Paper 20 – Financial Analysis & Business Valuation

Paper 20 – Financial Analysis & Business Valuation

Full Marks: 100 **Time allowed: 3 hours**

Question No. 1 which is compulsory and carries 20 marks and answer any five questions from Question No. 2 to Question No. 8

1.(a) State whether the following statements are true or false: [1×8=8]

(i) Production, employment and consumption are significant data for financial analysis.
(ii) A financial model specifies the relationship between inputs and outputs.
(iii) Ratio analysis helps in determining the liquidity position of the firm. It is measured with the help of liquidity ratios.
(iv) Trend ratio shows the nature and rate of movement of various financial factors.
(v) Higher the Dividend Payout Ratio of a company, higher is its Price/Earning (P/E) Ratio.
(vi) If a company has built up intangibles over a period of time. then it can show them in its Balance Sheet and thus, the book value of the company's share will increase.
(vii) Whenever the yield on a bond is more than coupon rate, the bond will be trading at a discount.
(viii) According to basic valuation model the value of a financial asset is present value of its expected future cash flows.

Answer:

(i) False
(ii) True
(iii) True
(iv) True
(v) True
(vi) False
(vii) True
(viii) True.

1.(b) From the following particulars of Z Ltd. find its cash flow from operation:

Particulars	₹ lakhs
Net Income	**780**
Depreciation	**85**
Impairment Loss	**12**
Profit on Sale of Land	**12**
Increase in Inventory	**23**
Decrease in Wages Payable	**11**
Increase in Deferred Tax Liability	**8**
Increase in Accounts Receivables	**24**

[6]

Answer:

Particulars	₹ in lakh	
Net Income		780
Add: Non-cash Charges:		
Depreciation	85	
Impairment Loss	12	
Add: Increase in Deferred Tax Liability	8	
		105
Less: Non-Operating Income/ Adj. for Outstanding:		
Profit on Sale of Land	12	

Less: Increase in Inventory	23	
Less: Increase in Accounts Receivables	24	
Less: Decrease in Wages Payable	11	
		70
Cash Flow from Operation		815

1.(c) Amrutha Cements Ltd. earned free cash flow to Equity Shareholders during the Financial Year ending 2015 at ₹ 4.5 lakhs and its cost of equity is 13% with a projected earnings growth rate of 10%. The market value of debt is ₹ 50 lakhs. What will be the value of firm as per Constant Growth Valuation Model? [6]

Answer:

According to the constant growth valuation model:

$$V_0 = \frac{FCFE_1}{(K_e - g)}$$

Where, $FCFE_1 = FCFE_0 (1+g)$

$$V_0 = \frac{4,50,000 \times 1.10}{(0.13 - 0.10)}$$

$$V_0 = \frac{4,95,000}{0.03}$$

V_0 = ₹ 1,65,00,000.

2.(a) What kinds of conditions of a company are represented by the following pattern of cash flows? You are requested to provide your analysis of each case separately:

I. Net cash flows from Operating Activities are positive, net cash flows used in Investing Activities are negative and net cash flows from Financing Activities are positive.

II. Net cash flows from Operating Activities are negative, net cash flows used in Investing Activities are positive and net cash flows from Financing Activities are negative.

III. Net cash flows from Operating Activities are negative, net cash flows used in Investing Activities are negative and net cash flows from Financing Activities are positive.

IV. Net cash flows from Operating Activities are positive, net cash flows used in Investing Activities are negative and net cash flows from Financing Activities are negative.

V. Net cash flows from Operating Activities are negative, net cash flows used in Investing Activities are positive and net cash flows from Financing Activities are positive. [12]

Answer:

I. A firm with positive net cash flows from Operating Activities, negative net cash flows used in Investing Activities and positive net cash flows from Financing Activities is a growing firm as it is raising funds through various financing activities and also using funds generated through operating activities and using them for investment so that it can grow at a higher rate.

II. A firm with negative net cash flows from Operation Activities, positive net cash flows used in Investing Activities and negative net cash flows from Financing Activities is in bad financial position as it is not able to generate funds through operating activities; instead selling its investments to generate funds to meet their financial obligations (that is why it has negative cash flows from financing activities).

III. A firm with negative net cash flows from Operating Activities, negative net cash flows used in Investing Activities and positive net cash flows from Financing

Activities is a start-up firm or in its initial stages. It is using funds raised through financing activities and is using these for operations and investment purposes.

IV. A firm with positive net cash flows from Operating Activities, negative net cash flows used in Investing Activities and negative net cash flows from Financing Activities is a cash-cow firm as it is generating huge amount of funds through operation and not only using them to meet its investment requirement, but also using them to pay-off its financial liabilities as cash flows from financing activities are negative.

V. A firm with negative net cash flows from Operating Activities, positive net cash flows used in Investing Activities and positive net cash flows from Financing Activities is a firm which is not going to sustain in future. Its operations are in losses and to meet them the firm is selling its investments and also, raising funds from financing activities.

2.(b) Financial statements of Moonlight Ltd. reveals the following information:

(I) PBT ₹ 1,000 lakhs

(II) Inventory overvalued by ₹ 100 lakhs

(III) Revenue expenses capitalised ₹ 6 lakhs

(IV) Increase in depreciation due to capitalization ₹ 0.60 lakhs

(V) Tax Rate 30%.

Calculate PAT after reworking and adjusting the financial manipulation undertaken by the company. [4]

Answer:

	(₹ Lakhs)
PBT	1,000.00
Less: Overvaluation of Inventory	100.00
Less: Revenue expenses capitalized	6.00
Add: Increase in depreciation due to capitalization	0.60
Revised PBT	894.60
Less: Tax @ 30%	268.38
PAT	626.22

3.(a) The Balance Sheets of Maras Ltd. for the years ended on 31.03.2016 and 31.03.2017 are as follows: (Amount in ₹ Lakhs)

	As at 31.03.16	As at 31.03.17
Equity & Liabilities		
Shareholder's Fund:		
Share capital	**696.60**	**726.70**
Equity Share suspense	**30.07**	**—**
Equity Share warrants	**—**	**841.20**
Reserve & Surplus	**31,256.89**	**39,156.40**
Non-Current Liabilities:		
Secured Loans	**4,784.56**	**3,300.09**
Unsecured Loans	**9,128.31**	**14,939.75**
Deferred Tax liabilities	**3,491.00**	**3,936.27**
Current Liabilities:		
Other current liabilities	**8,432.77**	**10,522.73**
Provisions	**856.44**	**1,496.31**
	58,676.64	**74,919.45**
Assets		
Non-current assets	**—**	**—**
Fixed Assets (Net)	**31,830.23**	**30,941.81**
Capital work in progress	**3,764.07**	**11,502.92**
Non-Current Investment:		

Investment	**8,125.67**	**11,031.80**
Current Assets:		
Inventories	**6,068.25**	**7,123.77**
Trade receivables	**1,866.21**	**3,113.79**
Cash and bank balance	**917.68**	**2,140.03**
Other current assets	**1.53**	**36.27**
Loans and advances	**6,103.00**	**9,029.06**
	58,676.64	**74,919.45**

Required:
(i) Prepare the Common-Size Balance Sheet of Maras Ltd.
(ii) Present and interpret your observations on the common-size Balance Sheet. [8+5]

Answer:

(i) Common Size Balance Sheet of Maras Ltd. (₹ in lakhs)

	As at 31.03.2016	% of Total	As at 31.03.2017	% of Total
Equity & Liabilities				
Shareholders' Fund:				
Share Capital	696.60	1.187	726.70	0.970
Equity share suspense	30.07	0.051	-	-
Equity share warrants	-	-	841.20	1.123
Reserve and surplus	31256.89	53.270	39156.40	52.265
Non-current liabilities:				
Secured loans	4784.56	8.154	3300.09	4.405
Unsecured loans	9128.31	15.557	14939.75	19.941
Deferred tax liabilities	3491.00	5.950	3936.27	5.254
Current Liabilities:				
Other current liabilities	8432.77	14.372	10522.73	14.045
Provisions	856.44	1.460	1496.31	1.997
	58676.64	100.00	74919.45	100.00
Assets:				
Non-current Assets:				
Fixed assets (Net)	31830.23	54.247	30941.81	41.300
Capital work in progress	3764.07	6.415	11502.92	15.354
Investments	8125.67	13.848	11031.80	14.725
Current assets:				
Inventories	6068.25	10.342	7123.77	9.509
Trade Receivables	1866.21	3.180	3113.79	4.156
Cash and bank balance	917.68	1.564	2140.03	2.856
Other current assets	1.53	0.003	36.27	0.048
Loan and advances	6103.00	10.401	9029.06	12.052
	58676.64	100.00	74919.45	100.00

(ii) Analysis and presentation of observations:

1. The proportion of unsecured loans to total of balance sheet has increased from 15.56% to 19.94%.
2. The proportion of secured loans to total of balance sheet has fallen from 8.15% to 4.405% due to redemption of non-convertible debentures and repayment of term loans.
3. The reserves and surplus have stayed nearly flat having marginally reduced from

53.27% at the end of year 31/03/2016 to 52.27% at end of year 31/03/2017.

4. Although the proportion of current liabilities in total share capital and liabilities has decreased from 14.37% to 14.05% but provisions have slightly increased from 1.46% to 2.00%.
5. The deferred tax liabilities have decreased from 5.95% to 5.25%.
6. The proportions of net fixed assets have fallen from 54.25% to 41.3%.
7. The capital work-in-progress has increased from 6.42% to 15.35%.
8. The investments have increased by nearly 1% over the previous accounting year.
9. The current assets other than loans and advances have increased from 15.09% to 16.57%.
10. The loans and advances have increased from 10.4% to 12.05%.

3.(b) Enumerate different types of financial modeling on the basis of its usage in modeling of economy, industry and company. [3]

Answer:

On the basis of its usage in modeling on economy, industry and company, financial modeling can be divided into three parts, namely:

(I) Macroeconomic Financial Models: Macroeconomic models are used to analyze the macro effects like effect of government policy decisions on variables such as foreign exchange rates, interest rates, disposable income and the gross national product {GNP} which affect the economy.

(II) Industry Financial Models: Industry models are often similar to macroeconomic models and typically used by industry associations or industry research analysts to forecast key performance indicators within the industry.

(III) Corporate Financial Models: Corporate financial models are built to model the total operations of a company and often perceived to be critical in the strategic planning of business operations in large corporations and startup companies alike.

4.(a) The comparative information for two years relating to Mona Ltd. is as follows:

Particulars	2015-16	2016-17
Sales (₹)	**12,00,000**	**14,62,500**
Units Sold	**4,000**	**4,500**
Sales Price per unit (₹)	**300**	**325**

You are required to account for the change in sales (amount) due to —

(I) Change in quantity

(II) Change in price

(III) Change in quantity and price taken together. [6]

Answer:

	2015-16	2016-17	Changes
Sales value (₹)	12,00,000	14,62,500	(+)2,62,500
Sales units	4,000	4,500	(+)500
Selling price per unit (₹)	300	325	(+)25

Statement showing account for changes in sales:

	₹
1. Change in sales due to change in quantity [Change in quantity × Base years unit selling price = [(4,500-4,000)× ₹ 300]	1,50,000
2.Change in sales due to change in price [Change in unit selling price × Base years quantity = [(₹ 325 - ₹ 300)×4,000]	1,00,000
3.Change in sales due to change in quantity and price taken together [Change in unit selling price×Change in quantity = [(₹ 325 - ₹ 300)×(4,500-4,000)]	12,500
Total increase in sales	2,62,500

Note: Here the base year is 2015-16.

4.(b) The balance sheets of Ocean Ltd. for the past two years are as under: [₹ ' 000]

Liabilities	31-03-16	31-03-17	Assets	31-03-16	31-03-17
Equity Share Capital	50,000	50,000	Gross Fixed Assets	60,000	75,000
General Reserve	12,000	14,000	Less: Accumulated Depreciation	(15,000)	(20,000)
Profit and Loss A/c	5,000	6,000	Net Fixed Assets	45,000	55,000
Public Deposits	10,000	2,000	Long Term Investments	18,000	20,000
Term Loan	20,000	16,000	Inventories	32,000	24,000
Trade Creditors	7,000	10,000	Sundry Debtors	17,000	12,000
Short Term Bank Borrowings (O/D)	15,000	20,000	Cash and Bank	—	—
Provision for Tax	2,000	3,000	Miscellaneous Expenses	9,000	10,000
Total	1,21,000	1,21,000	Total	1,21,000	1,21,000

Based on the above information:

(I) Comment on the change in 'total outside liabilities to tangible net worth' ratio.

(II) List out the total sources and uses of funds for the year ended 31-03-17 classifying them under the heads long term and short term.

(III) Comment on the uses of funds. [2+6+2]

Answer:

(I)

[₹ '000]

Outside Liabilities	31-03-16	31-03-17
Public Deposits	10,000	2,000
Term Loan	20,000	16,000
Trade Creditors	7,000	10,000
Short Term Bank Borrowings (O/D)	15,000	20,000
Provision for Tax	2,000	3,000
Total Outside Liabilities	54,000	51,000

[₹ '000]

Tangible Net Worth	31-03-16	31-03-17
Equity Share Capital	50,000	50,000
General Reserve	12,000	14,000
Profit and Loss A/c	5,000	6,000
Miscellaneous Expenses	(9,000)	(10,000)
Tangible Net Worth	58,000	60,000
Total outside liabilities to tangible net worth ratio	54,000/58,000 = 0.93	51,000/60,000 = 0.85

Comment: As the ratio has decreased it denotes moving towards lesser risk and better solvency position.

(II)

[₹ '000]

Long Term	
Sources of fund	
Increase in General Reserve	2,000
Surplus in Profit and Loss A/c	1,000
Depreciation for the year	5,000
Total Sources	8,000
Uses of fund	
Public Deposits repayment	8,000
Term Loan repayment	4,000

Fixed Assets purchase	15,000
Investments purchase	2,000
Addition to Miscellaneous expenses	1,000
Total Uses	30,000
Deficit	22,000

[₹ '000]

Short Term	
Sources of fund	
Increase in Creditors	3,000
Increase in Bank borrowings	5,000
Increase in Provision for tax	1,000
Decrease in Inventory	8,000
Decrease in Debtors	5,000
	22,000
Uses	—
Surplus	22,000

(III) Ocean Ltd. has diverted short-term funds amounting to 22000 [₹ '000] raised mainly by resorting to additional trade credit, bank borrowings and reduction in current assets, for long term uses like purchases of fixed assets, investments and repayment of public deposits and term loans, which is not prudent.

5.(a) Given below is the Balance sheet of Laxmi Ltd. as on 31-03-2016:

Liabilities	₹ (In lakh)	Assets	₹ (In lakh)
Share Capital (Share of ₹ 10)	**100**	**Land & Buildings**	**40**
Reserves & Surplus	**40**	**Plant & Machinery**	**80**
Creditors	**30**	**Investments**	**10**
		Stock	**20**
		Debtors	**15**
		Cash at Bank	**05**
	170		**170**

You are required to work out the value of the company's shares on the basis of Net Assets method and Profit - earning capacity (capitalization) method and arrive at the fair price of the shares, by considering the following information:

(i) Profit for the current year ₹ 64 lakhs includes ₹ 4 lakhs extraordinary income and ₹ 1 lakh income from investments of Surplus funds, such Surplus funds are unlikely to recur.

(ii) In subsequent years, additional advertisement expenses of ₹ 5 lakhs are expected to be incurred each year.

(iii) Market Value of Land and Buildings & Plant and Machinery has been ascertained at ₹ 96 lakhs and ₹ 100 lakhs respectively. This will entail additional depreciation of ₹ 6 lakhs each year.

(iv) Effective income tax rate is 30% including all other charges.

(v) The Capitalization rate applicable to similar business is 16%. [10]

Answer:

Net Assets Method

Assets	₹ (in Lakhs)
Land and Building	96
Plant and Machinery	100
Investments	10
Stock	20
Debtors	15

Cash at Bank	5
Total Assets	246
Less : Creditors	30
Net Assets	216

Value per Share
Number of Shares = 100 lakhs/10 = 10 lakhs
Value per share = Net Assets/No. of shares = ₹ 216 lakhs/10 lakhs = ₹ 21.60

Profit Earning Capacity Method

Particulars	₹ (in lakhs)
Profit before tax	64
Less : extraordinary income	4
Less : Investment income not likely to recur	1
Less : additional expenses for forthcoming years- Advertisement	5
Less : depreciation on revaluation	6
Expected Earnings before taxes	48
Less : income taxes@ 30%	14.4
Future Maintainable Profit	33.6

$$\text{Value of business} = \frac{\text{Future Maintainable profit}}{\text{Capitalization factor}} = \frac{33.6}{0.16}$$

= ₹ 210 lakhs

Subtracting external liabilities we get Net value of business. Value of share would be Net value of Business divided by number of shares = (₹ 210 lakhs - ₹ 30 lakhs)/10 lakhs = ₹ 18.00.

Computation of Fair Price of share:

Particulars	₹
Value as per net assets method	21.60
Value as per profit earning capacity(Capitalization) method	18.00
Fair price = Average of the above two = (₹ 21.60 + ₹ 18.0) ÷ 2	₹ 19.80 per share

5.(b) Describe Economic Value Added (EVA). Also state the means to enhance EVA of a company. [6]

Answer:
EVA is the difference between Net operating profit after tax and the cost of capital of a company. If implemented along with responsibility accounting and activity based costing EVA can help find out the non-value creating activities and businesses of a company, which can then be improved or eliminated by hiving off/ out sourcing as the case may be.

How can a Company Enhance EVA? There could be many individual actions that could create value. However, all those actions could be divided into four, viz.

(I) Status quo: The company can maintain the status quo without any big change in strategy but trying to get more return on the existing capital. It could possibly increase price or margin, have more volume or lower the operating costs.
(II) Growth with profit: The company can invest in new avenues which offer return more than the marginal cost of capital. The increased investment may be to increase the existing market share, introduce new products etc.
(III) Overhaul: The company can go for overhauling the operations and merge units, sell off some and reduce the investments in some that do not generate adequate return. It can withdraw from non-profitable areas.

(IV) Minimizing the financing cost: The company can endeavor to reduce the cost of capital by prudent use of debt, risk management and taking the advantage of financial innovations

In this manner the company can enhance its EVA by improving the NOPAT and reducing the cost of capital.

6.(a) M Limited wants to takeover N Limited and their Summarized Balance Sheet as on March 31, 2017 are give below:

	M Limited (₹ in Crores)	N Limited (₹ in Crores)
Equity and Liabilities:		
Equity Capital - ₹ 10 each	**500**	**175**
Reserves and Surplus	**750**	**475**
Non-Current Liabilities	**250**	**85**
Current Liabilities and Provisions	**175**	**65**
Total	**1,675**	**800**
Assets:		
Non-Current Assets — Net fixed Assets	**1,130**	**435**
Current Assets	**545**	**365**
Total	**1,675**	**800**

Additional Information:

	M Limited	N Limited
(i) Profit After Tax (PAT)	**₹ 78 crores**	**₹ 35 crores**
(ii) Market Price Per Share	**₹ 75.00**	**₹ 45.00**

I. Using the above information, what should be the share exchange ratio to be offered to the shareholders of N Limited by M Limited based on:
- **(i) Net Worth**
- **(ii) Earnings Per Share (EPS)**
- **(iii) Market Price**

II. Suggest which one out of the above basis should be preferred by N Limited?

III. Assuming that there are no synergy gains, then determine the EPS after merger if the exchange ratio is one as suggested in (II) above. [9+2+2]

Answer:

(I)

(₹ in crores)

	M Limited	N Limited
Calculation of Net Worth:		
Equity Capital - ₹ 10 each	₹ 500.00	₹ 175.00
Reserves and Surplus	₹ 750.00	₹ 475.00
Total Net Worth	₹ 1,250.00	₹ 650.00
No. of Shares (in crores)	50.00	17.50
Value per Share	₹ 25.00	₹ 37.14

Exchange Ratio is 37.14:25 or 1.486:1; that is 26 crores shares (1.486 x 17.50) of M Limited will be issued to the shareholders of N Limited.

(₹ in crores)

	M Limited	N Limited
Calculation of EPS:		
PAT	₹ 78.00	₹ 35.00
No. of Shares	50.00	17.50
EPS	₹ 1.56	₹ 2.00

Exchange Ratio is 2.00:1.56; or 2.00/1.56 = 1.282.

It means is (17.50 × 1.282 = 22.435) crores shares of M Limited will be issued to the shareholders of N Limited.

	M Limited	N Limited
Market Price Per Share	₹ 75.00	₹ 45.00

Exchange Ratio is 45:75; or 45/75 = 0.60. It means is (17.50 × 0.60 = 10.50) crores shares of M Limited will be issued to the shareholders of N Limited.

(II) Since the shareholders of N Limited are getting maximum number of shares - 26 crores when the Exchange Ratio is fixed as per the Book Value or Net Worth, Shareholders of N Limited will prefer fixing of the Exchange Ratio as per Net Worth.

(III) (₹ in crores)

Total PAT after Merger (78+35)	₹ 113.00
Total No. of Shares assuming that Exchange Ratio is determined as per Book Value (50+26)	76
EPS after Merger will be	₹ 1.49

6.(b) Why Discounted Cash Flow method is not appropriate for valuation of real estate? [3]

Answer:
Discounted Cash Flow (DCF) Method of valuation is not appropriate for valuation of real estate due to following reasons:

(I) Difficult to estimate discount rates for most real estate investments.
(II) Estimating cash flows for the time horizon is tedious and difficult to do, as is the estimation of the terminal value.
(III) DCF does not reflect market conditions- that the market is strong or weak at the time of valuation.

This third argument can be rejected at two levels. On one level, cash flows should reflect the market conditions, since they will be higher (higher rents and lower vacancy rates) and grow faster in strong market conditions. On the other hand, any additional value being assigned by the market beyond the cash flow levels can be considered to be 'overvaluation' and should not be built into the appraised value in the first place.

7.(a) A company has a capital base of ₹ 5 crores and has earned profits of ₹ 35 lakhs. Return on investment of the industry to which the company belongs is 12% p.a. If the service of a particular executive is acquired by the company, it is expected that the profits will raise ₹ 9 lakhs over and above the target profit as per industry norms.

Calculate the maximum salary that could be offered to the executive and the maximum bid price for acquiring the executive. [2+2]

Answer:
Maximum Salary Payable

Particulars	Amount in ₹ lakhs
Capital Base	500
Target Profit (₹ 500 lakhs × 12%)	60
Increase over target profit	9
Total Profit expected after induction	69
Current Profit	35
Incremental Profit	34

Max. Salary = Incremental profit due to induction = ₹ 34 lakhs per annum.

Max. Bid Price = Value of Salary payable in perpetuity = maximum salary ÷ rate of returns on investment = ₹ 34 lakhs/0.12 = ₹ 283.33 lakhs.

7.(b) The following data is given to you regarding a company having a share in branded portion as well as unbranded portion:

Branded Revenue	**₹ 500 per unit**
Unbranded Revenue	**₹ 120 per unit**
Branded Cost	**₹ 350 per unit**
Unbranded Cost	**₹ 100 per unit**
Research and Development	**₹ 20 per unit**
Branded Products	**1 lakh unit**
Unbranded Products	**40,000 units**
Tax rate is 39.55%; Capitalization factor 18%	

Calculate the Brand Value. **[6]**

Answer:

The net revenue from the branded product
= (Revenue - Cost) x Quantity sold
= (₹ 500 - ₹ 350) x 1,00,000
= ₹ 1,50,00,000
Net revenue from the unbranded product = (₹ 120 – ₹ 100) x 40,000 = ₹ 8,00,000

PAT for branded product
= (₹ 1,50,00,000 - ₹ 8,00,000 – ₹ 20,00,000) x (1 - 0.3955)
= (₹ 1,22,00,000) x (0.6045)
= 73,74,900

Brand Value = Returns/Capitalization rate = ₹ 73,74,900/0.18
= ₹ 4,09,71,667.

7.(c) Kovith Ltd. is contemplating to sell a copyright of a book titled 'Valuation' to another publisher. You are required to estimate the value of the copyright from the following data:

The book is expected to generate ₹ 2,50,000 in after-tax cash flows each year for the next three years and ₹ 1,50,000 a year for subsequent two years. These are the net cash flows after meeting all expenses like royalties, promotional expenses and production costs. About 60% of these cash flows are from bulk orders of large firms stable and predictable, while the rest is from small orders unstable and unpredictable. The cost of capital to be applied to stable cash flows is 8% and to unstable cash flows is 12%.

Discounting Factor	Year 1	Year 2	Year 3	Year 4	Year 5
8%	0.9259	0.8573	0.7938	0.7350	0.6806
12%	0.8929	0.7972	0.7118	0.6355	0.5674

[6]

Answer:

Year	60% Stable cash flows ₹	40% Unstable cash flows ₹	₹
1	1,50,000	1,00,000	
2	1,50,000	100000	
3	1,50,000	100000	
4	90,000	60000	
5	90,000	60000	
Discounting rate	8%	12%	
Σ DCF	5,13,954	3,12,364	

Value of Copyright	8,26,318

8. Write Short Notes on any four out of the following: [4×4]

(i) Financial Modeling
(ii) Du Pont Analysis
(iii) Distress Prediction
(iv) Key Areas of Valuation
(v) Hostile Takeover

Answer:

(i) Financial Modeling:

Financial modeling is the task of building an abstract representation of a real world financial situation. This is a mathematical model designed to represent the performance of a financial asset or portfolio of a business, project or any other investment. This is the process by which a firm constructs a financial representation of some, or all, aspects of the firm or given security. The model is usually characterized by performing calculations, and makes recommendations based on that information. The model may also summarise particular events for the end user and provide direction regarding possible actions or alternative.

Financial modeling is the task of building a financial model, or the process of using a financial model for financial decision making and analysis. It is an abstract representation of a financial decision making situation. Financial models are not limited to profit making entities. Nonprofits, governments, personal finances, all can be represented by financial models.

Uses of Financial Modeling:
Financial modeling is used to do historical analysis of a company's performance, and to do projections of its financial performance into the future. Project finance is another area that lends itself to financial models. A project (such as a real estate investment or a new factory) can be analyzed using a financial model. It does not have to be complete business.

Financial Modeling is not just for the Accountant or Financial Consultant, who are called upon to develop financial projections, but also for business owners and managers with improved user interfaces and heavy use of graphics, it is now feasible for non-technical people to use a financial model to test option and make decisions based on the projected impact on profits and cash flow.

(ii) Du Pont Analysis:

Du Pont Analysis is a method of performance measurement that was started by the Du Pont Corporation. The Du Pont analysis breaks down Return on Equity (that is, the returns that investors receive from the firm) into three distinct elements. This analysis enables the analyst to understand the source of superior (or inferior) return by comparison with companies in similar industries (or between industries). The Du Pont identity is less useful for industries, such as investment banking, in which the underlying elements are not meaningful. The company's return on assets, ROA [=Net income/Assets, can be expressed as: ROA = (Net Income/Revenue) × (Revenue/Assets) = Profit Margin X Asset Turnover]

And the company's return on equity, ROE (= Net income/Equity), can be expressed as ROE = (net income/Revenue) × (Revenue/Assets) × (Assets/Equity) = ROA × Equity Multiplier.

Both the company's profitability (as measured in terms of profit margin) and efficiency (as measured in terms of asset turnover) determine its ROA. This ROA, along with the company's financial leverage (as measured in terms of its equity multiplier), contributes to its ROE. The changes in the company's ROE are to be noted and explained through its profit margin, asset turnover, and equity multiplier over time. The objective is to identify the company's

strong area that can be capitalized upon and/or its weak area that must be improved upon.

(iii) Distress Prediction:

Distress Prediction is an essential issue in the field of finance. It is a very important tool used for the purpose of prediction of future probable financial condition of a corporate entity so that any financial crisis-that may crop up in the near future can be predicted in advance. Using various models of Distress Prediction, the management of a company comes to know about its future probable financial condition beforehand and accordingly, it may adopt appropriate remedial measures to avoid the financial crisis as predicted through the various models of Distress Prediction. Distress Prediction is considered a very significant tool for sustainment of a company in the long-run. As a company can have a predicted notion about occurrence of its financial hardship in future, it gets a scope to avoid such a situation by taking proper preventive measures in advance. Therefore, Distress Prediction plays a very significant role in the survival of a company in the long-run.

Following are the two types of models generally used for prediction of Corporate Distress/Sickness:

i. Univariate Model: In this model, a single variable is used for Corporate Distress Prediction.

ii. Multivariate Model: In this model, a number of variables are used for Corporate Distress Prediction.

(iv) Key Areas of Valuation:

The following are certain key areas where valuation plays a key role:

- Valuation of equity share in the primary, secondary as well as derivative market;
- Private placement of equity shares;
- Corporate restructuring and turnaround;
- Secured lending including project finance;
- Securitization and other debt instruments;
- Implementation of Basel-II recommendation;
- Portfolio management-Mutual fund, hedge fund and professional investors;
- Long term and medium term investment decisions, M& A, takeovers, divestiture, disinvestment, capital budgeting, private equity investment, venture capital investment, strategic investors, financial investors and others;
- Dividend decision and buy back of shares;
- Borrowing decisions;
- Financial risk management decisions;
- Court case related decisions;
- Tax related valuation including transfer pricing;
- Development projects valuation;
- Intangibles;
- Financial reporting valuation;
- Equity research;
- Forensic accounting and financial fraud investigation;
- Dissolution of firm, partner buyout and admission;
- Insurance product valuation;
- Estate planning and financial planning;
- Corporate planning;
- Property valuation;
- Value based performance measurement;
- Credit rating;

- Fairness and solvency opinion; and
- Charitable donation.

(v) Hostile Takeover: 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 latter firm at the stock exchanges. This is a technique for affecting either a take-over 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 the 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 when it becomes a hostile takeover bid. It may take the form of an offer to purchase shares for cash or for share exchange or a combination of these two. Such case of merger/acquisition is popularly known as 'raid'. The Caparo group of UK made a hostile takeover bid to take DCM Ltd., and Escorts Ltd., similarly some other NRIs have also made hostile bid to takeover some other Indian companies. The new takeover code, as announced by SEBI deals with the hostile takeover bids.