Paper – 20: Financial Analysis & Business Valuation

Time Allowed: 3 hours **Full Marks:** 100

This paper contains 4 questions, representing two separate sections as prescribed under syllabus 2012. All questions are compulsory, subject to the specific guidance/ instructions stated against every question. All workings, wherever necessary, must form a part of your answer. Assumptions, if any, should be clearly stated.

Question No. 1. (Answer **all** questions. Each question carries **10 marks**)

1(a). Rainbow Company sells plumbing fixtures on terms of 2/10, net 30. Its financial statements (extracts) over the last 3 years follow:

(Amount in ₹)

	2011-12	2012-13	2013-14
Current Assets:			
Cash	30,000	20,000	15,000
Accounts receivable	2,00,000	2,60,000	2,80,000
Inventory	4,00,000	4,80,000	6,00,000
Non-current Assets:			
Net fixed assets	8,00,000	8,00,000	8,00,000
	14,30,000	15,60,000	16,95,000
Current Liabilities:			
Accounts payable	2,30,000	3,00,000	3,80,000
Accruals	2,00,000	2,10,000	2,25,000
Bank loan, short term	1,00,000	1,00,000	1,40,000
Non-current Liabilities:			
Long-term debt	3,00,000	3,00,000	3,00,000
Shareholders' Fund:			
Equity Share Capital	1,00,000	1,00,000	1,00,000
Retained earnings	5,00,000	5,50,000	5,50,000
	14,30,000	15,60,000	16,95,000
Sales	40,00,000	43,00,000	38,00,000
Cost of goods sold	32,00,000	36,00,000	33,00,000
Net profit	3,00,000	2,00,000	1,00,000

From the above financial statement calculate the relevant ratios and analyse the company's financial performance over the last 3 years. **[5+5]**

1(b). Calculate operating leverage and financial leverage under situations A, B and C and financial Plans I, II, and III respectively from the following information relating to the operating and capital structure of Neelam Co. Also find out the combinations of operating and financial leverages which give the highest value and the least value. How are these calculations useful to the financial manager in a company?

Installed Capacity	1,200 units
Actual Production and Sales	800 units
Selling Price per unit	₹ 15
Variable Cost per unit	₹ 10
Fixed Cost: Situation A	₹ 1,500
Situation B	₹ 2,000
Situation C	₹ 3,000

Capital structure :	Financial Plan		
	I	II	III
Equity	₹ 5,000	₹ 7,500	₹ 2,500
Debt	₹ 5,000	₹ 2,500	₹ 7,500
Cost of debt			12%

[6+1+3]

Question No. 2 (Answer **any two** questions. Each question carries **15 marks**)

2(a). Peacock Company had the following balance sheets (extracts) and income statements (extracts) over the last 3 years (₹ in thousands):

	2011-12	2012-13	2013-14
Current Assets:			
Cash	561	397	202
Receivables	1,963	2,860	4,051
Inventories	2,031	2,613	3,287
Total current assets	4,555	5,870	7,540
Non- current Assets:			
Net fixed assets	2,581	4,430	4,364
Total assets	7,136	10,300	11,904
Current Liabilities:			
Payables	1,862	2,944	3,613
Accruals	301	516	587
Bank loan	250	900	1,050
Total current liabilities	2,413	4,360	5,250
Non- current Liabilities:			
Long-term debt	500	1,000	950
Shareholders' Fund:			
Shareholders' equity	4,223	4,940	5,704
Total liabilities and equity	7,136	10,300	11,904
Sales	11,863	14,952	16,349

Cost of goods sold	8,537	11,124	12,016
Selling, general, and administrative expenses	2,349	2,659	2,993
Profit before taxes	977	1,169	1,340
Taxes	390	452	576
Profit after taxes	587	717	764

Make a common size and index analyses and evaluate trends in the company's financial condition and performance. **[(4+4)+7]**

2(b)(i). Comment on the financial state/position of a company if it has following cash flow patterns: (each pattern is independent of the other):

Cash Flow Patterns	Net Cash flows from Operating Activities	Net Cash flows from Investing Activities	Net Cash flows from Financing Activities
(i) Pattern 1	(-)	(-)	(-)
(ii) Pattern 2	(+)	(-)	(-)
(iii) Pattern 3	(-)	(+)	(-)
(iv) Pattern 4	(-)	(+)	(+)
(v) Pattern 5	(+)	(-)	(+)

[5]

2(b)(ii). Following are the data on a capital Project A being evaluated by the management of Mehta Ltd.

Project A	
Annual cost saving	₹ 40,000
Useful life	4 years
IRR	14%
Profitability Index (PI)	1.0428
NPV	?
Cost of capital	?
Cost of project	?
Pay-back	?
Salvage value	0

Find the missing values considering the following table of discount factor only:

Discount factor	15%	14%	13%	12%
1 year	0.869	0.877	0.885	0.893
2 years	0.756	0.769	0.783	0.797
3 years	0.658	0.675	0.693	0.712
4 years	0.572	0.592	0.613	0.636
	2.855	2.913	2.974	3.038

[5]

2(b)(iii). What are the possible causes of industrial sickness in relation to production management, labour management, marketing management and financial management and administration management? **[5]**

2(c)(i). The balance sheets (extracts) of XYZ Ltd. for the past two years are as under:

Equities & Liabilities	31-03-13	31-03-14	Assets	31-03-13	31-03-14

Shareholders' Fund:			Non-current Assets:		
Equity shares	51,000	51,000	Gross fixed assets	61,000	73,000
General reserve	10,000	14,000	Less: accumulated depreciation	16,000	21,000
Surplus	4,000	4,800	Net fixed assets	45,000	52,000
Non-current Liabilities:			Long term investments	30,000	32,000
Public deposits	8,000	2,000	Current Assets:		
Debentures	15,000	17,000	Sundry debtors	16,500	12,000
Term loan	20,000	18,000	Inventories	32,000	34,000
Current Liabilities:			Miscellaneous expenses	9,500	10,000
Trade creditors	8,000	10,800			
Short term bank borrowing	15,000	20,000			
Provision for tax	2,000	2,400			
Total	1,33,000	1,40,000		1,33,000	1,40,000

1) One of the important ratios considered by a bank for lending purposes is the ratio of the total outside liabilities to tangible net worth. What is this ratio for XYZ Ltd. for the year ended 31-03-14?
2) List out the sources and uses of funds for the year ended 31-03-14 classifying them under the heads long-term and short-term.
3) Comment on the uses of funds based on the above. **[2+4+1]**

2(c)(ii). Gyan Co. Ltd.

The summarized Balance Sheets of the Company for the past two years are as under:

	(₹ in lakh)			
	As at 31.03.2014		As at 31.03.2013	
Share Capital and Liabilities:				
Share Capital		75.00		50.00
Cash Credit Loan from Bank @ 16.5% Int.		80.00		100.00
Working Capital Term Loan from Bank @ 16.5% Int.		20.00		---
Unsecured Inter-corporate Loan @ 18% Interest		60.00		---
		235.00		150.00
Assets:				
Fixed Assets Less Depreciation		35.00		37.00
Current Assets				
Inventories including WIP	100.00		70.00	
Debtors	60.00		30.00	
Cash/Bank	10.00		10.00	
	170.00		110.00	
Less: Current Liabilities				
Creditors	120.00		140.00	
Advances etc.	60.00		60.00	
	180.00	(10.00)	200.00	(90.00)
Profit and Loss A/c		210.00		203.00
		235.00		150.00

The following additional information is available:

(1) Sales and Profitability for the past two years are as under:

	(₹ in Lakh)	
	Sales	Profit/(Loss)
2012-13	100	(150)
2013-14	350	(7)

(2) By introducing some new products, for which no additional capital expenditure is involved, but Working Capital will be necessary. The company is expecting a 20% growth in sales volume every year and 10% profit (before interest) on sales.

You are required to write a comparative study of the financial statement on the basis of working capital, sales and loss. What are the potentialities the company has in making profits in future if only inter-corporate debt is considered? **[3+5]**

Question No. 3. (Answer **all** questions. Each question carries **10 marks**)

3. (a) K Ltd. processes raw material M to make product A. Contribution per unit of A is ₹ 32. Each unit of A requires two units of M. The company can process maximum 20,000 units of M to produce 10,000 units of A. Demand for product is unlimited at present selling price but annual production is restricted to 6,000 units due to restricted supply of raw materials. B Ltd is the only supplier of the raw material.

K Ltd. wishes to acquire controlling interest in B Ltd. to ensure supply of raw material M. B Ltd. makes two products M and N using same production facilities. Machine hour required for each unit of M and N are 4 and 5 respectively. Total machine hour available in a year is 75,000. Contribution per unit of M is ₹ 8 and that per unit of N is ₹ 15. Demand for N is restricted to 5,400 units.

Share capital of B Ltd. consists of 50,000 ordinary shares of ₹ 10 each. Tax rate is 40%and cost of capital is 10%.

Determine (i) maximum price K Ltd. can offer for 51% interest in B Ltd; (ii) Likely change in value of B Ltd. if the acquisition is successful. **[8+2]**

3. (b) The Optical Machineries Ltd. requests you to ascertain the amount at which the inventory should be included in the financial statement for the year 2013-14. The value of inventory as shown in the books is ₹6,25,000.

To determine the net realizable value of the inventory (on a test check basis), you had selected several items whose book value was ₹1,75,000. You ascertain that except for items (1) to (3) mentioned below, the cost was in excess of the realizable value by ₹14,766.

The following items require special treatment.

(1) One machine (cost ₹65,000) can now fetch ₹57,500. It was priced at ₹35,000 and was written down to the same figure at the end of 2013-14.
(2) A pump (cost ₹25,000) was expected to realize ₹17,500. A special commission of 15% would have to be paid to the broker.

(3) 6 units of Product No. 15710 were in stock valued each at ₹2,760; the selling price was ₹2,250 per unit; selling expenses are 10% of the selling price.

Taking into consideration only the above mentioned items requiring special treatment, compute the value of their inventory as at 31st March 2014 you would consider reasonable. **[10]**

Question No. 4. (Answer **any two** questions. Each question carries **15 marks**)

4.(a) (i) A company invested in 5-year bond issues of another company in 2012 carrying a coupon rate of 10% per annum. The interest is payable at half-yearly rates and the principal repayable after 5 years in 2016 end. The current market yield has fallen to any willing buyer. Compute the value of the bond at the end of 2013. Assume par value of each bond ₹2000. **[5]**

4.(a) (ii) Jain Co. Ltd. purchased a machine costing ₹2,50,000 for its manufacturing operations and paid shipping cost of ₹40,000. Jain Ltd. spent an additional amount of ₹20,000 for testing and preparing the machine for use. What amount should Jain Ltd. record as the cost of the machine? **[3]**

4.(a) (iii) From the following details, compute according to Lev and Schwartz model, the total value of unman resources of the employee groups skilled and unskilled. **[7]**

	Skilled	Unskilled
Annual average earning of an employee till the retirement age	₹80,000	₹60,000
Age of retirement	65 Years	62 Years
Discount rate	15%	15%
No. of employees in the group	30	35
Average age	62 years	60 years

4.(b) (i) Mukesh Ltd. furnishes the following particulars about their investment in shares of Sasco Ltd. for the year 2013-14.

Balance of shares held on 1st April, 2013 ₹1,31,000 [5000 shares @ ₹10 each]

Purchased 1000 shares on 1st July 2013 ₹30,000

Sold 250 shares on 1st August 2013 ₹8,750 @ ₹35 per share cum dividend

Sasco Ltd. declared final dividend for 2012-13 on 1st September 2013. 20%

Received 1 : 5 bonus shares on 1st February 2014.

Brokerage for each transaction is 2%. Find out cost of shares held by Mukesh Ltd. as on 31st March, 2014. **[8]**

4.(b) (ii) The following financial share date pertaining to ALPHA LTD on IT company is made valuable to you:

Year ended March 31st	2014	2013	2012
EBIT (₹)	696.03	325.65	155.86
Non-branded Income (₹)	53.43	35.23	3.46
Inflation compound factor @ 8%	1.000	1.087	1.181
Remuneration of Capital	5% of average Capital employed		
Average Capital Employed (₹)	1200.00		
Corporate Tax Rate	30%		
Capitalization Factor	15%		

You are required to calculate the Brand Value for ALPHA Ltd. **[7]**

4. (c) Consider two firms that operate independently and have following characteristics:

Particulars	ABC Ltd. ₹in lakhs	XYZ Ltd. ₹in lakhs
Revenues	600	300
COGS	350	180
EBIT	250	120
Expected Growth rate	6%	8%
Cost of capital	9%	10%

Both firms are in steady state with capital spending offset by depreciation. Both firms have an effective tax rate of 40% and are financed only by equity. Consider the following two scenarios:-

Scenario – I: Assume that combining the two firms will create economics of scale that will reduce the COGS to 50% of Revenue.
Scenario – II: Assume that as a consequence of the manager, the combined firm is expected to increase its future growth to 8% while COGS will be 60%.

It is given that scenario I & II are mutually exclusive.

You are required to:
(1) Compute the values of both the firms as separate entities.
(2) Compute the values of both the firms together if there were absolutely no synergy at all from the merger.
(3) Compute the value of cost of capital and the expected growth rate.
(4) Compute the value of synergy in (i) Scenario – I & (ii) Scenario – II.

[(2+2)+1+(1+1)+(4+4)]