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) If a patent is developed internally, its cost is capitalized.

(ii) For valuation of equity share under yield method, knowledge of capital employed is not required.

(iii) Costs of R&D performed under contracts are capitalized as inventory.

(iv) Intrinsic value of share is a subjective concept and cannot be measured. Intrinsic value is measured as Net Assets of a Company /No. of shares.).

(v) Goodwill is essentially a container for a customer's complete experience with the offer and the company.

(vi) Hedging protects against the price risk but not against gains or losses.

(vii) When the right is not exercised, value of option is equal to market price of underlying asset.

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

(ix) Brand value need not be amortized.

(x) Employee benefits are treated as long-term liabilities.

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

(i) Premium paid by a target company to buy back its stock from a potential acquirer is called ----------. (Greenmail, Whitemail).

(ii) Assets held as stock in trade are not ----------. (investments/disinvestments).

(iii) In DCF valuation, the value of an asset is present value of ---------- cash flows on the asset. (actual, expected).

(iv) Net worth of a firm as per Balance Sheet is called its ----------. (book value, market value).

(v) If expected rate of return is more than required rate, stock should be ----------. (bought,sold).

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

(i) In the valuation of a business if price to sales ratio of XYZ Ltd. is 0.45 and revenue is ₹ 150 lakh, then the market value of equity of XYZ Ltd. will be-
(a) ₹ 30.50 lakh
(b) ₹ 67.50 lakh
(c) ₹ 428.50 lakh
(d) ₹ 500.25 lakh

(ii) Which one of the following statements is correct?
(a) Although some methods of estimating the cost of equity capital encounter severe difficulties, the CAPM is a simple and reliable model that provides great accuracy and consistency in estimating the cost of equity capital.
(b) The DCF model is preferred over other models to estimate the cost of equity because of the case with which a firm's growth rate is obtained.
(c) The bond-yield-plus-risk-premium approach to estimating the cost of equity is not always accurate but its advantages are that it is a standardized and objective model.
(d) Depreciation-generated funds are an additional source of capital and, in fact, represent the largest single source of funds for some firms.

(iii) If Tobin's Q is over 1, this deems
(a) Stock market to be under valued
(b) Stock market is valued at par
(c) Stock market is highly valued
(d) None of the above

(iv) Assume that you buy a bond today yielding 9.50% (YTM). The face value of the bond is ₹ 1000 and is presently being traded in the market at ₹ 1005. Then, it means that the coupon rate is
(a) More than 9.50%
(b) Less than 9.50%
(c) Exactly equal to 9.50%
(d) All the above are possible

(v) Company has declared a dividend of ₹ 4 per share for the recently ended financial year. It is estimated that its cost of equity is 12.50%. If it has a Dividend pay-out Ratio of 40% and Growth rate in Dividend is 7.50%, then, its Price/ Earnings Ratio will be (assume that price in the market are determined as per the Constant Dividend Growth Model)
(a) 8.00
(b) 8.33
(c) 8.60
(d) 14.33

Answer

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

(i) False

(ii) True

(iii) True

(iv) False

(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) Greenmail

(ii) investments

(iii) expected

(iv) book value

(v) bought

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

(i) (b) ₹ 67.50 lakh

(ii) (d) Depreciation-generated funds are an additional source of capital and, in fact, represent the largest single source of funds for some firms.

(iii) (c) Stock market is highly valued

(iv) (a) More than 9.50%

(v) (c) 8.60

2. (a) Consider three bonds A, B and C. Their characteristics are shown below:

	Bond A	Bond B	Bond C
Face value	**₹ 500**	**₹ 500**	**₹ 500**
Coupon rate	**12%**	**12%**	**12%**
Coupon payments	**Semi-annually**		
Term to maturity	**3 years**	**5 years**	**7 years**
Market value	**₹ 500**	**₹ 500**	**₹ 500**

If the interest rates increase by 1 percentage point, what are the market values of these bonds? What do you observe regarding the percentage price change in these three bonds as the term to maturity increases? [6+3]

(b) Sentek Ltd furnishes the following Cash Flows estimate -

Year 1	**₹ 20.00 Lakhs**
Years 2 to 4	**Compounded Growth Rate 6.5%**
Years 5 to 8	**Compounded Growth Rate 9.5%**

Apply 20% Discount Rate and determine the Value of Business. **[6]**

Answer to 2 (a):

If the interest rates increase by 1 percentage point,

Market value of Bond A = ₹ 30 x PVIFA (6.5%, 1-6) + ₹ 500 x PVIF (6.5%, 6)
= ₹ 30 (4.841) + ₹ 500 (0.685) = ₹ 487.73

Market value of Bond B = ₹ 30 x PVIFA (6.5%, 1-10) + 500 x PVIF (6.5%, 10)
= ₹ 30 (7.1888) + ₹ 500 (0.5327) = ₹ 482.01

Market value of Bond C = ₹ 30 x PVIFA (6.5%, 1-14) + ₹ 500 x PVIF (6.5%, 14)
= ₹ 30 (9.013) + ₹ 500 (0.4141) = ₹ 477.44

The percentage price change in case of Bond A is 2.454%, in case of Bond B it is 3.598% and in case of Bond C it is 4.512%. The marginal percentage price changes are 1.144% and 0.914% between A and B and between B and C respectively. That is the percentage price change increases as term to maturity increases but the marginal percentage price change diminishes as term to maturity increases.

Answer to 2(b):

(₹ 000's)

Year	Cash Flows	Discount Factor at 20%	Discounted Cash Flows
1	20,000.00	0.8333	16,66.60
2	20,00.00 + 6.5% = 2,130.00	0.6944	14,79.07
3	21,30.00 + 6.5% = 2,268.45	0.5787	13,12.75
4	22,68.45 + 6.5% = 2,415.90	0.4823	11,65.19
5	24,15.90 + 9.5% = 2,645.41	0.4019	10,63.19
6	26,45.41 + 9.5% = 2,896.72	0.3349	9,70.11
7	28,96.72 + 9.5% = 3,171.91	0.2791	8,85.28
8	31,71.91 + 9.5% = 3,473.24	0.2326	8,07.88
Total			**93,50.07**

Value of Business is based on discounted value of 8 years Cash Flows (CFAT) is ₹ 93.50 Lakhs.

3. (a) How do you react to various uncertainties during the process of business valuation? **[5]**

(b) The following information has been extracted from the Annual Report 2013-14 of Hudco Limited: **[10]**

Balance Sheet of Hudco Limited as at 31st March 2014

Particulars	(₹ in crores) 2014
EQUITY AND LIABILITIES	
Shareholder's Funds	
Share Capital	**8,245.46**
Reserves and Surplus	**65,045.71**
	73,291.17
Non-Current Liabilities	
Long- Term Borrowings	**47,975.23**
Other long term liabilities	**2, 332.76**
	50,307.99
Current Liabilities	
Trade payables	**4,468.07**
Other current Liabilities	**12,770.57**
	17,238.64
Total	**1,40,837.80**
ASSETS	
Non-Current Assets	
Fixed Assets:	
Tangible assets	**45,046.47**
Intangible assets	**211.89**
Capital work-in-progress	**41, 827.82**
Intangible assets under Development	**0.04**
	87,086.22
Non-current investments	**9,583.92**
Long-term loans and advances	**3,883.26**
Other non-current assets	**1,371.88**
	14,839.06
Current Assets:	
Current investments	**1,622.46**
Inventories	**3,702.85**
Trade receivables	**5,832.51**
Cash and bank balance	**16,146.11**
Short- term loans advances	**2,754.73**
Other current assets	**8,853.86**
	38,912.52
Total	**1,40,837.80**

Statements of Profit and Loss of Hudco Limited for the year ending on 31st March 2014

Particulars	(₹ in crores) 2012
Revenue from operations (Gross)	**62,480.88**
Less: Excise Duty	**428.65**
Revenue from operations (Net)	**62, 052.23**
Other Income	**2,778.42**

Total Revenue	**64,830.65**
EXPENSES:	
Fuel	**41, 635.46**
Employee benefits expense	**3, 090.48**
Finance Costs	**1, 711.64**
Depreciation and amortization expense	**2,791.70**
Administration & other expenses	**3,588.79**
Total Expenses	**52,818.07**
Profit/ (Loss) Before Tax	**12,012.58**
Note: Profit on sale of Non-Current Assets (included in Other Income above) being exceptional items.	**313.58**

Tax expense is 30% of the profit.

The directors of Tentex Ltd. are considering a takeover of Hudco Ltd. As the consultant of Tentex Ltd., you are required to determine the value of a share of Hudco Limited on the basis of the Profit-Earning Capacity (Capitalization) Method by considering the following additional information:

(i) The face value of the share is ₹ 10.

(ii) Profit on sale on Non-current Assets is an exceptional item of the profit and it is expected that in future no such profits are likely to occur.

(iii) In subsequent years, additional expenses on advertisements of ₹ 25 crores and on depreciation of ₹ 50 crores each year are expected to be incurred.

(iv) The Capitalization rate on the similar business is 9.50%.

(v) All other items of the above financial statements are expected to remain same in the future.

Answer to 3(a):

The advantage of breaking uncertainty down into estimation uncertainty, firm-specific and macroeconomic uncertainty is that it gives us a window on what we can manage, what we can control and what we should just let pass through into the valuation.

Building better models and accessing superior information will reduce estimation uncertainty but will do little to reduce exposure to firm-specific or macro-economic risk. Even the best-constructed model will be susceptible to these uncertainties.

In general, analysts should try to focus on making their best estimates of firm-specific information – how long will the firm are able to maintain high growth? How fast will earnings grow during that period? What type of excess returns will the firm earn? – and steer away from bringing in their views on macro economic variables. To see why, assume that you believe that interest rates today are too low and that they will go up by about 1.5% over the next year. If you build in the expected rise in interest rates into your discounted cash flow valuations, they will all yield low values for the companies that you are analyzing. A person using these valuations will be faced with a conundrum because she will have no way of knowing how much of this over valuation is attributable to your macroeconomic views and how much to your views of the company.

In summary, analysts should concentrate on building the best models they can with as much information as they can legally access, trying to make their best estimates of firm-specific components and being as neutral as they can on macro economic variables. As new information comes in, they should update their valuations to reflect the new information. There is no place for false pride in this process. Valuations can change dramatically over time and they should if the information warrants such a change.

Answer to 3(b):

Profit- Earning Capacity (Capitalization) Method

		₹ in crores
Profit Before Tax excluding exceptional items (12, 012.58 - 313.58)		11,699.00
Less:		
Additional Expenses on Advertisement		25.00
Depreciation		50.00
	Expected Profit before Tax	11,624.00
Less: Tax @30%		3,487.20
	Expected Maintainable Profit	8,136.80
Capitalization Rate		9.50%
	Value of Business	**85,650.53**
Less: Outsiders and external Liabilities		
NON-CURRENT LIABILITIES		
Long-Term Borrowings		47,975.23
Other Long term liabilities		2,332.76
CURRENT LIABILITIES		
Trade payables		4,468.07
Other current liabilities		12,770.57
	Total Outsiders Liabilities	67,546.63
	Value of Equity	**18,103.90**
Share Capital		8,245.46
No. of share (Face Value ₹ 10)		824.546
	Value per Share	**21.96**

4. Write short notes on: **[3×5=15]**

(a) Objectives of corporate branding

(b) Credit Risk

(c) Assumptions of MM Hypothesis

Answer to 4:

(a) Important objectives of corporate branding are as follows:

(i) Corporate Identity: Brands help corporate houses to create and maintain identity for them in the market. This is chiefly facilitated by brand popularity and the eventual customer loyalty attached to the brands.

(ii) **Total Quality Management (TQM):** By building brand image, it is possible for a body corporate to adopt and practice TQM. Brands help in building lasting relationship between the brand owner and the brand user.

(iii) **Customer Preference:** Interaction between a specified group of products and services and a specified group of loyal customers creates a psychological lasting impression in the mind of those customers. Branding gives them advantage of status fulfillment.

(iv) **Market Strength:** By building strong brands, firms can enlarge and strengthen their market base. This would also facilitate programmes, designed to achieve maximum market share.

(v) **Market Segmentation:** By creating strong brand values, companies classify market into more strategic areas on a homogeneous pattern of efficient operations. It enables firms to focus on target group of customers to meet competition.

(b) Credit risk implies risk arising from debtors default on financial claim. Credit risk is assessed by the amount of debt or claims on the debtor (exposure) multiplied by the probability of the debtor defaulting before the end of contract with the product adjusted for the hope of recovering from the asset after default. Therefore credit risk=Exposure amount*Probability of default*(1-R). 'R' represents rate of recovery.

There are three types of credit risk. Credit default risk is the risk that the issuer will fail to satisfy the terms of the obligation with respect to the timely payment of interest and repayment of the amount borrowed. This form of credit risk covers counterparty risk in a trade or derivative transaction where the counterparty fails to satisfy its obligation. To gauge credit default risk, investors typically rely on credit ratings.

Credit spread risk is the loss or underperformance of an issue due to an increase in the credit spread. The credit spread is the compensation sought by investors for accepting the credit default risk of an issue or issuer. The credit spread varies with market conditions and the credit rating of the issue or issuer. On the issuer side credit spread risk is the risk that an issuer's credit spread will increase when it must come to market to offer bonds, resulting in a higher funding cost.

Downgrade risk is the risk that an issue or issuer will be downgraded, resulting in an increase in the credit spread demanded by the market. Hence, downgrade risk is related to credit spread risk. The ability of an issuer to make interest and principal payments diminishes seriously and unexpectedly because of an unforeseen event. This risk is referred to generically as event risk and will result in a downgrading of the issuer by the rating agencies.

(c) The MM hypothesis of irrelevance of dividends is based on the following critical assumptions:

(i) Perfect capital markets in which all investors are rational. Information is available to all free of cost, there are no transactions costs, securities are infinitely divisible, no investor is large enough to influence the market price of securities, there are no flotation costs.

(ii) There are no taxes. Alternatively, there are no differences in tax rates applicable to

capital gains and dividends.

(iii) A firm has a given investment policy which does not change. The operational implication of this assumption is that financing of new investments out of retained earnings will not change the business risk complexion of the firm and, therefore, there would be no change in the required rate of return.

(iv) There is a perfect certainty by every investor as to future investments and profits of the firm. In other words, investors are able to forecast future prices and dividends with certainty. This assumption had been dropped by MM later.

5. (a) ABC Ltd. wants to acquire PQR Ltd. The cash flow of ABC Ltd. & the merged entity is given as follows:

Year (₹ in Lakhs)	1	2	3	4	5
ABC Ltd.	275	302.5	324.5	641	357.5
Merged entity	440	495	563.75	591.25	618.75

After 5 years, earnings would have witnessed 5% constant growth rate without merger and 6% with merger on account of economies of operation. The cost of capital is 15%. The exchange ratio agreed upon is 0.6. From the viewpoint of ABC Limited, find out the value of acquisition, make suitable assumptions. [9]

(b) XYZ Ltd Company currently sells for ₹ 32.50 per share. In an attempt to determine if XYZ Ltd is fairly priced, an analyst has assembled the following information.

- **The before-tax required rates of return on XYZ Ltd debt, preferred stock, and common stock are 7.0 percent, 6.8 percent, and 11.0 percent, respectively.**
- **The company's target capital structure is 30 percent debt, 20 percent preferred stock, and 50 percent common stock.**
- **The market value of the company's debt is ₹145 million and its preferred stock is valued at ₹65 million.**
- **XYZ Ltd's FCFF for the year just ended is ₹28 million. FCFF is expected to grow at a constant rate of 4 percent for the foreseeable future.**
- **The tax rate is 35 percent.**
- **XYZ Ltd has 8 million outstanding common shares.**

What is XYZ Ltd's estimated value per share? Is XYZ Ltd's stock under priced? [5+1]

Answer to 5(a):

Assumption:

Total number of shareholding in both companies is taken as 1.

Post merger – Total shareholding = 1+0.6 = 1.6

		ABC Ltd.		Merged Entity	
Year	PV @15%	Cash flow	PV of CF	Cash Flow	PV of CF
1	0.8696	275	239.14	440	382.62

2	0.7561	302.5	228.72	495	374.27
3	0.6575	324.5	213.36	563.75	370.67
4	0.5718	341	194.98	591.75	338.36
5	0.4972	357.5	177.75	618.75	307.64
6	0.4972	*3753.75	1866.36	**7287.50	3623.35
	Total		**2920.31**		**5396.91**

*Terminal value ABC = $\frac{CF(1+g)}{k_e - g} = \frac{357.5 \times 1.05}{0.15 - 0.05} = 3753.75$

**terminal value Merged Entity = $\frac{CF(1+g)}{k_e - g} = \frac{618.75 \times 1.06}{0.15 - 0.06} = 7287.5$

Value of shareholders of ABC [after merger] = 5396.91/1.6 = ₹33730.6
Value of shareholders of ABC [before merger] = 2920.31/1.0 = ₹2920.31 lacs
Cost of acquisition payable for Merger by ABC Ltd. = (₹3373.06 – ₹2920.31)
= ₹452.75 lacs

Answer to 5(b):

The weighted-average cost of capital for XYZ Ltd Company is

WACC = 0.30(7.0%) (1 - 0.35) + 0.20(6.8%) + 0.50(11.0%) = 8.225%

The firm value is

Firm value = $FCFF_0$ (1 + g) / (WACC - g)

Firm value = 28(1.04) / (0.08225 - 0.04) = 29.12/0.04225 = ₹689.23 million

The value of equity is the firm value minus the value of debt minus the value of preferred stock: Equity = 689.23 - 145 - 65 = ₹479.23 million. Dividing this by the number of shares gives the estimated value per share of ₹479.23 million/8 million shares = ₹59.90.

The estimated value for the stock is greater than the market price of ₹32.50, so the stock appears to be undervalued.

6. (a) A pharmaceutical firm has the patent rights for the next 20 years to a product that requires an initial investment of ₹1.4 crore to develop. However, the present value of the cash inflows for the product is only ₹80 lakh. Due to technological advancement, there is a possibility that the project would become a valuable project in the future. The simulation of the project under a variety of technological and competitive scenarios yields a variance in the present value of inflows of 0.05. The rate of the 10-year Government security is 10%. Estimate the value of the product patent. [9]

(b) Which categories of Financial Instruments are covered under AS 30? [6]

Answer to 6(a):

Since the product patent has the features of the call option, its value can be calculated using the Black-Scholes Option Pricing model.

S = Present value of the underlying asset
= Present value of inflows = ₹80 lakh
K = Exercise price = Present value of the cost of development = ₹1.4 crore
t = Time to expiration = Life of the patent = 20 years
Variance in the underlying asset = Variance in PV of inflows = 0.05
r = Riskless rate of return = 10%
Based on the inputs, d_1 and d_2 in the Black-Scholes model can be calculated as follows:

$$d_1 = \frac{\ln\left(\frac{0.8}{1.4}\right) + \left(0.1 + \frac{0.05}{2}\right)20}{0.224\sqrt{20}}$$

$$= \frac{-0.5596 + 2.5}{1.002}$$

$$= 1.936$$

$$d_2 = d_1 - \sigma\sqrt{t}$$

$$= 1.936 - 0.224\sqrt{20} = 0.934$$

$$= 0.6099$$

$N(d_1) = 0.9768$
$N(d_2) = 0.8248$
Value of call $= SN(d_1) - Ke^{-rt}N(d_2)$
$= 0.8\ (0.968) - 1.4 \times (2.7183)^{-0.10 \times 20}\ (0.8248)$
$= 0.7744 - (1 / 7.389)\ (0.8248)$
$= 0.7744 - 0.1116$
$= 0.6628$ or ₹66.28 lakh

From the above, we can conclude that though the product has a negative net present value currently, it is a valuable product when viewed as an option. This is a more realistic measure of value than traditional discounted cash flow techniques because it reflects the underlying uncertainty in the technology and in competition.

Answer to 6(b):

Four categories of financial instruments are covered under AS 30. They are
(1) Held for Trading; (2) Held to maturity; (3) Loans & Receivables and (4) Available for sale.

A financial asset or financial liability is classified as **held for trading** if it is

(i) acquired or incurred principally for the purpose of selling or repurchasing it in near term; or
(ii) part of a portfolio of identified financial instruments that are managed together and for which there is evidence of a recent pattern of short –term profit taking;

(iii) a derivative (except for a derivative that is a financial guarantee contract or a effective hedging instrument).

Held- to-maturity investments are non-derivative financial assets with fixed or determinable payments and fixed maturity that an entity has positive intention and ability to hold to maturity other than;

(a) those that the entity upon initial recognition designates as at fair value through profit & loss;

(b) those that meet the definition of loans and receivables; and those that the entity designates as available for sale.

Loans and receivables are non-derivative financial assets with determinable payments that are not quoted in an active market, other than; (a) those that the entity intends to sell immediately or in near term, which should be classified as held for trading and (b)those that entity upon initial recognition designates as available for sale; or those for which the holder may not recover substantially all of its initial investment, other than because of credit deterioration, which should be classified as available for sale.

Available –for –sale financial assets are those non-derivative financial assets that are designated as available for sale or are not classified as

(a) Loans and receivables

(b) Held to maturity investments or

(c) Financial assets at fair value through profit and loss.

7. (a) What is a takeover bid? What are different types of takeover bid? [3+7]

(b) Offer a brief profile of Mergers and Acquisition in the Indian context? [5]

Answer to 7 (a):

This is a technique for affecting either a takeover or an amalgamation. It may be defined as an offer to acquire shares of a company, whose shares are not closely held, addressed to the general body of shareholders with a view to obtaining at least sufficient shares to give the offer or, voting control of the company. Takeover Bid is thus adopted by company for taking over the control and management affairs of listed company by acquiring its controlling interest.

While a takeover bid is used for affecting a takeover, it is frequently against the wishes of the management of Offeree Company. It may take the form of an offer to purchase shares for cash or for share for share exchange or a combination of these two firms. Where a takeover bid is used for effecting merger or amalgamation it is generally by consent of management of both companies. It always takes place in the form of share for share exchange offer, so that accepting shareholders of Offree Company become shareholders of Offeror Company.

There are three types of takeover bid;

(1) Negotiated bid

(2) Tender offer

(3) Hostile takeover bid

(1) Negotiated bid: It is also called friendly merger. In this case, the management /owners of both the firms sit together and negotiate for the takeover. The acquiring firm negotiates directly with the management of the target company. So the two firms reach an agreement, the proposal for merger may be placed before the shareholders of the two companies. However, if the parties do not reach at an agreement, the merger proposal stands terminated and dropped out. The merger of ITC Classic Ltd. with ICICI Ltd.; and merger of Tata oil mills Ltd. With Hindustan Lever Ltd. were negotiated mergers. However, if the management of the target firm is not agreeable to the merger proposal, then the acquiring firm may go for other procedures i.e. tender offer or hostile takeover.

(2) Tender offer: A tender offer is a bid to acquire controlling interest in a target company by the acquiring firm by purchasing shares of the target firm at a fixed price. The acquiring firm approaches the shareholders of the target firm directly firm to sell their shareholding to the acquiring firm at a fixed price. This offered price is generally, kept at a level higher than the current market price in order to induce the shareholders to disinvest their holding in favour of the acquiring firm. The acquiring firm may also stipulate in the tender offer as to how many shares it is willing to buy or may purchase all the shares that are offered for sale.

In case of tender offer, the acquiring firm does not need the prior approval of the management of the target firm. The offer is kept open for a specific period within which the shares must be tendered for sale by the shareholders of the target firm. Consolidated Coffee Ltd. was takeover by Tata Tea Ltd. by making a tender offer to the shareholders of the former at a price which was higher than the prevailing market price. In India, in recent times, particularly after the announcement of new takeover code by SEBI, several companies have made tender offers to acquire the target firm. A popular case is the tender offer made by Sterlite Ltd. and then counter offer by Alean to acquire the control of Indian Aluminium Ltd.

(3) Hostile Takeover Bid: The acquiring firm, without the knowledge and consent of the management of the target firm, may unilaterally pursue the efforts to gain a controlling interest in the target firm, by purchasing shares of the later firm at the stock exchanges. Such case of merger/acquisition is popularity known as 'raid'. The Caparo group of the U.K. made a hostile takeover bid to takeover DCM Ltd. and Escorts Ltd. Similarly, some other NRI's have also made hostile bid to takeover some other Indian companies. The new takeover code, as announced by SEBI deals with the hostile bids.

Answer to 7 (b):

In India, the concept of mergers, acquisitions and takeovers has not been popular and kept a low profile, and the reason for this is quite obvious. The regulatory and prohibitory provisions of MRTP Act, 1969 provided for a cumbersome procedure to get approval for mergers and acquisitions under the Act. Most of the provisions of the MRTP Act, 1969,

have been repealed as a part of economic liberalization drive of the Government of India. Still, in most of the cases, merger in India used to be friendly amalgamation resulting as a consequence of a negotiated deal, unless 1988 when there was the well-known unsuccessful hostile takeover bid by Swaraj Paul (of Caparo Group of the U.K.) to get control over DCM Ltd. and Escorts Ltd. Many other Nonresident Indians, such as Chabrias, Hindujas etc. also attempted to take over many Indian companies by buying shares of these companies at stock exchanges.

During recent years, there has been a spate of merger moves by various industrial groups. Volrho Ltd., a loss making company was amalgamated with Voltas Ltd. Hindustan Lever Ltd., First, acquired Tata Oil Mills from the Tata Group and then merged other group companies i.e., Brook Bond Lipton (India) Ltd. and Ponds (India Ltd.) with it. The SCICI Ltd. which was initially promoted by ICICI Ltd. has been merged with the latter. Jindal Ferroy Alloys Ltd. has been merged with Jindal Strips Ltd. ITC Classic Ltd. has been merged with ICICI Ltd. British Gas Company has taken over Gujarat Gas Company. Company like Nicholas Piramal has been built only by mergers and acquisitions. India Cement Ltd.'s offer for Raasi cement Ltd. and the offer of Sterlite Ltd. for taking over Indian Aluminum Company have heralded a new era of hostile takeovers in India.

8. The following Balance Sheet of Forex Ltd. is given:

Balance Sheet of Forex Ltd. as on 31st March, 2014

Equity and Liability	₹	Assets	₹
(1) Shareholders Fund:		**(1) Non-Current Assets:**	
(a) Share Capital		**(a) Fixed Assets**	
Equity Share Capital of ₹ 10 each	**50,00,000**	**(i) Tangible Assets:**	
(b) Reserve & Surplus		**— Land and Building**	**32,00,000**
P & L Appropriation Account	**21,20,000**	**— Plant and Machinery**	**28,00,000**
		(ii) Intangible Assets:	
(2) Current Liabilities:		**— Goodwill**	**4,00,000**
(a) Short Term Borrowings – Bank O/D	**18,60,000**		
(b) Trade Payables		**(2) Current Assets:**	
— Sundry Creditors	**21,10,000**	**(a) Inventories**	**32,00,000**
(c) Short Term Provision		**(b) Trade Receivables**	
— Provision for Taxation	**5,10,000**	**— Sundry Debtors**	**20,00,000**
Total	**1,16,00,000**	**Total**	**1,16,00,000**

In 1995 when the company commenced operation the paid up capital was same. The Loss/Profit for each of the last 5 years was - years 2009-2010 - Loss (₹ 5,50,000); 2010-2011 ₹ 9,82,000; 2011-2012 ₹ 11,70,000; 2012-2013 ₹ 14,50,000; 2013-2014 ₹ 17,00,000;

Although income-tax has so far been paid @ 40% and the above profits have been arrived at on the basis of such tax rate, it has been decided that with effect from the year 2013-2014 the Income-tax rate of 45% should be taken into consideration. 10% dividend in 2010-2011 and 2011-2012 and 15% dividend in 2012-2013 and 2013-2014 have been paid. Market price

of shares of the company on 31st March, 2014 is ₹ 125. With effect from 1st April, 2014 Managing Director's remuneration has been approved by the Government to be ₹ 8,00,000 in place of ₹ 6,00,000. The company has been able to secure a contract for supply of materials at advantageous prices. The advantage has been valued at ₹ 4,00,000 per annum for the next five years.

Ascertain goodwill at 3 year's purchase of super profit (for calculation of future maintainable profit weighted average is to be taken). [15]

Answer to 8:

(1) Future Maintainable Profit

Year	Profit (P) ₹	Weight (W)	Product (PW) ₹
2010-2011	9,82,000	1	9,82,000
2011-2012	11,70,000	2	23,40,000
2012-2013	14,50,000	3	43,50,000
2013-2014	17,00,000	4	68,00,000
		10	1,44,72,000

$$\text{Weighted average annual profit (after tax)} = \frac{\sum PW}{\sum P} = \frac{₹1,44,72,000}{10} = 14,47,200$$

Particulars	₹
Weighted average annual profit before tax $\left(₹14,47,200 \times \frac{100}{60}\right)$	24,12,000
Less: Increase in Managing Director's remuneration	2,00,000
	22,12,000
Add: Saving in cost of materials	4,00,000
	26,12,000
Less: Taxation @ 45%	11,75,400
Future maintainable profit	14,36,600

(ii) Average Capital Employed

Particulars	₹	₹
Assets:		
Land and Buildings		32,00,000
Plant and Machinery		28,00,000
Stock		32,00,000
Sundry Debtors		20,00,000

		1,12,00,000
Less: Outside liabilities:		
Bank overdraft	18,60,000	
Creditors	21,10,000	
Provision for taxation	5,10,000	44,80,000
Capital employed at the end of the year		67,20,000
Add: Dividend @ 15% paid during the year		7,50,000
		74,70,000
Less: Half of the profit (after tax) for the year i.e. ₹ 17,00,000 x ½		8,50,000
		66,20,000

(iii) Normal Profit

Average dividend for the last 4 years = 12.5%
Market price of share = ₹ 125
Normal rate of return = = 10%
Normal profit (10% of ₹ 66,20,000) = ₹ 6,62,000

(iv) Valuation of goodwill

Particulars	₹
Future maintainable profit	14,36,600
Less: Normal profit	6,62,000
Super profit	7,74,600
Goodwill at 3 years' purchase of super profits (₹ 7,74,600 x 3)	23,23,800