

FINAL EXAMINATION

June 2013

F-P18(BVM)
Syllabus 2008

Business Valuation Management

Time Allowed: 3 Hours

Full Marks: 100

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

Answer Question No. 1 which is compulsory carrying 25 marks and any five from the rest.

1. (a) State whether the following statements are True or False: 1×5=5
- (i) Zero coupon bonds have no coupon rate, hence no yield.
 - (ii) Deferred Tax Liabilities are the liabilities towards payment of tax at some future point of time and hence, while calculating the Net Worth of a company, it should be deducted.
 - (iii) Value gap is the difference between the synergy value and purchase price.
 - (iv) Industrial groups are inherently less conservative than investors in allocating resources.
 - (v) In a debt for equity swap, a firm replacing equity with debt decreases its leverage ratio.
- (b) Fill in the blanks by using words/phrases given in the brackets: 1×10=10
- (i) Price/Earning (PE) Ratio of a company is _____ related to Dividend Payout Ratio. (positively/negatively/not).
 - (ii) The stronger a brand of a company is, _____ its risk. (lower is/higher is/nothing can be said regarding)
 - (iii) Intangible assets are treated as _____ assets. (fixed/fictitious)
 - (iv) _____ risk remains fixed irrespective of number of securities in portfolio. (systematic/unsystematic)
 - (v) Seller of a futures contract incurs a loss when the future price _____. (increases/decreases)
 - (vi) The _____ (Tangible/ Intangible) Assets monitor is a management tool for organizations that wish to track and value their _____ assets. (tangible/ intangible)
 - (vii) Dividend yield is the dividend per share as a % of the _____ value of the share. (book/market)
 - (viii) The dividend discount model is a specific case of _____ valuation. (bond/equity)
 - (ix) Super profit is the excess of future maintainable profit over _____ expected profits. (normally/ abnormally)
 - (x) DCF analysis requires the revenue and expenses of _____. (past/future)

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(c) In each of the questions given below one out of the four options is correct. Indicate the correct answer: 2×5=10

- (i) Which is not a, human-capital related intangible asset?
- (A) Trained workforce
 - (B) Employment agreements
 - (C) Union contracts
 - (D) Design patent
- (ii) A share, Y, currently sells for Rs. 50. It is expected that in one year it will either rise to Rs. 55 or decline to Rs. 45. The value of a European call, if the strike price of the underlying share is Rs. 48 and the risk free interest rate is 9% p.a. is
- (A) Rs. 9.33
 - (B) Rs. 11.33
 - (C) Rs. 18.33
 - (D) Rs. 20.50
- (iii) The beta (β) of a portfolio is equal to
- (A) The beta of the market portfolio
 - (B) The arithmetic average of the individual security betas
 - (C) The weighted average of the individual security betas
 - (D) None of these
- (iv) A company is having Book Value per share of Rs. 15 while the market value per share is Rs. 20. If a company has 20 crores number of shares and Book Debt of Rs. 100 crores, then its Enterprise Value will be
- (A) Rs. 300 Crores
 - (B) Rs. 400 Crores
 - (C) Rs. 500 Crores
 - (D) None of the above
- (v) If the company has a P/E Ratio of 12 and a ROE of 13%, then its Market to Book Value Ratio will be
- (A) 1.09
 - (B) 1.56
 - (C) 9.34
 - (D) Nothing can be concluded as information available is insufficient
2. (a) What do you understand by 'Knowledge Companies'? 5
- (b) 'Balance Scorecard translates a business's vision and strategy enabling better monitoring and management'. Do you agree with the statement? 5
- (c) What are the factors that need to be taken into account in arriving at the replacement cost? 5

3. The following financial statements have been extracted from the Annual Report 2011-12 of Solid Biscuit Ltd.
Balance Sheet of Solid Biscuits Ltd. as At 31st March.....

(Rs. In Crores)

Particulars	2011	2012
Equity and Liabilities:		
Shareholder's Funds		
Share Capital	23.89	23.89
Reserves and Surplus	427.41	496.15
	451.30	520.04
Non-Current Liabilities		
Long-Term Borrowings	430.57	28.15
Deferred tax liabilities (Net)	6.24	8.16
Other long term liabilities	15.99	19.91
Long term provisions	122.68	116.82
	575.48	173.04
Current Liabilities		
Trade payables	239.68	336.20
Other current liabilities	119.38	518.26
Short term provisions	96.65	124.80
	455.71	979.26
TOTAL	1,482.49	1,672.34
Assets		
Non-Current Assets		
Fixed Assets:		
Tangible assets	298.68	370.63
Capital work-in-progress	5.02	8.46
Intangible assets	11.70	79.73
	315.40	458.82
Other non-current Assets:		
Non current investments	308.94	218.40
Long-term loans and advances	142.13	125.02
Other non-current assets	12.12	12.12
	463.19	355.54
Current-Assets		
Current investments	236.06	210.54
Inventories	311.20	382.28

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Trade receivables	57.26	52.14
Cash and bank balances	28.75	30.94
Short-term loans and advances	70.63	182.08
	703.90	857.98
Total	1,482.49	1,672.34

Statement of Profit And Loss of Solid Biscuit Ltd. for the Year Ending on 31st March.....

(Rs. In Crores)

Particulars	2011	2012
Revenue from operations	4,230.59	5,005.66
Less: Excise Duty	32.27	58.62
	4,198.32	4,947.04
Other Operating Income	25.20	27.15
Other Income	48.92	58.53
Total Revenue	4,272.44	5,032.72
EXPENSES		
Raw materials consumed	2,371.92	2,655.01
Cost of finished, semi-finished and other products sold/consumed	392.42	524.74
Employee benefits expense	119.93	145.87
Depreciation and amortisation expense	37.75	38.07
Finance costs	44.59	47.32
Other expenses	1,107.77	1,369.34
Total Expenses	4,074.38	4,780.35
Profit/(Loss) Before Tax	198.06	252.37
Tax Expenses	52.77	65.63
Profit/(Loss) After Tax	145.29	186.74

● **Miscellaneous Information about the Company:**

1. Face Value of the Share of the Company Rs. 2 per share
2. Beta of the Company 0.90
3. Promoters' Holding 62.59%
4. Dividend History of the Company:

Year ending on March 31,	Dividend Rate (%)
2003	100
2004	110
2005	140
2006	150
2007	150
2008	180
2009	400
2010	250
2011	325
2012	425

5. Effective Corporate Dividend Tax Rate = 16.22%

• **Miscellaneous Information about the Industry to which the company belongs to:**

P/E (Price/Earning Ratio)	31.68
P/B (Price/Book Value Ratio)	9.42
Market Capitalization/Enterprise Value	0.97
Enterprise Value/PBDITA	19.06

• **Miscellaneous Information about the Stock Market and Interest Rate:**

1. The Market Rate of Return 15.60%
2. Risk Free Interest Rate 7.75%

On the basis of the above, you are required to determine the following:

- i. Intrinsic Value of the Share using Constant Growth Model. 5
- ii. Determine the relative valuation of the Company's share using
 - I. P/E Multiple 2
 - II. P/B Multiple 4
 - III. Market Capitalization/Enterprise Value 4

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4. Frontier Company Limited (FCL) is in negotiation for taking over Back Moving Company Limited (BMCL). The management of FCL is seeing strong strategic fit in taking over BMCL provided it is a profitable proposition. Mr. Guha, GM (Finance) has been asked to look into the viability of the probable takeover of BMCL. He has collected the following necessary information. 15

Summarized Balance Sheet of Back Moving Company Limited (BMCL) as on March 31, 2012

LIABILITIES	Amount (Rs. in crores)
Shareholders' Fund:	
Equity Share Capital (Rs. 10 par)	200.00
12% Preference Capital (Rs. 100 par)	75.00
Reserves and Surplus	125.00
	400.00
Non-Current Liabilities:	
10% Debentures	40.00
Long Term Loans	25.00
	65.00
Current Liabilities:	
Current Liabilities	24.75
Total Liabilities	489.75
ASSETS	
Non-Current Assets	
Net Fixed Assets	332.75
Investments	125.00
	457.75
Current Assets:	
Inventories	10.00
Debtors	15.00
Cash in Hand and at Bank	4.25
Loans and Advances	1.75
	31.00
Miscellaneous Expenses to the extent not written off	1.00
Total Assets	489.75

Proposed Purchase Consideration:

- 10.50% Debentures of FCL for redeeming 10% Debentures of BMCL - Rs. 44 crores.
- 11% Convertible Preference Shares of FCL for the payment of Preference Shareholders of BMCL - Rs. 100 crores.
- 12.50 crores of Equity Shares of FCL would be issued to the shareholders of BMCL at the prevailing market price of Rs. 20 each.
- FCL would meet all dissolution expenses of Rs. 0.50 crores.

The management of FCL would dispose any asset and liability which may not be required after takeover:

- Investments Rs. 150 crores
- Debtors Rs. 15 crores
- Inventories Rs. 9.75 crores
- Payment of Current Liabilities Rs. 25 crores
- All intangible assets will be written off

The management of FCL would like to run the takeover company, BMCL, for next 7 years and after that, it would discontinue with it. It is expected that for the next 7 years, the takeover company would generate the following yearly operating cash flows after tax:

	1	2	3	4	5	6	7
Operating Cash Flows After Tax (Rs. In crores)	70	75	85	90	100	125	140

It is estimated that the terminal cash flows of BMCL would be Rs. 50 crores at the end of 7th year.

If the cost of capital of FCL is 16%, then you are required to find out whether the decision to takeover BMCL at the terms and conditions mentioned above will be a profitable decision:

Year	1	2	3	4	5	6	7
Discounting Factor @ 16%	0.8621	0.7432	0.6407	0.5523	0.4761	0.4104	0.3538

5. (a) Identify and explain four techniques of relative valuation. 5
 (b) What are the misconceptions about Valuation? 5
 (c) How do you minimize Valuation bias? 5
6. The following projections for T Ltd., have been developed based on internal estimates and market information: 15

	Rs. In million				
Year	1	2	3	4	5
Free cash flow to the firm	200	250	300	340	380
Interest bearing debt	500	400	300	200	100
Interest expenses	60	48	36	24	12

You are required to calculate the enterprise value of T Ltd., using the following assumptions:

- (a) Beyond year 5, the free cash flow to the firm will grow at a constant rate of 10 percent per annum
- (b) T Ltd.'s unlevered cost of equity is 14%
- (c) After year 5, T Ltd. will maintain a debt equity ratio of 4:7
- (d) The borrowing rate for T Ltd. will be 12 percent
- (e) The tax rate for T Ltd. is 30%
- (f) The risk free rate of return is 8%
- (g) The market risk premium is 6%

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7. XYZ Ltd. is faced with a decision to purchase or acquire on lease a mini car. The cost of mini car is Rs. 1,26,965. It has a life of 5 years. The mini car can be obtained on lease by paying equal lease rental annually. The leasing company desires a return of 10% on the gross value of the lease assets. XYZ Ltd. can also obtain 100% finance from its regular banking channel. The rate of interest will be 15% pa and the loan will be paid in 5 equal annual instalments, inclusive of interest. The effective tax rate of the company is 40%. For the purpose of taxation, it is to be assumed that the asset will be written off over the period of 5 years on a straight line basis.
- (a) Advice XYZ Ltd. Which option should the company consider? 10
- (b) What should be the annual lease rental to be charged by leasing company to match the loan option? 5

Present Value of Rs. 1

Rate of Interest Year	10%	15%	9%
1	.91	.87	.92
2	.83	.76	.84
3	.75	.66	.77
4	.68	.57	.71
5	.62	.49	.65

8. A company is trying to decide whether to invest in a new project. Two mutually exclusive projects are available, each requiring an investment of Rs. 3,00,000. Project A is expected to generate cash inflows of Rs. 2,00,000 per year in the next two years. It is estimated that the cash inflows associated with project B would either be Rs. 1,80,000 or Rs. 2,20,000 (each with 0.5 probability of occurrence) in the first year. If Rs. 1,80,000 is received in the first year, the cash inflow for the second year is likely to be Rs. 1,50,000 (probability of 0.3) Rs. 1,80,000 (Probability of 0.4) and Rs. 2,00,000 (probability of 0.3).

In case the first year's cash inflow is Rs. 2,20,000, the second year's likely cash inflow would be Rs. 1,80,000 and Rs. 2,70,000 (each with 0.3 probability) and Rs. 2,20,000 (Probability 0.4). The firm uses a 14% minimum required rate of return for deciding whether to invest in projects comparable in risk to the ones under consideration.

Required:

- (a) Calculate the risk adjusted expected NPV for projects A and B. 10
- (b) Identify the best and the worst possible outcomes for Project B. 3
- (c) Which of the projects, if any, would you recommend? Why? 2

(The PV of 1 rupee at 14%: year 1: .877, year 2: .769 year 3: .675, year 4: .592 and year 5: .519)