PAPER – 20: FINANCIAL ANALYSIS & BUSINESS VALUATION

The following table lists the learning objectives and the verbs that appear in the syllabus learning aims and examination questions:

	Learning objectives	Verbs used	Definition
LEVEL C	KNOWLEDGE What you are expected to know	List	Make a list of
		State	Express, fully or clearly, the details/facts
		Define	Give the exact meaning of
	COMPREHENSION What you are expected to understand	Describe	Communicate the key features of
		Distinguish	Highlight the differences between
		Explain	Make clear or intelligible/ state the meaning or purpose of
		Identity	Recognize, establish or select after consideration
		Illustrate	Use an example to describe or explain something
	APPLICATION How you are expected to apply your knowledge	Apply	Put to practical use
		Calculate	Ascertain or reckon mathematically
		Demonstrate	Prove with certainty or exhibit by practical means
		Prepare	Make or get ready for use
		Reconcile	Make or prove consistent/ compatible
		Solve	Find an answer to
		Tabulate	Arrange in a table
	ANALYSIS How you are expected to analyse the detail of what you have learned	Analyse	Examine in detail the structure of
		Categorise	Place into a defined class or division
		Compare and contrast	Show the similarities and/or differences between
		Construct	Build up or compile
		Prioritise	Place in order of priority or sequence for action
		Produce	Create or bring into existence
	SYNTHESIS How you are expected to utilize the information gathered to reach an optimum conclusion by a process of reasoning	Discuss	Examine in detail by argument
		Interpret	Translate into intelligible or familiar terms
		Decide	To solve or conclude
	EVALUATION How you are expected to use your learning to evaluate, make decisions or recommendations	Advise	Counsel, inform or notify
		Evaluate	Appraise or asses the value of
		Recommend	Propose a course of action

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). PQ Inc. currently exports 500 calculators per month to UAE @ $ 70 per piece. The variable cost per calculator is $40. There is a proposal to establish a manufacturing plant in UAE, for which the company decided to make an equity investment of $1 million, half of which would represent working capital and the balance is fixed assets. The company would sell the plant to a local entrepreneur for a sum of $1 million at the end of 5 years and the Govt. of UAE would repay the company $ 5,00,000 for working capital. PQ Inc. will sell its calculators at $50 per unit in the UAE. The total cost of local managers and materials would be $15 per calculator. Other materials would be purchased from the parent company at $10 per unit and the parent company would receive a direct contribution to overhead variable costs @ $5 per unit sold.

The company expects to sell 12,000 calculators per annum. The fixed assets are to be depreciated on a straight-line basis over a five-year period. The company will have to pay income-tax at 50 per cent on profits. The current exchange rate is 10 UAE dinars per dollar and is expected to stay the same for the next five years. There is no restriction on cash flow repatriation.

(i) Determine the NPV of the project at 10 per cent.
(ii) PQ Inc. has been informed that if it decides to reject the project, it would lose its entire export sales to the UAE. How does this affect decision of PQ? **[5+5]**

1(b). The following Financial informations are summarised from the books of Ritu Ltd. as at 31st March 2015:

	₹
Shareholders' Fund:	
Paid-up Capital	15,00,000
Reserves and Surplus	6,00,000
Non-current Liabilities:	
Debentures	5,00,000
Current Liabilities:	
Bank Overdraft	2,00,000
Sundry Creditors	12,00,000
Non-current Assets:	
Fixed Assets	16,50,000
Current Assets:	
Stock-in-trade	9,10,000
Book Debts	12,40,000

Bills Receivables	1,60,000
Cash	40,000

Annual Sales — ₹ 74,40,000. Gross Profit — ₹ 7,44,000.

You are required to calculate the following ratios for the year and comment on the financial position as revealed by these ratios:

A. Debt Equity Ratio,
B. Current Ratio,
C. Proprietary Ratio,
D. G. P. Ratio,
E. Debtors' Turnover Ratio,

Stock Turnover Ratio. Bank Overdraft is payable on demand. **[10]**

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

2(a)(i). The following figures relate to two companies:

(₹ lakhs)

Particulars	T Ltd.	V Ltd.
Sales	500	1,000
Variable costs	200	275
Contribution	300	725
Fixed cost	150	425
Profit before Interest & Taxes (PBIT)	150	300
Interest	50	100
Profit before tax (PBT)	100	200

You are required to calculate - (A) operating, financial and combined leverages of the two companies, and (B) comment on the relative position of the companies in respect of the risk. **[3+2]**

2(a)(ii). Calculate Altman's Z score using multivariate analysis and assign the firm as failed or non-failed firm.

	₹
Sales	10,00,000
Operating expenses	8,00,000
Interest	6,000
Depreciation	50,000
Tax	15,000
Share Capital at ₹ 10 each	1,00,000
Reserve and surplus from retained earnings	50,000
6% long term loan	1,00,000
Sundry creditors	1,00,000
Provision for Tax	2,00,000
Fixed Assets	1,50,000
Inventory	2,00,000
Sundry debtors	1,10,000
Loans and Advances	50,000

Cash at Bank	40,000

Market value per share is ₹ 8. **[4+1]**

2(a)(iii). From the following informations, calculate the cash from operations after analysing each of the following items in relation to the cash flow analysis:

	Balances as on	
	31st March, 2014 (₹)	31st March, 2015 (₹)
1. Stocks	12,000	14,000
2. Debtors	12,000	15,000
3. Creditors	5,000	9,000
4. Bills Receivable	5,000	8,000
5. Outstanding Expenses	4,000	7,500
6. Bills Payable	4,000	2,000
7. Prepaid Expenses	2,000	1,000

Provided that operating profit before working capital changes are ₹ 3,000. **[5]**

2(b)(i). Rimi Ltd. has the following operating results for 2013-14 and 2014-15:

	2013-14 (₹)	2014-15 (₹)
Sales	8,00,000	9,03,000
(-) Cost of goods sold	6,40,000	6,70,000
(-) Fixed cost	1,60,000	2,33,000
	1,80,000	1,85,000
Profit	(-) 20,000	48,000

During 2014-15, selling price was raised by 5%. Prepare a statement bringing out the factors leading to change in profits earned in 2014-15 over 2013-14. **[8]**

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

[7]

2(c)(i). The following are the Balance Sheet of Maharaj Ltd. as on 31.03.14 and 31.03.15:-

	31.03.14 (₹)	31.03.15 (₹)
Current Assets:		
Cash and Bank Balance	23,600	2,000
Debtors	41,800	38,000
Inventory	32,000	26,000
Other Current Assets	6,400	2,600
(A)	1,03,800	68,600
Non-current Assets:		
Fixed Assets:		
Land and Building	54,000	34,000
Plant and Machinery	62,000	1,57,200
Furniture	5,800	9,600
(B)	1,21,800	2,00,800
Non-current investment (C)	9,200	11,800
Total assets (A + B + C)	2,34,800	2,81,200
Current Liabilities (D)	52,400	25,400
Non-current Liabilities:		
Long-term debt (E)	40,000	65,000
Shareholders' Fund :		
Equity share capital	80,000	1,20,000
Reserve and surplus	62,400	70,800
(F)	1,42,400	1,90,800
Total equities & liabilities (D+E+ F)	2,34,800	2,81,200

Prepare Comparative Balance Sheet and study its financial position. **[3+5]**

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

The following informations are related to the Balance Sheets of the Company for the past two years are as under:

	(₹ in lakh)			
	As at 31.03.2015		As at 31.03.2014	
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		---
Fixed Assets Less Depreciation		35.00		37.00
Inventories including WIP	100.00		70.00	
Debtors	60.00		30.00	

Cash/Bank	10.00		10.00	
Creditors	120.00		140.00	
Advances etc.	60.00		60.00	
Profit and Loss A/c		210.00		203.00

The following additional information is available:

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

	(₹ in Lakh)	
	Sales	Profit/(Loss)
2013-14	100	(150)
2014-15	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. State the potentialities which the company has in making profits in future if only inter-corporate debt is considered. **[3+4]**

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

3(a). The following are the summarized Balance Sheets of two Companies, A Ltd and B Ltd as on 31.03.2015.

Equity and Liabilities	A Ltd	B Ltd	Assets	A Ltd	B Ltd
(1) Shareholders' Funds:			(1) Non-Current Assets		
(a) Sh. Cap.- Equity Shares (₹10)	15,00,000	10,00,000	Fixed Assets		
(b) Reserves & Surplus - Res.	3,00,000	2,00,000	Tangible Block	17,00,000	14,00,000
(2) Non-Current Liabilities:			Intangible-G/w	2,00,000	1,00,000
Long Term Borrowings-10% Deb.	6,00,000	4,00,000	(2) Current Assets:	8,00,000	6,00,000
(3) Current Liabilities: Trade P'ble - S. Crs	3,00,000	5,00,000			
Total	27,00,000	21,00,000	Total	27,00,000	21,00,000

Additional Information -

(I) Assets are to be revalued as follows -

	A Ltd	B Ltd
Revaluation of Tangible Block	21,00,000	12,00,000
Revaluation of Current Assets	10,00,000	4,00,000

(II) Average Annual Profits for three years before charging Debenture Interest = A Ltd ₹ 4,50,000, B Ltd ₹ 3,10,000.

(III) Goodwill is to be valued at four year's purchase of Average Super Profits for three years. Such average is to be calculated after adjustment of depreciation at 10% on the amount of increase/decrease on revaluation of fixed assets. In the case of B Ltd, a claim of ₹ 10,000 which was omitted, is to be adjusted against its average profit. Income tax is to be ignored.

(IV) Normal Profit on Capital Employed is to be taken at 15%, Capital Employed being considered on the basis of net revalued amount of Tangible Assets.

Ascertain the value of Goodwill of A Ltd and B Ltd. **[10]**

3(b). S Ltd is considering buying the business of R Ltd the final accounts of which for the last 3 years were as follows:

Profit and Loss Accounts for the 3 years ended 31st March

(Figures in ₹)

Particulars	2013	2014	2015
Sales	2,00,000	1,90,000	2,24,000
Material Consumed	(1,00,000)	(95,000)	(1,12,000)
Business Expenses	(80,000)	(80,000)	(82,000)
Depreciation	(12,000)	(13,000)	(14,000)
Net Profit	8,000	2,000	16,000

Balance Sheet as at 31st March

(Figures in ₹]

Particulars	2012	2013	2014	2015
Fixed Assets (at Cost)	1,00,000	1,20,000	1,40,000	1,80,000
Less: Depreciation	70,000	82,000	95,000	1,09,000
Net Fixed Assets	30,000	38,000	45,000	71,000
Stock in Trade	16,000	17,000	18,500	21,000
Sundry Debtors	21,000	24,000	26,000	28,000
Cash in hand and at Bank	32,000	11,000	28,000	13,200
Prepaid Expenses	1,000	500	2,000	1,000
Total Assets	1,00,000	90,500	1,19,500	1,34,200
Equity Capital	50,000	50,000	70,000	70,000
Share premium	---	---	5,000	5,000
General Reserve	16,000	24,000	26,000	42,000
Debentures	20,000	---	---	---
Sundry Creditors	11,000	13,000	14,000	14,000
Accrued Expenses	3,000	3,500	4,500	3,200
Total Liabilities	1,00,000	90,500	1,19,500	1,34,200

S Ltd wishes the offer to be based upon trading Cash Flows rather than Book Profits. Trading Cash Flow is the Cash received from Debtors less Cash Paid to Creditors and for Business Expenses (excluding Depreciation), together with an allowance for average annual expenditure on Fixed Assets of ₹ 15,000 per year.

The actual expenditure on Fixed Assets is to be ignored, and also any cash received or paid out on the issue or redemption of Shares or Debentures.

S Ltd wishes the Trading Cash Flow to be calculated for each of the years 2013, 2014 and 2015 and for these to be combined using weights of 20% for 2013, 30% for 2014 and 50% for 2015 to give an Average Annual Trading Cash Flow.

S Ltd considers that the Average Annual Trading Cash Flow should show a Return of 10% on its Investment.

You are required to calculate:
(I) Trading Cash Flow for each of the years 2013, 2014 & 2015,
(II) Weighted Average Annual Trading Cash Flow, and
(III) Price which S Ltd should offer for the business. **[8+1+1]**

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

4(a). Amar Ltd and its Subsidiary Balu Ltd get their supply of some essential raw materials from Chand Ltd. To co-ordinate their production on a more profitable basis, Amar Ltd and Chand Ltd agree between themselves each to acquire a quarter of Shares in the other's Authorized Capital by means of exchange of Shares. The terms are as follows –

(I) Amar Ltd's share quoted at ₹ 14, but for the purpose of exchange the value is to be taken at the higher of the two values i.e. (a) Quoted and (b) on the basis of Balance Sheet valuation.

(II) Chand Ltd's Shares which are unquoted are to be taken at the higher of the value as on (a) Yield Basis, and (b) Balance Sheet basis. The future profits are estimated at ₹ 1,05,000 subject to one third to be retained for development purposes. Share of similar Companies yield 8%.

(III) Freehold properties of Chand Ltd are to be taken at ₹ 4,30,000.

(IV) No cash is to pass and the balance due on settlement is to be treated as loan between the two Companies.

The summarized Balance Sheets of the Companies at relevant date stood as follows –

(₹ in 000's)

Equity & Liabilities	Amar	Balu	Chand	Assets	Amar	Balu	Chand
(1) Shareholders' Funds:				(1)Non-Current Assets:			
(a) Share Capital				(a)Fixed Assets:			
(i) Authorized Share Capital	1,200	500	1,000	- Tangible Assets			
(ii) Equity Shares of ₹ 10	800	500	750	(i) Freehold Properties	660	290	330
(b) Reserves & Surplus				(ii) Plant & Machineries	450	410	440
(i) Securities Premium A/c	80	--	--	(b)Non-Current Investment:			

(ii) P & L A/c	230	210	200	40,000 Shares in Balu Ltd	470	--	--
(2) Non-Current Liabilities:				(2) Current Assets	210	240	390
Long Term Borrowings							
- 7% Debentures	300	--	--				
(3) Current Liabilities:							
(a) Other Current Liabilities	280	180	210				
(b) Short Term Provisions							
- Proposed Dividend	100	50	--				
Total	1,790	940	1,160	Total	1,790	940	1,160

You are required to compute the value of the Shares according to the terms of the agreement and to present the final settlement showing all the necessary workings. **[15]**

4(b)(i). How do you react to various uncertainties during the process of business valuation? **[6]**

4(b)(ii). PQR Ltd is considering merger with XYZ Ltd. PQR Ltd's Shares are currently traded at ₹ 20. It has 5,00,000 Shares outstanding and its Earnings After Taxes (EAT) amount to ₹ 10,00,000. XYZ Ltd has 2,50,000 shares outstanding; its Current Market Price is ₹ 10 and its EAT are ₹ 2,50,000. The merger will be effected by means of a stock swap (exchange). XYZ Ltd has agreed to a 2,50,000 plan under which PQR Ltd will offer the current market value of XYZ Ltd's Share – (1) What is the Pre-Merger Earnings per Share (EPS) and P/E Ratios of both the Companies? (2) If XYZ Ltd's PE Ratio is 6.4, what is its Current Market Price? What is the Exchange Ratio? What will be PQR Ltd's post-merger EPS? (3) What should be the Exchange Ratio, if PQR Ltd's Pre-Merger and Post-Merger EPS are to be the same? **[3+3+3]**

4(c)(i). Identify the Factors that favour external growth and diversification through Merger and Acquisition? **[3]**

4(c)(ii). How a merger can revive a sick company? **[4]**

4(c)(iii). Harshavardhan Infrastructure Developers (HID) have raised ₹ 100 Crores through issue of 11.50% Bonds, with a Face Value of ₹ 1,000 and 10 Years to maturity. Each Bond is redeemable at a Premium of 15% in five equal installments commencing from the 6th year. Compute the Price of the Bond if the Yield to Maturity is 13%. **[8]**