

FINAL EXAMINATION

June 2014

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) While valuing a company, one has to use financial information from its financial statements after making a number of adjustments for items like Extraordinary write-off; deferred tax assets and liabilities; etc.
 - (ii) When a company is publicly traded, the value of equity equals the market capitalization of the company.
 - (iii) Mutually exclusive investments serve the same purpose and compete with each other.
 - (iv) In condition of rising prices for change from LIFO to FIFO method, earnings should rise.
 - (v) A lower discount would be applied to the cash flows of the government bonds, as compared to shares of a company.
- (b) Fill in the blanks by using the words / phrases given in the brackets: 1×10=10
- (i) A ratio between the market value of a company to the replacement value of its assets is known as _____ Ratio. (Market Value to Book Value/Tobin's Q/ Price to Book Value)
 - (ii) Net Operating Profit After Taxes — (Capital Employed × the Cost of Capital) is called _____. (Book Value Added/Market Value Added/ Economic Value Added)
 - (iii) Production capacity is a _____ variable for valuation. (operational / financial)
 - (iv) Replacement cost is current cost of replacing _____ assets of a company. (current / all)
 - (v) The required rate of return may also be called _____ of capital. (cost / opportunity cost)
 - (vi) For firms with negative FCFE and positive FCFF the present value of _____ is the suitable model of valuation of equity. (FCFE/FCFF).
 - (vii) Super profit is the excess of future maintainable profits over _____ expected profits. (normally/ abnormally)
 - (viii) _____ measures the variation of distribution for the expected returns. (Standard deviation/ Regression)
 - (ix) Dividend yield ratio is equal to dividend per share divided by _____ and the quotient multiplied by 100. (EPS/market price per equity share)
 - (x) Current liabilities are payable _____ (within/beyond) a period of 1 year.

Please Turn Over

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

(i) In the context of an acquisition of a firm, which one of the following concepts of value is least relevant?

- (A) Market Value
- (B) Opportunity Cost
- (C) Synergy Value
- (D) Value Gap

(ii) Assume that in a Stock Market, the CAPM is working. A company has presently beta of 0.84 and its going to finance its new project through debt. This would increase its Debt/Equity Ratio to 1.56 from the existing 1.26. Due to increased Debt/Equity Ratio, the Company's beta would

- (A) Increase
- (B) Decrease
- (C) Remain unchanged
- (D) Nothing can be concluded

(iii) The dividend per share is ₹ 2 and its market value is ₹ 25 the dividend yield ratio will be

- (A) 5%
- (B) 7%
- (C) 12.25%
- (D) 8%

(iv) If Cash Flows amount to ₹ 60 lakhs, Depreciation ₹ 30 lakhs and capital expenditure ₹ 40 lakhs, FCFF in ₹ lakhs will be

- (A) 90
- (B) 50
- (C) 30
- (D) 20

(v) Shareholders of target companies are typically paid in

- (A) Government bonds held by the target company
- (B) Government bonds held by the acquiring company
- (C) Cash and / or shares of the acquiring company
- (D) None of the above

2. ABC Limited wants to takeover XYZ Limited in all equity deal. For that purpose, Mr. K. S. Goel, CFO of ABC Limited has collected the following financial information.

Summarized Balance Sheet as on March 31, 2014

(₹ in crores)

Particulars	ABC LIMITED	XYZ LIMITED
EQUITY AND LIABILITIES		
Share Capital (Face Value ₹ 10)	100.00	80.00
Reserves and Surplus	26.00	5.00
Non-Current Liabilities	50.00	30.00
Current Liabilities	64.00	35.00
TOTAL LIABILITIES	240.00	150.00
ASSETS		
Non-Current Assets	145.00	102.00
Current Assets	95.00	48.00
TOTAL ASSETS	240.00	150.00

Summarized Statement of Profit and Loss for the year ending on March 31, 2014

(₹ in crores)

Particulars	ABC LIMITED	XYZ LIMITED
Sales	345.00	170.00
Less: Cost of Goods Sold	276.00	136.00
Gross Profit	69.00	34.00
Depreciation	19.69	10.10
Profit Before Interest and Tax	49.31	23.90
Interest	6.97	4.61
Profit Before Tax	42.34	19.29
Tax @ 35%	14.82	6.75
Profit After Tax	27.52	12.54
Additional Information:		
• Estimated Cost of Equity	15%	18%
• Dividend Rate for the FY 2014	13.75%	6.40%
• Market Price	₹ 52.25	₹ 24.00
• Both the companies are following constant Dividend – Payout Policy.		

Mr. K. S. Goel wants to explore the possibility that if the exchange ratio is determined on the basis of the companies respective intrinsic values, then what would be the scenario.

Assume that you are working in ABC Limited and Mr. Goel requests you to determine the following:

- On the basis of the intrinsic values of the shares of both the companies, determine the exchange ratio. 7
- Determine the post-merger EPS of ABC Limited assuming the exchange ratio calculated above and there are no synergy gains. 5
- Assuming that ABC Limited P/E Ratio will continue to be the same post-merger and the exchange ratio calculated in (i) above, determine the expected post-merger market price of ABC Limited. 3

Please Turn Over

3. (a) ₹ 100 shares of SBC Ltd. were being quoted at ₹ 180. The company launched an expansion programme worth ₹ 25 crores and decided to make a public issue. Part of the issue was to be rights. Members were offered one right share for every six ordinary shares held by them, at a premium of ₹ 50 per share.

Determine the minimum price that can be expected of the shares after the issue.

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- (b) Vipul Ltd. has a surplus cash of ₹ 90 lakhs and wants to distribute 30% of it to the shareholders. The company decides to buyback shares. The finance manager of the company estimates that its share price after repurchase is likely to be 10% above the buyback price, if the buyback route is taken. The number of shares outstanding at present is 10 lakhs and the Current EPS is ₹ 3.

Find—

- (i) The price at which the shares can be repurchased, if the market capitalization of the company should be ₹ 200 lakhs after buyback. 5
- (ii) The number of shares that can be repurchased. 2
- (iii) The impact of share repurchase on the EPS, assuming the net income remains same. 4

4. You are provided with particulars about A Ltd. and four other firms in the same industry.

Firms	Book Value (₹)	EPS (₹)	DPS (₹)	CFPS (₹)	Number of shares	Price per share
B. Ltd.	20,00,000	10	5	8	1,00,000	30
C. Ltd.	28,80,000	6	5	5	2,00,000	16.2
D Ltd.	12,00,000	2	2	2	1,00,000	15
E Ltd.	40,00,000	20	8	15	2,00,000	28
A Ltd.	30,00,000	8	5	6	1,50,000	

EPS = Earnings Per Share, DPS = Dividend Per Share, CFPS = Cash Flow Per Share,

- (a) You are required to compute values of the following variables for each of the other firms from the above table: 8
- (i) Market Value to Book Value
- (ii) Dividend Yield
- (iii) Price Earning ratio (P/E)
- (iv) Price to Cash Flow
- (b) You are also required to compute the market value of Equity and value per share of A Ltd. under relative valuation method based on each of the four variables above. Use simple average of values of four other firms to form the relative valuation bases for A Ltd. 6
- (c) Should you buy A Ltd. share at ₹ 40? 1

5. X Ltd. is contemplating to acquire B Ltd. The following information is available:

Company	X Ltd.	B Ltd.
EAT(₹)	25,00,000	9,00,000
No. of equity shares	5,00,000	3,00,000
Market Value per share (₹)	21	14

(Assume no synergy in earnings or value due to merger)

- (a) If merger has to take place through such an exchange of shares that earnings available to shareholders of B Ltd. remains unchanged.
- What number of shares has to be issued by X Ltd. to B Ltd.? 2
 - What would be the EPS of X Ltd. after merger? 1
 - What would be the post merger market capitalization? 1
 - What would be the post merger price of equity share? 1
- (b) If merger takes place by exchange of shares on the basis of market price
- What number of shares has to be issued by X Ltd. to B Ltd.? 2
 - What would be the EPS of X Ltd. after merger? 2
 - What earnings would be available to the equity shareholders of B Ltd.? 2
- (c) Between (a) and (b) which exchange ratio would be more beneficial to the shareholders of B Ltd. from the view point of earnings and from the view point of market value? 2+2
6. (a) D Ltd. is currently an unlevered firm. The company expects to generate ₹ 153.85 lakh in earnings before interest and taxes (EBIT), in perpetuity. The corporate tax rate is 35%. The after tax earnings is ₹ 100 lakh. All earnings after tax are paid out as dividends.
The firm is considering a capital restructuring to allow ₹ 200 lakh of debt. Its cost of debt capital is 10%. Unlevered firm in the same industry have a cost of equity capital of 20%.
What will the new value D Ltd. be? 5
- (b) Wizard Investment Consultants have been following Hercules Limited for a long time and found that the company has negative valuation for growth opportunities. They suggested Hercules Limited as a potential target to Mr. N. Prabhu, Managing Director, Stronghold Limited — as the latter has the capabilities and the expertise of converting the negative growth opportunities values into the positive ones. Wizard Investment Consultants provided the following summarized information about Hercules Limited for the FY-2013.

Summarized Statement of Profit and Loss of Hercules Limited for the period ending on 31.03.2013

Particulars	Amount (₹ in Crores)
Sales	168.08
Less: Cost of Goods Sold	99.28
Gross Profit	68.80
Depreciation	3.53
Profit Before Interest and Tax	65.27
Interest	6.78
Profit Before Tax	58.49
Tax @ 30%	17.55
Profit After Tax	40.94

Please Turn Over

Summarized Balance Sheet of Hercules Limited as on March 31, 2013

Particulars	Amount (₹ in Crores)
EQUITY AND LIABILITIES	
Share Capital	73.13
Reserves and Surplus	277.88
Non-Current Liabilities	87.56
Current Liabilities	45.95
TOTAL LIABILITIES	484.52
ASSETS	
Non-Current Assets	195.65
Current Assets	288.87
TOTAL ASSETS	484.52

Additional Information:

- Face Value of a Share ₹ 10.00
- Estimated Cost of Equity 15%
- Hercules Limited follows constant Dividend-Payout Policy and has a Dividend Payout Ratio of 40%

Assume that you are attached with Mr. N. Prabhu who requested you that on the basis of the above information, show that the present value of growth opportunities is negative. Also, you are required to give the reasons why should Stronghold Limited takeover Hercules Limited.

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7. Gupta Balance Scorecard Consultant LLP is a limited liabilities partnership firm providing consultancies regarding the development and the implementation of Balance Scorecard for corporate in India. Their summarized financial statements for the FY 2014 are given below:

Profit and Loss Account for the year ending on March 31, 2014

Particulars	Amount (₹ in Lakhs)
Revenue	150.00
Less:	
Employee Cost	45.00
Annual Rent of Office	15.00
Lease Rentals of the assets taken on Operating Lease	12.00
Insurance	13.50
Depreciation	2.00
Other Expenses	1.50
Total Expenses	89.00
Profit Before Tax	61.00
Tax @40%	24.40
Profit After Tax	36.60

Summarized Balance Sheet as on March 31, 2014

Particulars	Amount (₹ in Lakhs)
LIABILITIES	
Capital	20.00
Reserves and Surplus	35.00
Non-Current Liabilities	7.50
Current Liabilities	5.25
Total Liabilities	67.75
ASSETS	
Non-Current Assets	22.75
Current Assets	45.00
Total Assets	67.75

Mr. K. Roy and his friend want to buy the LLP. It is estimated that the free cash flows of LLP will grow at a rate of 5% per annum for the next five years; and after that they will grow at a rate of 8% per annum if Guptas do not remain in this line of consultancy. However, if Mr. Roy runs the LLP with his friend and Guptas are allowed to run parallel the same consultancy business in some other name, then first two years, free cash flows will fall by 10% and 5% respectively over the immediately preceding year, but after that they will grow at a rate of 6% for ever. If Mr. Roy wants to enter into a non-compete agreement with Guptas, then determine what will be maximum amount he should offer to them as compensation for the agreement. (Assume that the cost of capital is 15%)

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Years	1	2	3	4	5	6	7
P.V. at Discounting Factor @ 15%	0.870	0.756	0.658	0.572	0.497	0.432	0.376

8. A Company had nearly completed a job relating to construction of a specialized equipment, when it discovered that the customer had gone out of business. At this stage, the position of the job was as under—

a. Original cost estimate	₹ 1,75,200
b. Costs incurred so far	₹ 1,48,500
c. Costs to be incurred	₹ 29,700
d. Progress payments received from original customer	₹ 1,00,000

After searches, a new customer for the equipment has been found. He is interested to take the equipment, if certain modifications are carried out. The new customer wanted the equipment in its original condition, but without its control device and with certain other modification. The costs of these additions and modifications are estimated as under—

Direct Material (at cost)	₹ 1,050
Direct Wages Deptt. A	15 man days
Deptt. B	25 man days
Variable overheads	25% of direct wages in each department
Delivery cost	₹ 1,350

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Fixed overheads will be absorbed at 50% of direct wages in each department. The following additional information is available:

- (i) The direct materials required for the modification are in stock and if not used for modification of this order they will be used in another job in place of materials that will now cost ₹ 2,250.
- (ii) Department A is working normally and hence any engagement of labour will have to be paid at the direct wage rate of ₹ 120 per man day.
- (iii) Department B is extremely busy. Its direct wages rate is ₹ 100 per man day and it is currently yielding a contribution of ₹ 3.20 per rupee of direct wages.
- (iv) Supervisory overtime payable for the modification is ₹ 1,050.
- (v) The cost of the control device that the new customer does not require is ₹ 13,500. If it is taken out, it can be used in another job in place of a different mechanism. The latter mechanism has otherwise to be bought for ₹ 10,500. The dismantling and removal of the control mechanism will take one man day in department A.
- (vi) If the conversion is not carried out some of the materials in the original equipment can be used in another contract in place of materials that would have cost ₹ 12,000. It would have taken 2 man days of work in department A to make them suitable for this purpose. The remaining materials will realize ₹ 11,400 as scrap. The drawings which are included as part of the job, can be sold for ₹ 1,500.

You are required to calculate the minimum price which the company can afford to quote for the new customer as stated above, using opportunity cost to value the same.