Paper-18: 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.

Working Notes should form part of the answer.

"Whenever necessary, suitable assumptions should be made and indicated in answer by the candidates."

1. (a) State whether the following statements are true or false: [1x10=10]

(i) The market value of a property is the price paid to acquire it.
(ii) Insurable Value of real property does not include site value.
(iii) Intangible assets are treated as fictitious assets.
(iv) The CAPM model assumes perfect market competition.
(v) Value Gap in context of acquisitions refer to the difference between book value and the purchase price of a company.
(vi) Take-over defenses are also referred to as anti-takeover defenses.
(vii) Replacement value of an asset is future cost of a new asset at the time of replacement.
(viii) EVA is inversely related to shareholders' value.
(ix) Under DCF mode of asset valuation, we need to estimate the cash flows during life of the asset.
(x) The concept of 'value' is different from cost and price.

(b) Fill in the blanks by using the words/phrases given in the brackets: [1x5=5]

(i) Revaluation of assets is undertaken to attract investors by indicating to them ---------- value of the asset. (current,future).

(ii) Synergy is whole that is ---------- than sum of its parts. (less, more).

(iii) In a conglomerate merger, the concerned companies are in ---------- lines of business. (related, unrelated).

(iv) For trading investments, the valuation is at ---------- value. (book, market).

(v) One of the methods of valuation of equity is –Constant Growth Dividend Discount Model. As per this model, the growth rate is used is the growth rate in ---------- (Earnings per share/ dividend per share/ Market price of share).

(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 of the following best describes free cash flow?
(a) Free cash flow is the amount of cash flow available for disturbing to all investor after all necessary investments in operating capital have been made

(b) Free cash flow is the amount of cash flow available for disturbing to shareholders after all necessary investments in operating capital have been made
(c) Free cash flow is the net change in the cash account on the balance sheet.
(d) Free cash flow is equal to net income plus depreciation.

(ii) A share, Y, currently sells for ₹50. It is expected that in one year it will either rise to ₹55 or decline to ₹45. The value of a European call, if the strike price of the underlying share is ₹48 and the risk free interest rate is 9% p.a. is
(a) ₹9.33
(b) ₹11.33
(c) ₹18.33
(d) ₹20.50

(iii) The beta (β) of 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 ₹15 while the market value per share is ₹20. If a company has 20 crores number of shares and Book Debt of ₹100 crores, then its Enterprise Value will be
(a) ₹300 Crores
(b) ₹400 Crores
(c) ₹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

Answer

1. (a) State whether the following statements are true or false:

(i) False

(ii) True

(iii) False

(iv) True

(v) False

(vi) True

(vii) False

(viii) False

(ix) True

(x) True

1. (b) Fill in the blanks by using words / phrases given in the brackets:

(i) current

(ii) more

(iii) unrelated

(iv) market

(v) dividend per share

1. (c) In each of the questions given below one out of the four options is correct. Indicate the correct answer -

(i) (a) Free cash flow is the amount of cash flow available for disturbing to all investor after all necessary investments in operating capital have been made

(ii) (b) ₹11.33

(iii) (c) The weighted average of the individual security betas.

(iv) (c) ₹500 Crores.

(v) (b) 1.56

2. (a) Amit Ltd. is planning to acquire and absorb the running business of Ankita Ltd. The valuation is to be based on the recommendation of merchant bankers and the consideration is to be discharged in the form of equity shares to be issued by Amit Ltd. As on 31.3.2014, the paid up capital of Amit Ltd. consists of 80 lakhs shares of ₹ 10 each. The highest and the lowest market quotation during the last 6 months were ₹ 570 and ₹ 430. For the purpose of the exchange, the price per share is to be reckoned as the average of the highest and lowest market price during the last 6 months ended on 31.3.14.

Ankita Ltd.'s balance sheet as at 31.3.2014 is summarized as follows:

Sources	**₹ Lakhs**
Share Capital	
20 Lakhs Equity Shares of ₹10 Each Fully Paid	**200**
10 Lakhs Equity Shares of ₹ 5 Each Paid	**50**
Loans	**100**
Total	**350**
Uses	
Fixed Assets (Net)	**150**
Net Current Assets	**200**
Total (Lakhs)	**350**

An independent firm of merchant bankers engaged in the negotiation has produced the following estimates of cash flows from the business of Ankita Ltd.:

Year ended	31.3.15	31.3.16	31.3.17	31.3.18	31.3.19	Terminal Value
By way of	After tax earnings on equity					
₹ Lakhs	105	120	125	120	100	200

It is the recommendation of the merchant banker that the business of Ankita Ltd. may be valued on the basis of the average of

(a) Aggregate of discounted cash flows at 8% and (ii) Net assets value. Present value factors at 8% for years 1-5: 0.93 0.86 0.79 0.74 0.68

You are required to:

(i) Calculate the total value of the business of Ankita Ltd.

(ii) The number of shares to be issued by Amit Ltd.; and

(iii) The basis of allocation of the shares among the shareholders of Ankita Ltd. [2+2+2]

Answer to 2 (a):

(i) The total value of the business of Ankita Ltd.

$$\text{Firm Value} = \frac{105}{1.08} + \frac{120}{(1.08)^2} + \frac{125}{(1.08)^3} + \frac{120}{(1.08)^4} + \frac{10+2000}{(1.08)^5} = ₹\ 592.4 \text{ lakhs}$$

(ii) The number of shares to be issued by Amit Ltd.

Value of Ankita Ltd. = Average of (Firm Value [592.4] + Net Assets [250]) = ₹ 421.2 lakhs

Exchange price = Average of 570 & 430 = ₹ 500

Number of shares that would be issued = ₹ 421.2 lakhs / ₹ 500 = 84,240 shares

(iii) The basis of allocation of shares among shareholders of Ankita Ltd.

Fully paid up shares would be allocated = 200/250 x 84240 = 67392 shares

Partly paid shares would be allotted the balance = 16848 shares

2. (b) Following is the Profit and Loss Account and Balance Sheet for M/s Henry Ltd. [9]

(₹ in lakhs)

	2013	2014
Turnover	**652**	**760**
Pre-tax accounting profit	**134**	**168**
Taxation	**46**	**58**
Profit after tax	**88**	**110**
Dividends	**30**	**36**
Retained earnings	**58**	**74**

Balance Sheet extracts are as follows:

(₹ in lakhs)

	2013	2014
Fixed Assets	**240**	**312**
Net current assets	**260**	**320**
Total	**500**	**632**

Equity Share holders funds	**390**	**472**
Medium and long-term bank loan	**110**	**160**

The Companies performance in regard to turnover had increased by 17% along with increase in pre-tax profit by 25% but shareholders are not satisfied by the company's preference in the last 2 years. You are required to calculate economic value added as suggested by M/s. Stern Stewert5 & Co., USA, so that reasons of non-satisfaction can be evaluated. You are also given

SN.	Particulars	2013	2014
1.	**Pre-tax cost of debt**	**9%**	**10%**
2.	**Cost of equity**	**15%**	**17%**
3.	**Tax rate**	**35%**	**35%**
4.	**Interest expense**	**₹ 8**	**₹ 12**

Answer to 2 (b):

Calculation of ROOC:

(₹ in lakhs)

NOPAT	**2013**	**2014**
PBT	134	168
Add: Intt. Expenses	8	12
	142	180
Less: Taxes @ 35%	49.7	63
NOPAT (A)	**92.3**	**117**
Operating Capital		
Equity Shareholder's Funds	390	472
Long Term Debt	110	160
Operating Capital(B)	500	632
ROOC = A/BX100	18.46%	18.52%

Calculation of WACC	**2013**	**2014**
Kd	9%(1-0.35) x 110/500	10%(1-0.35) x 160/632
	1.287%	1.645%
Ke	15% x 390/500	17% x 472/632
	11.7%	12.7%
	12.99%	14.34%
EVA		
ROOC	18.46%	18.51%
Less: WAAC	12.99%	14.34%
Spread	5.47%	4.17%
EVA = Spread x Op. Cap.	2,735 Lakhs	2635.44 Lakhs

Analysis: Since EVA has declined in Year 2014 by 99.56 Lakhs this can be attributed as reason for non-satisfaction.

3. (a) Find out the average capital employed of Macro Ltd. From its Balance Sheet as at 31st March, 2014:

Equity and Liability	₹ in lakhs	Assets	₹ in lakhs
(1) Shareholders Fund:		**(1) Non-Current Assets:**	
(a) Share Capital		**(a) Fixed Assets**	
(i) Equity Share Capital of ` 10 each	**50.00**	**(i) Tangible Assets:**	
(ii) 9% Preference Shares fully paid up	**10.00**	**— Land and Building**	**25.00**
(b) Reserve & Surplus		**— Plant and Machinery**	**80.25**
(i) General Reserve	**12.00**	**— Furniture and Fixtures**	**5.50**
(ii) Profit and Loss A/c	**20.00**	**— Vehicles**	**5.00**
		(b) Non-Current Investments	**10.00**
(2) Non-Current Liabilities:		**(c) Other Non-Current Assets**	
Long Term Borrowings		**— Preliminary Expenses**	**0.50**
(i) 16% Debentures	**5.00**		
(ii) 16% Term Loan	**18.00**	**(2) Current Assets:**	
(iii) Cash Credit	**13.30**	**(a) Inventories**	**6.75**
		(b) Trade Receivables	
(3) Current Liabilities:		**— Sundry Debtors**	**4.90**
(a) Trade Payables – Sundry Creditors	**2.70**	**(c) Cash and Cash Equivalents**	**10.40**
(b) Short Term Provision			
— Provision for Taxation(Net)	**6.40**		
— Proposed Dividend			
• **Equity Shares**	**10.00**		
• **Preference Shares**	**0.90**		
Total	**148.30**	**Total**	**148.30**

Non-trade investments were 20% of the total investments.
Balances as on 1.4.2013 to the following accounts were:
Profit and Loss account ₹8.70 lakhs, General reserve ₹6.50 lakhs. **[6]**

Answer to 3 (a):

Computation of Average Capital employed

(₹ in Lakhs)

Total Assets as per Balance Sheet		148.30
Less: Preliminary Expenses		0.50
Non-trade investments (20% of ₹ 10 lakhs)		2.00
		145.80
Less: Outside Liabilities:		
16% Debentures	5.00	

16% Term Loan	18.00	
Cash Credit	13.30	
Sundry Creditors	2.70	
Provision for Taxation	6.40	45.40
Closing Capital Employed		**100.40**
Capital Employed as on 31.03.2011		
Less: ½ of profit earned:		
Increase in reserve balance	5.50	
Increase in Profit & Loss A/c	11.30	
Proposed Dividend	10.90	
Profit earned during the year	27.70	
50% of Profit earned during the year i.e. [27.70 x ½]		**13.85**
Average capital employed		**86.55**

3. (b) Why is brand valuation needed? What are the steps in valuation of a brand? [9]

Answer to 3 (b):

Need of Brand Valuation:
The brand strength assessment exercise attempts to check the health of the brand based on factors such as brand supremacy, vitality, stature, environment, safety and support. The cumulative scores on these factors are used to ascertain the multiplier.

The brand supremacy measure tries to capture the extent of leadership a brand enjoys in its market. This is captured through the brand's present market share, its ability to charge price premium, acceptability to change, in terms of trade by its channel partners, the visibility of the brand and its reach. Apart from market share, the ability to charge price premium could also be construed as a surrogate measure for superiority and strong customer loyalty. A superior brand has the ability to set price points and can charge a premium and consumers might not mind paying it. Acceptability by trade to changes in terms and conditions would also signify the strength of the brand. A strong brand has a consumer pull which might force trade to accept stringent terms and conditions in the fear of being rejected by customers for not stocking the brand.

Steps in Valuation of a Brand:

1. Market segmentation: Split the brand's markets into non-overlapping and homogeneous groups of consumers according to applicable criteria: e.g. product or service, distribution channels, consumption patterns, purchase sophistication, geography, existing and new customers.

The brand is valued in each segment and the sum of the segment valuations constitutes the total value of the brand.

2. Financial analyses: Identify and forecast revenues and earnings from intangibles generated by the brand for each of the distinct segments determined in Step 1. Intangible earnings are defined as brand revenue less operating costs, applicable taxes and a charge for the capital employed. The concept is similar to the notion of economic profit.

3. Demand analysis: Assess the role that the brand plays in driving demand for products and services in the markets in which it operates, and determine what proportion of intangible earnings is attributable to the brand measured by an indicator referred to as the "role of branding index."

Process:

- identifying the various drivers of demand for the branded business
- Determining the degree to which each driver is directly influenced by the brand.

Branding index represents the percentage of intangible earnings that are generated by the brand. Brand earnings are calculated by multiplying the role of branding index by intangible earnings.

4. Competitive benchmarking: Determine the competitive strengths and weaknesses of the brand to derive the specific brand discount rate that reflects the risk profile of its expected future earnings (this is measured by an indicator referred to as the "brand" strength score").

This comprises extensive competitive benchmarking and a structured evaluation of the brand's market, stability, leadership position, growth trend, support, geographic footprint and legal protect ability.

5. Brand value calculation: Brand value is the net present value (NPV) of the forecast brand earnings, discounted by the brand discount rate. The NPV calculation comprises both the forecast period and the period beyond, reflecting the ability of brands to continue generating future earnings.

4. (a) What is Human Resource Accounting? What are its benefits? State the two main methods of its measurement. [2+2+2]

Answer to 4 (a):

Human Resource Accounting (HRA) is a set of accounting methods that seek to settle and describe the management of a company's staff. It focuses on the employees' education, competence and remuneration. HRA promotes the description of investments in staff, thus enabling the design of human resource management systems to follow and evaluate the consequences of various HR management principles.

The basic aims of HRA are several. First, HRA improves the management of human resources from an organizational perspective – through increasing the transparency of human

resource costs, investments and outcomes in traditional financial statements. Second, HRA attempts to improve the bases for investor's company-valuation.

The following are the two main methods of measuring Human resource

(i) Input Measurement – Inputs (such as training) are not necessarily effective, so cost is not always a good proxy measure of output value. Trained personnel may also move to another employer through higher labour mobility – thus inhibiting the returns from corporate training investment.

(ii) Replacement Value – Such values are rare, usually calculated to help product sales or the sale of the company, and are often highly debatable.

4. (b) Shyam Ltd. has announced issue of warrants on 1:1 basis for its equity share holders. The current price of the stock ₹10 and warrants are convertible at an exercise price of ₹11.71 per share. Warrants are detachable and are trading at ₹3. What is the minimum price of the warrant? What is the warrant premium? Now had the current price been ₹16.375, what is the minimum price and warrant premium? (Consider warrants are tradable at ₹9.75). [4]

Answer to 4 (b):

$$\text{Minimum price} = \begin{pmatrix}\text{Market price of}\\ \text{common stock}\end{pmatrix} - \begin{pmatrix}\text{Exercise}\\ \text{Price}\end{pmatrix} = (₹10.00 - 11.71) \times 1.0 = ₹1.71$$

Thus, the minimum price on this warrant is considered to be zero, because things simply do not sell for negative prices.

Warrant premium = Market price of warrant - Minimum price of warrant = ₹3 - 0 = ₹3

Minimum price = (Market price of common stock - Exercise price) × (Exercise ratio)

= (₹16.375 - 11.71) x 1.0

= ₹4.665

Warrant premium = Market price of warrant - Minimum price of warrant

= ₹9.75 - 4.665 = ₹5.085

4. (c) ABC reported earnings per share of ₹ 2.40 in 2013, and paid dividends per share of ₹ 1.06. The earnings had grown 7.5% a year over the prior five years, and were expected to grow 6% a year in the long term (starting in 2014). The stock had a beta of 1.05 and traded for ten times earnings. The Treasury bond rate was 7%.

(i) Estimate the P/E Ratio for ABC.

(ii) What long term growth rate is implied in the firm's current P/E ratio?

(iii) What is the value of an equity share if P/E is 8 (assuming current EPS)? [2+2+1]

Answer to 4 (c):

(i) Payout Ratio = 1.06/₹2.40 = 44.17 %

Expected Growth Rate = 6%

Cost of Equity = 7% + 1.05 × 5.5% = 12.775%

P = D/(k-g)

P/E = D/E / (k-g) = Payout / (k-g)
P/E Ratio = (0.4417 × 1.06) / (0.12775 - 0.06) = 6.91

(ii) The stock is trading at ten times earnings.
P/E Ratio =10 = 0.4417 (1+g) / (0.12775-g)
Solving for g in this equation,
g = (1.2775 - 0.4417)/10.4417 = 8.00%

(iii) The value of equity share = P/E x EPS = 8 x 2.4 = ₹19.20

5. (a) Vijay Ltd's shares are currently selling at ₹13 per share. There are 10,00,000 shares outstanding. The firm is planning to raise ₹ 20 lakhs to finance a new project to be started soon at Bangalore. You are required to calculate the ex-right price of shares and the value of a right, if:
(i) The firm offers one right share for every two shares held
(ii) The firm offers one right share for every four shares held
(iii) How does the shareholder's wealth change from (i) to (ii) above? How does right issue increases shareholder's wealth? [3+3+3]

Answer to 5 (a):

(i) No. of shares to be issued: 5,00,000

$$\text{Pre-right} = \frac{1,30,00,000 + 20,00,000}{15,00,000} = 10$$

$$\text{Subscription Price} = \frac{20,00,000}{5,00,000} = ₹\ 4$$

$$\text{Value of right} = \frac{10 - 4}{2} = 3$$

(ii) No. of shares to be issued: 2,50,000

$$\text{Pre- right} = \frac{1,30,00,000 + 20,00,000}{12,50,000} = 12$$

$$\text{Subscription price} = \frac{20,00,000}{2,50,000} = 8$$

$$\text{Value of right} = \frac{12 - 8}{4} = 1$$

(iii) Since right issue is constructed in such a way so that shareholder's Proportionate share will remain unchanged shareholder's wealth does not change from (i) to (ii).

Right issue increases shareholder's wealth because the cost of issuing right shares is much lower than the cost of a public issue.

5. (b) Given – (1) Future maintainable Profit before Interest = ₹125 Lakhs; (2) Normal Rate of Return on Long Term Funds is 19% and on Equity Funds is 24%; (3) Long Term Funds of the Company is ₹320 Lakhs of which Equity Funds is ₹210 Lakhs; (4) Interest on Loan Fund is 18%. Find out leverage effect on Goodwill if tax rate = 30%. [6]

Answer to 5 (b):

Long Term Loan Funds = Total Long term Funds Less Equity Funds = 320 – 210 = ₹110 Lakhs.
Interest at 18% thereon = ₹110 Lakhs x 18% = ₹19.80 Lakhs.

Computation of Future Maintainable Profit (₹ Lakhs)

Particulars	Owners Funds	Total Funds
Profit Before Interest	125.00	125.00
Less: Interest on Long Loans	19.80	N.A
Future maintainable Profit before Tax	105.20	125.00
Less: Tax Expense at 30%	31.56	37.50
Future Maintainable Profits after Tax	**73.64**	**87.50**

Computation of Goodwill under different approaches (₹ Lakhs)

Particulars	Owners Funds	Total Funds
(a) Future Maintainable Profits after Tax	73.64	87.50
(b) Normal Rate of Return	24%	19%
(c) Normal Capital Employed = (a÷b)	306.83	460.52
(d) Actual Capital Employed (given)	210.00	320.00
(e) Goodwill = (c – d)	**96.83**	**140.52**

Hence, Leverage Effect on Goodwill = ₹140.52 - ₹96.83 = ₹ **43.69 Lakhs**

6. (a) Shah Ltd had earned a PAT of ₹48 Lakhs for the year just ended. It wants you to ascertain the value of its business, based on the following information.

(i) Tax Rate for the year just ended was 36%. Future Tax rate is estimated at 34%.
(ii) The Company's Equity Shares are quoted at ₹120 at the Balance Sheet date. The Company had an Equity Capital of ₹100 Lakhs, divided into Shares of ₹50 each.
(iii) Profits for the year have been calculated after considering the following in the P & L Account:-

- **Subsidy ₹2 Lakhs received from Government towards fulfillment of certain social obligations. The Government has withdrawn this subsidy and hence, this amount will not be received in future.**
- **Interest ₹8 Lakhs on Term Loan. The final instalment of this Term Loan was fully settled in the last year.**
- **Managerial Remuneration ₹15 Lakhs. The Shareholders have approved an increase of ₹6 Lakhs in the overall Managerial Remuneration, from the next year onwards.**
- **Loss on sale of Fixed Assets and Investments amounting to ₹8 Lakhs. (Ignore Tax Effect thereon). [8]**

Answer to 6 (a):

Computation of Future Maintainable Profits:

Particulars	**₹ Lakhs**
Profit after Tax for the year just ended	48,00,000
Add: Tax Expense (Tax is 36%, So PAT = 64%, Hence , Tax = 48,00,000 X 36/64)	27,00,000
Profit before Tax for the year just ended	**75,00,000**
Add/ (Less): Adjustments in respect of Non-Recurring items	
Subsidy Income not received in future	(2,00,000)
Interest on Term Loan not payable in future, hence saved	8,00,000
Additional Managerial Remuneration	(6,00,000)
Loss on Sale of Fixed Assets and Investments (non-recurring)	8,00,000
Future Maintainable Profits before Tax	**83,00,000**
Less: Tax Expense at 34%	28,22,000
Future Maintainable Profits after Tax Equity Earnings	**54,78,000**

Computation of Capitalization Rate and Value of Business:

Particulars	
Profit after Tax for the year just ended	₹48 Lakhs
Number of Equity Shares (₹100 Lakhs ÷ ₹50 per Share)	2 Lakhs
Earnings Per Share (EPS) = PAT ÷Number of Equity Shares	₹24
Market Price per Share on Balance Sheet Date	₹120
Price Earnings Ratio = MPS ÷EPS	5

Capitalization Rate = 1 ÷ PE Ratio	20%
Value of Business = Future Maintainable Profits ÷ Capitalization Rate = ₹54.78 Lakhs ÷ 20%	**₹273.90 Lakhs**

6. (b) What are the steps of formulating a strategy? [3]

Answer to 6 (b):

Strategic formation is a combination of three main processes which are as follows:

(1) Performing a situation analysis, self-evaluation and competitor analysis: both internal and external; both micro-environmental and macro-environmental.

(2) Concurrent with this assessment, objectives are set. These objectives should be parallel to a time-line; some are in the short-term and others on the long-term. This involves crafting vision statements (long term view of a possible future), mission statements (the role that the organization gives itself in society), overall corporate objectives (both financial and strategic), strategic business unit objectives (both financial and strategic), and tactical objectives.

(3) These objectives should, in the light of the situation analysis, suggest a strategic plan. The plan provides the details of how to achieve these objectives.

6. (c) Following information is obtained from Pankaj Ltd.

Opening Stock	**Finished goods**	**1,000 Kg**	**₹ 25,000**
	Raw material	**1,100 Kg**	**₹ 11,000**
Purchases		**10,000Kg**	**₹1,00,000**
Labour			**₹ 76,500**
Overheads (fixed)			**₹75,000**
Sales		**10,000Kg**	**₹ 2,80,000**
Closing Stock	**Raw materials**	**900 Kg**	
	Finished goods	**1200 Kg**	

The expected production for the year was 15,000 Kg of the finished product. Due to fall in market demand, the sales price for the finished goods was ₹ 20 per Kg. and the replacement cost for the material was ₹ 9.50 per Kg on the closing day. You are required to calculate the closing stock as on that date. Compute closing stock as on that date. [4]

Answer to 6 (c):

Computation of cost of closing stock (₹)

Cost of purchase	1,02,000
Direct labour	76,500
Fixed overhead (75,000 ×10,200)/15,000	51,000
Cost of production	2,29,500
Cost of closing stock per unit (2,29,500/10,200)	22.50
Net Realisable Value per unit	20.00

Since net realisable value is less than cost, closing stock will be valued at ₹ 20.
As NRV of the finished goods is less than its cost, relevant raw materials will be valued at replacement cost i.e ₹ 9.50

Therefore, value of closing stock: Finished goods (1200 × 20)	₹ 24,000
(+)Raw Material (900 × 9.50)	₹ 8550
Total:	₹ 32,550

7. Hindustan Lever Ltd. and Ponds India Ltd. are in the same industry. The former is in negotiation for acquisition of the latter. Important information about the two companies as per their latest financial statements is given below:

	Hindustan Lever Ltd.	Ponds India Ltd.
₹10 Equity shares outstanding	**12 lakhs**	**6 lakhs**
Debt:		
10% Debentures (₹ lakhs)	**580**	**---**
12.5% Institutional Loan (₹ lakhs)	**---**	**240**
Earnings before interest, depreciation and tax (EBIDTA) (₹ lakhs)	**400.86**	**115.71**
Market Price per share (₹)	**220.00**	**110.00**

Hindustan Lever Ltd. plans to offer a price for Ponds India Ltd., business as a whole which will be 7 times EBIDTA reduced by outstanding debt, to be discharged by own shares at market price. Ponds India Ltd. is planning to seek one share in Hindustan Lever Ltd. for every 2 shares in Ponds India Ltd. based on the market price. Tax rate for the two companies may be assumed as 30%. Calculate and show the following under both alternatives - Hindustan Lever Ltd.'s offer and Ponds India Ltd.'s plan:

(i) Net Consideration Payable.
(ii) No. of Shares to be issued by Hindustan Lever Ltd.
(iii) EPS of Hindustan Lever Ltd. after acquisition.
(iv) Expected Market Price per share of Hindustan Lever Ltd. after acquisition.
(v) State briefly the advantages to Hindustan Lever Ltd. from the acquisition.
Calculations (except EPS) may be rounded off to 2 decimals in lakhs. [2+2+4+5+2]

Answer to 7:

As per Hindustan Lever Ltd's Offer

(i) Net Consideration Payable

	₹ in lakhs
7 times EBIDAT, i.e. 7 x ₹115.71 lakh	809.97
Less: Debt	(240.00)
	569.97

(ii) No. of Shares to be issued by Hindustan Lever Ltd.

	₹ in lakhs
₹ 569.97 lakh/₹220 (rounded off) (Nos.)	2,59,000

(iii) No. of Shares to be issued by Hindustan Lever Ltd.

	₹ in lakhs
₹ 569.97 lakh/₹220 (rounded off) (Nos.)	2,59,000

(iii) EPS of Hindustan Lever Ltd. after acquisition

	₹ in lakhs
Total EBIDTA (₹ 400.86 + ₹115.71 lakh)	516.57
Less: Interest (₹58 lakh + ₹30 lakh)	(88.00)
	428.57
Less: 30% Tax	(128.57)
EAT	300.00
Total no. of shares outstanding (12 lakh + 2.59 lakh)	14.59 lakh
EPS (₹ 300 lakh/14.59 lakh)	₹ 20.56

Note: Since no information of depreciation and amortisation are known, hence the same has been ignored.

(iv) Expected Market Price:

	₹ in lakhs
Pre-acquisition P/E multiple:	
EBIDTA	400.86
Less: Interest 580 x 10%	(58.00)
	342.86
Less: 30% Tax	(102.86)
EAT	240.00
No. of shares (lakhs)	12.00
EPS	₹ 20.00
Hence, PE multiple $\left(\frac{220}{20}\right)$	11
Expected Market Price after acquisition (720.56 x 11)	₹ 226.16

As per Ponds India Ltd's Plan

(i) Net Consideration Payable

	₹ in lakhs
(6 lakhs shares x ₹110) or (3 lakhs x 220)	660

(ii) No. of shares to be issued by Hindustan Lever Ltd.

(₹660 lakh ÷ ₹ 220)	3 lakh

(iii) EPS of Hindustan Lever Ltd. after acquisition

	₹ in lakhs
EAT (as per earlier calculations)	300.00
Total no. of shares outstanding (12 lakhs + 3 lakhs)	15 lakh
Earnings per share (EPS) ₹ 300 lakh/15 lakh	₹ 20.00

(iv) Expected Market Price (₹ 20 x 11) 220.00

(v) Advantage of Acquisition to Hindustan Lever Ltd:

Since the two companies are in the same industry, the following advantages could accrue:

- Synergy, cost reduction and operating efficiency.
- Better market share.
- Avoidance of competition.

8. Write short notes (any three): [3×5=15]

(i) Intrinsic Value

(ii) Valuation of Preference Share

(iii) Fair Market Value of Intangible assets.

(iv) Put Option

Answer to 8:

(i) Intrinsic Value

Intrinsic or fundamental value is used when an investor wants 'true' or 'real' value on the basis of an analysis of fundamentals without considering the prevailing price in the market. It is true economic worth of a share, business or property.

IGBVT defines intrinsic value as "the value that an investor considers, on the basis of an evaluation or available facts to be the "true" or "real" value that will become the market value when other investors reach the same conclusion." Graham & Dodd has defined the intrinsic value as "the value which is justified by assets, earnings, dividends definite prospects and factor of management." There are four major components of intrinsic value of a going concern:

- Level of normal earning power and profitability in the employment of assets as distinguished

from the reported earnings which may be and frequently are, distorted by transient influences.

- Dividends actually paid or the capacity to pay such dividends currently and in the future
- A realistic expectation about the trend line growth of earning power
- Stability and predictability of those quantitative and qualitative projections of the future economic value of the enterprise.

Intrinsic value and investment value may seem like similar concepts but they are different. The first represents an estimate of value based on the expected cash flow of the business and not of the investor. The second represents an estimate of value based on expected cash flow in the hands of a specific investor.

(ii) Valuation of Preference Share

In a going concern, preference shares are valued on yield basis.

The formula is: $\frac{\text{Preference dividend rate}}{\text{Market expectation rate}} \times 100$

With fluctuations in the normal rate of return in respect of preference shares, the value of preference shares of a company will fluctuate inversely. The yield-based valuation of preference shares hold good.

(1) If the company has paid preference dividends regularly and is expected to pay in future years as well as

(2) The total asset backing is equal to 4 to 5 times the preference capital.

If dividends on 'cumulative preference shares' are in arrear but there is the possibility of their payment, the present value of such arrears should be taken into account while valuing the preference shares.

Additional right as and where attached to preference shares to get additional share of profits or the right to get the shares converted into equity shares at a certain rate will probably increase the market value of the existing preference shares.

(iii) Fair Market Value of Intangible assets

Any intangible assets acquired are valued on the basis of the fair value of the asset. It includes computer software, patents, copyrights, mining rights, quotas and marketing rights etc. 'three important criteria are used to identify an intangible asset. They are identifiability, control and existence of future economic benefits.

Using the quoted market price in an active market control derive the fair market value of intangibles. The appropriate market price is the current bid price. In the absence of such a price, price quoted in a transaction for similar intangible asset can provide a basis for deriving fair value. Otherwise, the amount which the business unit would have paid in arm's length transaction between knowledge and willing parties is taken as the fair market value.

However, finally it must be admitted that if the fair value of the intangible assets cannot be measured reliably, that asset is not recognized as separate intangible but included in the goodwill.

(iv) Put Option

A put option is a contract that offers the right to its holder but not the obligation to sale a specified quantity of an underlying asset at a specified price on or before the expiration date by paying a premium. The person who has the right to sale the underlying asset is known as the "buyer of the put option". Since the buyer of the put option has the right (but not the obligation) to sell the underlying asset, he will exercise his right to sell the underlying asset if and only if the price of the underlying asset in the market is less than strike price on or before the expiry date of the contract.

The sellers are writers of options who offer a deal that may or may not be 'taken up' by the buyer. It is always the buyer who has an option to exercise, not the seller. The writer is obliged to do what the buyer decides. Writers can offer a call option, meaning shares can be called away from the owners at an agreed price, or they can insist that the writers buy shares at an agreed price. The buyer is known as the option taker (who bids for the option).