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) From the following income statements prepare a common-size income statement and also interpret the result.

Particulars	2013-14 (₹ crores)	2014-15 (₹ crores)
Sales/Income from operations	1,18,353.71	1,39,269.46
Excise duty, sales tax etc.	6,660.99	5,826.46
Net sales	1,11,692.72	1,33,443.00
Other income	478.28	5,628.79
Total income	1,12,171.00	1,39,071.79
Variation in stocks	(654.60)	1,867.16
Purchases	1,821.28	6,007.71
Raw material consumed	76,871.66	90,303.85
Manufacturing expenses	5,855.06	4,074.66
Payment for employees	2,094.09	2,119.33
Sales and distribution expenses	3,661.45	3,229.59
Establishment expenses	2,108.76	2,710.31
Preoperative expenses of projects under commissioning	(111.21)	(175.46)
Total Expenditure	91,646.49	1,10,137.15
Profit before Interest, Depreciation and Tax	20,524.51	28,934.64
Interest and Finance charges	1,188.89	1,077.36
Profit before Depreciation and Tax	19,335.62	27,857.28
Depreciation	4,815.15	4,847.14
Profit before tax	14,520.47	23,010.14

Provision for tax : Current	1,657.44	2,651.96
Deferred	919.63	899.89
Profit after tax	11,943.40	19,458.29

[10]

1(b). In connection with a proposal to secure additional finance for meeting its expansion as well as the working capital requirements, the following figures have been projected to a bank by a borrower. The figures have been adjusted for borrowal, debt redemption and interest payments.

		1	**2**	**3**	**4**	**5**	**6**	**7**
Current ratio	Borrower	2.0	2.0	2.5	2.2	2.0	2.5	2.0
	Industry's average	1.8	1.8	2.0	2.0	2.5	2.5	2.5
Debt equity ratio	Borrower	1.8	1.8	1.6	1.6	1.5	1.5	1.2
	Industry's average	1.5	1.5	1.8	1.8	1.8	1.6	1.8
Return on investment	Borrower	20	20	18	18	15	15	18
	Industry's average	18	18	20	20	18	18	18

You are required to ascertain the trend (base year = 1) and interpret the result. Kindly indicate how the bank would react to the proposal of financing put forward by the borrower. **[6+3+1]**

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

2(a). Below are given Summaries Balance Sheet and Income Statement of ABC Ltd.:

Income Statement for the year ended 31.03.2015	
	(₹ in thousands)
Sales	1,600
(-) Cost of goods sold	1,310
Gross Margin	290
Less: Selling and Administrative expenses	40
	250
Less: Interest expense	45
Earnings before tax	205
Tax paid	82
Earnings per share (EPS) ₹ 3.075	123

Balance Sheet as at 31.03.2015 (₹ in thousands)

Equity & Liabilities	₹	Assets	₹
Shareholders' Fund:		Non-current Assets:	
Paid up Capital (40,000		Net Fixed Assets	800
Shares of ₹ 10 each fully paid)	400	Current Liabilities:	
Retained Earnings	120	Inventory	400
Non-current Liabilities:		Debtors	175
Debenture	700	Marketable Securities	75
Current Liabilities:		Cash	50
Creditors	180		
Bills Payable	80		
Other Current Liabilities	20		
	1,500		**1,500**
Market Price per share ₹ 15			
Industry's average ratios are :			
Current ratio			2.4
Quick ratio			1.5
Sales to Inventory			8
Average Collection Period			36 days
Times Interest Earned			6
Profit margin			7%
Price to Earning Ratio			15
Return on total assets			11%

ABC Ltd. would like to borrow ₹ 5,00,000 from a bank for less than a year. Evaluate the firm's current financial position by calculating ratios that you feel would be useful for the banks evaluation. **[15]**

2(b)

Cash Flow Statement
for the year ended 31st March, 2015

	₹	₹	₹
Cash Flows from Operating Activities :			
Net Profit during the year :			
Net Profit for the year 2014-15	70,000		
Less : Net Profit for the year 2013-14	28,000		
		42,000	
Add : Non-Operating Expenses:			
Depreciation (₹ 15,000 + ₹ 4,000)	19,000		
Loss on Sale of Fixtures	2,000		
Discount on Debenture	1,000		
Proposed Dividend	20,000		
Debenture Interest (15% on ₹ 30,000)	4,500		
		46,500	
		88,500	
Less : Non-Operating Income:			
Profit on Sale of Plant		1,000	
		87,500	

Add : Decrease in Current Assets or Increase in Current Liabilities			
Decrease in Current Assets		Nil	
Increase in Current Liabilities: Increase in Creditors	14,000		
		14,000	
		1,01,500	
Less: Increase in Current Assets or Decrease in Current Liabilities			
Increase in Current Assets Increase in Stock Increase in Debtors	 1,000 14,000	 15,000	
Net Cash Flows from Operating Activities			86,500
Cash Flows from Investing Activities:			
Sale of Plant & Machinery Sale of Fixture & Fittings	3,000 1,000	 4,000	
Less: Purchase of Plant & Machinery Purchase of Fixture & Fittings Purchase of Freehold Properties	39,000 10,000 20,000	 69,000	
Net Cash Flow from Investing Activities			(-)65,000
Cash Flows from financing Activities :			
Issue of Share		70,000	
Less: Redemption of Debenture (including Premium) Dividend Paid Debenture Interest	42,000 15,000 4,500	 61,500	
Net Cash Flows from Financing Activities			8,500
Net Increase in Cash or Cash Equipment			30,000
Less: Cash and Cash equivalent at the beginning– Bank Overdraft			(-)14,000
Cash or Cash equivalent at the end – Cash at Bank			16,000

Additional information:

- Total assets as at 31.03.2015 amounting to ₹ 4,21,000.
- Equity share capital, Securities Premium Account and Profit & Loss Account as at 31.03.2015 are amounted to ₹ 1,50,000, ₹ 35,000 and ₹ 69,000 respectively.

From the above calculate the relevant ratios to analyse the cash flow statement and interpret the result. **[8+7]**

2(c)(i) Using Altman's 1983 Multiple Discriminant Function, calculate Z-score of Geeta & Co. Ltd., where the five accounting ratios are as follows and comment about its financial position:

Working Capital to Total Assets=0.350
Retained Earnings to Total Assets = 50%
EBIT to Total Assets = 19%
Book Value of Equity to Book Value of Total Debt= 1.65
Sales to Total Assets = 3 times

[5]

2(c)(ii). Ved Ltd. which is considering two financial plans provides you the following informations:

- Total funds to be raised, ₹ 4,00,000.
- Financing Plans: A – 50% Equity and balance 8% Debt.
  B – 50% Equity and balance 8% Preference shares.
- Tax rate: 30%
- Equity shares of face value ₹ 10 each.
- Expected EBIT, ₹ 2,00,000.

You are required to determine:

(I) Earnings per share (EPS) and Financial break-even point.

(II) Indicate if any of the plans dominate, and compute the EBIT range among the plans for difference. **[(2+1)+2]**

2(c)(iii). Home Grades Co. is considering building an assembly plant. The decision has been narrowed down to two possibilities. The company desires to choose the best plants at a level of operation of 10,000 gadgets a month. Both plants have an expected life of 10 years and are expected not to have any salvage value at the time of their retirement. The cost of capital is 12%. Assuming a Zero income-tax rate, suggest what would be the durable choice? Cost of 10,000 gadgets per month output level:

	Large Plant ₹	**Small Plant** ₹
Initial Cost	30,00,000	22,93,500
Direct Labour:		
First Shift	15,00,000 (p.a.)	7,80,000 (p.a.)
Second Shift	—	9,00,000 (p.a.)
Overheads	2,40,000 (p.a.)	2,10,000 (p.a.)

The present value of an ordinary annuity of ₹ 1 for 10 years, at 12%, is 5.6502. **[5]**

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

3 (a). ABC Ltd. wants to acquire PQR Ltd. The cash flow of ABC Ltd. & the merged entity is given as follows:

Year (₹ in Lakhs)	**1**	**2**	**3**	**4**	**5**
ABC Ltd.	275	302.5	324.5	641	357.5
Merged entity	440	495	563.75	591.25	618.75

After 5 years, earnings would have witnessed 5% constant growth rate without merger and 6% with merger on account of economies of operation. The cost of capital is 15%. The exchange ratio agreed upon is 0.6. From the viewpoint of ABC Limited, find out the value of acquisition, make suitable assumptions. **[10]**

3 (b). The following information is given for 3 companies that are identical except for their capital structure:

Particulars	X Ltd.	Y Ltd.	Z Ltd.
Total Invested Capital	1,00,000	1,00,000	1,00,000
Debt/Assets Ratio	0.8	0.5	0.2
Shares Outstanding	6,100	8,300	10,000
Pre tax cost of debt	16%	13%	15%
Cost of Equity	26%	22%	20%
Operating Income (EBIT)	25,000	25,000	25,000

The tax rate is uniform 35% in all cases.

(i) Compute the Weighted Average Cost of Capital for each company.
(ii) Compute the Economic Valued Added (EVA) for each company.
(iii) Based on the EVA, which company would be considered for better investment? Give reasons.
(iv) If the industry PE ratio is 11, estimate the price for the share of each company.
(v) Calculate the estimated market capitalization for each of the companies.

[2+2+1+3+2]

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

4(a)(i). A company needs ₹5.1 crores to finance its investments for which ₹1.1 crore is available out of profits. The market price per share at the end of the current financial year is expected to be ₹100. If the discount rate is 10%, determine the present value of a share using the M-M Model. (Outstanding shares=10 lakhs). **[8]**

4(a)(ii). S Ltd furnishes the following Cash Flows estimate -

Year 1	₹ 20.00 Lakhs
Years 2 to 4	Compounded Growth Rate 6.5%
Years 5 to 8	Compounded Growth Rate 9.5%

Apply 20% Discount Rate and determine the Value of Business. **[7]**

4(b) SUPER Garments Ltd. is a company which produces and sells to retailers a certain range of fashion clothing.They have made the following estimates of prudential cash flows for the next 10 years.

(₹ in lakhs)

Yr.	1	2	3	4	5	6	7	8	9	10
Cash flow	3750	4250	5000	6250	7500	8500	9500	11250	12500	15000

SONA Ltd. is a company which owns a series of boutiques in a certain locality. The boutiques buy clothes from various suppliers and retail them. Each boutique has a manager and an assistant but all purchasing and policy decisions are taken centrally. An independent cash flow estimate of SONA Ltd. was as follows;

(₹ in lakhs)

Yr.	1	2	3	4	5	6	7	8	9	10
Cash flow	300	400	500	700	850	1150	1300	1500	1650	2000

SUPER Garments Ltd. is interested in acquiring SONA Ltd. in order to get some additional retail outlets. They make the following cost-benefit calculation;

(i) Net value of assets of SONA Ltd.

	₹ in lakh
Sundry fixed assets	2000
Investments	500
Stock	1000
Total	3500
Less : Sundry Creditors	1000
Net Assets	2500

(ii) Sundry fixed assets amounting to ₹ 125,00,000 cannot be used and their net realisable value is ₹ 112,50,000

(iii) Stock can be realised immediately at ₹ 1,175 lakh.

(iv) Investments can be disposed off for ₹ 530 lakhs.

(v) Some workers of SONA Ltd. are to be retrenched for which estimated compensation is ₹ 325 lakh.

(vi) Sundry creditors are to be discharged immediately.

(vii) Liabilities on account of retirement benefits not accounted for in the balance sheet by SONA Ltd. is ₹ 120 lakhs.

(viii) Expected cash flows of the combined business will be as follows:

(₹ in lakhs)

Yr.	1	2	3	4	5	6	7	8	9	10
Cash flow	4500	4750	5750	7375	8750	10000	11250	13250	14500	17250

Find out the maximum value of SONA Ltd. which SUPER Garments Ltd. can quote. Also show the difference in valuation had there been no merger. Use 20% as discount factor.

Year	1	2	3	4	5	6	7	8	9	10
Discounting factor @ 20%	0.8333	0.6944	0.5787	0.4823	0.4019	0.3349	0.2791	0.2326	0.1938	0.1615

[15]

4 (c). The following Balance Sheet of ABC Ltd. as at 31.03.2015 is presented to you –

(₹in lakhs)

Equity and Liabilities	₹	**Assets**	₹
(1) Shareholders' Funds:		(1) Non-Current Assets:	
(a) Share Capital		Fixed Assets (Tangible):	
Fully paid up Equity Shares of ₹10	5,000	Plant and Machinery	4,780
(b) Reserves & Surplus		Furniture and Fittings	1,090
(i) Securities Premium	500	Intangibles – Trade market & Patents	20
(ii) General Reserve	1,603	Other Non-Current Assets–Cost of Issues of Shares	10
(iii) Profit and Loss Account	807	(2) Current Assets	
(2) Current Liabilities		Inventories	1,265
Trade Payables – Crs.	1,204	Trade Receivables – Drs.	644
Short Term Prov. – Prov. for Tax	110	Cash & Cash Equivalents	1,415
Total	**9,224**	**Total**	**9,224**

Authorized Capital: 8 Crore Shares of ₹10 each. Subscribed Share Capital is the same as issued Share Capital.

The Book Profits for the last four years are as under-

Year ending	31.03.2012	31.03.2013	31.03.2014	31.03.2015
Profits (₹in lakhs)	4,100	2,725	3,200	3,060

Provision of Income Tax in each one of the above mentioned four years had been made @ 35%.
A scrutiny of the Balance Sheet as at 31.03.2015 reveals that-

- Stock should have been valued at ₹1,230 lakhs.
- A debt amounting to ₹20 lakhs is really bad but has not been recorded in the books.
- A liability of ₹5 lakhs for damages exists but has not been recorded in the books.

It is decided that the necessary adjustments be made in the books of accounts for the above – mentioned matters.
You are also informed that –

1. There used to be an annual income of ₹1 Crore from Non-Trade Investments till the accounting year ended 31.03.2013.
2. During the year ended 31.03.2013, there was a special income of ₹150 due to an international fair.
3. Due to an earthquake the Company suffered a loss of ₹75 lakhs during the year 2013-14, the loss was not covered by Insurance Policy and was written off.

You are required to calculate Goodwill of the Company at 4 years Purchase of the Super Profits of the Company assuming that additional remuneration amounting to ₹70 lakhs annually will be paid to the Directors in the years of come and rate of taxation these years will be 40%.

Assume that the Normal Rate of Profit expected in the Industry is 20% of Capital Employed.

[15]