

Theoretical Questions

1. What is solvency?
2. What are the measures of solvency?
3. Explain trading on equity.
4. Examine the relationship between debt-equity ratio and interest coverage ratio.
5. What is the importance of debt equity ratio?
6. Examine the relationship between debt-equity ratio and the cost of capital.
7. What is deferred tax?
8. Examine the impact of deferred tax on the financial statements.
9. What is debt service coverage ratio?
10. How different is debt service coverage from interest coverage ratio?
11. Explain different ways in which assets can be financed.
12. Examine the relationship between working capital and financing of assets?
13. Fixed assets are financed by short term sources when the working capital is negative. Comment.
14. Positive working capital means large portion of the total assets are funded by the long term sources. Comment
15. High debt-equity ratio always leads to the increase in the earning per share. Do you agree with the statement.

Numericals

1.

Balance Sheet as on 31st Mar 02			
Sources	Amount	Assets	Amount
Capital	10000	FA	20000
Profits	5000	Investment	3000
LTL (12%)	10000	CA	10000
Creditors	8000		
	33000		33000

Income Statement	
Sales	20000
COGS	10000
Expenses	2000
Depreciation	1000
Interest on LTL	1200
PBT	5800
Tax (40%)	2320
PAT	3480

Calculate relevant solvency ratios

2. Debt Equity Ratio: 2:1, Owners' Fund: Rs.100000, Total Outsiders money: Rs.300000, working capital: Rs.200000. Find Current Ratio
3. Capital Employed: Rs.800000, Interest on long-term loans@ 15%: Rs.60000, Interest (20%) received on Investment: Rs. 20000. Find Debt Equity Ratio.

4. Calculate relevant solvency ratios

Balance Sheet of AB Ltd.			
Share Capital (Rs. 10)	200,000	Fixed Assets	500,000
Reserves	800,000	Investment	500,000
12% Loan	500,000	Debtors	200,000
		Cash	300,000
	1,500,000		1,500,000

Income Statement	
Sales	500,000
COGS	200,000
Gross Profit	300,000
Operating Expense	75,000
Depreciation	50,000
Interest	60,000
Operating Profit	115,000
Dividend Received	100,000
Total Profit	215,000
Tax (40%)	86,000
<u>PAT</u>	129,000

5. Total income of Altd. is Rs 500000. 15% of the total income is from investments. Operating expenses other than interest is 40%. The capital employed is 10 lakhs. Rate of interest on the borrowing = 12%; rate of tax = 40%; cost of equity (ke) = 18%. Find weight average cost of capital in the following cases:
- Debt-equity ratio = 3:2
 - Debt-equity ratio = 2:2
 - Debt-equity ratio = 1:2
6. Find earning per share (EPS) in the above cases, if the face value per share is Rs 5.
7. Debt-equity ratio (DER) of company is 0.25. Capital employed (debt and equity) = 60,000. Face value per share = Rs.10. Rate of interest = 10% . Find earning per share in the following cases:
- No change in capital employed but debt-equity ratio increases to 3 : 1
 - No change in the debt-equity ratio but the capital employed increases to Rs. 100,000.
 - Change in DER to 1:1; increase in the capital employed to 200,000
 - No change in DER, no change in the capital employed. Company splits each shares into two shares.
8. Interest coverage ratio = 5; PBIT = 10,000; Rate of interest = 10%; DER = 2:3. Find equity and capital employed.
9. PBIT = 20,000; Capital employed = 75,000; DER = 2 :1; Rate of interest =10%; Rate of tax = 40%; Find the following:
- Return on equity
 - Return on capital employed
 - Earning per share

Accounting in Real Life

1. Following is the relevant financial items of Tata Steel

Balance Sheet Items of Tata Steel (Rs. in crores)		
	2006/03	2005/03
Gross Block	15407.17	13085.07
TOTAL Sources	12271.45	9799.62
Net Block	8707.32	7239.58
Current Liabilities & Provisions	6913.83	6895.99
Reserves & Surplus	9201.63	6506.25
Accumulated Depreciation	6699.85	5845.49
Current Assets, Loans & Advances	4997	4935.9
Secured Loans	2191.74	2468.18
Investments	4069.96	2432.65
Capital Work-in-progress	1157.73	1872.66
Equity Share Capital	553.67	553.67
Unsecured Loans	324.41	271.52
Miscellaneous Expenses not written off	253.27	214.82
Total Net Current Assets	-1916.83	-1960.09

Required

- Capital Employed
- Debt Equity Ratio
- Balance Sheet

2. Find the missing numbers

Tata Steel: Details of Capital Employed (Rs. In crores)			
	2006/03	2005/03	2004/03
Debt	2,516.15	?	?
Equity	?	6,845.10	?
DER	0.26	0.40	0.77
Capital Employed	?	?	7,733.17

3. Balance Sheet of SAIL given below:

Balance Sheet of SAIL (Rs. In crores)					
	2006/03	2005/03		2006/03	2005/03
Equity Share Capital	4130.4	4130.4	Net Block	12162.14	12485.07
Reserves & Surplus	8471.01	6176.25	Capital Work-in-progress	757.94	366.48
Secured Loans	1122.16	1603.98	Investments	292	606.71
Unsecured Loans	3175.46	4165.81	Current Assets, Loans & Advances	18788.8	15521.37
Current Liabilities & Provisions	15317.67	13198.12	Miscellaneous Expenses not written off	215.82	294.93
	32216.7	29274.56		32216.7	29274.56

Contingent liabilities: Rs. 5541.62 (2006) and Rs. 4566.72 crores (2005). Face value of share: Rs. 10.

Income Statement SAIL (Rs. In crores)		
	2006/03	2005/03
PBIT	6,058.33	9,854.08
Interest	467.76	605.05
PBT	5,590.57	9,249.03
Tax	1,694.36	2,592.37
PAT	3,896.21	6,656.66

Required:

- Comment on the solvency position. Show all relevant calculations
- Compare the DER of SAIL with Tata Steel.
- Comment on the financing decisions of Tata Steel and SAIL.
- Examine the impact of contingency liabilities on the DER of SAIL.

4. Comprehensive Analysis

Balance Sheet of Asian Paints Ltd					
Accounting Years	2004-05	2003-04	2002-03	2001-02	2000-2001
	Rs.in millions	Rs.in millions	Rs.in millions	Rs.in millions	Rs.in millions
SOURCES OF FUNDS					
SHAREHOLDERS' FUNDS					
Share Capital	959.2	959.2	641.86	641.86	641.86
Reserves & Surplus	4,763.00	4,356.21	4,124.32	3,463.72	3,470.12
	5,722.20	5,315.41	4,766.18	4,105.58	4,111.98
LOAN FUNDS					
Secured Loans	283.65	229.23	641.64	764.59	1,634.57
Unsecured Loans	555.12	475.50	394.54	343.12	633.62
	838.77	704.73	1,036.18	1,107.71	2,268.19
DEFERRED TAX LIABILITY	305.38	486.56	581.59	611.75	-----
Total	6,866.35	6,506.70	6,383.95	5,825.04	6,380.17
APPLICATION OF FUNDS					
FIXED ASSETS					
Gross Block	7,127.04	6,511.93	6,175.26	5,958.83	5,448.30
Less : Depreciation	4,014.73	3,106.49	2,559.98	2,139.60	1,724.20
Net Block	3,112.31	3,405.44	3,615.28	3,819.23	3,724.10
Add Capital Work-in-Progress	82.78	38.89	18.64	24.28	39.51
	3,195.09	3,444.33	3,633.92	3,843.51	3,763.61
INVESTMENTS	2,584.27	2,424.84	1,476.94	633.36	440.74
CURRENT ASSETS, LOANS & ADVANCES					
Interest accrued on investment	0.03	0.83	0.93	9.63	4.22

Inventories	3,307.89	2,114.90	2,068.96	1,559.45	1,989.11
Sundry Debtors	1,489.63	1,379.20	1,198.79	1,189.58	1,216.49
Cash & Bank Balances	210.42	245.53	271.93	221.30	118.44
Other Receivables	190.12	81.45	86.01	67.83	44.19
Loans and Advances	727.25	787.88	624.98	714.05	653.84
	5,925.34	4,609.79	4,251.60	3,761.84	4,026.29
Less :					
CURRENT LIABILITIES AND PROVISIONS					
Liabilities	3,721.32	3,087.23	1,981.88	1,484.57	1,055.47
Provisions	1,117.03	885.03	1,025.14	980.54	1,386.35
	4,838.35	3,972.26	3,007.02	2,465.11	2,441.82
NET CURRENT ASSETS	1,086.99	637.53	1,244.58	1,296.73	2,134.85
Deferred Revenue Expenditure	0.00	0.00	28.51	51.44	40.97
Total	6,866.35	6,506.70	6,383.95	5,825.04	6,380.17

Income Statement of Asian Paints					
	2004-05 Rs.in millions	2003-04 Rs.in millions	2002-03 Rs.in millions	2001-02 Rs.in millions	2000-01 Rs.in millions
INCOME					
Sales and operating income (net of discounts)	22,554	19,532	18,090	15,141	13,957
Less: Excise Duty	3,139	2,565	2,352	1,981	1,900
Sales and operating income(net of discounts and excise)	19,415	16,966	15,738	13,160	12,057
Other Income	316	217	142	156	93
	19,731	17,183	15,880	13,316	12,150
EXPENDITURE					
Materials Consumed	11,154	9,442	8,475	7,487	6,958
Employee's remuneration and benefits	1,179	1,016	1,064	920	730
Manufacturing, administrative, selling and distribution	4,144	3,814	3,557	2,531	2,367
	16,477	14,271	13,097	10,938	10,054
Profit before Interest, Depreciation and Tax(PBDIT)	3,254	2,912	2,783	2,378	2,096
Less Depreciation	476	480	451	418	316
Profit before interest and tax (PBIT)	2,778	2,432	2,332	1,960	1,780
Less Interest	28	53	83	146	221
Profit before Tax (PBT)	2,750	2,379	2,248	1,814	1,559
Less extraordinary item	42	68	-----	-----	-----
Less Provision for Current Tax	988	880	845	598	495
Less Provision for Deferred Tax	-18	-44	-30	63	-----
add/less prior period adjustments	-3	2	14	-10	8
Profit after Tax (PAT)	1,735	1,478	1,420	1,143	1,056
Add Balance brought forward from Previous	820	720	620	520	420
add balance of P/L A/C brought forward from Pentasia	-----	8			
Disposable Profit	2,555	2,206	2,040	1,663	1,476

Required:

- Debt-equity ratio, Interest coverage ratio, Debt to total assets, Capital employed to total assets ratio, Net-worth to total assets ratio, current ratio, EPS, ROTA, RONW, Debtor turnover ratio, Inventory turnover ratio. Working capital turnover ratio, Total assets turnover ratio.
- Detailed Analysis of solvency and liquidity position.

Critical Thinking Questions 16.1

- Find the total funds of the above companies,
- Find the short term funds of the above companies.
- Visit the web sites of the above companies and check the composition of the long term funds.

Critical Thinking Questions 16.2

- What is the interpretation of DER less than 1?
- Why companies prefer to finance the business with debt?
- Despite the lower cost of debt (Kd) why the above companies used less of debt?
- Find the equity or networth of Tata Motors as on 31st March 2006, if the long term debt as on that date was 2936.84 crore.

What are the reasons for sudden fall in the reserves? Table 16.3

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