FINAL EXAMINATION

GROUP IV

(SYLLABUS 2012)

SUGGESTED ANSWERS TO QUESTIONS

DECEMBER 2013

Paper- 20 : FINANCIAL ANALYSIS & BUSINESS VALUATION

Time Allowed : 3 Hours **Full Marks : 100**

The figures in the margin on the right side indicate full marks.

SECTION A

Answer Question No. 1 and Question No. 2 which are compulsory carrying 15 marks each and any two from the rest in this section.

1. (a) Jenex Ltd. reported net profit for the year ending 31st March, 2013 as under: 6

		₹
Sales		10,00,000
Operating Expenses (excluding depreciation)	6,80,000	
Depreciation	84,000	7,64,000
Net Profit before tax		2,36,000
Extraordinary gains		24,000
		2,60,000
Provision for Tax (@) 40% (including surcharge and education cess, if any)		
Net Profit after Tax		1,04,000
		1,56,000

Additional information are given below:

(i) Operating expenses include ₹ 12,000 being loss on sale of machinery.

(ii) Actual taxes paid for the year 2012-13 was ₹ 88,000

(iii) Following are the balances of current items:

	31.03.2012	31.03.2013
Book—Debts	50,000	60,000
Inventories	50,000	44,000
Creditors	30,000	36,000

You are required to calculate cash flows from operating activities of Jenex Ltd.

(b) On 1st September, 2012, Rama Ltd. held 60% of the ordinary share capital of its only subsidiary Krishna Ltd. The consolidated equity of the group at that date was ₹ 5,76,600, of which ₹ 1,27,000 was attributable to the minority interest.

On 28th February 2013 exactly halfway through the financial year, Rama Ltd. bought a further 20% of the ordinary share capital of Krishna Ltd. In the year ended 31st August, 2013, Rama Ltd.'s profit for the period were ₹ 98,970 and Krishna Ltd.'s were ₹ 30,000. Rama Ltd. paid a dividend of ₹ 40,000 on 1st July, 2013. There were no other movements in equity. It can be assumed that profits accrue evenly throughout the year.

Prepare a consolidated statement of changes in equity for the Rama Ltd. group for the year ended 31st August, 2013. 9

Answer:

1. **(a)** Cash Flows from operating activities for the year 31.03.2013 of Jenex Ltd:-

Cash Flows from operating activities:

Net Profit before tax	₹ 2,36,000
Adjustment for:	
Depreciation	₹ 84,000
Loss on sale of machine	₹ 12,000
Increase in Book-debts	(₹ 10,000)
Decrease in inventories	₹ 6,000
Increase in creditors	₹ 6,000
Income – tax	(₹ 88,000)
Extra-ordinary gains	₹ 24,000
	₹ 2,70,000

Note: It is assumed that extraordinary gains are earned from operating activities.

(b) Rama Ltd. Group: Statement of changes in equity for the year ended 31 August, 2013:

Particulars	**Attributable to equity shareholders of parent (₹)**	**Minority Interest (₹)**	**Total (₹)**
Brought Forward	4,49,600	1,27,000	5,76,600
Profit for the period (Working Note - 1)	1,19,970	9,000	1,28,970
Transfer in respect of shares purchased by Rama Ltd. (Working Note - 2)	66,500	(66,500)	Nil
Dividend	(40,000)	Nil	(40,000)
Carried Forward	5,96,070	69,500	6,65,570

Working Note - 1
Profit shares - Minority share of profit: ₹ 30,000 x 6/12 x 40% = ₹ 6,000
₹ 30,000 x 6/12 x 20% = ₹ 3,000. Then total will be (₹ 6,000 + 3,000 = 9,000).
Group share = ₹ 98,970 + (₹ 30,000 - ₹ 9,000) = ₹ 1,19,970.

Working Note - 2
Transfer in respect of share purchase
Value of minority interest at date of transfer:
₹ 1,27,000 + ₹ 6,000 = ₹ 1,33,000.
50% of shareholding transferred: ₹ 1,33,000 / 2 = ₹ 66,500.

2. **The following are the income statements of A Ltd. for the years ended 31.03.2012 and 31.03.2013:**

Particulars	**31.03.2012 ₹**	**31.03.2013 ₹**
Net Sales	**1,70,000**	**1,90,400**
Less: Cost of goods sold	**1,05,000**	**1,20,000**
Gross Profit	**65,000**	**70,400**
Administrative Expenses	**13,200**	**14,960**
Selling Expenses:		
Advertisement Expenses	**3,000**	**4,000**
Other Selling Expenses	**40,800**	**41,800**
Operating Profit	**8,000**	**9,640**

Other Incomes	**6,400**	**9,200**
Other Expenses	**6,800**	**4,800**
Profit Before tax	**7,600**	**14,040**
Income Tax	**3,800**	**6,200**
Profit after tax	**3,800**	**7,840**

You are required—
(i) To prepare a comparative income statement. **9**
(ii) To comment on the performance of the company supported by your analysis. **6**

Answer:

2. Comparative Income Statement of A Ltd. for the years ended 31st March, 2012 and 2013

Particulars	**31.03.12** ₹	**31.03.13** ₹	**Amount of increase (+) or decrease (-)**	**Percentage increase(+) or decrease (-)**
Net Sales	1,70,000	1,90,400	(+) 20,400	(+) 12.0
Less:- Cost of goods sold	1,05,000	1,20,000	(+) 15,000	(+) 14.3
Gross Profit (P)	65,000	70,400	(+) 5,400	(+) 8.3
Administrative Expenses(A)	13,200	14,960	(+) 1,760	(+) 13.3
Selling Expenses:				
Advertisement Expenses	3,000	4,000	(+) 1,000	(+) 33.3
Other selling expenses	40,800	41,800	(+) 1,000	(+) 2.5
Total Selling Expenses (B)	43,800	45,800	(+) 2,000	(+) 4.6
Operating Expenses (A + B)	57,000	60,760	(+) 3,760	(+) 6.6
Operating Profit (D) [D = P-(A+B)]	8,000	9,640	(+) 1,640	(+) 20.5
Other Incomes (E)	6,400	9,200	(+) 2,800	(+) 43.8
Other expenses (F)	6,800	4,800	(-) 2,000	(-) 29.4
Profit before tax (PBT) [PBT = D+E-F]	7,600	14,040	(+) 6,440	(+)84.7
Income tax (T)	3,800	6,200	(+) 2,400	(+) 63.2
Profit after tax (PAT) [PAT = PBT - T]	3,800	7,840	(+) 4,040	(+) 106.3

Notes: Calculation for percentage increase (+) or decrease (-):

(i) $\frac{₹\ 20,400}{₹1,70,000} \times 100 = 12\%$,

(ii) $\frac{₹15,000}{₹1,05,000} = 14.3\%$ and so on

Comparative income statement shows the income and expenses of two periods of same company, absolute changes of each items for the year ended 31.03.2013 over 31.03.2012 and also shows percentage change. The following comments can be made on the performance of A Ltd.:-

i) Sales of A Ltd. has been increased by ₹ 20,400 during the year 2012-13 over 2011-12. But, the cost of goods sold has also increased by ₹ 15,000 in the same period, i.e., sales has improved by 12% and cost of goods sold has increased by 14.3%. So, GP has not improved markedly. Cost of goods sold may increase due to higher quantity of sales or due to higher input cost. As sale value has increased so it is clear cost of goods sold has increased due to higher quantity of sales. If such quantity has been sold at previous price then sales value has been increased with higher amount. But here sale value has not increased significantly. It indicates that the addition in sales has been due to lowering of sale price. It is also clear from advertisement expenses. The increase in advertisement expenses (33.3%) has been much higher than the percentage increase in net sales (12%). It indicates there was tough selling market where mass advertisement was necessary and reduction of sale price was necessary in order to higher quantity of sales. Such situation may also arise due to new product launching where huge advertisement is necessary and reduction of sale price is necessary.

ii) There has been a substantial improvement in other incomes, both in relative term (43.8%) and in absolute term (₹ 2,800). Similarly, there has been a considerable reduction in other expenses in relative term (29.4%) as well as in absolute term (₹ 2,000). These items have been responsible for the increase in profit before tax (PBT) for the period under study by 84.7%. It implies that more emphasis has been given by the management of the company on earning non-operating profits as compared to the operating profits.

3. Comment on the financial state/position of a company if it has following cash flow patterns: (each pattern is independent of the other) **2x5= 10**

Cash Flow Patterns	Net Cash flows from Operating Activities	Net Cash flows from Investing Activities	Net Cash flows from Financing Activities
(i) Pattern 1	**(-)**	**(-)**	**(-)**
(ii) Pattern 2	**(+)**	**(-)**	**(-)**
(iii) Pattern 3	**(-)**	**(+)**	**(-)**
(iv) Pattern 4	**(-)**	**(+)**	**(+)**
(v) Pattern 5	**(+)**	**(-)**	**(+)**

Answer:

3. Statement showing comments on the financial state/position of a company if it has following cash flow patterns: (each pattern is independent of the other)

Cash Flow Patterns	Net Cash flows From Operating Activities	Net Cash Flows from Investing Activities	Net Cash Flows from Financing Activities	Comments
(i) Pattern-#1	(-)	(-)	(-)	It is highly unusual pattern. The company may be using existing stock of cash to meet the requirement of operations; investment and at the same time repaying loans, and making payment for interest. It is highly unstable pattern for a

(ii) Pattern-#2	(+)	(-)	(-)	• The company is generating cash from operations to meet its investment requirement and pay interest, debt and dividend to shareholders. • It represents strong cash flow pattern from operations. • The company may be growing moderately, or it may be successful company, or mature company.
(iii)Pattern- #3	(-)	(+)	(-)	This pattern is showing that the company is selling its long-term assets and investments and raising cash to repay borrowings and to meet its requirement of operating activities. The company may be in a financial distress or may be moving towards sickness.
(iv)Pattern-#4	(-)	(+)	(+)	It is also a highly unusual pattern. As per this pattern, a company is meeting the requirement of operating activities by raising cash by borrowing or by issuing shares and also by selling its assets and investments. Highly unsustainable pattern; something inherently wrong with the business model.
(v)Pattern- #5	(+)	(-)	(+)	The company is generating cash from operations and raising cash by borrowing money or by issuing shares to meet its investment requirement. The company may be in late part of growth stage.

4. (a) What are the various ways of identification of distress firm? **4**
(b) Balance Sheet of Dayal Ltd. as on March 31, 2013 is given below: **6**

Liabilities	₹ in Crores	Assets	₹ in Crores
Equity Shares	20.80	Fixed Assets	105.60
Long-term Liabilities	104.00	Current Assets	57.60
Current Liabilities	78.40	P&L A/c	40.00
	203.20		203.20

The following are the additional information:
(i) Depreciation written off ₹ 8 crores.
(ii) Preliminary Expenses written off ₹ 1.60 crores.
(iii) Net loss ₹ 25.60 crores.
You are required to ascertain the stage of sickness and comment on them.

Answer:

4. (a) Various ways of Identification of Sick/Distress Firm

As per the Sick Industrial Companies (Special Provisions) Act, 1985, a business unit may be treated as sick if the following conditions are satisfied:

i) The unit must be registered for not less than 7 years period.
ii) Its accumulated losses at the end of the financial year are equal to or exceed its net worth.
iii) Its accumulated losses at the end of the financial year have resulted in an erosion of 50 % or more of its peak net worth in the immediately preceding 4 financial years.

As per Section 2 (46AA) of the Indian Companies Act 1956, a company is considered as sick if:
i) Its accumulated losses in any financial year is equal to or more than its average net worth during the 4 years immediately preceding such financial year.
ii) It failed to repay its debt within any three consecutive quarters on demand made in writing for its repayment by a creditor or creditors of such company

According to the Reserve Bank of India, an industrial unit should be considered as sick if it has incurred cash loss in the previous accounting year and is likely to continue to incur cash loss in the current accounting year as well as the following year and has an erosion of its net worth on account of cumulative cash losses to the extent of 50%.

According to the ICICI, a sick unit is one whose financial viability is threatened by adverse factors present and continuing. The adverse factors might relate to management, market, fiscal burden, labour relations or any other. When the impact of factors reaches a point where a company begins to incur cash losses leading to erosion of its funds, there is threat to its financial stability.

According to NCAER, an industrial undertaking may be financially viable, if its three elements are proved to be positive. The NCAER Study on Corporate Distress Prediction prescribed the following three elements / parameters for predicting the stages of corporate sickness:

i) Cash profit position (a profitability measure).
ii) Net working capital position (a liquidity measure).
iii) Net worth position (a solvency measure).

In a firm, if any of the above three elements/parameters are found to be negative, it may be considered that the firm has a 'tendency of becoming sick'. If any two of the above three elements/parameters are found to be negative in a firm, it may be considered that the firm possesses 'incipient sickness'. If all the above three elements/parameters are found to be negative in a firm, it may be considered that the firm is 'fully sick'.

b) The NCAER Study on Corporate Distress Prediction prescribed the following three parameters for predicting the stage of Corporate Sickness:
i) Cash profit position (a profitability measure)
ii) Net working capital position (a liquidity measure)
iii) Net worth position (a solvency measure)

In the given case, we need to judge the above-mentioned parameters to ascertain the stage of sickness of the company.

(i)

$$\text{Cash Profit} = \text{Net Profit} + \frac{\text{Non-Cash expenses and}}{\text{Losses debited to Profit \& Loss A/c}} - \frac{\text{Non-cash Incomes and}}{\text{Gains credited to Profit \& Loss A/c}}$$

Here, Cash Profit =Net Profit + Depreciation Written Off + Preliminary Expenses Written Off = ₹ [(25.60) + 8 + 1.60] crores = (₹ 16 crores)

(ii) Net Working Capital = Current Assets - Current Liabilities
= ₹ [57.60 - 78.40] crores = (₹ 20.80 crores)

(iii) Net Worth = Share Capital + Reserves & Surplus - Miscellaneous Expenditure - Profit & Loss A/c (Dr.)

Here, Net Worth = Equity Share Capital - Profit & Loss A/c (Dr.)
= ₹ [20.80 - 40.00] crores = (₹ 19.20 crores)

Prediction about Corporate Sickness: As per NCAER Research Study, out of mentioned three parameters, if anyone parameter becomes negative in case of a firm, it can be predicted that the firm has a tendency towards sickness. In the given company, all the three parameters [as calculated under (a), (b) and (c)] show negative value. Therefore, it can strongly be predicted that the company is a sick company and its stage of sickness is 'fully sick'. Immediate necessary drastic revival measures are essentially required for the survival of the company.

5. (a) During 2012, Raghuvans Ltd. reported net income of ₹ 1,15,600 and had 2,00,000 equity shares outstanding for the entire year. Raghuvans Ltd. also had 1000 preference shares of 10%, ₹ 100 par, outstanding during 2012.

Raghuvans Ltd. has 10,000 stock options (or warrants) outstanding in the entire year. Each option allows its holder to purchase of one equity share at ₹ 15 per share. The average market price of Raghuvans Ltd.'s equity share during 2012 is ₹ 20 per share. Calculate the diluted EPS. 6

(b) On 1st March, 2012, XPR acquired control of YQS, purchasing 60% of its issued ordinary share capital. YQS is located in a country where compliance with most but not all, IFRS is required by law. For example, there is no requirement to discount liabilities. No material fair value adjustments were identified at the date of acquisition of YQS, except in respect of a deferred liability to a supplier which will fall due on March 01,2014. The amount payable on that date will be ₹ 3,00,000. The discount rate relevant to the liability is 8%.

YQS's profit for the period ended 28th February 2013 was ₹ 67,600 before taking into account any unwinding of the discount in respect of the liability referred to above.

Calculate the share of profit for the period attributable to equity shareholders of the parent, after taking into account any adjustment required in respect of the liability. (PV of ₹ 1 at 8% in year 1,2, 3, 4 & 5 are 0.926, 0.857, 0.794, 0.735 and 0.681 respectively) 4

Answer:

5. a)

Number of equity shares created if the options are exercised:	10,000 shares
Cash inflow if the options are exercised (₹ 15/share) (10,000):	₹ 1,50,000
Number of shares that can be purchased with these funds is : ₹ 1,50,000/₹ 20	7,500 shares

Net increase in equity shares outstanding from the exercise of the stock options (10,000-7,500)	2,500 shares

Diluted EPS = ₹ $\frac{1,15,600 - 10,000}{2,00,000 + 2,500}$ = ₹ 0.52

A quick way to calculate the net increase in equity shares from the potential exercise of stock options or warrants when the exercise price is less than the average market price is: $\frac{AMP - EP}{AMP} \times N$

Where:
AMP = average market price over the year
EP = exercise price of the options or warrant
N = number of equity shares that the options and warrants can be converted into

For ABC: ₹ $\left(\frac{20 - 15}{20}\right)$ x 10,000 shares = 2,500 shares.

b) At 28th February 2013, settlement of the liability of ₹3,00,000 will occur at the end of one year. Applying the discount factor of 0.926 (8% discount factor for one year from tables), the present value of the liability is ₹ 2,77,800. The present value of the liability at 1st March 2012, one year earlier was ₹ 3,00,000 x 0.857 (8%discount factor for Year 2 from tables) = ₹ 2,57,100. Therefore an adjustment in respect of the unwinding of the discount must be made as follows:

Dr. income statement	₹ (2,77,800-2,57,100)	₹ 20,700
Cr. Liability		₹ 20,700

The profit for the period of YQS is (₹ 67,600 - ₹ 20,700) = ₹ 46,900, after taking the adjustment into account. The share attributable to equity shareholders of XPR is 60% x ₹ 46,900 = ₹ 28,140

SECTION B

Answer Question No. 6 and Question No. 7 which are compulsory carrying 15 marks each and any two from the rest in this section.

6. Acquiring Ltd. is in the business of making bicycles. The Company operates from North India. To diversify its operations Acquiring Ltd. has identified Target Tyres Ltd., a South India based company, as a potential takeover candidate. After due diligence, the following information is available: 15

(i) Cash Flow Forecasts (₹ in Lakhs)

Year	1	2	3	4	5	6	7	8	9	10
Target Tyres Ltd.	150	300	400	500	600	750	800	750	1,050	1,200
Acquiring Ltd.	800	1,000	1,500	1,600	2,200	2,600	3,000	2,750	3,500	5,400

(ii) Balance Sheet of Target Tyres Limited as at March 31st, 2013 (₹ in lakhs)

Particulars	2013

EQUITY AND LIABILITIES	
Shareholders' Funds:	
Share Capital (Face Value ₹10)	**100.00**
Reserves and Surplus	**2,170.95**
	2,270.95
Non-Current Liabilities	
Long-Term Borrowings	**565 .00**
Bank Loan	**78.50**
	643.50
Current Liabilities	
Trade Payables	**163.50**
Other Current Liabilities	**47.25**
	210.75
TOTAL EQUITY AND LIABILITIES:	**3,125.20**

Particulars	**2013**
ASSETS	
Non-Current Assets	
Fixed Assets:	
Tangible Assets	**1,291.00**
Intangible Assets	**120.20**
	1,411.20
Non-Current Investments	**155.00**
Other Non-Current Assets	**21.25**
	1,587.45
Current Assets:	
Inventories	**511.40**
Trade Receivables	**745.50**
Cash and Bank Balances	**268.50**
Other Current Assets	**12.35**
	1,537.75
TOTAL ASSETS:	**3,125.20**

(iii) Talks for the takeover have crystallized on the following:

(a) Acquiring Ltd. will not be able to use Machinery worth ₹ 175 lakhs which will be disposed off by them subsequent to take over. The expected realization will be ₹ 150 lakhs.

(b) The inventories and receivables are agreed for take over at value of ₹ 400 and ₹ 700 lakhs respectively, which is the price they will realize on disposal.

(c) The liabilities of Target Tyres Ltd. will be discharged in full on take over along with an employee settlement of ₹ 120 lakhs for the employees who are not interested in continuing under the new management.

(d) Acquiring Ltd. will invest a sum of ₹ 250 lakhs for upgrading the Plant of Target Tyres Ltd. on take over. A further sum of ₹ 250 lakhs will also be incurred in the second year to revamp the machine shop floor of Target Tyres Ltd.

(e) The anticipated cash flows of the combined business post take over are as follows:

(₹ in lakhs)

Year	1	2	3	4	5	6	7	8	9	10
Cash Flows	900	1,200	1,800	2,200	3,000	4,000	4,800	5,000	7,000	10,000

The management of Target Ltd. is not ready to accept its present standalone value as

consideration for the takeover. Acquiring Ltd. wishes to know upto what extent they can quote higher price, without suffering any loss in value post merger.

You are required to advice the management the upper limit price which they can pay per share of Target Tyres Ltd., if a discount factor of 15% is considered appropriate.

Use the following Discount Factor Table:

Year	1	2	3	4	5	6	7	8	9	10
Discount Factor at 15%	0.8696	0.7561	0.6575	0.5718	0.4972	0.4323	0.3759	0.3269	0.2843	0.2472

Answer:

6. A. Computation of Operational Synergy expected to arise out of merger (₹ in lakhs):

Year	1	2	3	4	5	6	7	8	9	10
Cash flow before merger	₹ 800.00	₹ 1,000.00	₹ 1500.00	₹ 1600.00	₹ 2200.00	₹ 2600.00	₹ 3000.00	₹ 2750.00	₹ 3500.00	₹ 5400.00
Cash flow after merger	₹ 900.00	₹ 1200.00	₹ 1800.00	₹ 2200.00	₹3000.00	₹4000.00	₹ 4800.00	₹ 5000.00	₹ 7000.00	₹ 10000.00
Incremental cash flow	**₹100.00**	**₹ 200.00**	**₹ 300.00**	**₹600.00**	**₹ 800.00**	**₹ 1400.00**	**₹1800.00**	**₹ 2250.00**	**₹ 3500.00**	**₹ 4600.00**

B. Valuation of Target Tyres Ltd. (₹ in lakhs)

Year	1	2	3	4	5	6	7	8	9	10
Discount factor at 15%	0.8696	0.7561	0.6575	0.5718	0.4972	0.4323	0.3759	0.3269	0.2843	0.2472
Cash flow with merger	₹100.00	₹ 200.00	₹ 300.00	₹ 600.00	₹ 800.00	₹1400.00	₹1800.00	₹ 2250.00	₹ 3500.00	₹4600.00
Present Value of Cash Flows	**₹ 86.96**	**₹ 151.22**	**₹ 197.25**	**₹ 343.08**	**₹ 397.76**	**₹ 605.22**	**₹ 676.62**	**₹735.53**	**₹ 995.05**	**₹1137.12**

Total Valuation with Merger ₹ 5,325.81

C. Computation of Maximum Value to be quoted (₹ in Lakhs)

Total Valuation with merger		₹ 5,325.81
Add: Cash to be collected on the disposal of assets		
Machinery	₹ 150.00	
Inventories	₹ 400.00	
Receivables	₹ 700.00	₹ 1,250.00
Less: Liabilities to be discharged on the takeover		
Long-Term Borrowings	₹ 565.00	
Bank Loan	₹ 78.50	
Trade Payables	₹ 163.50	
Other Current Liabilities	₹ 47.25	
Employee Settlement	₹ 120.00	
Investment to be made on takeover	₹ 250.00	
Present Value of the Investment to be made at the end of year-2 (250x0.7561)	₹ 189.03	₹ 1,413.28
Maximum Amount to be quoted		**₹ 5,162.53**

Total shares of Target Ltd. = 10 lakhs. Upper limit price per share to be quoted is ₹ 516.25

7. The Balance Sheets of Resurgent Ltd. for the years ended on 31.3.2011, 31.3.2012 and 31.3.2013 are as follows: **15**

Liabilities	31.3.2011	31.3.2012	31.3.2013
3,20,000 Equity Shares of ₹ 10 each fully paid	32,00,000	32,00,000	32,00,000
General Reserve	24,00,000	28,00,000	32,00,000
Profit and Loss Account	2,80,000	3,20,000	4,80,000
Creditors	12,00,000	16,00,000	20,00,000
Total	70,80,000	79,20,000	88,80,000

Assets	31.3.2011	31.3.2012	31.3.2013
Goodwill	20,00,000	16,00,000	12,00,000
Building & Machinery (Less: Depreciation)	28,00,000	32,00,000	32,00,000
Stock	20,00,000	24,00,000	28,00,000
Debtors	40,000	3,20,000	8,80,000
Bank Balance	2,40,000	4,00,000	8,00,000
Total	70,80,000	79,20,000	88,80,000

Actual valuations were as under:

Particulars	31.3.2011	31.3.2012	31.3.2013
Building & Machinery	36,00,000	40,00,000	44,00,000
Stock	24,00,000	28,00,000	32,00,000
Net Profit (including opening balance) after writing off depreciation and goodwill, tax provision and transfer to General Reserve	8,40,000	12,40,000	16,40,000

Capital employed in the business at market values at the beginning of 2010-2011 was ₹ 73,20,000, which included the cost of goodwill. The normal annual return on Average Capital employed in the line of business engaged by Resurgent Ltd. is 12.5%.

The balance in the General Reserve account on 1st April 2010 was ₹ 20 lakhs.
The goodwill shown on 31.3.2011 was purchased on 1.4.2010 for ₹ 20,00,000 on which date the balance in the Profit and Loss Account was ₹ 2,40,000. Find out the average capital employed each year. Goodwill is to be valued at 5 years purchase of super profits (Simple average method). Also find out the total value of the business as on 31.3.2013.

Answer:

7.

	31.03.2011 ₹	31.03.2012 ₹	31.03.2013 ₹
Goodwill	20,00,000	16,00,000	12,00,000
Building and Machinery (revalued)	36,00,000	40,00,000	44,00,000
Stock (revalued)	24,00,000	28,00,000	32,00,000
Debtors	40,000	3,20,000	8,80,000
Bank Balance	2,40,000	4,00,000	8,00,000
Total Assets	82,80,000	91,20,000	1,04,80,000
Less : Creditors	12,00,000	16,00,000	20,00,000
Closing Capital	70,80,000	75,20,000	84,80,000
Opening Capital	73,20,000	70,80,000	75,20,000
	1,44,00,000	1,46,00,000	1,60,00,000

Average Capital	72,00,000	73,00,000	80,00,000

Note:

1. Since goodwill has been paid for, it is taken as part of capital employed. Capital employed at the end of each year is shown.
2. Assumed that the building and machinery figure as revalued is after considering depreciation.

Maintainable profit has to be found out after making adjustments as given below —

	31.03.2011 ₹	31.03.2012 ₹	31.03.2013 ₹
Net Profit as given	8,40,000	12,40,000	16,40,000
Less: Opening Balance	2,40,000	2,80,000	3,20,000
	6,00,000	9,60,000	13,20,000
Add: Under valuation of closing stock	4,00,000	4,00,000	4,00,000
	10,00,000	**13,60,000**	**17,20,000**
Less: Adjustment for valuation in opening stock	-	4,00,000	4,00,000
	10,00,000	**9,60,000**	**13,20,000**
Add: Goodwill written-off	-	4,00,000	4,00,000
	10,00,000	**13,60,000**	**17,20,000**
Add: Transfer to Reserves	4,00,000	4,00,000	4,00,000
	14,00,000	**17,60,000**	**21,20,000**
Less: 12¹/? % Normal Return	9,00,000	9,12,500	10,00,000
Super Profit	**5,00,000**	**8,47,500**	**11,20,000**

Average super profit = (₹ 5,00,000 + ₹ 8,47,500 + ₹ 11,20,000)/3 = 24,67,500/3 = ₹ 8,22,500
Goodwill = 5 years purchase = ₹ 8,22,500 x 5 = ₹ 41,12,500.

Total Net Assets (31/03/2013)	₹ 84,80,000
Less: Goodwill	₹ 12,00,000
	₹ 72,80,000
Add: Goodwill	₹ 41,12,500
Value of Business	₹ 1,13,92,500

8. (a) The following financial share data pertaining to Infotech Ltd. an IT company are made available to you: **6**

(₹ in crores)

Year ended March 31st	2012	2011	2010
EBIT	**696.03**	**325.65**	**155.86**
Non-branded Income	**53.43**	**35.23**	**3.46**
Inflation Compounded Factor @ 8%	**1.000**	**1.087**	**1.181**
Remuneration of Capital	**5% of average capital employed**		
Average Capital Employed	**₹ 1,112.00 crores**		
Corporate Tax rate	**35%**		
Capitalization Factor	**16%**		

You are required to calculate the Brand value for Infotech Ltd.

(b) What are the uncertainties in business valuation? **4**

Answer:

8. a)

Computation of Brand Value (Amount in ₹ Crores)

Year ended March 31st		**2012**	**2011**	**2010**
EBIT	(₹)	696.03	325.65	155.86
Less: Non-brand income	(₹)	53.43	35.23	3.46
Adjusted Profits	(₹)	642.60	290.42	152.40
Inflation compound factor @ 8%		1.000	1.087	1.181
Present value of profits for the period	(₹)	642.60	315.69	179.98
Weightage Factor		3	2	1
Weighted Profits	(₹)	1927.80	631.38	179.98
Profits	(₹)	456.53		
Remuneration of capital (5% of Average capital employed)		55.60		
Brand Related Earnings		400.93		
Corporate Tax @ 35%		140.33		
Brand Earning		260.60		
Capitalization Factor		16%		

Brand Value: (Return / Capitalization Rate) 260.60/0.16= ₹ 1628.75 Crore

b) Uncertainties in Business Valuation

Starting early in life, we are taught that if we do things right, we will get the right answers. In other words, the precision of the answer is used as a measure of the quality of the process that yielded the answer. While this may be appropriate in mathematics or physics, it is a poor measure of quality in valuation. Barring a very small subset of assets, there will always be uncertainty associated with valuations, and even the best valuations come with a substantial margin for error. This arises due to the sources of uncertainty which have an effect on the valuation.

The value of a business is not a static figure. It depends on change in purpose or circumstances. There are a number of uncertainties involved in the valuation process which if not handled appropriately, would lead to an absurd value. We may design complex financial models with several inputs to handle uncertainties but that does not mean that the value derived is reasonable or the process is sound. What we need to understand is the impact of each input on the value. The following factors are crucial:

- The macro economic factors.
- The business.
- Its growth potential in the industry in which it operates.
- How is the business positioned?
- Who are competitors?
- What is the quality and stability of the company's management?

The principles and methods of valuation are well settled and they are generally the same across the class of transactions. What changes in the course of deriving value is the selection of approaches and methods. Seller would like to get as much as possible and buyer would like to pay as little as possible. Somewhere between these two the deal takes place. Could it be mentioned that value is the price at which the deal takes place? What if there is no buyer or there is no intention to sell. Could it be concluded that the object or business is worth nothing? The answer is 'No'. There is a 'bigger fool theory' which says any price can be justified if a buyer is ready to pay the price. It might be you who is the last buyer ready to pay the available price! The theory makes us understand that every price cannot be value and vice versa. We need to differentiate between value and price.

9. (a) State under what conditions/assumptions the following statements are true: (state only one important condition/assumption for each): 1x5=5

(i) Fair Value of an asset is always equal to its Market Value.
(ii) Gordon's Dividend Growth Model provides a good estimate of intrinsic value of a share.
(iii) A Company can show Goodwill in its Balance Sheet.
(iv) Tobin Q of a company indicates that it is earning a rate of return higher than that justified by the cost of its assets and such a return could not persist in the absence of long-run entry barriers.
(v) Market Value of a Company AA rated 12% Debenture is equal to its book value which is recorded at its face value.

(b) A share, Y, currently sells for ₹ 120. It is expected that in one year it will either rise to ₹ 150 or decline to ₹ 100, with 50% probability of each. A call option is written on Y with the strike price of the underlying of ₹ 125 and the risk free interest rate is 10% p.a. You are required to determine the Option Premium. 5

Answer:

9. a) The statements below are true under the conditions/ assumptions as follows:

(i) Fair value of an asset is always equal to its Market Value. **(When the markets are efficient, then one can find that market value is the fair value)**

(ii) Gordon's Dividend Growth Model provides a good estimate of intrinsic value of a share. **(When a company is having constant dividend pay-out ratio, return on the equity remains constant, cost of equity does not change with time and the market is efficient, then Gordon Dividend Growth Model provides a good estimator of intrinsic value)**

(iii) A company can show Goodwill in its Balance Sheet. **(A company cannot show its own goodwill in its own balance sheet; however, if it buys / acquires goodwill from someone, then goodwill can be shown in the balance sheet. As per AS 26, the self generated goodwill / own goodwill/ internally generated goodwill are termed as unidentified intangible assets whose cost cannot be measured reliably. So they are not recognized in books / financial statements.)**

(iv) Tobin Q of a company indicates that it is earning a rate of return higher than that justified by the cost of its assets and such a return could not persist in the absence of long-run entry barriers. **(When Tobin's Q of a company is more than 1, it indicates that the company is earning rate of return higher than justified by the cost of its assets. High return may attract other players into the market and such a high rate of return may not persist in the long-run without entry barriers)**

(v) Market Value of a company AA rated 12% Debenture is equal to its book value which is recorded at its face value. **(A debenture can be traded in market at par if its coupon rate is equal to its yield; that means, in the market yield on such debentures must be 12%)**

b) To solve this problem, one can use any approach of the following three:

- No Arbitrage Method
- Hedging Portfolio Method
- Risk Neutral Probability Method

Here, answer is given using Risk Neutral Probability Method:
Using the given probabilities of 50% each, we get value of the Option as,
= [(150-125) x 0.5 + (0) x 0.5] / 1.10
= 12.50 / 1.10
= ₹11.36

10. (a) Discuss the amalgamation in the nature of merger as per Accounting Standard, AS-14. 6

(b) What are the factors that favour external growth and diversification through mergers and acquisitions? 4

Answer:

10. a) Amalgamation in the nature of merger: As per AS - 14, an amalgamation is called in the nature of merger if it satisfies all the following condition:

- All the assets and liabilities of the transferor company should become, after amalgamation the assets and liabilities of the other company.
- Shareholders holding not less than 90% of the face value of the equity shares of the transferor company (other than the equity share already held therein, immediately before the amalgamation, by the transferee company or its subsidiaries or their nominees) become equity shareholders of the transferee company by virtue of the amalgamation.
- The consideration for the amalgamation receivable by those equity shareholders of the transferor company who agree to become equity shareholders of the transferee company is discharged by the transferee company wholly by the issue of equity shares in the transferee company, except that cash may be paid in respect of any fractional shares.
- The business of the transferor company is intended to be carried on, after the amalgamation by the transferee company.
- No adjustment is intended to be made in the book value of the assets and liabilities of the transferor company when they are incorporated in the financial statements of the transferee company except to ensure uniformity of accounting policies.

Amalgamation in the nature of merger is an organic unification of two or more entities or undertaking or fusion of one with another. It is defined as an amalgamation which satisfies the above conditions. As per Income Tax Act 1961, merger is defined as amalgamation under Sec. 2(1B) with the following three conditions to be satisfied.

I. All the properties of amalgamating company(s) should vest with the amalgamated company after amalgamation.
II. All the liabilities of the amalgamating company(s) should vest with the amalgamated company after amalgamation.
III. Shareholders holding not less than 75% in value or voting power in amalgamating company (s) should become shareholders of amalgamated companies after amalgamation. Amalgamation does not mean acquisition of a company by purchasing its property and resulting in its winding up. According to Income tax Act, exchange of shares with 90% of shareholders of amalgamating company is required.

b) Factors that favour external growth and diversification through Mergers and Acquisitions

(i) Some goals and objectives may be achieved more speedily through an external acquisition.
(ii) The cost of building an organization internally may exceed cost of an acquisition.
(iii) There may be fewer risks, lower costs or shorter time requirements involved in

achieving an economically feasible market share by the external route.

(iv) The firm may not be utilizing their assets or arrangement as effectively as they could be utilized by the acquiring firm.

(v) The firm may be able to use securities in obtaining other companies, where as it might not be able to finance the acquisition of equivalent assets and capabilities internally.

(vi) There may be tax advantages.

(vii) There may be opportunities to complement capabilities of other firms.