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). The following is the Balance Sheet of ABC Ltd. for two years.

(₹ in lakhs)

	As at 31.03.2014	As at 31.03.2015
Equity & Liabilities:		
Shareholders' Fund:		
Share capital	1,393.21	1,453.39
Equity share suspense	60.14	—
Equity share warrants	—	1,682.40
Reserve & surplus	62,513.78	78,312.81
Non-current Liabilities:		
Secured loans	9,569.12	6,600.17
Unsecured loans	18,256.61	29,879.51
Deferred tax liabilities	6,982.02	7,872.54
Current liabilities:		
Other current liabilities	16,865.53	21,045.47
Provisions	1,712.87	2,992.62
	1,17,353.28	1,49,838.91
Assets:		
Non-current Assets:		
Net fixed assets	63,660.46	61,883.63
Capital work-in-progress	7,528.13	23,005.84
Investments	16,251.34	22,063.60
Current assets:		
Inventories	12,136.51	14,247.54
Sundry debtors	3,732.42	6,227.58
Cash and bank balance	1,835.35	4,280.05
Other current assets	3.07	72.54
Loans and advances	12,206.00	18,058.13
	1,17,353.28	1,49,838.91

You are required to answer the following:

(i) Prepare the Common-size Balance Sheet of ABC Ltd.

(ii) Analyse and interpret the result. **[5+5]**

1(b). The following are condensed comparative financial statements, of Rajarshi Ltd., for the three years ended 31st March, 2013, 2014 and 2015.

	2014-15 (₹)	2013-14 (₹)	2012-13 (₹)
Current Assets:			
Bank	20,500	7,600	17,000
Debtors	38,000	30,000	20,000
Stock	60,000	40,000	30,000
Prepaid Expenses	1,500	2,400	3,000
Total Current Assets	1,20,000	80,000	70,000
Non-current Assets:			
Plant and Equipment	2,60,000	1,50,000	76,000
Total Assets	3,80,000	2,30,000	1,46,000
Current Liabilities:			
Creditors	98,000	78,000	48,500
Provision for Income Tax	2,000	2,000	1,500
Total Current Liabilities	1,00,000	80,000	50,000
Non-current Liabilities:			
Debentures	50,000	50,000	---
Shareholders' Fund:			
Equity Share Capital (₹ 100 shares)	2,00,000	80,000	80,000
Profit and Loss Account	30,000	20,000	16,000
Total Liabilities	3,80,000	2,30,000	1,46,000

Comparative Operating Statement
For the three years ended on 31st March,

	2015 (₹)	2014 (₹)	2013 (₹)
Sales	2,10,000	1,20,000	1,00,000
Cost of Sales	1,57,500	80,000	55,000
Gross Profit	52,500	40,000	45,000
General and Selling Expenses	42,500	36,000	37,000
Net Profit	10,000	4,000	8,000

Additional information:
(i) The company's closing inventory on 31st March, 2012 was ₹ 10,000.
(ii) Credit terms are net 60 days from the date of invoice.

You are required to calculate the following ratios with brief comments thereon:
(1) Current ratio, (2) Acid-test ratio, (3) Inventory turnover ratio, (4) Debtors' collection period (or average age of outstanding), (5) Gross profit margin percentage, (6) Earnings per share, and (7) Fixed assets to shareholders' equity. **[10]**

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

2(a)(i). A 10 years bond of ₹1,000 has an annual rate of interest of 12 per cent. The interest is paid half-yearly. Calculate the value of the bond if the required rate of return is (I) 12 per cent and (II) 16 per cent? **[4]**

2(a)(ii). Amro Ltd. is evaluating a proposal to acquire new equipment. The new equipment would cost ₹ 3.5 million and was expected to generate cash inflows of ₹ 4,70,000 a year for nine years. After that point, the equipment would be obsolete and have no significant salvage value. The company's weighted average cost of capital is 16%.

The management of Amro Ltd. seemed to be convinced with the merits of the investment but was not sure about the best way to finance it. Amro Ltd. could raise the money by issuing a secured eight-year note at an interest rate of 12%. However, Amro Ltd. had huge tax loss carry forwards from a disastrous foray into foreign exchange options. As a result, the company was unlikely to be a position of tax-paying for many years. The CEO of Amro Ltd. thought it better to lease the equipment than to buy it. The proposals for lease have been obtained from Kiran Leasing Ltd. and Megha Leasing Ltd. The terms of the lease are as under:

	Kiran Leasing Ltd.	Megha Leasing Ltd.
Lease period offered	9 years	7 years
Number of lease rentals payments with initial lease payment due on entering the lease contract	10	8
Annual lease rentals	₹ 5,44,300	₹ 6,19,400
Lease terms equivalent to borrowing cost (Claim of lessor)	11.5% p.a.	11.41% p.a.
Leasing terms proposal coverage	Entire ₹ 3.5 million cost of equipment	Entire ₹ 3.5 million cost of equipment
Tax rate	35%	35%

Both the leasing companies were in a tax-paying position and write-off their investment in new equipment using following rate:

Year	1	2	3	4	5	6
Depreciation	20%	32%	19.20%	11.52%	11.52%	5.76%

You are required to answer the following:

(1) Calculate the Net Present Value (NPV) to Amro Ltd. of the two lease proposals.
(2) Discuss whether the new equipment has a positive NPV with (I) ordinary financing, (II) lease financing?
(3) Calculate the NPVs of the leases from the lessors' viewpoint. Is there a chance that they could offer more attractive terms?
(4) Evaluate the terms presented by each of the lessor.

[2+2+6+1]

2(b)(i). Consider the following information for AB Enterprise:

	₹ in lakh
EBIT	1,120
PBT	320
Fixed cost	700

Calculate percentage change in earning per share if sales increased by 6 per cent. **[3]**

2(b)(ii). The following are the financial statements for Ananda Co., for 2014-15:

Balance Sheet (Extracts)

As on 31st March, 2015

Equity &Liabilities	₹	Assets	₹
Shareholders' Fund:		Non-current assets:	
Preference share capital	2,80,000	Fixed assets, (net)	10,50,000
Equity share capital	1,40,000	Goodwill	1,40,000
Reserves	2,80,000	Current assets:	
Non-current liabilities:		Cash	70,000
Long-term debt	8,40,000	Debtors	3,50,000
Current liabilities:		Stock	4,90,000
Bills payable	2,80,000		
Creditors	1,40,000		
Outstanding expenses	40,000		
Provision for tax	1,00,000		
	21,00,000		21,00,000

Profit and Loss A/c (Extracts)
For the year ended 31st March, 2015

Sales:		
Cash		2,80,000
Credit		11,20,000
		14,00,000
Less: Expenses:		
Cost of goods sold	8,40,000	
Selling, administrative and general expenses	1,40,000	
Depreciation	98,000	
Interest on long-term debt	42,000	11,20,000
Profit before taxes		2,80,000
Taxes		1,40,000
Profit after taxes		1,40,000
Less: preference dividend		17,000
Net profit for equity shareholders		1,23,000
Add: Reserve at 1st April, 2013		1,82,000
		3,05,000
Less: Dividend paid to equity shareholders		25,000
Reserve at 31st March, 2014		2,80,000

The ratios for the years 2012-13 and 2013-14 for Ananda Company and their industry ratios are given below:

	2012-13	2013-14	Industry
Current ratio	2.54	2.10	2.30
Acid-test ratio	1.10	0.96	1.20
Debtors turnover	6.00	4.80	7.00
Stock turnover	3.80	3.05	3.85
Long-term debt to total capital	37%	42%	34%
Gross profit margin	38%	41%	40%
Net profit margin	18%	16%	15%
Return on equity	24%	29%	19%
Return on total assets	7%	6.8%	8%
Tangible assets turnover	0.80	0.70	1.00
Interest coverage	10	9	10

(1) Calculate ratios for 2014-15 and evaluate the company's financial position.

(2) Using relevant ratios, evaluate the decision which would be taken in the following situations: (I) Ananda Co. wants to buy material of ₹70,000 on a three, month credit from A. (II) Ananda co. offers to sell 70,000 additional shares for ₹112 per shares to a financial institution (III) Ananda co. wants to issue 16% debentures of ₹ 3,00,000 with a ten-years maturity.

[(6+3)+3]

2(c)(i). From the following informations as contained in the Income Statement (extract) and Balance Sheet (extract), calculate — (1) cash receipts from customers, (2) cash payments to suppliers and employees, (3) cash flows from operating activities and (4) cash flows from financing activities.

Income Statement (extracts) for the year ended, 31st March, 2015

	₹	₹
Net Sales		40,32,000
Less: Cost of sales	31,68,000	
Depreciation	96,000	
Salaries & wages	3,84,000	
Operating expenses	1,28,000	
Provision for taxation	1,40,800	39,16,800
Net operating profit		1,15,200
Non-recurring income:		
Profit on sale of equipment		19,200
Profit for the year		1,34,400

Comparative Balance Sheet (extracts)

	As on 31.03.2014	As on 31.03.2015
Fixed assets:		
Land	76,800	1,53,600
Building, plant and equipments	5,76,000	9,21,600
Current assets:		
Cash and cash equivalents	96,000	1,15,200
Debtors	2,68,800	2,97,600
Stock	4,22,400	1,53,600
Advances	12,480	14,400
	14,52,480	16,56,000
Capital	5,76,000	7,10,400
Surplus in Profit & Loss A/c	2,42,880	2,62,080
Sundry creditors	3,84,000	3,74,400
Outstanding expenses	38,400	76,800
Income-tax payable	19,200	21,120
Accumulated depreciation on building, plant and equipments	1,92,000	2,11,200
	14,52,480	16,56,000

[2+3+1+2]

2(c)(ii). Following figures have been extracted from the records of a company:

Year	2013-14	2014-15

Sales (₹)	12,00,000	16,80,000
Cost of Goods Sold (₹)	8,00,000	12,60,000
Units Sold	40,000	60,000

Analyse the reasons for changes in profit due to changes in sales quantity, cost price and selling price. **[7]**

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

3 (a). R Ltd is intending to acquire S Ltd. (by merger) and the following information are available in respect of both the companies.

Particulars	R Ltd.	S Ltd.
Total current Earnings E	₹2,50,000	₹90,000
No. of Outstanding Shares	50,000	30,000
Market price per share	₹21	₹14

(1) Calculate the present EPS of both the companies?
(2) If the proposed merger takes place then calculate the new earnings per share for R Ltd. (assuming the merger takes place by exchange of equity shares and the exchange ratio is based on the current market price)?
(3) Compute the exchange ratio if S Ltd. wants to ensure the same earnings to members as before the merger took place? **[2+4+4]**

3 (b). The following are the summarized Balance Sheets of two Companies, R Ltd and S Ltd as on 31.03.2015

Equity and Liability	R Ltd.	S Ltd.	Assets	R Ltd.	S Ltd.
(1) Shareholders Fund:			(1) Non-Current Assets:		
(a) Share Capital			(a) Fixed Assets		
Equity Share Capital of ₹ 10 each	15,00,000	10,00,000	(i) Tangible Assets:	17,00,000	14,00,000
			(ii) Intangible Assets:		
(b) Reserve & Surplus			— Goodwill	2,00,000	1,00,000
— Reserve	3,00,000	2,00,000			
			(2) Current Assets:	8,00,000	6,00,000
(2) Non-Current Liabilities:					
Long Term Borrowings					
— 10% Debenture	6,00,000	4,00,000			
(3) Current Liabilities:					
Trade Payables					
— Sundry Creditors	3,00,000	5,00,000			
Total	27,00,000	21,00,000	Total	27,00,000	21,00,000

Additional Information:

1. Assets are to be revalued as follows –

Particulars	R Ltd.	S Ltd.
Revaluation of Tangible Block	21,00,000	12,00,000
Revaluation of Current Assets	10,00,000	4,00,000

2. Average Annual Profits for three years before charging Debenture Interest = R Ltd ₹4,50,000; S Ltd ₹3,10,000.
3. Goodwill is to be valued at three 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 S Ltd, claim of ₹10,000 which was omitted, is to be adjusted against its average profit. Income tax is to be ignored.
4. Normal profit on Capital Employed is to be taken at 12%, capital employed being considered on the basis of net revalued amount of tangible assets.

Ascertain the value of Goodwill of R Ltd and S Ltd. **[10]**

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

4(a)(i). Explain your reaction in various uncertainties during the process of business valuation? **[5]**

4(a)(ii). Raymond Inc., a leader in the development and manufacture of household products in India, reported EBIT of ₹1,200 lakh in 2014-15 prior to depreciation of ₹350 lakh. The capital expenditures in 2014-15 amounted to ₹420 lakh and working capital was 10% of the revenues (which were ₹13,000 lakh). The firm has outstanding debt yielding a pre-tax interest rate of 8%. The tax rate for the firm is 40% and the Treasury bill rate is 7%. The most recent beta for the firm is 1.10. The debt equity ratio of the firm was 50%.

The firm expects revenues, earnings, capital expenditures and depreciation to grow at 9.5% a year from 2015-16 to 2019-20 after which the growth rate is expected to drop by 4% (capital spending will offset depreciation in the steady state period). The company also plans to lower its debt/equity ratio to 25% for the steady state resulting in the pre-tax interest rate drop to 7.5%. The annual market premium of the firm is 6%.

Estimate the value of the firm. **[10]**

4 (b). The following financial statements have been extracted from the Annual Report 2014-15 of Khan Steel:

Balance Sheet of Khan Steel Limited as at 31st March

(₹ in crores)

Particulars	2014	2015

EQUITY AND LIABILITIES		
Shareholders' Funds:		
Share Capital	959.41	971.41
Reserves and Surplus	45,807.02	51,649.95
Money received against share warrants	178.20	
	46,944.63	52,621.36
Hybrid Perpetual Securities	1,500.00	2,275.00
Non-Current Liabilities:		
Long-term Borrowings	24,499.05	21,353.20
Deferred tax liabilities (Net)	936.80	970.51
Other long-term liabilities	373.88	216.05
Long-term provisions	2,201.47	1,851.30
	28,011.20	24,391.06
Current Liabilities:		
Short-term borrowings	149.13	65.62
Trade payables	4,464.81	5,973.23
Other current liabilities	6,262.10	8,798.55
Short term provisions	2,219.85	2,066.24
	13,095.89	16,903.64
Total	89,551.72	96,191.06
ASSETS		
Non-Current Assets		
Fixed Assets:		
Tangible assets	11,532.58	11,142.36
Capital work-in-progress	5,612.28	16,058.49
Intangible assets	272.52	223.90
	17,417.38	27,424.75
Non-current investments	43,565.15	49,078.35
Foreign currency monetary item translation difference account	---	404.90
Long-term loans and advances	10,453.41	6,415.80
Other non-current assets	2.76	2.76
	54,021.32	55,901.81
Current Assets:		
Current investments	2,999.79	1,204.17
Inventories	3,953.76	4,858.99
Trade receivable	424.02	904.08
Cash and bank balance	4,138.78	3,946.99
Short-term loans and advance	6,458.94	1,828.09
Other current Assets	137.73	122.18
	18,113.02	12,864.50
Total	89,551.72	96,191.06

Statement of Profit and Loss of Khan Steel Limited for the year ended on 31s March.

(₹ in crores)

Particulars	2014	2015
Revenue from Operations	31,902.14	37,005.71
Less: Excise Duty	2,505.79	3,072.25
	29,396.35	33,933.46
Other Income	528.36	886.43
Total Revenue	29,924.71	34,819.89
EXPENSES		
Raw materials consumed	6,244.01	8,014.37
Purchase of finished, semi-finished and other products	180.20	209.52
Charges in inventories of finished goods, work-in-progress, and stock-in-trade	(173.65)	(220.72)
Employee benefits expense	2,837.46	3,047.26
Depreciation and amortization expense	1,146.19	1,151.44
Finance costs	1,735.70	1,925.42
Other expenses	9,024.82	11,824.49
	20,994.73	25,951.78
Less: Expenditure (other than interest) transferred to capital and other accounts	198.78	478.23
Total Expenses	20,795.95	25,473.55
Profit before Tax and Exceptional Items	9,128.76	9,346.34
Exceptional Item:		
Profit on sale of Non-Current Investments	648.09	511.01
	648.09	511.01
Profit/(Loss) before Tax	9,776.85	9857.35
Tax Expenses	2,911.16	3,160.93
Profit/(Loss) after Tax	6,865.69	6,696.42

(1) Find the EPS for the period ending on March 31, 2014 and March 31, 2015.
(2) The face value per share is ₹ 10. Determine Return on Equity (ROE) for the year ending on March 31, 2014 and March 31, 2015.
(3) Using the price of ₹ 471.75, calculate the ratio between the market price and the book value as on April 1, 2015.
(4) Calculate the P/E ratio using the price of ₹ 471.75 and the EPS calculated for the year ending on March 31, 2015.
(5) The CFO of Khan Steels has to make a presentation as a part of due diligence in Merger and Acquisition process. He has requested your help in determining intrinsic value of the shares. Assuming that the intrinsic value of the Khan Steel Ltd. share can be fairly estimated through the Constant Growth Model, using the information given below, you are required to calculate the value of share. Assume the cost of equity as 15%.

(₹ In crores)

Dividend Particulars	2013-14	2014-15
Proposed dividend on Ordinary Shares	1,151.06	1,165.46

Tax on dividends	156.71	181.57

[4+2+3+1+5]

4(c)(i). A pharmaceutical firm has the patent rights for the next 20 years to a product that requires an initial investment of ₹1.4 crore to develop. However, the present value of the cash inflows for the product is only ₹80 lakh. Due to technological advancement, there is a possibility that the project would become a valuable project in the future. The simulation of the project under a variety of technological and competitive scenarios yields a variance in the present value of inflows of 0.05. The rate of the 10-year Government security is 10%. Calculate the value of the product patent. **[9]**

4(c)(ii). State the categories of Financial Instruments which are covered under AS 30? **[6]**