FINAL EXAMINATION

JUNE 2014

P–20(FABV)
Syllabus 2012

FINANCIAL ANALYSIS & BUSINESS VALUATION

Time Allowed: 3 Hours | Full Marks: 100

The figures in the margin on the right side indicate full marks.

SECTION A

Answer **Question No. 1** and **Question No. 2** *which are compulsory carrying 15 marks each and* **any two** *from the rest in this Section.*

1. The following financial data for five years has been extracted from the Annual Report 2012-13 of one of the world's largest generic pharmaceutical companies having a strong presence in over 170 countries. Though the company's mission is 'To be a leading global healthcare company which uses technology and innovation to meet everyday needs of all patients', yet it also wants to keep its shareholders happy by giving them a fair rate of return. For gauging return for shareholders, the company is using Return on Equity (ROE) as one of the metrics of performance evaluation. Because of intense competition, in recent years, its ROE is under pressure and to maintain the level of ROE, the company is changing its business model – in that, it is varying its margins, assets utilization and leverage.

   (i) You are required to use DU PONT Analysis using the financial data given below and show how the ROE of the company is changing due to change in its margins, assets utilization and leverage over the period of five years. 12

   (ii) You are also required to give your comments on the trend on these parameters. 3

(₹ in Crores)

Statement of Profit and Loss	2009	2010	2011	2012	2013
Total Revenue	5315.82	5713.24	6422.73	7125.80	8431.55
Profit before Tax	901.31	1324.99	1151.39	1421.46	2011.86
Profit after Tax	776.81	1081.49	960.39	1123.96	1507.11
Dividend	155.46	160.58	224.81	160.58	160.58
Tax on Dividend	26.42	26.67	36.72	26.05	27.29
Retained Earnings	594.93	894.24	698.86	937.32	1319.24

Balance Sheet	2009	2010	2011	2012	2013
ASSETS:					
Fixed Assets	2358.81	2695.41	3120.72	3346.11	3768.63
Investments (Current and Non-Current)	81.32	265.10	570.65	1035.15	2601.82
Other Net Assets (Current and Non-Current	3015.01	3137.80	3574.51	3413.67	3746.08
Total	**5455.14**	**6098.31**	**7265.88**	**7794.93**	**10116.53**

Please Turn Over

EQUITY AND LIABILITIES:					
Share Capital	155.46	160.58	160.58	160.58	160.58
Reserves and Surplus	4195.29	5753.51	6452.37	7389.70	8708.94
Net Worth	**4350.75**	**5914.09**	**6612.95**	**7550.28**	**8869.52**
Loan Funds (Current and Non-Current)	940.24	5.07	440.48	12.20	965.81
Deferred Tax	164.15	179.15	212.45	232.45	281.20
Total	**5455.14**	**6098.31**	**7265.88**	**7794.93**	**10116.53**

2. Following are the financial data for last four years of a company:

				Amount ₹ in lakhs
Year	**2010**	**2011**	**2012**	**2013**
Equity Share (₹10 each)	100	100	100	100
Reserve	100	100	100	100
10% Debt	100	120	180	200
EBIT	20	30	56	70
P/E Ratio	10	12	10	12
Tax Rate	30%			

Find for all the years:

(a) NOPAT, ROCE, EPS, Market value per share, ROE, Earnings Yield, Market value to Book value ratio and comment on the profitability and growth expectation. 11

(b) Debt–Equity (D/E) ratio and make an analysis of financial risk over the years based on D/E ratio and DFL (Degree of Financial Leverage) and explain if you find any difference in the interpreted results. 4

3. M. Ltd. is considering a new product line to supplement its range line. It is anticipated that the new product line will involve cash investment of ₹ 7,00,000 at time 0 and ₹ 10,00,000 in Yr 1. After tax cash inflows of ₹ 2,50,000 are expected in year 2, ₹ 3,00,000 in year 3, ₹ 3,50,000 in Yr 4, and ₹ 4,00,000 in each year thereafter through year 10. Though the product line might be viable after year 10, the company prefers to be conservative and end all calculation at that time.

(i) If the required rate of return is 15%, what is the NPV of the project and is it acceptable? 3

(ii) What is its IRR? 3

(iii) What would be the case if the required rate of return was 10%? 2

(iv) What is the project's Pay Back Period? 2

Years	P.V. Factor Year 1	P.V. Factor Year 2	P.V. Factor Year 3	P.V. Factor Year 4	PVIFA for 10 years
Discounting Factor @ 13%	0.885	0.783	0.693	0.613	5.426
Discounting Factor @ 14%	0.877	0.769	0.675	0.592	5.215
Discounting Factor @ 15%	0.870	0.756	0.658	0.572	5.020

4. (a) Compute the Liquid Ratio from the following information for the year ended 31st March, 2014 and also interpret the result: 6

Particulars	₹
Land and Building	55,000
Plant and Machinery	40,000
Stock	30,000
Debtors	42,000
Bills receivable	25,000
Prepaid Expense	5,000
Cash at bank	15,000
Cash in hand	10,000
Creditors	25,000
Outstanding Salary	5,000
Bank Overdraft	3,000
Bills payable	4,000
Proposed Dividend	6,000
Long Term Liabilities	46,000
Provision for Bad debts	2,000

(b) Using Altman's Multiple Discriminant Function, calculate Z – score of Neel & Co. Ltd., where the five accounting ratios are as follows and comment about its financial position: 4

Working Capital to Total Assets = 0.250
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. The following information is given regarding Shaan Ltd. Some key ratios are provided for the particular industry to which Shaan Ltd. belongs. You are required to calculate the relevant ratios for Shaan Ltd., compare them with that particular industry norms and give the comments on the performance of the company. 10

The following balances are available from the books of accounts of Shaan Ltd. as at 31st March, 2014:

Equity Share Capital ₹ 27,00,000, 12% debentures ₹ 5,00,000, Sundry Creditors ₹ 3,80,000, bills payable ₹ 3,20,000 and other current liabilities ₹ 2,00,000, Net fixed assets ₹ 17,00,000, cash ₹ 4,00,000, Sundry Debtors ₹ 7,50,000 and stock ₹ 12,50,000.

The sales of the company for the year ending 31.03.2014 amounted to ₹ 60,00,000 and the gross profit was ₹ 17,00,000.

Industry Norms	**Ratio Considered**
Current Ratio (CA/CL)	2.4
Sales/Debtors	7.7
Sates/Stock	7.9
Sales/Total assets	2.39
Gross Profit Ratio	36%

SECTION B

Answer **Question No. 6** and **Question No. 7** *which are compulsory carrying 15 marks each and* **any two** *from the rest in this Section.*

6 (a) Bihari Ltd. is issuing 5% ₹ 25 at par preference shares that would be convertible after three years to equity shares at ₹ 27. If the current market price of equity shares is ₹ 13.25, what is the conversion value and conversion premium?

The convertibles are trading at ₹ 17.75 in the market. Assume expected return as 8%. 6

(b) Following is the information of two companies for the year ended 31st March, 2014:

Particulars	Company A	Company B
Equity shares of ₹ 10/- each	₹ 8,00,000	₹ 10,00,000
10% Pref. Shares of ₹ 10/- each	₹ 6,00,000	₹ 4,00,000
Profit after tax	₹ 3,00,000	₹ 3,00,000

Assume the market expectation is 18% and 80% of the profits are distributed.

Required—

(i) What is the rate you would pay for the equity shares of each company? 3

(a) If you are buying a small lot.

(b) If you are buying controlling interest shares.

(ii) If you plan to invest only in preference shares which company's preference shares would you prefer? 3

(iii) Would your rates be different for buying small lot, if the company 'A' retains 30% and company 'B' 10% of the profits. 3

7 (a) Consider two firms that operate independently and have the following financial characteristics:

(₹ in Millions)

	Firm A	Firm B
Revenues	8000	4000
Cost of goods sold	6000	2400
EBIT	2000	1600
Expected growth rate	4%	6%
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 50% and are financed only by equity.

Scenario I

Assume that the combining of the two firms will create economies of scale that will reduce the cost of goods sold to 65%.

Scenario II

Assume that as a consequence of the merger the combined firm is expected to increase its future growth to 6% while cost of goods sold remains at 70% and does not come down to 65%.

Scenario I and Scenario II are mutually exclusive.

You are required to:

(i) Compute the value of both the firms as separate entities. 3

(ii) Compute the value of both the firms together if there were absolutely no synergy at all from the merger (Scenario III). 1

(iii) Compute the cost of capital and the expected growth rate for the combined entity. 2

(iv) Compute the value of synergy in Scenario I and Scenario II. 3

(b) From the following information and particulars of Salim Ltd. for the year ended 31.03.2014, calculate— (1) Book Value per share, (2) Earnings per share, (3) Dividend yield, (4) Earning yield, (5) P/E Ratio and (6) P/B Ratio. 6

The information which is available from the Books of Accounts of Salim Ltd. is as follows:

(All in ₹ lakhs)

Sales – 18.26, Cost of goods sold – 10.25, Administrative expenses – 0.46, selling and distribution expenses – 1.47, Depreciation – 1.05, Interest on debt – 1.13, Tax provision – 1.08, Proposed dividend – 0.90, Equity share capital (consisting of 7,000 equity shares of ₹ 100 each) 7.00, Reserve & Surplus – 1.15, 8% Debentures – 9.0, 9% Public deposits – 3.4, Trade creditors – 3.28, Outstanding liabilities for expenses 0.23, and Fixed assets (less accumulated depreciation of 4.6) 15.6. Monthly average market price per share during month of March, 2014 was ₹ 247. Industry averages: P/E ratio 10, P/B 1.6, Dividend yield 8%.

8. (a) What are the types of companies where management may find difficulties in using Discounted Cash Flow Technique for Valuation? 4

(b) The following information is available pertaining to Smart Televisions Ltd. for the financial year ending on 31.03.2014.

Particulars	**Amount (₹ in Crores)**
Sales	250
Profit after tax	40
Book value	100

The valuer appointed by the company believes that 50% weightage should be given to the earnings in valuation process. He also believes that equal weightage may be given to sales and book value. He has identified three firms viz., Alpha Ltd., Beta Ltd., and Gamma Ltd., which are comparable to the operations of Smart Televisions Ltd.

Particulars	**Alpha Ltd.** **₹ in Crores**	**Beta Ltd.** **₹ in Crores**	**Gamma Ltd.** **₹ in Crores**
Sales	190	210	270
Profit after tax	30	44	50
Book value	96	110	128
Market value	230	290	440

Compute the value of Smart Televisions Ltd. using the comparable firms approach. 6

9. Following information is available in respect of XYZ Ltd. which is expected to grow at a higher rate for four years after which growth rate will stabilize at a lower level:

Base year information:

Revenues	–	₹ 2,000 crores
EBIT	–	₹ 300 crores
Capital expenditure	–	₹ 280 crores
Depreciation	–	₹ 200 crores

Information for high growth and stable growth period is as follows:

	High Growth	Stable Growth
Growth in Revenue & EBIT	20%	10%
Growth in capital expenditure and depreciation	20%	Capital expenditure is offset by depreciation
Risk free rate	10%	9%
Equity beta	1.15	1
Market risk premium	6%	5%
Pre-tax cost of debt	13%	12.86%
Debt equity ratio	1 : 1	2 : 3

For all time, working capital is 25% of revenue and corporate tax rate is 30%.

What is the value of the firm? Use rate of discounting @ 13%. 10

Year	1	2	3	4
P. V. Factor @ 13%	0.885	0.783	0.693	0.613

10. Following is the information collected for a company, provided to you:

BALANCE SHEET OF XYZ LTD AS AT 31ST MARCH ......

(₹ in Crores)

Particular	**2013**
EQUITY AND LIABILITIES:	
SHAREHOLDER'S FUNDS	
Share capital	36.37
Reserves and Surplus	2,225.66
	2,262.03
NON-CURRENT LIABILITIES	
Long-term Borrowings	6,322.76
Deferred tax liabilities (Net)	39.39
Other long-term liabilities	7.09
Long-term provisions	355.03
	6,724.27
CURRENT LIABILITIES	
Trade payables	1797.88
Other current liabilities	12.24
Short-term provisions	19.00
	1829.11
TOTAL	**10,815.41**
ASSETS	
NON-CURRENT ASSETS	
FIXED ASSETS:	
Tangible assets	4,535.68
Capital work-in-progress	898.83
Intangible assets	550.00
	5,984.51
Non-current investments	1,664.30
Long-term loans and advances	891.97
Other non-current assets	3.03
	2,559.30

CURRENT ASSETS	
Current investments	142.50
Inventories	1,389.92
Trade receivables	585.77
Cash and bank balances	38.41
Short-term loans and advances	115.00
	2,271.60
TOTAL	**10,815.41**

STATEMENT OF PROFIT AND LOSS OF XYZ LTD. FOR THE YEAR ENDING ON 31ST MARCH ......

(₹ in Crores)

Particulars	**2013**
Revenue from operations	295.00
Less: Excise Duty	26.39
	268.61
Other Operating Income	0.30
Other Income	0.13
TOTAL Revenue	**269.04**
EXPENSES	
Raw materials consumed	132.79
Power & Fuel Cost	21.37
Changes in inventories of finished goods, work-in-progress, and stock-in-trade	(1.63)
Employee benefits expense	5.97
Depreciation and amortization expense	20.77
Interest cost	32.19
Other expenses	34.23
TOTAL expenses	**245.69**
PROFIT/(LOSS) BEFORE TAX AND EXTRA-ORDINARY ITEMS	**23.35**
Less: Extra-Ordinary items	0.64
PROFIT/(LOSS) BEFORE TAX	**22.71**
Tax Expenses	
Tax paid @ 32.50%	7.38
Deferred Tax	1.37
	8.75
PROFIT/(LOSS) AFTER TAX	**13.96**

If the Weighted Average Cost of Capital (WACC) is 15% then you are required to calculate EVA for the year 2012-13. 10