

Theoretical Questions

1. Examine difference between profit generating and profit distributing ability of a company.
2. Why is it necessary to study the asset turnover to understand the profitability position of a company?
3. What is the purpose of disaggregating profit margin?
4. What is DuPont Analysis?
5. Explain the process disaggregating RONW?
6. Examine the impact of Debt Equity Ratio on the Earning Per Share.
7. What is EVA?
8. Explain in detail the process of calculating EVA.
9. Explain the difference between PAT and EVA.
10. What is NOPAT/
11. How is NOPAT different from PAT?
12. What is capital charge?
13. Explain in brief the relationship between the Debt Equity Ratio and EVA.
14. Return on capital employed is a function of profit margin, assets turnover, and leverage. Explain.
15. Examine some of the important accounting adjustments required while determining the EVA of a company.
16. Explain the difference between accounting profit, economic profit, and cash profit.
17. Examine the impact of the financing decision on the profit distributing ability of a company.
18. Examine the impact of the investment decision on the profit generating and distributing ability of a company.
19. What is Market Value Added?
20. What are equity equivalents?

Numericals

1. PAT = 5000; Interest = 1000; Tax Rate = 40%. WaCC = 15%; Capital Employed = 20,000. Find EVA
2. PAT = 5000; Interest = 1000; Tax Rate = 40%. WaCC = 15%; Find NOPAT.
3. NOPAT = 50000;
4. Profit Margin (PBIT /Sales) = 10%; Assets Turnover = 2; Assets to Capital Employed = 3. Find ROCE.
5. RONW (PAT/NW) = 15%; PAT/Sales = 20%; Sales to Assets = 0.5; Find what percentage of assets were financed by net-worth.
6. Debt Equity Ratio = 2; Capital Employed = 100,000; Rate of interest = 10%; Face value per share = 5; Tax rate = 30%; Find Earning per Share, if the DER is changed to 3.
7. 12% Debt = 200,000; Equity = 300,000; Risk free return = 5%; Market Return = 15%; Beta = 1.5; Tax rate = 40%; Find WaCC;
8. Refer to the above question. Find WaCC, if the company changes the DER to 3:2.
9. Present sales = 500; Margin on sales = 10% Capital = 1000. They have new proposal:. Investment = 500; Additional sales due to the new investment = 200 with a margin of 20% on sales. Evaluate the proposal. WaCC = 12%. Management accepted the proposal. Comment.
10. Present sales = 2000; Margin on sales = 25% Capital = 1000. They have new proposal:. Investment = 500; Additional sales due to the new investment = 1000 with a margin of 20% on sales. Evaluate the proposal. WaCC = 12%. Management rejected the proposal. Comment

11. Find EVA :

Balance Sheet of ABC Ltd			
Capital	10000	Fixed Assets	50000
Reserves	50000	Investments	20000
Loans	20000	Current Assets	20000
Creditors	10000		
	90000		90000

Income Statement	
Sales	200000
Cost of material	30000
Operating Expenses	30000
Depreciation	20000
Patent	40000
Interest	2000
	122000
PBIT	78000

Tax Rate : 30%

Ke = 15%

12. The management of A ltd was quite happy that the EPS of the company has been consistently increasing and in the current year it reached all time high of 7.2. However, the shareholders are not happy with the company. In fact, the price decreased in the recent past. ***Will EVA explain the behavior of shareholders?*** Relevant information for calculating EVA: Interest on Government Bonds = 6%; Average Market Return = 18%; Beta = 1.8.

Balance Sheet as on 31st Mar 06			
Sources	Amount	Assets	Amount
Capital (10)	5,000	FA	20,000
Profits	25,000	Investment	3,000
LTL (12%)	10,000	Cash	30,000
STL (12.5%)	8,000		
Creditors	5,000		
	53,000		53,000

Income Statement	
Sales	20000
COGS	10000
Expenses	2000
Depreciation	1000
Interest on LTL	1200
Interest on STL	1000
PBT	4800
Tax (40%)	1920
PAT	2880

13. Evaluate the performance of the following divisions:

Financial Data of AB Ltd.				
	D1	D2	D3	TOTAL
Revenue	300	250	150	700
Variable Cost	70	60	30	160
Fixed Cost	150	130	80	360
PBIT				180
Interest				40
PBT				140
Tax				56
PAT				84
Balance Sheet				
Current Assets	200	100	80	380
Fixed Assets	300	200	120	620
Total Assets	500	300	200	1000
C. Liabilities	40	30	30	100
Loan Funds				400
Own Funds				500

- Interest Rate: 10%
- Risk free return = 5%
- Market Return = 18%
- Beta = 1.5

14. Following are the financial statements of AB ltd.

Balance Sheet					
	2005	2004		2005	2004
Creditors	671	645	Cash	28	31
Short Term Loans	137	131	Debtors	879	842
Outstanding Salaries	250	231	Stock	1121	977
Current Liabilities	1058	1007	Others	77	81
				2105	1931
Long Term Debt	52	604	Fixed Assets	395	369
Capital	633	27			
Accumulated Profits	757	662			
Total	2500	2300	Total	2500	2300

Income Statement		
	2005	2004
Sales	4500	4700
COGS	2813	3008
Other Expenses	1396	1504
PBIT	291	188
Interest	21	70
PBT	270	118
Tax	108	47
PAT	162	71

Tax rate : 40%
 Average Interest rate : 10%
 Risk free return (Rf): 5%
 Risk Premium : 15%

The company is quite happy with the performance. Management also declared dividend for the shareholders. Management is proposing high percentage of bonus for the top management for the approval of the shareholders. Give your comments.

15. Mr. A prepared the financial statements as shown below. Income statement shows loss. But Mr. A feels the financial statements fail to show the economic reality. He asks you to find EVA, which reflects the correct performance. He even suggests that you should 15% as the cost of equity.

Balance Sheet as on 31st Mar 06				Income Statement	
Sources	Amount	Assets	Amount		
Capital (10)	20,000	FA	20,000	Sales	100,000
Profits	22,000	Investment	3,000	COGS	25,000
LTL (10%)	25,000	Goodwill	40,000	Expenses	2,000
Creditors	26,000	Stock	15,000	Goodwill	40,000
		Debtors	10,000	R&D Expenses	18,500
		Cash	5,000	Depreciation	1,000
				Interest on LTL	2,500
					89,000
				PBT	11,000
				Tax (40%)	27,800
				PAT	-16,800
	93,000		93,000		

Required: Find EVA and explain why is it different from PAT?

Real Life Questions

1. Following table shows the relevant profitability ratios of Bajaj Auto Limited:

DuPont Analysis of Bajaj Auto Limited			
	2004-05	2003-04	2002-03
RONW	19%	20%	16%
Profit Margin	13.33%	?	12.88%
Asset Turnover	86.30%	78.44%	74.70%
Asset Leverage	?	164.12%	?

Required: Find the missing numbers

2. Refer to the balance sheet and the income statement of Bajaj Auto Limited (given as an Annexure). Undertake a detailed DuPont Analysis (for RONW, ROCE, ROTA) for the year ending March 2005.

3. Following are the balance sheet and income statement of Satyam Computers Services Limited.

Satyam Computer Services Ltd.			
Income Statement			
Year	2002-03	2003-04	2004-05
Sales	202,365	254,154	346,423
Other income	2,786	8,173	8,255
Total Income	205,151	262,328	354,678
Expenditure			
Operating Expenses	140,512	184,897	257,508
PBDIT	64,639	77,431	97,170
Less: Interest	72	75	76
PBDT	64,567	77,356	97,095
Less: Depreciation	12,418	11,162	10,394
PBT	36,903	66,194	86,700
Tax provision	6,160	10,615	11,674
PAT	30,742	55,579	75,026
Dividends	9,436	12,672	15,963

Satyam Computer Services Ltd.			
Balance Sheet			
Year	2002-03	2003-04	2004-05
Fixed Assets	31,930	27,158	31,697
Investments	5,761	7,475	7,848
Deferred Tax Assets(net)	345	529	1,071
Current Assets	212,637	259,022	327,282
	250,672	294,184	367,898
Share capital	6,291	6,344	6,430
Reserves & surplus	207,197	251,752	315,317
Total borrowings	1,836	730	987
Current liabilities & provisions	35,349	35,359	45,164
	250,672	294,184	367,898

Required:

- Return on Capital Employed
- Return on Net-worth
- Comment on the overall profitability using DuPont Analysis

4. Following table shows the Return on Total Assets of three companies belonging to the automobile sector.

Return on Total Assets (%)			
	2001-02	2002-03	2003-04
Hero Honda	39.79	40.39	40.21
Bajaj	13.27	12.75	13.45
TVS	22.87	19.07	17.01

Visit the web site of these companies and examine the reasons how and why the ROTA of Hero Honda was higher than that of its competitors.

5. Following tables show the balance sheet and income statement items of HLL for the year ending 2005.

Balance Items of ITC	
	2005
Cash and bank Balances	55.66
Secured loans	88.69
Other Current Assets	142.52
Unsecured Loans	156.67
CWIP	186.15
Capital	249.43
Deferred tax net	376.09
Sundry Debtors	527.76
Loans and Advances	810.36
Provisions	1108.18
Accumulated depreciation	1795.51
Liabilities	1925.64
Inventories	2002.99
Net Block	3950.76
Gross Block	5746.27
Reserves	7646.18

Income Statement Items of ITC	
	2005
Gross income	13585.39
Gross Sales	13349.58
Net Sales	7639.45
Excess duties taxes	5710.13
Raw Materials etc.	2769.55
profit before taxation	2673.07
Manufacturing and Selling Expenses	2119.77
Profit after Taxation	1837.07
Provision for Taxation	836
Depreciation	312.87
Other Income	235.81

Required:

- Balance Sheet and Income Statement
- Disaggregate RONW and prepare the DuPont chart.