per cent.

Required:

- (i) Prepare the projected Balance Sheet as on 31st March, 2008.
- (ii) Prepare projected Cash Flow Statement in accordance with AS-3.

(PCC-Nov. 2007)(15 marks)

Answer

(i) Calculation of Sales

Fixed assets Rs. (1,62,50,000 + 30,00,000) = 1,92,50,000

$$\text{Sales} = \frac{1,92,50,000}{1.4} = 1,37,50,000$$

Cost of goods sold	= 1,37,50,000 × .90	= 1,23,75,000
Material	= 1,37,50,000 × .40	= 55,00,000
Depreciation	= 1,37,50,000 × .05	= 6,87,500
Net profit	= 1,37,50,000 × .10	= 13,75,000

Calculation of Net Fixed Assets

		Rs.
Opening balance		1,62,50,000
Add: Purchases		<u>30,00,000</u>
		<u>1,92,50,000</u>
Less: Accumulated Depreciation	52,00,000	
Additional Depreciation	<u>6,87,500</u>	<u>58,87,500</u>
Closing balance of fixed assets		<u>1,33,62,500</u>

Financial Management

Calculation of Closing Stock

$$\begin{aligned}\text{Average stock} &= \frac{\text{Cost of goods sold}}{\text{Stock turnover ratio}} \\ &= \frac{1,23,75,000}{6} = 20,62,500\end{aligned}$$

$$\text{Average stock} = \frac{(\text{Opening stock} + \text{Closing stock})}{2}$$

$$20,62,500 = \frac{(19,50,000 + \text{Closing stock})}{2}$$

$$\text{Closing stock} = 41,25,000 - 19,50,000 = 21,75,000$$

$$\text{Calculation of Debtors} = 1,37,50,000 \times .10 = 13,75,000$$

$$\text{Calculation of Creditors} = 55,00,000 \times .25 = 13,75,000$$

Calculation of Interest and Provision for Taxation

Net profit	13,75,000
Less: Interest (19,50,000 × 10%)	<u>2,55,500</u>
(5,50,000 × 11%)	11,19,500
Less: Taxes	<u>3,35,850</u>
Net profit available for dividend	7,83,650
Less: Preference share dividend	2,60,000
Less: Equity dividend @ 7%	<u>4,20,000</u>
Transfer to reserves and surplus	<u>1,03,650</u>

Reserves and Surplus

Opening balance	14,00,000
Add: Current balance	<u>1,03,650</u>
	15,03,650

Projected Cash Flow Statement

(i) Cash flow from Operating Activities

Profit after taxation	7,83,650
Depreciation added back	<u>6,87,500</u>
	14,71,150
Add: Increase in current liabilities and decrease in current assets	

Financial Analysis and Planning

Provision for taxation	3,35,850
Debtors (26,00,000 – 13,75,000)	12,25,000
Less: Increase in current assets and decrease in current liabilities	
Stock (21,75,000 – 19,50,000)	(2,25,000)
Creditors (13,75,000 – 32,50,000)	(18,75,000)
	<u>(21,00,000)</u>
Net Cash from Operating Activities	9,32,000
(ii) Cash flow from Investing Activities	
Purchase of Fixed Assets	(30,00,000)
(iii) Cash flow from Financing Activities	
Issue of Debenture	5,50,000
Issue of equity share capital	30,00,000
Dividend paid	(6,80,000)
	<u>28,70,000</u>
Net increase in cash	8,02,000
Opening balance of cash	<u>2,50,000</u>
Closing balance	<u>10,52,000</u>

Projected Balance Sheet as on 31st March, 2008

<i>Liabilities</i>	<i>Rs. ('000)</i>	<i>Assets</i>	<i>Rs. ('000)</i>
Equity share capital	9,000	Fixed Assets (at cost)	19,250
8% Preference share capital	3,250	Less: Depreciation written off	5,887.5
Reserves & Surplus	1,503.65	Stock	2,175
10% & 11% Debentures	2,500	Sundry debtors	1,375
Sundry Creditors	1,375	Cash	1,052
Provision for taxation	<u>335.85</u>		
Total	<u>17,964.5</u>	Total	<u>17,964.5</u>

Financial Management

Question 3

The financial statement and operating results of PQR revealed the following position as on 31st March, 2006:

— Equity share capital (Rs. 10 fully paid share)	Rs. 20,00,000
— Working capital	Rs. 6,00,000
— Bank overdraft	Rs. 1,00,000
— Current ratio	2.5 : 1
— Liquidity ratio	1.5 : 1
— Proprietary ratio (Net fixed assets/Proprietary fund)	.75 : 1
— Cost of sales	Rs. 14,40,000
— Debtors velocity	2 months
— Stock turnover based on cost of sales	4 times
— Gross profit ratio	20% of sales
— Net profit ratio	15% of sales

Closing stock was 25% higher than the opening stock. There were also free reserves brought forward from earlier years. Current assets include stock, debtors and cash only. The current liabilities expect bank overdraft treated as creditors.

Expenses include depreciation of Rs. 90,000.

The following information was collected from the records for the year ended 31st March, 2007:

- Total sales for the year were 20% higher as compared to previous year.
- Balances as on 31st March, 2007 were : Stock Rs. 5,20,000, Creditors Rs. 4,15,000, Debtors Rs. 4,95,000 and Cash balance Rs. 3,10,000.
- Percentage of Gross profit on turnover has gone up from 20% to 25% and ratio of net profit to sales from 15% to 16%.
- A portions of Fixed assets was very old (book values Rs. 1,80,000) disposed for Rs. 90,000. (No depreciations to be provided on this item).
- Long-term investments were purchased for Rs. 2,96,600.
- Bank overdraft fully discharged.
- Percentage of depreciation to Fixed assets to be provided at the rate in the previous year.

Required:

- (i) Prepare Balance Sheet as on 31st March, 2006 and 31st March, 2007.

- (ii) Prepare the fund flow statement for the year ended 31st March, 2007.
(PCC-May 2008)(15 marks)

Answer

Balance Sheets

<i>Liabilities</i>	<i>Rs.</i>		<i>Assets</i>	<i>Rs.</i>	
	<i>31 March 2006</i>	<i>31 March 2007</i>		<i>31 March 2006</i>	<i>31 March 2007</i>
Equity share capital (Rs. 10 each fully paid)	20,00,000	20,00,000	Fixed Assets (Rs.18,90,000– Rs.90,000)	18,00,000	15,39,000
Reserve and Surplus (balancing)	1,30,000	1,30,000	Long term investment	—	2,96,600
Profit & Loss A/c (15% of sales)	2,70,000	6,15,600	Current Assets (Rs. 10,00,000)		
Current Liabilities			Stock	4,00,000	5,20,000
Bank Overdraft	1,00,000	—	Sundry Debtors	3,00,000	4,95,000
Creditors	3,00,000	4,15,000	Cash at Bank (Balancing)	3,00,000	3,10,000
Total	28,00,000	31,60,600	Total	28,00,000	31,60,600

Calculation for 31 March, 2006

- (i) Calculation of Current Liabilities

Suppose that Current Liabilities = x, then current assets will be 2.5 x

Working capital = Current Assets – Current Liabilities

$$6,00,000 = 2.5x - x$$

$$x = 6,00,000 / 1.5 = \text{Rs. 4,00,000 (C.L.)}$$

Other Current Liabilities = Current Liabilities – Bank Overdraft

$$\text{(Creditors)} \quad 4,00,000 - 1,00,000 = \text{Rs. 3,00,000}$$

$$\text{Current Assets} = 2.5 \times 4,00,000 = \text{Rs. 10,00,000}$$

- (ii) Liquid Ratio = Liquid Assets / Current Liabilities or 1.5 = Liquid Assets / 4,00,000
= Rs.6,00,000

Liquid assets = Current Assets – Stock

$$6,00,000 = 10,00,000 - \text{Stock}$$

$$\text{So, Stock} = \text{Rs. 4,00,000}$$

Financial Management

- (iii) Calculation of fixed assets: Fixed assets to proprietary fund is 0.75, working capital is therefore 0.25 of proprietary fund. So,

$$6,00,000 / 0.25 \times 0.75 = \text{Rs. } 18,00,000$$

- (iv) Debtors = $2 / \times 12$ Sales

$$2 / 12 \times 18,00,000 = \text{Rs. } 3,00,000$$

- (v) Sales = $(14,40,000 / 80) \times 100 = \text{Rs. } 18,00,000$

- (vi) Net profit = 15% of Rs. 18,00,000 = Rs. 2,70,000

Calculation for the year 31st March, 2007

- (vii) Sales = $18,00,000 + (18,00,000 \times 0.2) = 21,60,000$

- (viii) Calculation of fixed assets

	Rs.		Rs.
To Opening balance	18,00,000	By Banks (Sale)	90,000
		By Loss on sales of Fixed asset	90,000
		By P & L (Dep) (5% as in previous year)	81,000
		By Balance b/d	<u>15,39,000</u>
Total	<u>18,00,000</u>		<u>18,00,000</u>

- (ix) Net profit for the year 2007, $16\% \times 21,60,000 = \text{Rs. } 3,45,600$

$$\text{Total Profit} = 2,70,000 + 3,45,600 = \text{Rs. } 6,15,600$$

Calculation of fund from operation:

$$\text{Net profit for the year 2007} = \text{Rs. } 3,45,600$$

$$\text{Add: Depreciation} \quad \text{Rs. } 81,000$$

$$\text{Loss on sale of assets} \quad \underline{\text{Rs. } 90,000} = \underline{\text{Rs. } 1,71,000}$$

$$\text{Total} = \underline{\text{Rs. } 5,16,600}$$

Fund Flow Statement

	Rs.		Rs.
Fund from operation	5,16,600	Increase in WC	3,10,000
Sales of fixed assets	<u>90,000</u>	Pur. of investment	<u>2,96,600</u>
	<u>6,06,600</u>		<u>6,06,600</u>

Schedule of changing working capital

	31 March 2006	31 March 2007	<u>Increase</u> <u>(+)</u>	<u>Decrease</u> <u>(-)</u>
	Rs.	Rs.	Rs.	Rs.
A. Current Assets				
Stock	4,00,000	5,20,000	1,20,000	
Sundry debtors	3,00,000	4,95,000	1,95,000	
Cash at bank	3,00,000	3,10,000	10,000	
	<u>10,00,000</u>	<u>13,25,000</u>		
B. Current Liabilities				
Bank overdraft	1,00,000	—	1,00,000	
Sundry creditors	3,00,000	4,15,000		1,15,000
	<u>4,00,000</u>	<u>4,15,000</u>		
Working capital	6,00,000	9,10,000	—	
Increase in working capital	<u>3,10,000</u>			<u>3,10,000</u>
	<u>9,10,000</u>	<u>9,10,000</u>	<u>4,25,000</u>	<u>4,25,000</u>

Question 4

Balance Sheets of a company as on 31st March, 2007 and 2008 were as follows:

Liabilities	31.3.07	31.3.08	Assets	31.3.07	31.3.08
	Rs.	Rs.		Rs.	Rs.
Equity Share Capital	10,00,000	10,00,000	Goodwill	1,00,000	80,000
8% P.S. Capital	2,00,000	3,00,000	Land and Building	7,00,000	6,50,000
General Reserve	1,20,000	1,45,000	Plant and Machinery	6,00,000	6,60,000
Securities Premium	—	25,000			
Profit and Loss A/c	2,10,000	3,00,000	Investments		
11% Debentures	5,00,000	3,00,000	(non-trading)	2,40,000	2,20,000
Creditors	1,85,000	2,15,000	Stock	4,00,000	3,85,000
Provision for tax	80,000	1,05,000	Debtors	2,88,000	4,15,000
Proposed Dividend	1,36,000	1,44,000	Cash and Bank	88,000	93,000
			Prepaid Expenses	15,000	11,000
			Premium on	—	20,000

Financial Management

		Redemption of Debentures		
	<u>24,31,000</u>	<u>25,34,000</u>	<u>24,31,000</u>	<u>25,34,000</u>

Additional Information:

1. Investments were sold during the year at a profit of Rs. 15,000.
2. During the year an old machine costing Rs. 80,000 was sold for Rs. 36,000. Its written down value was Rs. 45,000.
3. Depreciation charged on Plants and Machinery @ 20 per cent on the opening balance.
4. There was no purchase or sale of Land and Building.
5. Provision for tax made during the year was Rs. 96,000.
6. Preference shares were issued for consideration of cash during the year.

You are required to prepare:

- (i) Cash flow statement as per AS-3.
- (ii) Schedule of Changes in Working Capital. (PCC-Nov. 2008)(15 marks)

Answer

**(i) Cash Flow Statement
for the year ending 31st March, 2008**

	Rs.	Rs.
A. Cash flow from Operating Activities		
Profit and Loss A/c as on 31.3.2008		3,00,000
Less: Profit and Loss A/c as on 31.3.2007		<u>2,10,000</u>
		90,000
Add: Transfer to General Reserve	25,000	
Provision for Tax	96,000	
Proposed Dividend	<u>1,44,000</u>	<u>2,65,000</u>
Profit before Tax		3,55,000
Adjustment for Depreciation:		
Land and Building	50,000	
Plant and Machinery	<u>1,20,000</u>	<u>1,70,000</u>
Profit on Sale of Investments		(15,000)
Loss on Sale of Plant and Machinery		9,000

Financial Analysis and Planning

Goodwill written off	20,000
Interest Expenses	<u>33,000</u>
Operating Profit before Working Capital Changes	5,72,000
Adjustment for Working Capital Changes:	
Decrease in Prepaid Expenses	4,000
Decrease in Stock	15,000
Increase in Debtors	(1,27,000)
Increase in Creditors	<u>30,000</u>
Cash generated from Operations	4,94,000
Income tax paid	<u>(71,000)</u>
Net Cash Inflow from Operating Activities (a)	<u>4,23,000</u>
B. Cash flow from Investing Activities	
Sale of Investment	35,000
Sale of Plant and Machinery	36,000
Purchase of Plant and Machinery	<u>(2,25,000)</u>
Net Cash Outflow from Investing Activities (b)	<u>(1,54,000)</u>
C. Cash Flow from Financing Activities	
Issue of Preference Shares	1,00,000
Premium received on Issue of Securities	25,000
Redemption of Debentures at premium	(2,20,000)
Dividend paid	(1,36,000)
Interest paid to Debenture holders	<u>(33,000)</u>
Net Cash Outflow from Financing Activities (c)	<u>(2,64,000)</u>
Net increase in Cash and Cash Equivalents during the year (a + b + c)	5,000
Cash and Cash Equivalents at the beginning of the year	<u>88,000</u>
Cash and Cash Equivalents at the end of the year	<u>93,000</u>

Working Notes:

1.	Provision for the Tax Account				
		Rs.			Rs.
To	Bank (paid)	71,000	By	Balance b/d	80,000
To	Balance c/d	<u>1,05,000</u>	By	Profit and Loss a/c	<u>96,000</u>
		<u>1,76,000</u>			<u>1,76,000</u>

Financial Management

2. *Investment Account*

	Rs.		Rs.
To Balance b/d	2,40,000	By Bank a/c (b/f)	35,000
To Profit and Loss (profit on sale)	<u>15,000</u>	By Balance c/d	<u>2,20,000</u>
	<u>2,55,000</u>		<u>2,55,000</u>

3. *Plant and Machinery Account*

	Rs.		Rs.
To Balance b/d	6,00,000	By Bank (sale)	36,000
To Bank a/c (Purchase b/f)	2,25,000	By Profit and Loss a/c (Loss on sale)	9,000
		By Depreciation	1,20,000
		By Balance c/d	<u>6,60,000</u>
	<u>8,25,000</u>		<u>8,25,000</u>

Note: Since the date of redemption of debentures is not mentioned in the question, therefore, it is assumed that the debentures are redeemed at the beginning of the year.

(ii) *Schedule of Changes in Working Capital*

<i>Particulars</i>	<i>31st March</i>		<i>Change in Working Capital</i>	
	<i>2007</i>	<i>2008</i>	<i>Increase</i>	<i>Decrease</i>
	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>
Current Assets				
Stock	4,00,000	3,85,000	—	15,000
Debtors	2,88,000	4,15,000	1,27,000	—
Prepaid Expenses	15,000	11,000	—	4,000
Cash and Bank	<u>88,000</u>	<u>93,000</u>	5,000	—
Total (A)	<u>7,91,000</u>	<u>9,04,000</u>		
Current Liabilities				
Creditors	<u>1,85,000</u>	<u>2,15,000</u>	—	30,000
Total (B)	<u>1,85,000</u>	<u>2,15,000</u>		
Working Capital (A – B)	6,06,000	6,89,000		
Increase in Working Capital	<u>83,000</u>	<u>—</u>	<u>—</u>	<u>83,000</u>

Financial Analysis and Planning

6,89,000 6,89,000 1,32,000 1,32,000

Question 5

Balance Sheets of RST Limited as on March 31, 2008 and March 31, 2009 are as under:

Liabilities	31.3.2008 Rs.	31.3.2009 Rs.	Assets	31.3.2008 Rs.	31.3.2009 Rs.
Equity Share Capital (Rs. 10 face value per share)	10,00,000	12,00,000	Land & Building	6,00,000	7,00,000
General Reserve	3,50,000	2,00,000	Plant & Machinery	9,00,000	11,00,000
9% Preference Share Capital	3,00,000	5,00,000	Investments (Long-term)	2,50,000	2,50,000
Share Premium A/c	25,000	4,000	Stock	3,60,000	3,50,000
Profit & Loss A/c	2,00,000	3,00,000	Debtors	3,00,000	3,90,000
8% Debentures	3,00,000	1,00,000	Cash & Bank	1,00,000	95,000

Creditors	2,05,000	3,00,000	Prepaid Expenses	15,000	20,000
Bills Payable	45,000	81,000	Advance Tax Payment	80,000	1,05,000
Provision for Tax	70,000	1,00,000	Preliminary Expenses	40,000	35,000
Proposed Dividend	<u>1,50,000</u>	<u>2,60,000</u>		_____	_____
	<u>26,45,000</u>	<u>30,45,000</u>		<u>26,45,000</u>	<u>30,45,000</u>

Financial Management

Additional information:

- (i) Depreciation charged on building and plant and machinery during the year 2008-09 were Rs. 50,000 and Rs. 1,20,000 respectively.
- (ii) During the year an old machine costing Rs. 1,50,000 was sold for Rs. 32,000. Its written down value was Rs. 40,000 on date of sale.
- (iii) During the year, income tax for the year 2007-08 was assessed at Rs. 76,000. A cheque of Rs. 4,000 was received along with the assessment order towards refund of income tax paid in excess, by way of advance tax in earlier years.
- (iv) Proposed dividend for 2007-08 was paid during the year 2008-09.
- (v) 9% Preference shares of Rs. 3,00,000, which were due for redemption, were redeemed during the year 2008-09 at a premium of 5%, out of the proceeds of fresh issue of 9% Preference shares.
- (vi) Bonus shares were issued to the existing equity shareholders at the rate of one share for every five shares held on 31.3.2008 out of general reserves.
- (vii) Debentures were redeemed at the beginning of the year at a premium of 3%.
- (viii) Interim dividend paid during the year 2008-09 was Rs. 50,000.

Required:

- (a) Schedule of Changes in Working Capital; and
- (b) Fund Flow Statement for the year ended March 31, 2009. (PCC-June 2009)(15 marks)

Answer

(a) Schedule of Changes in Working Capital

Particulars	31.3.08	31.3.09	Effect on Working Capital	
			Increase	Decrease
	Rs.	Rs.	Rs.	Rs.
Current Assets:				
Stock	3,60,000	3,50,000	-	10,000
Debtors	3,00,000	3,90,000	90,000	-
Cash and Bank	1,00,000	95,000	-	5,000
Prepaid Expenses	<u>15,000</u>	<u>20,000</u>	5,000	-
Total (A)	<u>7,75,000</u>	<u>8,55,000</u>		
Current Liabilities:				

Financial Analysis and Planning

Creditors	2,05,000	3,00,000	-	95,000
Bills Payable	<u>45,000</u>	<u>81,000</u>	-	36,000
Total (B)	<u>2,50,000</u>	<u>3,81,000</u>		
Net Working Capital (A-B)	5,25,000	4,74,000	-	
Net Decrease in Working Capital	-	51,000	51,000	-
	<u>5,25,000</u>	<u>5,25,000</u>	<u>1,46,000</u>	<u>1,46,000</u>

(b) Funds Flow Statement for the year ended 31st March, 2009

<i>Sources of Fund</i>	<i>Rs.</i>
Funds from Operation	7,49,000
Issue of 9% Preference Shares	5,00,000
Sales of Plant & Machinery	32,000
Refund of Income Tax	<u>4,000</u>
Financial Resources Provided (A)	<u>12,85,000</u>

<i>Applications of Fund</i>	<i>Rs.</i>
Purchase of Land and Building	1,50,000
Purchase of Plant and Machinery	3,60,000
Redemption of Debentures	2,06,000
Redemption of Preference Shares	3,15,000
Payment of Tax	1,05,000
Payment of Interim Dividend	50,000
Payment of Dividend (2007-08)	<u>1,50,000</u>
Financial Resources Applied (B)	<u>13,36,000</u>
Net Decrease in Working Capital (A - B)	51,000

Working Notes:

Estimation of Funds from Operation	<i>Rs.</i>
Profit and Loss A/c Balance on 31.3.2009	3,00,000
Add: Depreciation on Land and Building	50,000

Financial Management

Depreciation on Plant and Machinery	1,20,000	
Loss on Sale of Plant and Machinery (40,000 – 32,000)	8,000	
Preliminary Expenses written off (40,000 – 35,000)	5,000	
Transfer to General Reserve	50,000	
Proposed Dividend	2,60,000	
Provision for Taxation	1,06,000	
Interim Dividend paid	50,000	
		<u>6,49,000</u>
		9,49,000
Less: Profit and Loss A/c balance on 31.3.08		<u>2,00,000</u>
Funds from Operation		<u>7,49,000</u>

Plant & Machinery A/c

	Rs.		Rs.
To Balance b/d	9,00,000	By Depreciation	1,20,000
To Bank (Purchase (Bal. Fig.)	3,60,000	By Bank (Sale)	32,000
		By P/L A/c (Loss on Sale)	8,000
		By Balance c/d	<u>11,00,000</u>
	<u>12,60,000</u>		<u>12,60,000</u>

Provision for Taxation A/c

	Rs.		Rs.
To Advance tax payment A/c	76,000	By Balance b/d	70,000
To Balance c/d	1,00,000	By P/L A/c (additional provision for 2007-08)	6,000
		By P/L A/c (Provision for 08-09)	<u>1,00,000</u>
	<u>1,76,000</u>		<u>1,76,000</u>

Advance Tax Payment A/c

	Rs.		Rs.
To Balance b/d	80,000	By Provision for taxation A/c	76,000
To Bank (paid for 08-09)	1,05,000	By Bank (Refund of tax)	4,000
	_____	By Balance c/d	<u>1,05,000</u>
	<u>1,85,000</u>		<u>1,85,000</u>

8% Debentures A/c

	Rs.		Rs.
To Bank (2,00,000 x 103%) (redemption)	2,06,000	By Balance b/d	3,00,000
To Balance c/d	1,00,000	By Premium on redemption of Debentures A/c	<u>6,000</u>
	_____		<u>3,06,000</u>
	<u>3,06,000</u>		<u>3,06,000</u>

9% Preference Share Capital A/c

	Rs.		Rs.
To Bank A/c (3,00,000 x 105%) (redemption)	3,15,000	By Balance b/d	3,00,000
To Balance c/d	5,00,000	By Premium on redemption of Preference shares A/c	15,000
	_____	By Bank (Issue)	<u>5,00,000</u>
	<u>8,15,000</u>		<u>8,15,000</u>

Securities Premium A/c

	Rs.		Rs.
To Premium on redemption of debentures	6,000	By Balance b/d	25,000

Financial Management

A/c

To Premium on redemption of preference shares A/c	15,000	
To Balance c/d	<u>4,000</u>	
	<u>25,000</u>	<u>25,000</u>

General Reserve A/c

	Rs.		Rs.
To Bonus to Shareholders A/c	2,00,000	By Balance b/d	3,50,000
To Balance c/d	<u>2,00,000</u>	By P/L A/c (transfer) b/f	<u>50,000</u>
	<u>4,00,000</u>		<u>4,00,000</u>

Land and Building A/c

	Rs.		Rs.
To Balance b/d	6,00,000	By Depreciation	50,000
To Bank (Purchase) (Bal. Fig.)	<u>1,50,000</u>	By Balance c/d	<u>7,00,000</u>
	<u>7,50,000</u>		<u>7,50,000</u>

Question 6

The Balance Sheets of a Company as on 31st March, 2008 and 2009 are given below:

Liabilities	31.3.08 Rs.	31.3.09 Rs.	Assets	31.3.08 Rs.	31.3.09 Rs.
Equity share capital	14,40,000	19,20,000	Fixed assets	38,40,000	45,60,000
Capital reserve	-	48,000	Less: depreciation	<u>11,04,000</u>	<u>13,92,000</u>
General reserve	8,16,000	9,60,000		27,36,000	31,68,000
Profit & Loss A/c	2,88,000	3,60,000	Investment	4,80,000	3,84,000
9% debentures	9,60,000	6,72,000	Sundry debtors	12,00,000	14,00,000
Sundry creditors	5,50,000	5,90,000	Stock	1,40,000	1,84,000

Financial Analysis and Planning

<i>Bills payables</i>	26,000	34,000	<i>Cash in hand</i>	4,000	-
<i>Proposed dividend</i>	1,44,000	1,72,800	<i>Preliminary Expenses</i>	96,000	48,000
<i>Provision for tax</i>	4,32,000	4,08,000			
<i>Unpaid dividend</i>	-	19,200			
	46,56,000	51,84,000		46,56,000	51,84,000

Additional information:

During the year ended 31st March, 2009 the company:

- (i) *Sold a machine for Rs.1,20,000; the cost of machine was Rs. 2,40,000 and depreciation provided on it was Rs. 84,000.*
- (ii) *Provided Rs. 4,20,000 as depreciation on fixed assets.*
- (iii) *Sold some investment and profit credited to capital reserve.*
- (iv) *Redeemed 30% of the debentures @ 105.*
- (v) *Decided to write off fixed assets costing Rs. 60,000 on which depreciation amounting to Rs. 48,000 has been provided.*

You are required to prepare Cash Flow Statement as per AS 3. (PCC-Nov. 2009)(15 marks)

Answer

Cash Flow Statement for the year ending 31st March, 2009

(A) Cash Flows from Operating Activities

	<i>Rs.</i>
Profit and Loss A/c (3,60,000 – 2,88,000)	72,000
Adjustments:	
Increase in General Reserve	1,44,000
Depreciation	4,20,000
Provision for Tax	4,08,000
Loss on Sale of Machine	36,000
Premium on Redemption of Debentures	14,400
Proposed Dividend	1,72,800
Preliminary Expenses written off	48,000

Financial Management

Fixed Assets written off	12,000	
Interest on Debentures*	<u>60,480</u>	<u>13,15,680</u>
Funds from Operations		13,87,680
Increase in Sundry Creditors	40,000	
Increase in Bills Payable	<u>8,000</u>	
	48,000	
Increase in Sundry Debtors	(2,00,000)	
Increase in Stock	<u>(44,000)</u>	<u>(1,96,000)</u>
Cash before Tax		11,91,680
Less: Tax paid		<u>4,32,000</u>
Cash flows from Operating Activities		7,59,680
(B) Cash Flows from Investing Activities		
Purchase of Fixed Assets	(10,20,000)	
Sale of Investment	1,44,000	
Sale of Fixed Assets	<u>1,20,000</u>	<u>(7,56,000)</u>
(C) Cash Flows from Financing Activities		
Issue of Share Capital	4,80,000	
Redemption of Debentures	(3,02,400)	
Dividend Paid (1,44,000 – 19,200)	(1,24,800)	
Interest on Debentures	(60,480)	<u>(7,680)</u>
Net increase in Cash and Cash Equivalents		<u>(4,000)</u>
Cash and Cash Equivalents at the beginning of the year		<u>4,000</u>
Cash and Cash Equivalents at the end of the year		<u>NIL</u>

* It is assumed that the 30 percent debentures have been redeemed at the beginning of the year.

Fixed Assets Account

<i>Particulars</i>	<i>Rs.</i>		<i>Particulars</i>	<i>Rs.</i>
To Balance b/d	27,36,000	By	Cash	1,20,000
To Purchases (Balance)	10,20,000	By	Loss on Sales	36,000
		By	Depreciation	4,20,000
		By	Assets written off	12,000
		By	Balance c/d	<u>31,68,000</u>
	<u>37,56,000</u>			<u>37,56,000</u>