FINAL EXAMINATION

GROUP IV

(SYLLABUS 2008)

SUGGESTED ANSWERS TO QUESTIONS

JUNE 2015

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.

1. (a) State whether the following statements are true or false: 1×5=5

(i) Expected future yield is very low for a Stock with very high P/E ratio.

(ii) Under Asset based valuation approach individual assets are valued and aggregated in the process of finding the enterprise value.

(iii) Exchange ratio of equity shares of merging firms is determined by their market price alone.

(iv) Preference shareholders in normal circumstances, have no voting rights.

(v) According to basic valuation model, the value of a financial asset is present value of its expected future cash flows.

(b) Fill in the blanks by using the words / phrases given in the brackets: 1×10=10

(i) ————— is one in which security prices fully reflect the available information. (Efficient Market/Stock Market)

(ii) Tobin's Q compares the market value of a company with the ————— of its assets. (replacement cost/book value)

(iii) ————— involves splitting up of a large company such as a conglomerate comprising of different divisions, into separate companies. (Amalgamation/ Demerger)

(iv) Intangible assets are treated as ————— assets. (Fictitious/Fixed)

(v) Assets held as stock in trade are ————— . (investments/not investments)

(vi) In DCF valuation, the value of an asset is present value of ————— cash flows on the asset, (actual/expected)

(vii) In the ———— Approach, the key relationships are computed for a group of similar companies or transactions as a basis for valuation of companies involved in a merger or takeover. (Comparable companies/Industry/Real Option)

(viii) ———— is a measure of value of which tells whether a company is able to generate returns that exceed the costs of capital employed. (Economic Value Added/Market Value Added/ Enterprise Value Added)

(ix) Recent acquisition shows that the price paid for an acquired company is almost invariably higher than its book value and the difference is incorporated under conventional accounting practice as ———— . (capital reserve/goodwill)

(x) The equity value of a company is the value of the ———— claims of the company. (shareholders/creditors)

(c) In each of the questions given below one out of the four options is correct. Indicate the correct answer: 2x5=10

(i) The cost of capital is not similar to one of the following:

(A) Cut-off rate

(B) Hurdle rate

(C) Target rate

(D) Internal rate of return

(ii) If value of A Ltd. is 50, B Ltd. is 20 and on merger their combined value is 90 and A Ltd. receives premium on merger 12, the synergy for merger is (all amounts are in ₹ Lakhs)

(A) 8

(B) 20

(C) 32

(D) 38

(iii) X Ltd's share beta factor is 1.40. The risk free rate of interest on government securities is 9%. The expected rate of return on the company equity shares is 16%. The cost of equity capital based on CAPM is-

(A) 15.8%

(B) 16%

(C) 18.8%

(D) 9%

(iv) If a company has a P/E ratio of 20 and a ROE (Return on Equity) of 15% then the Market to Book Value Ratio is-

(A) 3 times

(B) 3%

(C) Cannot be calculated from the given information

(D) None of the above

(v) P intends to acquire R (by merger) based on market price of the shares. The following information is available of the two companies.

	P	**R**
No. of Equity shares	**10,00,000**	**6,00,000**
Earning after tax	**50,00,000**	**18,00,000**
Market value per share	**₹ 30**	**₹ 25**

New EPS of R after merger?

(A) ₹ 4.00

(B) ₹ 4.05

(C) ₹ 4.60

(D) ₹ 4.53

Answer:

1. (a)

(i) False

(ii) True

(iii) False

(iv) True

(v) True

1. (b)

(i) Efficient Market

(ii) replacement cost

(iii) Demerger

(iv) Fixed

(v) not Investments

(vi) expected

(vii) Comparable Companies

(viii) Economic Value Added

(ix) goodwill

(x) shareholders

1. (c)

(i) (D) Internal rate of return

(ii) (B) 20 [90-(50) + 20)]. Premium on merger is irrelevant.

(iii) (C) 18.8%

(iv) (A) 3 times

(v) (D) No. of shares R Ltd. will get in P Ltd. based on market price

= 25/30 × ₹ 6,00,000 = 5,00,000 Shares

Total No. of Equity shares of P. Ltd = 10,00,000 + 5,00,000 = 15,00,000 shares

Total earnings = 50,00,000 + 18,00,000 = ₹ 68,00,000.

The new EPS of P. Ltd. after merger = 68,00,000/15,00,000

= ₹ 4.53

2. (a) XYZ Ltd. purchased plant and machinery on April 15, 2014 for ₹ 36 Lakhs on 180 days credit from ABC Ltd. and accordingly, it made the entries in the books. On May 16, 2014, the company entered into an agreement with ABC Ltd. with the following details: 5

- **₹ 2 Lakhs of cash discount would be given by ABC Ltd., if the company makes the payment by May 20, 2014.**
- **ABC Ltd. would waive off ₹ 4 Lakhs if the company makes a payment of ₹ 30 Lakhs as a final settlement by May 20, 2014.**

XYZ Ltd. made all necessary payments by May 20, 2014 to ABC Ltd. and thus, settled the account with ABC Ltd. After the completion of the transaction with ABC Ltd., XYZ Ltd. credited Cash Discount of ₹ 2 Lakhs received and an income by way of waiver of ₹ 4 Lakhs in statement of Profit and Loss for the year 2014-15 and the necessary depreciation was provided on ₹ 36 Lakhs.

You are required to comment on the appropriateness of the accounting treatment done by XYZ Ltd. regarding the purchased Plant and Machinery as mentioned above in the light of AS - 10: Accounting for Fixed Assets.

(b) Consider two companies - X Company Limited and Y Company Limited. Both have announced their annual results for 2014-2015 on May 10, 2015 and as per the reported results both are having Profit After Tax (PAT) of ₹ 5,700 Lakhs and 120 Lakhs equity shares outstanding (face value of each share is ₹10). Both the companies having same networth of ₹ 28,500 Lakhs. 10

X Company Limited has growth plans in future and accordingly, it has decided to have a low payout of 40% as dividend. It is believed that its earnings will increase by present rate of growth every year in perpetuity. Assume that the company is having the required rate of return on equity of 15% a year.

Y Company Limited has growth plans in future but not very ambitious and due to that, it is going to have a dividend payout of 60%. It is believed that its earnings will increase by the present rate of growth every year in perpetuity. Assume that the company is having the required rate of return on equity of 13% a year.
Assume that both the companies are identical in all other aspects. Calculate P/E Ratio assuming that Constant Growth Model works. Also explain why a particular company is having higher P/E Ratio.

Answer:

2. (a) The treatment of Cash Discount is correct as it is not changing the cost of fixed assets and it is related to financing decision. But the treatment of waiver is not correct as per Para 9.1 of AS 10 the cost of fixed assets may undergo changes subsequent to its acquisition or construction on account of exchange fluctuation, price adjustments, changes in duties or similar factors. Considering Para 9.1 the treatment done by the company is not correct. ₹ 4 lakhs should be deducted from the cost of fixed assets and depreciation should be provided accordingly, on the net cost of ₹ (36 - 4) = ₹ 32 lakhs. The amount of cash discount will be credited to the P&L Account as other income.

Answer:

2. (b)

Figures in lakhs

Company	X	Y
Profit After Tax	₹ 5,700	₹ 5,700
No. of Shares Outstanding	120	120
Net Worth	₹ 28,500.00	₹ 28,500.00
Dividend Payout	40%	60%
Cost of Equity	15%	13%
ROE (5700 ÷ 28,500) x 100 =	20.00%	20.00%
Growth Rate (ROE x (1-Dividend Payout Ratio))	12.00%	8.00%
EPS (PAT ÷ No of Shares)	₹ 47.50	₹ 47.50
Price (Using Dividend Discount Model)	₹ 709.33	₹ 615.60

P/E Ratio	14.93	12.96

Company X has high P/E Ratio mainly because of the fact it has higher growth rate and due to the fact that the company is plowing back more profit to achieve higher growth rate as dividend payout ratio is low.

Working Note:

Company	X	Y
(i) Dividend payout @, 40% and 60%	₹ 2,280	₹ 3,420
(ii) Dividend/share	19	28.50
(iii) Dividend of next period: Do (1+g)	21.28	30.78
(iv) Difference between cost of equity & growth rate	3%	5%
(v) Price of shares [(iii) ÷ (iv)]	₹ 709.33	₹ 615.60

3. (a) Calculate the value of the intangible assets of X Ltd. considering the excess returns earned by it, from the following information for the y. e. 31.03.2015. 5

(i) Average PBT ₹ 6,300 Lakhs

(ii) Average year end tangible assets ₹ 35,000 Lakhs

(iii) Cost of equity of the company is 15%

(iv) Return on Assets (ROA) industry average is 12%

(v) Tax rate is 30%

(b) Why are intangible assets like brands increasingly important for company's management? 5

(c) What are the primary reasons for mergers of companies? 5

Answer:

3. (a)

Average PBT		₹ 6300 lakhs	
Average year end tangible assets		₹ 35000 lakhs	
ROA of the company		18%	(6300 ÷ 35,000) x 100
Industry ROA		12%	
Excess return =		PBT - (12% x 3 5,000)	
=	6300-4200	= 2100 lakhs	

Premium attributable to intangible assets = (1-t) × Excess return
= (0.7) × 2100
= ₹ 1,470 lakhs

Value of intangibles = Premium attributable to Intangible Assets ÷ Company's cost of capital
= 1470 ÷ 0.15 = ₹ 9800 lakhs.

Answer:

3. (b) The increasing recognition of the value of intangibles came with the continuous increase in the gap between companies book value and their stock market valuation, as well as sharp increases in premiums above the stock market value that were paid in mergers and acquisitions in the late 1980s.

Today it is possible to argue that in general, the majority of business value is derived from intangibles. Management attention to these assets has certainly increased substantially.

The brand is a special intangible that in many businesses is the most important asset. This is because of the economic impact that brands have. They influence the choice of customers, employees, investors and government authorities. In a world of success and creation of shareholder value, even non - profit organizations have started embracing the brand as a key asset for obtaining donations, sponsorship and volunteers.

Some brands have also demonstrated an astonishing durability. Viz, Coca-cola. This compares with an estimated average life span for corporation of 25 years or so. Many brands have survived a string of different corporate owners. Several studies have tried to estimate the contribution that brands make to shareholder value, and reflect that brands and other intangibles contribute significantly.

Hence intangible assets are important for company's management.

Answer:

3. (c) The primary reasons for companies undertaking mergers are

(1) To enjoy economies of scale with increase in size, spread and volume of operations

(2) To enjoy benefit of vertical integration - resulting economies and increase in profitability

(3) To gain access to and utilize complimentary resources

(4) To deploy or obtain access to surplus investible funds

(5) To eliminate inefficiencies and obtain benefits of technology upgradation, improved systems etc.

(6) To enjoy benefits of synergy

(7) To command larger market share / unique position / gain access to new markets.

4. A Ltd. is considering takeover of either B Ltd. or C Ltd. or both. The financial data for the three companies are as follows:

Particulars	**A Ltd.**	**BLtd.**	**CLtd.**
Equity Capital [₹ Lakhs] (Fave Value ₹ 10 each)	**450**	**180**	**100**
Earnings [₹ Lakhs]	**90**	**24**	**24**
Market Price per share [₹]	**60**	**42**	**48**

Exchange ratio is based on market price per share. Total earnings and market capitalization after merger are the aggregate of stand - alone earnings and market capitalization of the compaines. For the different combinations possible you are required to -

(a) Calculate EPS of the merged companies. **8**

(b) Calculate Price earnings ratios of the merged companies. **4**

(c) Will you recommend merger with either/both of the companies on the basis of EPS? Justify your answer. **3**

Answer:

4.

	A	**B**	**C**	**Merged With B**	**Merged With C**	**Merged with B&C**
Equity Capital [₹ Lakhs] (Face value ₹ 10 each)	450	180	100			
Earnings [₹ Lakhs]	90	24	24			
Market Price per share [₹]	60	42	48			
Number of shares	45	18	10			
EPS (₹)	2	1.33	2.4			
Market Capitalisation [₹ Lakhs]	2700	756	480			
Market Capitalisation after merger [₹ Lakhs]				3456	3180	3936
Total Earnings after merger [₹ Lakhs]				114	114	138
Number of shares to be issued by A Ltd.				12.6	8	20.6

Total number of shares after merger		57.6	53	65.6
(a) EPS after merger [₹]		1.97917	2.15094	2.10366
(b) Price/Earnings ratio after merger = Post Merger Market Capitalisation/Post Merger Total Earnings		30.3158	27.8947	28.52
(c) Merger with C Ltd. only is recommended as EPS is more than 2 for merger with C Ltd. and less than 2 for merger with B Ltd, hence this is preferred although the P/E Ratio is case of merger with B Ltd. or both B Ltd. & C Ltd. is higher since EPS is significant.				

5. (a) What are the limitations of DCF Valuation? **5**

(b) The following information is provided related to the acquiring firm Mark Limited and the target firm Mask Limited:

	Mark Ltd.	Mask Ltd.
Profit after tax (PAT)	**₹ 2,000 Lakhs**	**₹ 400 Lakhs**
Number of Shares outstanding	**200 Lakhs**	**100 Lakhs**
P/E ratio	**10**	**5**

You are required to calculate -

(i) What is the swap ratio based on current market price? **2**

(ii) What is the EPS of Mark Ltd after acquisition? **2**

(iii) What is the expected market price per share of Mark Limited after acquisition, assuming P/E ratio of Mark Limited remains unchanged? **2**

(iv) Determine the market value of the merged firm. **2**

(v) Calculate gain/loss for shareholder of the two independent companies after acquisition. **2**

Answer:

5. (a) Limitations of DCF Valuation are as under:

(i) Since DCF valuation is an attempt to estimate intrinsic value, it requires far more inputs and information than other valuation approaches.

(ii) The inputs and information are difficult to estimate, and can also be manipulated by a smart analyst to provide the desired conclusion.

(iii) It is possible in a DCF valuation model to find every stock in a market to be over valued.

(iv) The DCF valuation has certain limitations when applied to firms in distress; firms in cyclical business; firms with unutilized assets, patents; firms in the process of reorganizing or involved in acquisition and private firms.

(v) It is difficult to arrive at appropriate discounting rate during unstable economic conditions.

Answer:

5. (b) EPS before acquisition: Mark Ltd. ₹ 20001akhs/2001akhs = ₹ 10 and Mask Ltd. ₹ 400/100 = ₹4 Market price of share before an acquisition = EPS × PE ratio: Mark Ltd. ₹ 100 and Mask Ltd. ₹20

(i) Swap ratio based on current market prices: ₹ 20/₹ 100 = 0.2 that is one share of Mark limited for 5 shares of Mask limited. Number of shares to be issued 100 lakhs × 0.2 = 20 lakhs

(ii) EPS after acquisition = (2000 lakhs + 400 lakhs) ÷ (200 lakhs + 20 lakhs) = ₹ 10.91

(iii) Expected market price per share of Mark Ltd. After an acquisition after assuming PE ratio of Mark limited remains unchanged is ₹ 10.91 × 10 = ₹ 109.10

(iv) Market value of Merged Firm = ₹ 109.10 × 220 lakh shares = ₹ 240.02 crores

(v) Gain from the merger: Post merger market value of merged firm 240.02 Crores (minus pre merger market value of both firms i.e. ₹ 200 crores and ₹ 20 crores) = (240.02 – 220.00) = ₹ 20.02 crores

Gain to shareholders of both the firms:	**Mark Ltd.**	**Mask Ltd.**
Post merger value	218.20	21.80
Less: Pre-merger value	200.00	20.00
Gain to share holders	18.20	1.82

6. (a) From the following details, compute according to Lev and Schwartz (1971) model the total value of human resources for employee groups - skilled and un-skilled. **8**

	Skilled	**Un-skilled**
(i) Annual average earning of an employee till age of retirement	**₹ 1,00,000**	**₹ 60,000**
(ii) Age of retirement	**65 years**	**62 years**
(iii) Discount rate	**20%**	**20%**
(iv) No. of employees in the group	**25**	**20**
(v) Average age	**62 years**	**60 years**

It is assumed that employees will leave the organization only on retirement.

(b) State the reasons and implication for restructuring of a firm. **7**

Answer:

6. (a)

(i) Value of skilled employees:

$$= \frac{100,000}{(1+(0.20))^{(65-62)}} + \frac{100,000}{(1+(0.20))^{(65-63)}} + \frac{100,000}{(1+(0.20))^{(65-64)}}$$

$$= \frac{1,00,000}{(1.20)^3} + \frac{1,00,000}{(1.20)^2} + \frac{1,00,000}{(1.20)^1}$$

= 57870.37 + 69444.44 + 83333.33

Total value of this group = 57870.37 + 69444.44 + 83333.33 = 210648.14 × 25 = ₹ 52,66,203.50

(ii) Value of unskilled employees

$$\frac{60{,}000}{(1+(0.20))^{(62-60)}}+\frac{60{,}000}{(1+(0.20))^{(62-61)}}$$

$$=\frac{60{,}000}{(1.20)^2}+\frac{60{,}000}{(1.20)^1}$$

= 41666.67 + 50000

Total of this group = 91666.67 × 20 = ₹ 18,33,333

Total value of human resources of both the groups = ₹ 52,66,203.50 + ₹ 18,33,333

= ₹ 70,99,536.50

Answer:

6. (b) Reasons: There are basically six reasons why companies are going for restructuring.

1. Changed fiscal and government policies like deregulation/ decontrol has led many companies to go for newer market and customer segments.
2. The globalization of business has compelled Indian companies to open new export houses to meet global competition. Global market concept has necessitated many companies to restructure because efficient producers only can survive in the competitive global market.
3. Revolution in information technology has made it necessary for companies to adapt to new changes in the communication / information technology for improving corporate performance.
4. Many companies have divisionalised into smaller businesses. Wrong divisionalisation strategy followed in the past has forced them to revamp their product divisions which do not fit in to the company's main line of business which are now being divested. Fierce competition is forcing Indian companies to relaunch themselves.
5. Improved productivity and cost reduction has necessitated downsizing of the work force- both at works and managerial level.
6. Convertibility of rupee has attracted medium -sized companies to operate in the global market.

Implications of restructuring: Decrease in the number of corporate players in the market segment with increase in mergers and acquisition, there shall be a decrease in the quantum of corporate rivalry.

Emergence of new companies will result in healthy economic state of the Nation.

Social discontent will initially grow to some extent, however the restructuring will help to sustain employment and thereby help in stabilizing social discontent.

7. The summarized Balance Sheet of Hobson Ltd. as on 31.03.2015 is as under:

Balance Sheet as at 31.03.2015 **(Figures in ₹)**

Liabilities	₹	Assets	₹
80000 equity shares of ₹ 10 each	8,00,000	Goodwill	80,000
1000 10% Debentures of ₹ 100 each	1,00,000	Land and Buildings	4,20,000
Profit & Loss Account	5,80,000	Plant & Machinery (after depreciation)	4,10,000
General Reserve	2,40,000	Inventories	5,45,000
Sundry Creditors	3,10,000	Sundry Debtors	4,30,000
		Bank	1,45,000
	20,30,000		20,30,000

Profit after tax for three years 2011-12, 2012-13 and 2013-14, after charging debenture interest were ₹2,30,200, ₹ 3,50,500 and ₹ 2,50,000 respectively.

Additional information:

(a) The normal rate of return is 12% on the net assets attributed.

(b) Goodwill may be calculated at 4 times the adjusted average super profits of the three years referred to above.

(c) The value of Land and Building is to be ascertained on the basis of 10% return. The current rental value is ₹ 70,000 per year.

(d) Rate of tax-50%.

(e) Profits for 2012-13 included profits from a transaction of a non-recurring nature of ₹ 29,680.

(f) A provision of ₹ 20,500 on debtors made in earlier years is no longer required and this is to be adjusted in the profits of 2013-14.

(g) A Contingent Liability of ₹ 10,500 has become an actual liability which is to be adjusted in the year 2013-14.

You are required to ascertain the value of Goodwill of the company. The capital employed may be taken as on 31.03.2015 for the purpose. **15**

Answer:

7. Goodwill = 4 times the adjusted average super profits = 4 x super profits
Super profit = Maintainable profit – normal profit i.e. (normal rate x capital employed)

Calculation of Maintainable Profit:

Year	Post tax Profit	PBT		Adjustment		Adjusted profit before tax.
			Non Recurring profit	Excess prov.	Actual liab.	
2011-12	230,200	460,400				460,400
2012-13	350,500	701,000	-29680			671,320
2013-14	250,000	500,000		+20500	-10500	510.000
						1641,720
					Less Tax 50%	8,20,860
					Net	8,20,860

Average adjusted maintainable profit ₹ 820,860/3 = ₹ 273,620.

Calculation of capital employed as at 31-3-2014

Land and building at market value (70,000 × 100/10)		7,00,000
Plant & Machinery		4,10,000
Inventories		5,45,000
Debtors (430000 + 20500)		4,50,500
Bank		1,45,000
		22,50,500
Less: Liabilities		
10% Debentures	100,000	
Sundry Creditors	310,000	
Claims omitted	10,500	420,500
Capital employed as at 31.3.14		**18,30,000**
Normal profit 12% on 18,30,000		2,19,600
Average adjusted Maintainable profit		2,73,620
Adjusted average Super profit		54,030
Value of goodwill ₹54020 × 4		**₹ 2,16,080**

8. **In recent board meeting of Hard Touch Ltd., it was decided to increase the company's presence in the southern part of India and for that, it is further decided to acquire Soft Touch Ltd. and merged it with itself. In this respect, you have been provided the following information:**

Balance Sheet as on March 31, 2015 ***(₹ in Crores)***

Equities and Liability	*Hard Touch Ltd*	*Soft Touch Ltd*
Equity Share Capital (₹ 10 par)	**6,000.00**	**2,500.00**
Reserves and Surplus	**5,750.00**	**3,650.00**
Shareholders' Funds	**11,750.00**	**6,150.00**
Non-Current Liabilities:		
Long Term Debt	**3,775.00**	**2,435.00**
Deferred Tax liabilities (Net)	**675.00**	**250.00**
Curent Liabilities	**1,775.00**	**985.00**
Total Liabilities	**17,975.00**	**9,820.00**
Assets		
Non-Current Assets:		
Net Fixed Assets	**10,275.00**	**6,700.00**
Investments	**2,250.00**	**375.00**
Current Assets	**5,450.00**	**2,745.00**
Total Assets	**17,975.00**	**9,820.00**

Profit and Loss Account for the year ending on March 31, 2015 **(₹ in Crores)**

Particulars	*Hard Touch Ltd*	*Soft Touch Ltd*
Income:		
Net Revenue	**42,150.00**	**22,305.00**
Other Income	**925.00**	**955.00**
Total Income	**43,075.00**	**23,260.00**
Less: Expenses		
Total Operating Expenses	**25,613.14**	**14,780.70**
Operating Profit	**17,461.86**	**8,479.30**
Less: Interest	**319.00**	**265.00**
Profit Before Tax	**17,142.86**	**8,214.30**
Less: Tax	**5,142.86**	**2,464.29**
Profit After Tax	**12,000.00**	**5,750.01**
Price/Earnings Ratio	**21.65**	**15.75**

Since Hard Touch Ltd. has a policy of maximizing EPS, it is decided to consider the exchange ratio (or swap ratio) on the basis of Book Value, EPS and Market Price of both the companies and select that which maximizes EPS.

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

(i) Determine the exchange ratio or swap ratio for the said merger that will maximize EPS post merger. It is estimated that there are likely to be some synergy gains which will increase the earnings of new merged entity by 5%.

(ii) Assuming that the Price/Earnings Ratio of Hard Touch Ltd. after merger will be 24.50, determine the market price of the share of Hard Touch Ltd. **10+5=15**

Answer:

8.

Calculation as per Book value: **(₹ in crores)**

Particulars	**Hard Touch Ltd.**	**Soft Touch Ltd.**
Equity Share Capital (₹ 10 par)	₹ 6,000.00	₹ 2,500.00
Reserves and Surplus	₹ 5,750.00	₹ 3,650.00
	₹ 11,750.00	₹ 6,150.00
Adjusted for		
Deferred Tax Liabilities (Net) (+)	₹ 675.00	₹ 250.00
Net Worth	₹ 12,425.00	₹ 6,400.00
No. of Shares	600.00	250.00
Book Value per Shares	₹ 20.71	₹ 25.60
Swap Ratio	**1.236**	**1.000**

Calculations as per EPS: **(₹ in crores)**

Particulars	**Hard Touch Ltd.**	**Soft Touch Ltd.**
Profit After Tax	₹ 12,000.00	₹ 5,750.01
No. of Shares	600.00	250.00
EPS	₹ 20.00	₹ 23.00
Swap Ratio	1.150	1.000

Calculation as per Market Price: **(₹ in crores)**

Particulars	**Hard Touch Ltd.**	**Soft Touch Ltd.**
P/E Ratio	21.65	15.75
EPS	₹ 20.00	₹ 23.00
Therefore, the Market Price is	₹ 433.00	₹ 362.25
Swap Ratio	0.837	1.000

After Merger: **(₹ in crores)**

PAT of Hard Touch Ltd	₹	12,000.00
PAT of Soft Touch Ltd	₹	5,750.01
	₹	17,750.01
Add: Increase in Profit due to 5% Synergy Gains	₹	887.50
Profit After Tax (of the Merged Entity)	₹	**18,637.51**

Swap Ratio as per Book Value 1.236: 1.000

Swap Ratio as per EPS 1.150: 1.000

Swap Ratio as per Market Price 0.837: 1.000

EPS of Hard Touch will be maximum if the number of shares issued to the shareholders of Soft Touch is minimum. And, using Market Price to calculate swap ratio will result in the minimum number of shares to be issued as this is the minimum swap ratio.

No. of shares to be issued to the shareholder of Soft Touch using swap ratio of 0.837:1	209.25
No. of existing shares of Hard Touch	600.00
Therefore, the total No. of shares of Hard Touch after merger will be	**809.25**
New EPS will be	**₹ 23.03**
New P/E Ratio given	24.50
New Share Price of Hard Touch after merger	**₹ 564.24**