Paper 16

Advanced Financial Accounting & Reporting

Question 1

How would you deal with the following in the annual accounts of a company for the year ended 31st March, 2012?

(a) The company has to pay delayed jute clearing charges over and above the negotiated price for taking delayed delivery of jute from the Suppliers' Godown. Upto 2009-10, the company has regularly included such charges in the valuation of closing stock. This being in the nature of interest the company has decided to exclude it from closing stock valuation for the year 2010-11. This would result into decrease in profit by ₹ 2.8 lakhs. .

(b) The company has obtained Institutional Term Loan of ₹ 700 lakhs for modernisation and renovation of its Plant & Machinery. Plant & Machinery acquired under the modernisation scheme and installation completed on 31st March, 2011 amounted to ₹ 600 lakhs, ₹ 70 lakhs has been advanced to suppliers for additional assets and the balance loan of ₹ 30 lakhs has been utilised for working capital purpose. The Accountant is on a dilemma as to how to account for the total interest of ₹ 63.00 lakhs incurred during 2010-11 on the entire Institutional Term Loan of ₹ 700 lakhs.

Answer

(a) Para 29 of AS 5 (Revised) 'Net Profit or Loss for the Period, Prior Period Items and Changes in Accounting Policies" states that a change in an accounting policy should be made only if the adoption of a different accounting policy is required by statute or for compliance with an accounting standard or if it is considered that the change would result in a more appropriate presentation of the financial statements of an enterprise. Therefore the change in the method of stock valuation is justified in view of the fact that the change is in line with the recommendations of AS 2 (Revised) 'Valuation of Inventories' and would result in more appropriate preparation of the financial statements. As per AS 2, this accounting policy adopted for valuation of inventories including the cost formulae used should be disclosed in the financial statements.

Also, appropriate disclosure of the change and the amount by which any item in the financial statements is affected by such change is necessary as per AS 1, AS 2 and AS 5. Therefore, the under mentioned note should be given in the annual accounts.

"In compliance with the Accounting Standards issued by the ICAI, delayed jute clearing charges which are in the nature of interest have been excluded from the valuation of closing stock unlike preceding years. Had the company continued the accounting practice followed earlier, the value of closing stock as well as profit before tax for the year would have been higher by ₹ 2.80 lakhs."

(b) As per para 6 of AS 16 'Borrowing Costs', borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset should be capitalized as part of the cost of that asset. Other borrowing costs should be recognized as an expense in the period in which they are incurred. Borrowing costs should be expensed except where they are directly attributable to acquisition, construction or production of qualifying asset.

A qualifying asset is an asset that necessarily takes a substantial period of time* to get ready for its intended use or sale.

The treatment for total interest amount of ₹ 63.00 lakhs can be given as:

Purpose	Nature	Interest to be	Interest to be

		capitalised ₹ in lakhs	charged to profit and loss account ₹ in lakhs
Modernisation and renovation of plant and machinery	Qualifying asset	$**63.00 \times \frac{600}{700} = 54.00$	
Advance to supplies for additional assets	Qualifying asset	$**63.00 \times \frac{70}{700} = 6.30$	
Working Capital	Not a qualifying asset		$63.00 \times \frac{30}{700} = 2.70$
		60.30	**2.70**

*Accounting Standards Interpretation (ASI) 1 deals with the meaning of expression 'substantial period of time'. A substantial period of time primarily depends on the facts and circumstances of each case. However, ordinarily, a period of twelve months is considered as substantial period of time unless a shorter or longer period can be justified on the basis of the facts and circumstances of the case.

** It is assumed in the above solution that the modernization and renovation of plant and machinery will take substantial period of time (i.e. more than twelve months). Regarding purchase of additional assets, the nature of additional assets has also been considered as qualifying assts. Alternatively, the plant and machinery and additional assets may be assumed to be non-qualifying assts on the basis that the renovation and installation of additional assets will not take substantial period of time. In that case, the entire amount of interest, ₹ 63.00 lakhs will be recognized as expense in the profit and loss account for year ended 31st March, 2011.

Question 2

A firm of contractors obtained a contract for construction of bridges across a river. The following details are available in the records kept for the year ended 31st March, 2012.

	(₹ in lakhs)
Total Contract Price	2,000
Work Certified	1,000
Work not certified	210
Estimated further Cost to Completion	990
Progress Payment Received	800
To be Received	280

The firm seeks your advice and assistance in the presentation of accounts keeping in view the requirements of AS 7 (Revised) issued by ICAI.

Answer

(a)

	(₹ in lakhs)
Amount of foreseeable loss	
Total cost of construction (1,000 + 210 + 990)	2,200
Less: Total contract price	2,000
Total foreseeable loss to be recognized as expense	**200**

According to Para 35 of AS 7 (Revised 2002), when it is probable that total contract costs will exceed total contract revenue, the expected loss should be recognized as an expense immediately.

(b) Contract work-in-progress i.e. cost incurred to date are ₹ 1,210 lakhs

	(₹ in lakhs)
Work certified	1,000
Work not certified	210
	1,210

This is 55% (1,210/2,200 × 100) of total costs of construction.

(c) Proportion of total contract value recognised as revenue as per para 21 of AS 7 (Revised).

55% of ₹ 2,000 lakhs = ₹ 1,100 lakhs

(d) Amount due from/to customers = Contract costs + Recognised profits – Recognised losses – (Progress payments received + Progress payments to be received)

= [1,210 + Nil – 200 – (800 + 280)] ₹ in lakhs = [1,210 – 200 –1,080] ₹ in lakhs

Amount due to customers = ₹ 70 lakhs. The amount of ₹ 70 lakhs will be shown in the balance sheet as liability.

(e) The relevant disclosures under AS 7 (Revised) are given below:

	₹ in lakhs
Contract revenue	1,100
Contract expenses	1,210
Recognised profits less recognized losses	(200)
Progress billings (800 + 280)	1.080
Retentions (billed but not received from contractee)	280
Gross amount due to customers	70

Question 3

(a) A Limited Company closed its accounting year on 30.6.2011 and the accounts for that period were considered and approved by the board of directors on 20th August, 2011. The company was engaged in laying pipe line for an oil company deep beneath the earth. While doing the boring work on 1.9.2011 it had met a rocky surface for which it was estimated that there would be an extra cost to the tune of ₹ 80 lakhs. You are required to state with reasons, how the event would be dealt with in the financial statements for the year ended 30.6.11.

(b) A Ltd. purchased fixed assets costing ₹ 5,100 lakhs on 1.1.11 and the same was fully financed by foreign currency loan (U.S. Dollars) payable in three annual equal installments. Exchange rates were 1 Dollar = ₹ 42.50 and ₹ 45.00 as on 1.1.11 and 31.12.11 respectively. First installment was paid on 31.12.11. The entire difference in foreign exchange has been capitalized.

You are required to state, how these transactions would be accounted for.

Answer

(a) Para 3.2 of AS 4 (Revised) on Contingencies and Events Occurring after the Balance Sheet Date defines 'events occurring after the balance sheet date' as 'significant events, both favourable and unfavourable, that occur between the balance sheet date and the date on which financial statements are approved by the Board of Directors in the case of a company'. The given case is discussed in the light of the above mentioned definition and requirements given in paras 13-15 of the said AS 4 (Revised).

In this case the incidence, which was expected to push up cost became evident after the date of approval of the accounts. So that was not an 'event occurring after the balance sheet date'. However, this may be mentioned in the Directors' Report.

(b) As per para 13 of AS 11 (Revised 2003) 'The Effects of Changes in Foreign Exchange Rates', exchange differences arising on the settlement of monetary items or on reporting an enterprise's monetary items at rates different from those at which they were initially recorded during the period, or reported in previous financial statements, should be recognized as income or expenses in the period in which they arise. Thus exchange differences arising on repayment of liabilities incurred for the purpose of acquiring fixed assets are recognized as income or expense.

Calculation of Exchange Difference:

$$\text{Foreign currency loan} = \frac{\text{Rs. } 5{,}100 \text{ lakhs}}{\text{Rs. } 42.50} = 120 \text{ lakhs US Dollars}$$

Exchange difference = ₹120 lakhs US Dollars × (45.00 – 42.50)

= ₹ 300 lakhs (including exchange loss on payment of first installment)

Therefore, entire loss due to exchange differences amounting ₹ 300 lakhs should be charged to profit and loss account for the year.

Question 4

(i) Advise P Co. Ltd. about the treatment of the following in the Final Statement of Accounts for the year ended 31st March, 2012.

A claim lodged with the Railways in March, 2008 for loss of goods of ₹ 2,60,000 had been passed for payment in March, 2012 for ₹ 1,75,000. No entry was passed in the books of the Company, when the claim was lodged.

(ii) The notes to accounts of X Ltd. for the year 2011-12 include the following:

"Interest on bridge loan from banks and Financial Institutions and on Debentures specifically obtained for the Company's Project amounting to ₹ 1,80,80,000 has been capitalized during the year, which includes approximately ₹ 1,76,00,000 capitalised in respect of the utilization of loan and debenture money for the said purpose." Is the treatment correct? Briefly comment.

Answer

(i) Prudence suggests non-consideration of claim as an asset in anticipation. So receipt of claims is

generally recognised on cash basis. Para 9.2 of AS 9 on 'Revenue Recognition' states that where the ability to assess the ultimate collection with reasonable certainty is lacking at the time of raising any claim, revenue recognition is postponed to the extent of uncertainty involved. Para 9.5 of AS 9 states that when recognition of revenue is postponed due to the effect of uncertainties, it is considered as revenue of the period in which it is properly recognised. In this case it may be assumed that collectability of claim was not certain in the earlier periods. This is supposed from the fact that only ₹ 1,75,000 were collected against a claim of ₹ 2,60,000. So this transaction cannot be taken as a Prior Period Item.

In the light of revised AS 5, it will not be treated as extraordinary item. However, Para 12 of AS 5 (Revised) states that when items of income and expense within profit or loss from ordinary activities are of such size, nature, or incidence that their disclosure is relevant to explain the performance of the enterprise for the period, the nature and amount of such items should be disclosed separately. Accordingly, the nature and amount of this item should be disclosed separately as per Para 12 of AS 5 (Revised).

(ii) The treatment done by the company is not in accordance with AS 16 'Borrowing Costs'. As per Para 10 of AS 16, to the extent that funds are borrowed specifically for the purpose of obtaining a qualifying asset, the amount of borrowing costs eligible for capitalisation on that asset should be determined as the actual borrowing costs incurred on that borrowing during the period. Hence, the capitalisation of borrowing costs should be restricted to the actual amount of interest expenditure i.e. ₹ 1,76,00,000. Thus, there is an excess capitalisation of ₹ 4,80,000. This has resulted in overstatement of profits by ₹ 4,80,000 and amount of fixed assets has also gone up by this amount.

Question 5

From the following Summary Cash Account of X Ltd. prepare Cash Flow Statement for the year ended 31st March, 2012 in accordance with AS 3 (Revised) using the direct method. The company does not have any cash equivalents.

Summary Cash Account for the year ended 31.3.2012

	₹ '000		₹ '000
Balance on 1.4.2011	400	Payment to Suppliers	2,600
Issue of Equity Shares	1,000	Purchase of Fixed Assets	1,200
Receipts from Customers	4,500	Overhead expense	200
Sale of Fixed Assets	200	Wages and Salaries	600
		Taxation	450
		Dividend	100
		Repayment of Bank Loan	800
		Balance on 31.3.2012	150
	6,100		6,100

Answer:

X Ltd.

Cash Flow Statement for the year ended 31st March, 2012 (Using the direct method)

	₹ '000	₹ '000
Cash flows from operating activities		
Cash receipts from customers	4,500	
Cash payment to suppliers	(2,600)	
Cash paid to employees	(600)	

Cash payments for overheads	(200)	
Cash generated from operations	1,100	
Income tax paid	(450)	
Net cash from operating activities		650
Cash flows from investing activities		
Payment for purchase of fixed assets	(1,200)	
Proceeds from sale of fixed assets	200	
Net cash used in investing activities		(1,000)
Cash flows from financing activities		
Proceeds from issuance of equity shares	1,000	
Bank loan repaid	(800)	
Dividend paid	(100)	
Net cash from financing activities		100
Net increase in cash		(250)
Cash at beginning of the period		400
Cash at end of the period		150

Question 6

XYZ Ltd., has undertaken a project for expansion of capacity as per the following details:

	Plan	Actual
	₹	₹
April, 2011	2,00,000	2,00,000
May, 2011	2,00,000	3,00,000
June, 2011	10,00,000	–
July, 2011	1,00,000	–
August, 2011	2,00,000	1,00,000
September, 2011	5,00,000	7,00,000

The company pays to its bankers at the rate of 12% p.a., interest being debited on a monthly basis. During the half year company had ₹ 10 lakhs overdraft upto 31st July, surplus cash in August and again overdraft of over ₹ 10 lakhs from 1.9.2011. The company had a strike during June and hence could not continue the work during June. Work was again commenced on 1st July and all the works were completed on 30th September. Assume that expenditure were incurred on 1st day of each month. Calculate:

(i) Interest to be capitalised.

(ii) Give reasons wherever necessary.

Assume:

(a) Overdraft will be less, if there is no capital expenditure.

(b) The Board of Directors based on facts and circumstances of the case has decided that any capital expenditure taking more than 3 months as substantial period of time.

Answer

(a) **XYZ Ltd.**

Month	Actual Expenditure	Interest Capitalised	Cumulative Amount
	₹	₹	₹
April, 2011	2,00,000	2,000	2,02,000

May, 2011	3,00,000	5,020	5,07,020	
June, 2011	–	5,070	5,12,090	Note 2
July, 2011	–	5,120	5,17,210	
August, 2011	1,00,000	–	6,17,210	Note 3
September, 2011	7,00,000	10,000	13,27,210	Note 4
	13,00,000	**27,210**	**13,27,210**	

Note:

1. There would not have been overdraft, if there is no capital expenditure. Hence, it is a case of specific borrowing as per AS 16 on Borrowing Costs.
2. The company had a strike in June and hence could not continue the work during June. As per Para 14 (c) of AS 16, the activities that are necessary to prepare the asset for its intended use or sale are in progress. The strike is not during extended period. Thus during strike period, interest need to be capitalised.
3. During August, the company did not incur any interest as there was surplus cash in August. Therefore, no amount should be capitalised during August as per Para 14(b) of AS 16.
4. During September, it has been taken that actual overdraft is ₹ 10 lakhs only. Hence, only ₹ 10,000 interest has been capitalised even though actual expenditure exceeds ₹ 10 lakhs.

   Alternatively, interest may be charged on total amount of (₹ 6,17,210 + ₹ 7,00,000 = 13,17,210) for the month of September, 2011 as it is given in the question that overdraft was over ₹ 10 lakhs from 1.9.2011 and not exactly ₹ 10 lakhs. In that case, interest amount ₹ 13,172 will be capitalised for the month of September.

Question 7

(a) At the end of the financial year ended 31st December, 2011, a company finds that there are twenty law suits outstanding which have not been settled till the date of approval of accounts by the Board of Directors. The possible outcome as estimated by the Board is as follows:

	Probability	Loss (₹)
In respect of five cases (Win)	100%	–
Next ten cases (Win)	60%	–
Lose (Low damages)	30%	1,20,000
Lose (High damages)	10%	2,00,000
Remaining five cases		
Win	50%	–
Lose (Low damages)	30%	1,00,000
Lose (High damages)	20%	2,10,000

Outcome of each case is to be taken as a separate entity. Ascertain the amount of contingent loss and the accounting treatment in respect thereof.

(b) Z Ltd. presents the following information for the year ended 31.03.2011 and 31.03.2012 from which you are required to calculate the Deferred Tax Asset/Liability assuming tax rate of 30% and state how the same should be dealt with as per relevant accounting standard.

	31.03.2011 ₹ (lakhs)	31.03.2012 ₹ (lakhs)
Depreciation as per books	4,010.10	4,023.54
Unabsorbed carry forward business loss and depreciation allowance	2,016.60	4,110.00
Disallowance under Section 43B of Income tax Act, 1961	518.35	611.45
Deferred Revenue Expenses	4.88	–

Provision for Doubtful Debts	282.51	294.35

Z Ltd. had incurred a loss of ₹ 504 lakhs for the year ended 31.03.2012 before providing for Current Tax of ₹ 26.00 lakhs.

Answer:

(a) According to AS 29 'Provisions, Contingent Liabilities and Contingent Assets', contingent liability should be disclosed in the financial statements if following conditions are satisfied:

(i) There is a present obligation arising out of past events but not recognized as provision.

(ii) It is not probable that an outflow of resources embodying economic benefits will be required to settle the obligation.

(iii) The possibility of an outflow of resources embodying economic benefits is also remote.

(iv) The amount of the obligation cannot be measured with sufficient reliability to be recognized as provision.

In this case, the probability of winning of first five cases is 100% and hence, question of providing for contingent loss does not arise. The probability of winning of next ten cases is 60% and for remaining five cases is 50%. As per AS 29, we make a provision if the loss is probable. As the loss does not appear to be probable and the possibility of an outflow of resources embodying economic benefits is not remote rather there is reasonable possibility of loss, therefore disclosure by way of note should be made. For the purpose of the disclosure of contingent liability by way of note, amount may be calculated as under:

Expected loss in next ten cases = 30% of ₹ 1,20,000 + 10% of ₹ 2,00,000

= ₹ 36,000 + ₹ 20,000 = ₹ 56,000

Expected loss in remaining five cases = 30% of ₹ 1,00,000 + 20% of ₹ 2,10,000

= ₹ 30,000 + ₹ 42,000 =₹ 72,000

To disclose contingent liability on the basis of maximum loss will be highly unrealistic. Therefore, the better approach will be to disclose the overall expected loss of ₹ 9,20,000 (₹ 56,000 × 10 + ₹ 72,000 × 5) as contingent liability.

(b)

	₹ in lakhs 31.3.2011	₹ in lakhs 31.3.2012
Carried Forward Business Loss and Depreciation Allowance	2,016.60	4,110.00
: Disallowance under Section 43 B of Income Tax Act,1961	518.35	611.45
Provision for Doubtful Debts	282.51	294.35
	2,817.46	5,015.80
Less: Depreciation	4,010.10	4,023.54
	(–) 1,192.64	992.26
Less: Deferred Revenue Expenditure	4.88	–
Timing Differences	(–) 1,197.52	992.26
Deferred Tax Liability	359.26	
Deferred Tax Asset		297.68

Where an enterprise has unabsorbed depreciation or carry forward of losses under tax laws, deferred tax assets should be recognized only to the extent that there is virtual certainty supported by convincing evidence that future taxable income will be available against which such deferred tax assets can be realized. The existence of unabsorbed depreciation or carry forward of losses is strong evidence that

future taxable income may not be available. Deferred Tax Asset of ₹ 297.68 lakhs should not be recognized as an asset as per para 17 of AS 22 on 'Accounting for Taxes on Income'. Deferred Tax Liability of ₹ 359.26 lakhs should be disclosed under a separate heading in the balance sheet of Z Ltd., separately from current assets and current liabilities.

Question 8

(a) X Co. Ltd. supplied the following information. You are required to compute the basic earnings per share: Accounting year 1.1.2010 – 31.12.2010)

Net Profit	:	Year 2010 : ₹ 20,00,000
	:	Year 2011 : ₹ 30,00,000
No. of shares outstanding prior to Right Issue	:	10,00,000 shares
Right Issue	:	One new share for each four outstanding i.e., 2,50,000 shares. Right Issue price – ₹ 20 Last date of exercise rights – 31.3.2011.
Fair rate of one Equity share immediately prior to exercise of rights on 31.3.2011	:	₹ 25

(b) A Ltd. leased a machinery to B Ltd. on the following terms:

	(₹ in Lakhs)
Fair value of the machinery	20.00
Lease term	5 years
Lease Rental per annum	5.00
Guaranteed Residual value	1.00
Expected Residual value	2.00
Internal Rate of Return	15%

Depreciation is provided on straight line method @ 10% per annum. Ascertain unearned financial income and necessary entries may be passed in the books of the Lessee in the First year.

(c) The following particulars are stated in the Balance Sheet of M/s Exe Ltd. as on 31.03.2010:

	(₹ in Lakhs)
Deferred Tax Liability (Cr.)	20.00
Deferred Tax Assets (Dr.)	10.00

The following transactions were reported during the year 2010-11:

(i)	Tax Rate	50%
(ii)	Depreciation – As per Books	50.00
	Depreciation – for Tax purposes	30.00
	There were no addition to Fixed Assets during the year.	
(iii)	Items disallowed in 2009-10 and allowed for Tax purposes in 2010-11	10.00
(iv)	Interest to Financial Institutions accounted in the Books on accrual basis, but actual payment was made on 30.09.2011	20.00
(v)	Donations to Private Trusts made in 2010-11	10.00
(vi)	Share issue expenses allowed under 35(D) of the I.T. Act, 1961 for the year 2010-11 (1/10th of ₹ 50.00 lakhs incurred in 2006-2007)	5.00
(vii)	Repairs to Plant and Machinery ₹ 100.00 lakhs was spread over the period 2010-11 and 2011-12 equally in the books. However, the entire expenditure was allowed for Income-tax purposes.	

Indicate clearly the impact of above items in terms of Deferred Tax liability/Deferred Tax Assets and the balances of Deferred Tax Liability/Deferred Tax Asset as on 31.03.2011.

Solution:

(a) Computation of Basic Earnings Per Share

(as per paragraphs 10 and 26 of AS 20 on Earnings Per Share)

	Year 2009 ₹	Year 2010 ₹
EPS for the year 2009 as originally reported		
$= \frac{\text{Net profit of the year attributable to equity shareholders}}{\text{Weighted average number of equity shares outstanding during the year}}$		
= (₹ 20,00,000 / 10,00,000 shares)	2.00	
EPS for the year 2009 restated for rights issue		
= [₹ 20,00,000 / (10,00,000 shares × 1.04)]	1.92	
(Refer working note.2)	(approx.)	
EPS for the year 2010 including effects of rights issue		
$\frac{\text{Rs. }30,00,000}{(10,00,000 \text{ shares} \times 1.04 \times 3/12) + (12,50,000 \text{ shares} \times 9/12)}$		
$\frac{\text{Rs. }30,00,000}{11,97,500 \text{ shares}}$		2.51 (approx.)

Working Notes:

1. Computation of theoretical ex-rights fair value per share

$$\frac{\text{Fair value of all outstanding shares immediately prior to exercise of rights} + \text{Total amount received from exercise}}{\text{Number of shares outstanding prior to exercise} + \text{Number of shares issued in the exercise}}$$

$$= \frac{(\text{Rs. }25 \times 10,00,000 \text{ shares}) + (\text{Rs. }20 \times 2,50,000 \text{ shares})}{10,00,000 \text{ shares} + 2,50,000 \text{ shares}}$$

$$= \frac{\text{Rs. }3,00,00,000}{12,50,000 \text{ shares}} = \text{Rs. }24$$

2. **Computation of adjustment factor**

$$= \frac{\text{Fair value per share prior to exercise of rights}}{\text{Theoretical ex-rights value per share}}$$

$$= \frac{\text{Rs. }25}{\text{Rs. }24 \text{ (Refer Working Note 1)}} = 1.04 \text{ (approx.)}$$

(b) Computation of Unearned Finance Income

As per AS 19 on Leases, **unearned finance income** is the difference between (a) the **gross investment** in the lease and (b) the present value of minimum lease payments under a finance lease

from the standpoint of the lessor; and any unguaranteed residual value accruing to the lessor, at the interest rate implicit in the lease.

where :

(i) **Gross investment** in the lease is the aggregate of (i) minimum lease payments from the stand point of the lessor and (ii) any unguaranteed residual value accruing to the lessor.

Gross Investment = Minimum lease payments + Unguaranteed residual value

= (Total lease rent + Guaranteed residual value) + Unguaranteed residual value

= [(₹ 5,00,000 × 5 years) + ₹ 1,00,000] + ₹ 1,00,000 = ₹ 27,00,000

(ii) Table showing present value of (i) Minimum lease payments (MLP) and (ii) Unguaranteed residual value (URV).

Year	MLP inclusive of URV	Internal rate of return (Discount factor 15%)	Present Value
	₹		₹
1	5,00,000	0.8696	4,34,800
2	5,00,000	0.7561	3,78,050
3	5,00,000	0.6575	3,28,750
4	5,00,000	0.5718	2,85,900
5	5,00,000	0.4972	2,48,600
	1,00,000 (Guaranteed residual value)	0.4972	49,720
			17,25,820
	1,00,000 (Unguaranteed residual value)	0.4972	49,720
			17,75,540

Unearned Finance Income = (i) – (ii)

= ₹ 27,00,000 – ₹ 17,75,540 = ₹ 9,24,460

Journal Entries in the books of B Ltd.

Particulars		₹	₹
At the inception of lease			
Machinery account	Dr.	17,25,820	
To A Ltd.'s account			17,25,820
(Being lease of machinery recorded at present value of MLP)			
At the end of the first year of lease			
Finance charges account (Refer Working Note)	Dr.	2,58,873	
To A Ltd.'s account			2,58,873
(Being the finance charges for first year due)			
A Ltd.'s account	Dr.	5 ,00,000	
To Bank account			5,00,000
(Being the lease rent paid to the lessor which includes outstanding liability of ₹ 2,41,127 and finance charge of ₹ 2,58,873)			
Depreciation account	Dr.	1,72,582	
To Machinery account			1,72,582
(Being the depreciation provided @ 10% p.a. on straight line method)			
Profit and loss account	Dr.	4,31,455	

To Depreciation account	1,72,582
To Finance charges account	2,58,873
(Being the depreciation and finance charges transferred to profit and loss account)	

Working Note:

Table showing apportionment of lease payments by B Ltd. between the finance charges and the reduction of outstanding liability.

Year	Outstanding liability (opening balance)	Lease rent	Finance charge	Reduction in outstanding liability	Outstanding liability (closing balance)
	₹	₹	₹	₹	₹
1	17,25,820	5,00,000	2,58,873	2,41,127	14,84,693
2	14,84,693	5,00,000	2,22,704	2,77,296	12,07,397
3	12,07,397	5,00,000	1,81,110	3,18,890	8,88,507
4	8,88,507	5,00,000	1,33,276	3,66,724	5,21,783
5	5,21,783	5,00,000	78,267	5,21,783	1,00,050*
			8,74,230	17,25,820	

The difference between this figure and guaranteed residual value (₹ 1,00,000) is due to approximation in computing the interest rate implicit in the lease.

(c) Impact of various items in terms of deferred tax liability/deferred tax asset.

Transactions	Analysis	Nature of difference	Effect	Amount
Difference in depreciation	Generally, written down value method of depreciation is adopted under IT Act which leads to higher depreciation in earlier years of useful life of the asset in comparison to later years	Responding timing difference	Reversal of DTL	₹ 20 lakhs × 50% = ₹ 10 lakhs
Disallowances, as per IT Act, of earlier years	Tax payable for the earlier year was higher on this account.	Responding timing difference	Reversal of DTA	₹ 10 lakhs × 50% = ₹ 5 lakhs
Interest to financial institutions	It is allowed as deduction under section 43B of the IT Act, if the payment is made before the due date of filing the return of income (i.e. 31st October, 2011).	No timing difference	Not applicable	Not applicable
Donation to private trusts	Not an allowable expenditure under IT Act.	Permanent difference	Not applicable	Not applicable

Share issue expenses	Due to disallowance of full expenditure under IT Act, tax payable in the earlier years was higher.	Responding timing difference	Reversal of DTA	₹ 5 lakhs × 50% = ₹ 2.5 lakhs
Repairs to plant and machinery	Due to allowance of full expenditure under IT Act, tax payable of the current year will be less.	Originating timing difference	Increase in DTL	₹ 50 lakhs × 50% = ₹ 25 lakhs

Deferred Tax Liability Account

Dr.							Cr.
			₹ in lakhs				₹ in lakhs
31.3.2011	To	Profit and Loss account (Depreciation)	10.00	1.4.2010	By	Balance b/d	20.00
	To	Balance c/d	35.00		By	Profit and Loss Account (Repairs to plant)	25.00
			45.00				45.00
				1.4.2011	By	Balance b/d	35.00

Deferred Tax Asset Account

Dr.							Cr.
			₹ in lakhs				₹ in lakhs
1.4.2010	To	Balance b/d	10.00	31.3.2011	By	Profit and Loss Account: Items disallowed in 2009-10 and allowed as per I.T. Act in 2010-11	5.00
						Share issue expenses	2.50
					By	Balance c/d	2.50
			10.00				10.00
1.4.2011	To	Balance b/d	2.50				

Question 9

(a) Venus Ltd. has an asset, which is carried in the Balance Sheet on 31.3.2011 at ₹ 500 lakhs. As at that date the value in use is ₹ 400 lakhs and the net selling price is ₹ 375 lakhs.

From the above data:

(i) Calculate impairment loss.

(ii) Prepare journal entries for adjustment of impairment loss.

(iii) Show, how impairment loss will be shown in the Balance Sheet.

(b) Swift Ltd. acquired a patent at a cost of ₹ 80,00,000 for a period of 5 years and the product life-cycle is also 5 years. The company capitalized the cost and started amortizing the asset at ₹ 10,00,000 per annum. After two years it was found that the product life-cycle may continue for another 5 years from then. The net cash flows from the product during these 5 years were expected to be ₹ 36,00,000,₹ 46,00,000, ₹ 44,00,000, ₹ 40,00,000 and ₹ 34,00,000. Find out the amortization cost of the patent for each of the years.

Solution:

(a) (i) Recoverable amount is higher of value in use ₹ 400 lakhs and net selling price ₹ 375 lakhs.

∴ Recoverable amount = ₹ 400 lakhs

Impairment loss = Carried Amount – Recoverable amount

= ₹ 500 lakhs – ₹ 400 lakhs = ₹ 100 lakhs.

(ii) **Journal Entries**

Particulars		Dr. Amount ₹ in lakhs	Cr. Amount ₹ in lakhs
a) Impairment loss A/c To Asset A/c (Being the entry for accounting impairment loss)	Dr.	100	100
b) Profit and loss A/c To Impairment loss A/c (Being the entry to transfer impairment loss to profit and loss account)	Dr.	100	100

(iii) **Balance Sheet of Venus Ltd. as on 31.3.2011 (extracts)**

	₹ in lakhs
Asset less depreciation	500
Less: Impairment loss	100
	400

(b) Swift Limited amortised ₹ 10,00,000 per annum for the first two years i.e. ₹ 20,00,000. The remaining carrying cost can be amortized during next 5 years on the basis of net cash flows arising from the sale of the product. The amortisation may be found as follows:

Year	Net cash flows Rs	Amortization Ratio	Amortization Amount ₹
I	-	0.125	10,00,000
II	-	0.125	10,00,000
III	36,00,000	0.180	10,80,000
IV	46,00,000	0.230	13,80,000
V	44,00,000	0.220	13,20,000
VI	40,00,000	0.200	12,00,000
VII	34,00,000	0.170	10,20,000
Total	**2,00,00,000**	**1.000**	**80,00,000**

It may be seen from above that from third year onwards, the balance of carrying amount i.e., ₹ 60,00,000 has been amortized in the ratio of net cash flows arising from the product of Swift Ltd.

Note: The answer has been given on the basis that the patent is renewable and Swift Ltd. got it renewed after expiry of five years.

Question No.10: The following information has been extracted from the books of account of Hero Ltd. as at 31st March, 2012:

	Dr. (₹'000)	Cr. (₹ '000)
Administration Expenses	480	
Cash at Bank and on Hand	228	
Cash Received on Sale of Fittings		10
Long Term Loan		70
Investments	200	
Depreciation on Fixtures, Fittings, Tools and Equipment (1st April, 2011)		260
Distribution Costs	102	
Factory Closure Costs	60	
Fixtures, Fittings, Tools and Equipment at Cost	680	
Profit & Loss Account (at 1st April, 2011)		80
Purchase of Equipment	120	
Purchases of Goods for Resale	1710	
Sales (net of Excise Duty)		3,000
Share Capital (1,00,000 shares of ₹ 10 each fully paid)		1,000
Stock (at 1st April, 2011)	140	
Trade Creditors		80
Trade Debtors	780	
	4,500	4,500

Additional Information:

(1) The stock at 31st March, 2012 (valued at the lower of cost or net realizable value) was estimated to be worth ₹ 2,00,000.

(2) Fixtures, fittings, tools and equipment all related to administration. Depreciation is charged at a rate of 20% per annum on cost. A full year's depreciation is charged in the year of acquisition, but no depreciation is charged in the year of disposal.

(3) During the year to 31st March, 2012, the Company purchased equipment of ₹ 1,20,000. It also sold some fittings (which had originally cost ₹ 60,000) for ₹ 10,000 and for which depreciation of ₹ 30,000 had been set aside.

(4) The average Income tax for the Company is 50%. Factory closure cost is to be presumed as an allowable expenditure for Income tax purpose.

(5) The company proposes to pay a dividend of 20% per Equity Share.

Prepare Hero Ltd.'s Profit and Loss Account for the year to 31st March, 2012 and balance Sheet as at that date in accordance with the Companies Act, 1956 in the Vertical Form along with the Notes on Accounts containing only the significant accounting policies.

Answer :

Hero Ltd.

Balance Sheet as at 31st March, 2012

(₹ in thousands)

I SOURCES OF FUNDS		
(1) Shareholders' funds:		
(a) Capital	1,000	
(b) Reserves and surplus	150	
		1,150
(2) Loan funds:		
(a) Secured loans	70	
(b) Unsecured loans	–	
		70

	TOTAL			**1,220**
II	**APPLICATION OF FUNDS**			
	(1) Fixed assets:			
	(a)	Gross block	740	
	(b)	Less: Depreciation	378	
	(c)	Net block	362	
	(d)	Capital work in progress	–	
				362
	(2) Investments			200
	(3) Current assets, loans and advances:			
	(a)	Inventories	200	
	(b)	Sundry debtors	780	
	(c)	Cash and bank balances	228	
	(d)	Other current assets	–	
	(e)	Loans and advances	–	
			1,208	
	Less: Current Liabilities and Provisions:			
	(a)	Liabilities	80	
	(b)	Provisions	470	
			550	
	Net current assets			658
	(4) Miscellaneous expenditure (to the extent not written off or adjusted)			–
	TOTAL			**1,220**
	Contingent Liabilities		Nil	

Profit and Loss Account for the year ended 31st March, 2012

(₹ in thousands)

Income		
Sales (Net of Excise Duty)		3,000
Increase /(Decrease) in Stocks		60
		3,060
Expenditure		
Purchase of Goods for Resale	1,710	
Administration Expenses	480	
Distribution costs	102	
Loss on sale of asset	20	
Depreciation	148	
		2,460
		600
Profit before Extraordinary Items		
Factory Closure Costs		60
		540
Profit before taxation		
Provision for tax		270
		270
Net profit		
Balance brought forward from previous year		80
Profit Available For Appropriation		350

Appropriations		
Proposed Equity Dividend	200	
Amount transferred to general reserve	30	230
		120
Balance carried forward		

NOTES ON ACCOUNTS FOR THE YEAR ENDED 31ST MARCH, 2012

Significant Accounting Policies:

(a) Basis for preparation of financial statements: The financial statements have been prepared under the historical cost convention, in accordance with the generally accepted accounting principles and the provisions of the companies Act, 1956 as adopted consistently by the company.

(b) Depreciation: Depreciation on fixed assets is provided using the straight-line method, based on the period of five years. Depreciation on additions is provided for the full year but no depreciation is provided on assets sold in the year of their disposal.

(c) Investments: Investments are valued at lower of cost or net realizable value.

(d) Inventories: Inventories are valued at the lower of historical cost or the net realizable value.

Working Notes:

(₹ in thousands)

(1)	Fixtures, Fittings, Tools and Equipment		
	Gross Block		
	As on 1.4.2011	680	
	Add: Additions during the year	120	
		800	
	Less: Deductions during the year	60	
	As on 31.3.2011		740
	Depreciation		
	As on 1.4.2011	260	
	For the year (20% on 740)	148	
		408	
	Less: Deduction during the year	30	
	As on 31.3.2012		378
	Net block as on 31.3.2012		362
(2)	Provision for taxation		
	Profit as per profit and loss account		540
	Add back: Loss on sale of asset (short term capital loss)	20	
	Depreciation	148	
			168
			708
	Less: Depreciation under Income-tax Act		168
			540
	Provision for tax @ 50%		270

It has been assumed that depreciation calculated under Income-tax Act amounts to ₹ 84,000)

3)	Provisions	
	(a) Provision for taxation	270
	(b) Proposed dividend (20% on ₹ 10,00,000)	200
		470

(4) In balance sheet, Reserves and Surplus represent general reserve ₹ 30,000 and profit and loss account ₹ 1,20,000.

Notes:

(1) The rate of interest on long term loan is not given in the question. Reasonable assumption may be made regarding the rate of interest and accordingly it may be accounted for.

(2) As per Companies (Transfer of Profits to Reserve) Rules, the amount to be transferred to the reserves shall not be less than 7.5% of the current profits since proposed dividend exceeds 15% but does not exceed 20% of the paid up capital. In this answer, it has been assumed that ₹. 30,000 have been transferred to General Reserve. The students may transfer any amount based on a suitable percentage not less than 7.5%.

(3) In the absence of details regarding factory closure costs, there costs are treated as extraordinary items in the above solution assuming that the factory is permanently closed. However, the factory may close for a short span of time on account of strikes, lockouts etc. and such type of factory closure costs should be treated as loss from ordinary activities. In that case also, a separate disclosure regarding the factory closure costs will be required as per para 12 of AS 5 (Revised) 'Net Profit or Loss for the Period, Prior Period Items and Changes in Accounting Policies.'

Question 11

On 1st November, 2010 Squash Ltd. was incorporated with an authorized capital of ₹ 200 crores. It issued to its promoters equity capital of ₹ 10 crores which was paid for in full. On that day it purchased the running business of Jam Ltd. for ₹ 40 crores and allotted at par equity capital of ₹ 40 crores in discharge of the consideration. The net assets taken over from Jam Ltd. were valued as follows: Fixed Assets ₹ 30 crores, Inventory ₹ 2 crores, Customers' dues ₹ 14 crores and Creditors ₹ 6 crores. Squash Ltd. carried on business and the following information is furnished to you:

(a) Summary of cash/bank transactions (for year ended 31st October, 2011).

		(₹in crores)
Equity capital raised:		
Promoters (as shown above)	10	
Others	50	60
Collections from customers		800
Sale proceeds of fixed assets (cost ₹ 18 crores)		4
		864
Payments to suppliers	400	
Payments to employees	140	
Payment for expenses	100	640
Investments in Upkar Ltd.		20
Payments to suppliers of fixed assets:		
Instalment due	120	
Interest	10	130
Tax payment		54
Dividend		10
Closing cash/bank balance		10
		864

(b) On 31st October, 2011 Squash Ltd.'s assets and liabilities were:

	(₹ in crores)
Inventory at cost	3
Customers' dues	80
Prepaid expenses	2
Advances to suppliers	8

Amounts due to suppliers of goods	52
Amounts due to suppliers of fixed assets	150
Outstanding expenses	6

(c) Depreciation for the year under:

(i) Companies Act, 1956 ₹ 36 crores

(ii) Income tax Act, 1961 ₹ 40 crores

(d) Provide for tax at 38.5% of "total income". There are no disallowed expenses for the purpose of income taxation. Provision for tax is to be rounded off.

For Squash Ltd. prepare:

(i) Revenue statement for the year ended 31st October, 2011 and

(ii) Balance Sheet as on 31st October, 2011 from the above information.

Solution:

Squash Ltd. Balance Sheet as at 31st October, 2011

	Schedule		(₹ in crores)	
I SOURCES OF FUNDS				
(1) Shareholders' funds:				
(a) Capital	A		100	
(b) Reserves and surplus			77.4	
				177.4
(2) Loan funds				150
TOTAL				327.4
II APPLICATION OF FUNDS				
(1) Fixed assets:				
(a) Gross block			296.4	
(b) Less: Depreciation			36	
(c) Net block				260.4
(2) Investments in Upkar Ltd.				20
(3) Current assets, loans and advances:				
(a) Inventories		3		
(b) Sundry debtors		80		
(c) Cash and bank balances		10		
(d) Loans and advances:				
Advances to suppliers		8		
Prepaid expenses		2		
Tax payment		54	157	
Less: Current liabilities and provisions:				
(a) Creditors for				
Goods		52		
Expenses		6		
		58		
(b) Provision for taxation		52		
			110	
Net current assets				47
TOTAL				327.4

Schedule to Balance Sheet

		(₹ in crores)
A.	Share Capital:	
	Authorised:	200
	Issued and paid-up:	
	10 crores equity shares of ₹ 10 each fully paid up (of which 4 crores equity shares have been issued for consideration other than cash, on take-over of business of Jam Ltd.)	100

Profit and Loss Account for the year ended 31st October, 2011

		(₹. in crores)
Sales		866
Expenditure:		
Stock taken over from Jam Ltd.	2	
Purchases	438	
	440	
Closing stock	3	
Inventory consumed/sold	443	
Employee cost	140	
Expenses	104	
		(681)
Profit before interest, depreciation and tax		185
Interest		(10)
Profit after interest but before depreciation		175
Depreciation		(36)
Profit after depreciation		139
Profit on sale of fixed assets		0.4
Profit before tax		139.4
Provision for tax		(52.00)
Net profit		87.4
Dividend		(10)
Balance carried forward		77.4

Working Notes:

		(₹. in crores)
(1)	Net assets of Jam Ltd. taken over:	
	Fixed Assets	30
	Inventory	2
	Customers' dues	14
		46
	Less: Creditors	6
		40

Purchase consideration: 40 crores equity shares of ₹ 10 each.

(2)

Customers' Account

		₹.			₹.
To	Business Purchase A/c	14	By	Bank A/c	800
To	Sales A/c (Balancing figure)	866	By	Balance c/d	80
		880			880

Suppliers' (Goods) Account

		₹			₹
To	Bank A/c (400 – 8)	392	By	Business Purchase A/c	5
To	Balance c/d	52	By	Purchases A/c (Balancing figure)	438
		444			444

Suppliers' (Fixed Assets) Account

		₹			₹
To	Bank A/c	130	By	Fixed Assets A/c (Balancing figure)	270
To	Balance c/d (Loan funds)	150	By	Interest A/c	10
		280			280

Fixed Assets Account

		₹			₹
To	Business Purchase A/c	30	By	Bank A/c	4
To	Profit and Loss A/c	0.4	By	Balance c/d	296.4
To	Suppliers' A/c	270			
		300.4			300.4

Expenses Account

		₹			₹
To	Bank A/c	100	By	Profit and Loss A/c (Balancing figure)	104
To	Balance c/d (Outstanding expenses)	6	By	Balance c/d (Prepaid expenses)	2
		106			106

(3) Calculation of tax provision:

	₹
Profit before depreciation	175
Less: Depreciation under Income Tax Act	40
Total income under Income Tax Act	135
Tax due thereon @ 38.5% (rounded off)	52

As sale proceeds of fixed assets are reduced from the appropriate "block of assets" for income tax purpose, and depreciation under Income Tax Act is given in the question, no adjustment for profit on sale of fixed assets ₹ 0.4 crores needs to be made for tax purposes.

Question 12

On 30th September, 2009 Zigzag Enterprises Ltd. was incorporated with an Authorised Capital of ₹ 50 lakhs. Its first accounts were closed on 31st March, 2010 by which time it had become a listed company with an issued subscribed and paid up Capital of ₹. 40 lakhs in 4,00,000 Equity Shares of ₹ 10each. The company started off with two lines of business namely 'First Division' and 'Second Division', with equal asset base with effect from 1st April, 2010. The 'Third Division' was added by the company on 1st April, 2011. The following data is gathered from the books of account of Zigzag Enterprises Ltd:

Trial Balance as on 31st March, 2012

(₹. in 000's)

	Dr.	Cr.
First Division sales	–	15,000
Cost of First Division sales	6,500	–
Second Division sales	–	20,000
Cost of sales of Second Division	10,750	–
Third Division Sales	–	3,750
Cost of sales of Third Division	2,250	–
Administration costs	5,000	–
Distribution costs	3,750	–
Dividend-Interim	3,000	–
Fixed Assets at cost	22,500	–
Depreciation on Fixed Assets	–	1,500
Stock on 31st March, 2011	1,000	–
Trade Debtors	1,100	–
Cash at Bank	40	–
Trade Creditors	–	1,250
Equity Share Capital in shares of ₹ 10 each	–	10,000
Retained Profits	–	2,500
	56,250	56,250

Additional Information:

(a) Administration costs should be split between the Divisions in the ratio of 5 : 3 : 2.

(b) Distribution costs should be spread over the Divisions in the ratio of 3 : 1 : 1.

(c) Directors have proposed a Final Dividend of ₹ 20 lakhs.

(d) Some of the users of Third Division are unhappy with the product and have lodged claims against the company for damages of ₹ 18.75 lakhs. The claim is hotly contested by the company on legal advice.

(e) Fixed Assets worth ₹ 75 lakhs were added in the Third Division on 1.4.2010.

(f) Fixed Assets are written off over a period of 10 years on straight line basis in the books. However for Income tax purposes depreciation at 20% on written down value of the assets is allowed by Tax Authorities.

(g) Income tax rate may be assumed at 35%.

(h) During the year First Division has sold to Hitachi Ltd. goods having a sales value of ₹ 62.5 lakhs. Mr. Rydu, the Managing Director of Zigzag Enterprises Ltd. owns 100% of the issued Equity Shares of Hitachi Ltd. The sales made to Hitachi Ltd. were at normal selling price of Zigzag Enterprises Ltd.

You are required to prepare Profit and Loss Account for the year ended 31st March, 2012 and the Balance Sheet as at the date. Your answer should include notes and disclosures as per Accounting Standards.

Solution:

Zigzag Enterprises Ltd.

Profit and Loss Account for the year ending 31st March, 2012

		₹. '000
Sales		38,750
Cost of Sales		(19,500)
		19,250
Distribution costs		(3,750)
Administration costs		(5,000)
Profit before tax		10,500
Provision for tax	3,097.50	
Deferred tax (35% of ₹. 1,650)	577.50	(3,675)
Profit after tax		6,825
Dividends (₹. 3,000 + ₹. 2,000)		(5,000)
Profit for the year		1,825
Retained profit brought forward (₹ 2,500 – ₹ 525)		1,975
Retained Profit carried forward		3,800

Zigzag Enterprises Ltd.
Balance Sheet as at 31st March, 2012

Liabilities	Amount	Assets		Amount
	₹ '000		₹ '000	₹ '000
Share Capital		Fixed Assets		
Issued and subscribed		Gross block	22,500	
10,00,000 shares of ₹.10 each, fully paid up	10,000	Less: Depreciation	3,750	18,750
Reserves and Surplus		Current Assets, Loans and Advances		
Retained profits	3,800	(a) Current assets		
Deferred Tax Liability	1,102.50	Stock	1,000	
		Debtors	1,100	
Current liabilities and Provisions				
(a) Current liabilities		Cash at bank	400	2,500
Creditors	1,250	(b) Loans and Advances		NIL
(b) Provisions				
Provision for tax	3,097.50			
Proposed dividend	2,000			
	21,250			21,250

Notes to Accounts:

1. Segmental Disclosures (Business Segments)

(Figures in ₹ 000's)

	First Division	Second Division	Third Division	Total
Sales	15,000	2,000	3,750	38,750
Cost of Sales	6,500	10,750	2,250	19,500
Administration Cost (5:3:2)	2,500	1,500	1,000	5,000
Distribution Cost (3:1:1)	2,250	750	750	3,750
Profit/Loss	3,750	7,000	(250)	10,500
	15,000	20,000	3,750	38,750
Original cost of Assets (Equal Capital Base)	7,500	7,500	7,500	22,500
Depreciation @ 10% p.a.				
For the year ended 31.3.2011	750	750	NIL	1,500
For the year ended 31.3.2012	750	750	750	2,250

Note: Third division is a reportable segment as per assets criteria.

2. Tax computation

	(₹ in 000's)
Profit before tax for the year ended 31.3.2011	10,500
Add: Depreciation provided in the books (750 + 750 + 750)	2,250
	12,750
Less: Depreciation as per Income Tax Act (1,200 + 1,200 + 1,500)	3,900
Taxable Income	8,850
Tax at 35%	3,097.50

3. Deferred Tax liability (as per AS 22 on Accounting for Taxes on Income)

	₹ '000
Opening Timing Difference on 1.4.2011	
WDV of fixed assets as per books	13,500
WDV of fixed assets as per Income Tax Act	12,000
Difference	1,500
Deferred Tax Liability @ 35% on 1,500	525
This has been adjusted against opening balance of retained profits.	
Current year (ended 31st March, 2012)	₹.'000
Depreciation as per Books	2,250
Depreciation as per Income Tax Act (1,200 + 1,200 + 1,500)	3,900
Difference	1,650

Deferred Tax Liability @ 35% on 1,650 (to be carried forward) 577.50

4. **Contingent Liabilities not provided:** Company is contesting claim for damages for ₹ 18,75,000 and as such the same is not acknowledged as debts.

5. **Related Party Disclosure:** Para 3 of AS 18 lists out related party relationships. It includes individuals owning, directly or indirectly, an interest in voting power of reporting enterprise which gives them control or significant influence over the enterprises, and relatives of any such individual. In the instant case, Mr. Rydu as a managing director controls operating and financial actions of Zigzag Enterprise Ltd. He is also owning 100% share Capital of Hitachi Ltd. thereby exercising control over it. Hence, Hitachi Ltd. is a related party as per Para 3 of AS 18.

Disclosure to be made:

Name of the related party and nature of relationship	Hitachi Ltd. common director
Nature of the transaction	Sale of goods at normal commercial terms
Volume of the transaction	Sales to Hitachi Ltd. worth ₹ 62.50 lakhs.

Question No.13

The following is the Balance Sheet of River Ltd. having an authorised capital of ₹ 1,000 Crores as on 31st March, 2012:

	(₹ in crores)	₹	₹
Sources of funds:			
Shareholders' funds:			
Share capital			
Equity shares of ₹ 10 each fully paid in cash	1,250		
Reserves and surplus (Revenue)	3,750	5,000	
Loan funds:			
Secured against: (a) Fixed Assets ₹ 900 Cr.			
(b) Working capital ₹ 300 Cr.	1,200		
Unsecured:	1,800	3,000	
		6,000	
Employment of funds:			
Fixed assets:			
Gross block	2,400		
Less: Depreciation	600	1,800	
Investments at cost (Market value ₹ 3,000 Cr.)		1,200	
Net current assets:			
Current assets	9,000		
Less: Current liabilities	6,000	3,000	
		6,000	

Capital commitments: ₹ 2,100 crores.

The company consists of 2 divisions:

(i) Established division whose gross block was ₹ 600 crores and net block was ₹ 90 crores; current assets were ₹ 4,500 crores and working capital was ₹ 3,600 crores; the entire amount being financed by shareholders' funds.

(ii) New project division to which the remaining fixed assets, current assets and current liabilities related.

The following scheme of reconstruction was agreed upon:

(a) Two new companies Sun Ltd. and Moon Ltd. are to be formed. The authorised capital of Sun Ltd. is to be ₹ 3,000 crores. The authorised capital of Moon Ltd. is to be ₹ 1,500 crores.

(b) Moon Ltd. is to take over investments at ₹ 2,400 crores and unsecured loans at balance sheet value. It is to allot equity shares of ₹ 10 each at par to the members of River Ltd. in satisfaction of the amount due under the arrangement.

(c) Sun Ltd. is to take over the fixed assets and net working capital of the new project division along with the secured loans and obligation for capital commitments for which River Ltd. is to continue to stand guarantee at book values. It is to allot one crore equity shares of ₹ 10 each as consideration to River Ltd. Sun Ltd. made an issue of unsecured convertible debentures of ₹ 1,500 crores carrying interest at 15% per annum and having a right to convert into equity shares of ₹ 10 each at par on 31.3.2012. This issue was made to the members of Sun Ltd. as a right who grabbed the opportunity and subscribed in full.

(d) River Ltd. is to guarantee all liabilities transferred to the 2 companies.

(e) River Ltd. is to make a bonus issue of equity shares in the ratio of one equity share for every equity share held by making use of the revenue reserves.

Assume that the above scheme was duly approved by the Honourable High Court and that there are no other transactions. Ignore taxation.

You are asked to:

(i) Pass journal entries in the books of River Ltd., and

(ii) Prepare the balance sheets of the three companies giving all the information required by the Companies Act, 1956 in the manner so required to the extent of available information.

Solution:

Journal of River Ltd. (₹ in crores)

			Dr.	Cr.
1.	Moon Ltd. A/c	Dr.	2,400	
	To Investments A/c			1,200
	To Members A/c			1,200

(Being transfer of investments at agreed value of ₹ 800 crores under the scheme of reconstruction approved by the high court)

			Dr.	Cr.
2.	Unsecured loans A/c	Dr.	1,800	
	To Moon Ltd.			1,800

(Being unsecured loans taken over by Moon Ltd. under the scheme of reconstruction approved by the

honourable high court)

		Dr.	Cr.
3. Members A/c	Dr.	600	
To Moon Ltd.			600

(Being allotment by Moon Ltd. of 60 crore equity shares of ₹ 10 each to the members of the company in the ratio of 4 equity shares of Moon Ltd. for every 5 equity shares held in the company)

4. Members A/c	Dr.	600	
To Capital Reserve A/c			600

(Being balance in Members A/c transferred to capital reserve)

5. Sun Ltd. A/c	Dr.	30	
Provision for Depreciation A/c	Dr.	90	
Secured loans against Fixed Assets A/c	Dr.	900	
Secured loans against working capital A/c	Dr.	300	
Current liabilities A/c	Dr.	5,100	
To Fixed Assets A/c			1,800
To Current Assets A/c			4,500
To Capital Reserve A/c			120

(Being assets and liabilities of new project division transferred to Sun Ltd. along with capital commitments of ₹ 2,100 crores, the difference between consideration and the book values at which transferred assets and liabilities appeared being credited to capital reserve)

6. Equity shares of Sun Ltd.	Dr.	30	
To Sun Ltd. A/c			30

(Being the receipt of one crore equity shares of ₹ 10 each from Sun Ltd. in full discharge of consideration on transfer of assets and liabilities of the new project division)

7. Investment in debentures A/c	Dr.	1,500	
To Bank A/c			1,500

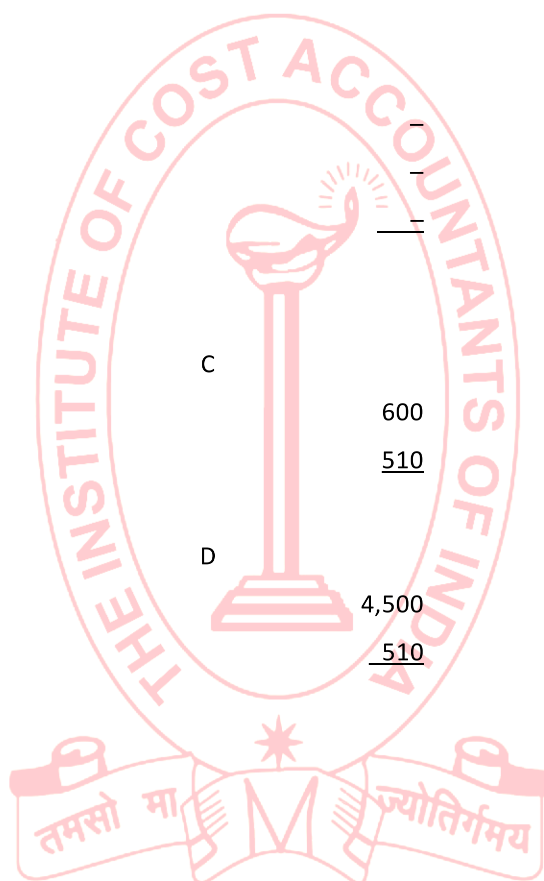
(Being issue of unsecured convertible debentures by Sun Ltd., subscribed in full)

8. Revenue reserves A/c	Dr.	750	
To Equity share capital A/c			750

(Being allotment of 75 crores equity shares of ₹ 10 each as fully paid bonus shares to the members of the company by using revenue reserves in the ratio of one equity share for every equity share held)

River Ltd.

Balance Sheet after the scheme of arrangement



	Schedule No.		(₹ in crores)
I SOURCES OF FUNDS			
(1) Shareholders' funds:			
(a) Capital	A	1,500	
(b) Reserves and surplus	B	2,220	
			3,720
(2) Loan funds:			
(a) Secured against:			
Fixed assets		–	
Working capital		–	
(b) Unsecured		–	–
TOTAL			3,720
II APPLICATION OF FUNDS			
(1) Fixed assets:	C		
(a) Gross block		600	
(b) Less: Depreciation		510	
(c) Net block			90
(2) Investments	D		30
(3) Current assets		4,500	
Less: Current liabilities		510	
Net current assets			3,600
TOTAL			3,720
1. Capital commitments			Nil
2. Contingent Liability			
Guarantee given in respect of:			
Capital commitments by Sun Ltd.			2,100
Liabilities transferred to Sun Ltd.			6,300
Liabilities transferred to Moon Ltd.			1,800

Schedules to Accounts

			(₹ in crores)
A.	**Share Capital:**		
	Authorised:		
	300 crores Equity Shares of ₹ 10 each		3,000
	Issued, Subscribed and Paid-up:		
	150 crores Equity Shares of ₹ 10 each fully paid-up		1,500
	Of the above shares, 75 crores fully paid		
	Equity Shares of ₹ 10 each have been issued as bonus shares by capitalization of revenue reserves.		
B.	**Reserves and Surplus:**		
	Capital Reserve on transfer of:		
	Investments to Moon Ltd.		600
	Business of New project division to Sun Ltd.		120
			720
	Revenue Reserves:		
	As per last balance sheet	2,250	
	Less: Used for issue of fully paid bonus shares	750	1,500
			2,220
C.	**Fixed assets:**		
	Gross block:		
	As per last balance sheet	2,400	
	Less: Transfer to Sun Ltd.	1,800	600
	Provision for depreciation:		
	As per last balance sheet	600	
	Less: In respect of assets		
	transferred to Sun Ltd.	90	510
			90
D.	**Investments (at cost):**		
	In wholly owned subsidiary Sun Ltd.		
	(a) 3 crore equity shares of ₹ 10 each		30
	(b) 15% unsecured convertible debentures		1,500
			1,530

Balance Sheet of Sun Ltd. after the scheme of arrangement

	Schedule No.			(₹ in crores)
I. SOURCES OF FUNDS				
(1) Shareholders' funds:				
(a) Capital	A		30	
(b) Reserves and surplus			–	10
(2) Loan funds:				
(a) Secured loans	B		1,200	
(b) Unsecured loans	C		1,500	
				2,700
TOTAL				2,730
II. APPLICATION OF FUNDS				
(1) Fixed assets:				
(a) Goodwill			120	
(b) Other fixed assets			1,710	
				1,830
(2) Investments				–
(3) Current Assets :				
(a) Bank balance		1,500		
(b) Others		4,500		
			6,000	
Less: Current liabilities			5,100	
				900
TOTAL				2,730
1. Capital commitments				
2. Guarantee given by River Ltd. in respect of:				
Capital commitments			2,100	
Liabilities			6,300	
				8,400

Schedules to Accounts (₹ in crores)

A	Share Capital	
	Authorised	
	300 crores Equity Shares of ₹ 10 each	3,000
	Issued, Subscribed and Paid-up	
	3 crore Equity Shares of ₹ 10 each fully paid-up	30
	(All the above shares have been issued for consideration other than cash, on takeover	

of new project division from River Ltd.

All the above shares are held by the holding company River Ltd.)

B	Secured Loans	
	(a) Against fixed assets	900
	(b) Against working capital	300
		1,200
C	Unsecured Loans	
	15% Unsecured convertible Debentures	1,500
	(Convertible into equity shares of	
	₹ 10 each at par on 31.3.2012)	

Balance Sheet of Moon Ltd. after the scheme of arrangement

	Schedule No.		(₹ in crores)
SOURCES OF FUNDS			
(1) Shareholders' funds:			
(a) Capital	A	600	
(b) Reserves and surplus		–	
			600
(2) Loan funds:			
(a) Secured loans		–	
(b) Unsecured loans		1,800	
			1,800
TOTAL			2,400
APPLICATION OF FUNDS			
Investments			2,400
TOTAL			2,400
Guarantee given by River Ltd. in respect of unsecured loans			1,800

Schedule to Accounts

		(₹ in crores)
A	Share Capital	
	Authorised	
	150 crores Equity Shares of ₹ 10 each	1,500
	Issued, Subscribed and Paid-up	
	60 crores Equity Shares of ₹ 10	600
	each fully paid-up	

(All the above shares have been issued to members of River Ltd. for consideration other than cash, on acquisition of investments and taking over of liability for unsecured loans from River Ltd.)

Working Notes:

(₹ in crores)

1.

	Established Division	New Project Division	Total
Fixed assets:			
Gross block	600	180	2,400
Less: Depreciation	510	90	600
	90	1,710	1,800
Current assets	4,500	4,500	9,000
Less: Current liabilities	900	5,100	6,000
Employment of funds	3,000	(600)	3,000

2. Guarantee by River Ltd. against:

(a) (i) Capital commitments		700
(ii) Liabilities transferred to Sun Ltd.		
Secured loans against fixed assets	900	
Secured loans against working capital	300	
Current liabilities	5,100	
		6,300
(b) Liabilities transferred to Moon Ltd.		1,800

Question 14

Globetrotters Ltd. has two divisions – 'Inland' and 'International'. The Balance Sheet as at 31st December, 2011 was as under:

	(₹ crores)	International (₹ crores)	Total (₹ crores)
Fixed Assets:			
Cost	300	300	600
Depreciation	250	100	350
W.D.V. (written down value)	50	200	250
Net Current Assets:			
Current assets	200	150	350
Less: Current liabilities	100	100	200
	100	50	150
	150	250	400
Financed by:			
Loan funds:	–	50	50
(Secured by a charge on fixed assets)			
Own Funds:			
Equity capital (fully paid up ₹ 10 shares)			25
Reserves and surplus			325
	?	?	350
	150	250	400

It is decided to form a new company 'Beautiful World Ltd.' for international tourism to take over the assets and liabilities of international division.

Accordingly 'Beautiful World Ltd.' was formed to takeover at Balance Sheet figures the assets and liabilities of international division. 'Beautiful World Ltd.' is to allot 2.5 crore equity shares of ₹ 10 each in the company to the members of 'Globetrotters Ltd.' in full settlement of the consideration. The members of 'Globetrotters Ltd.' are therefore to become members of 'Beautiful World' as well without having to make any further investment.

(a) You are asked to pass journal entries in relation to the above in the books of 'Globetrotters Ltd.' and also in 'Beautiful World Ltd'. Also show the Balance Sheets of both the companies as on 1st January, 2012 showing corresponding figures, before the reconstruction also.

(b) The directors of both the companies ask you to find out the net asset value of equity shares pre and post-demerger.

(c) Comment on the impact of demerger on "shareholders wealth".

Solution:

(a) **Journal of Globetrotters Ltd.** (₹ in crores)

Particulars		Dr. ₹	Cr. ₹
Current liabilities A/c	Dr.	100	
Loan fund (secured) A/c	Dr.	50	
Provision for depreciation A/c	Dr.	100	
Loss on reconstruction A/c (Balancing figure)	Dr.	200	
To Fixed assets A/c			300
To Current assets A/c			150
(Being the assets and liabilities of International division taken out of the books on transfer of the division to Beautiful World Ltd.; the consideration being allotment to the members of the company of one equity share of ₹ 10 each of that company at par for every share held in the company vide scheme of reorganisation)			

Journal of Beautiful World Ltd. (₹ in crores)

		Dr. ₹	Cr. ₹
Fixed assets A/c (400 – 100)	Dr.	200	
Current assets A/c	Dr.	150	
To Current liabilities A/c			100
To Loan funds (secured) A/c			50
To Equity share capital A/c			25
To Capital reserve A/c			175
(Being the assets and liabilities of International division of Globetrotters Ltd. taken over by Beautiful World Ltd. and allotment of 5 crore equity shares of ₹ 10 each at par as fully paid up to the members of Globetrotters Ltd.)			

Globetrotters Ltd.
Balance Sheet as on 1st January, 2012

(₹ in crores)

			After reconstruction		Before reconstruction	
I.	SOURCES OF FUNDS					
	(1) Shareholders' Funds					
		(a) Capital	25		25	
		(b) Reserves and Surplus (Schedule A)	125		325	
				150		350
	(2) Loans Funds					
		Secured Loans		–		50
		Total		150		400
II.	APPLICATION OF FUNDS					
	(1) Fixed Assets					
		(a) Gross Block	300		600	
		(b) Less: Depreciation	250		350	
		(c) Net block		50		250
	(2) Investments			–		–
	(3) Current Assets		200		350	
		Less: Current liabilities	100		200	
		Net current assets		100		150
		Total		150		400

Schedule to Balance Sheet

(₹ in crores)

	After reconstruction	Before reconstruction
A. Reserves and surplus	325	325
Less: Loss on reconstruction	200	–
	125	325

Note to Accounts: Consequent to reconstruction of the company and transfer of international division of Globetrotters Ltd. to newly incorporated Company Beautiful World Ltd., the members of the company have been allotted 5 crore equity shares of ₹ 10 each at par of 'Beautiful World Ltd.'

Beautiful World Ltd.
Balance Sheet as on January 1, 2012

(₹ in crores)

I.	SOURCES OF FUNDS			
	(1) Shareholder's Funds			
		(a) Capital (Schedule A)	25	
		(b) Reserves and Surplus	325	350
	(2) Loans Funds			
		Secured Loans		50
		Total		250
II.	APPLICATION OF FUNDS			
	(1) Fixed Assets			200
	(2) Investments			–
	(3) Current Assets		150	

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Less: Current Liabilities		100	
Net Current Assets			50
	Total		250

Schedule to Balance Sheet

(₹ in crores)

A.	Share Capital:	
	Issued and paid up capital:	
	2.5 crore equity shares of ₹ 10 each fully paid up	25
	(All the above equity shares have been issued for consideration other than cash to the members of Travels and Tours Ltd. on takeover of International division.)	

(b) Net Asset Value of an equity share

	Pre-Demerger	Post-Demerger
Globetrotters Ltd.	$\frac{\text{Rs. 350 crores}}{\text{2.5 crore shares}}$	$\frac{\text{Rs. 150 crores}}{\text{2.5 crore shares}}$
	= ₹ 140	= ₹ 60
Beautiful World Ltd.	–	$\frac{\text{Rs. 200 crores}}{\text{2.5 crore shares}}$
		= ₹ 80

(c) Demerger into two companies has no impact on 'net asset value' of shareholding. Pre-demerger, it was ₹ 140 per share. After demerger, it is ₹ 60 + ₹ 80 = ₹ 140 per original share.

It is only the yield valuation that is expected to change because of separate focusing on two distinct businesses whereby profitability is likely to improve on account of de-merger.

Question 15

A Ltd. and B Ltd. were amalgamated on and from 1st April, 2011. A new company C Ltd. was formed to take over the business of the existing companies. The Balance Sheets of A Ltd. and B Ltd. as on 31st March, 2012 are given below:

(₹. in lakhs)

Liabilities	A Ltd.	B Ltd.	Assets	A Ltd.	B Ltd.
Share Capital			Fixed Assets		
Equity Shares of ₹ 100 each	1,200	1,125	Land and Building	825	600
12% Preference shares of ₹ 100 each	450	300	Plant and Machinery	525	375
Reserves and Surplus			Investments	235	75
Revaluation Reserve	225	150	Current Assets, Loans and Advances		
General Reserve	255	225			
Investment Allowance Reserve	75	75	Stock	525	375
Profit and Loss Account	75	45	Sundry Debtors	375	450
Secured Loans			Bills Receivable	75	75
10% Debentures (₹ 100 each)	90	45	Cash and Bank	450	300

Current Liabilities and provisions					
Sundry Creditors	405	180			
Bills Payable	225	105			
	3,000	2,250		3,000	2,250

Additional Information:

(1) 10% debenture-holders of A Ltd. and B Ltd. are discharged by C Ltd. issuing such number of its 15% Debentures of ₹ 100 each so as to maintain the same amount of interest.

(2) Preference shareholders of the two companies are issued equivalent number of 15% preference shares of C Ltd. at a price of ₹ 150 per share (face value of ₹ 100).

(3) C Ltd. will issue 5 equity shares for each equity share of A Ltd. and 4 equity shares for each equity share of B Ltd. The shares are to be issued @ ₹ 30 each, having a face value of ₹ 10 per share.

(4) Investment allowance reserve is to be maintained for 4 more years.

Prepare the Balance Sheet of C Ltd. as on 1st April, 2012 after the amalgamation has been carried out on the basis of Amalgamation in the nature of purchase.

Solution:

Balance Sheet of C Ltd. as at 1st April, 2012

(₹ In lakhs)

Liabilities	Amount	Assets	Amount
SHARE CAPITAL		FIXED ASSETS	
1,05,00,000 Equity shares of ₹10 each	1,050	Goodwill	30
7,50,000 Preference shares of ₹ 100 each (all the above shares are allotted as fully paid-up pursuant to contracts without payment being received in cash)	750	Land and Building	1,425
		Plant and Machinery	900
		INVESTMENTS	300
		CURRENT ASSETS, LOANS AND ADVANCES	
RESERVES AND SURPLUS		A. Current Assets	
Securities Premium Account	2,475	Stock	900
Investment Allowance Reserve	150	Sundry debtors	825
SECURED LOANS		Cash and Bank	750
15% Debentures	90	B. Loans and Advances	
UNSECURED LOANS	–	Bills Receivable	150
CURRENT LIABILITIES AND PROVISIONS		MISCELLANEOUS EXPENDITURE (to the extent not written off or adjusted)	
A Current Liabilities		Amalgamation Adjustment Account	150
Acceptances	330		
Sundry Creditors	585		
B Provisions	–		
	5,430		5,430

Working Notes:

			(₹ in lakhs)	
			A Ltd.	B Ltd.
(1)	Computation of Purchase consideration			
	(a) Preference shareholders:			
	$\left(\frac{4,50,00,000}{100}\text{ i.e. }4,50,000\text{ shares}\right)\times\text{Rs. }150\text{ each}$		675	
	$\left(\frac{3,00,00,000}{100}\text{ i.e. }3,00,000\text{ shares}\right)\times\text{Rs. }150\text{ each}$			450
	(b) Equity shareholders:			
	$\left(\frac{12,00,00,000\times 5}{100}\text{ i.e. }60,00,000\text{ shares}\right)\times\text{Rs. }30\text{ each}$		1,800	
	$\left(\frac{11,25,00,000\times 4}{100}\text{ i.e. }45,00,000\text{ shares}\right)\times\text{Rs. }30\text{ each}$		_____	1,350
	Amount of Purchase Consideration		2,475	1,750

		A Ltd.		B Ltd.	
(2)	Net Assets Taken Over				
	Assets taken over:				
	Land and Building		825		600
	Plant and Machinery		525		375
	Investments		25		75
	Stock		525		375
	Sundry Debtors		375		450
	Bills receivable		75		75
	Cash and bank		450		300
			3,000		2,250
	Less: Liabilities taken over:				
	Debentures	60		30	
	Sundry Creditors	405		180	
	Bills payable	225		105	
			460		315
	Net assets taken over		1,540		1,935
	Purchase consideration		1,650		1,800
	Goodwill		165		_____
	Capital reserve				135

Note: Since Investment Allowance Reserve is to be maintained for 4 more years, it is carried forward by a corresponding debit to Amalgamation Adjustment Account in accordance with AS-14.

Question 16

D Ltd. and Y Ltd. decide to amalgamate and to form a new company DY Ltd. The following are their balance sheets as at 31.3.2012:

Liabilities	D Ltd.	Y Ltd.	Assets	D Ltd.	Y Ltd.
Share Capital			Fixed Assets	3,75,000	1,00,000
(₹ 100) each	5,00,000	3,00,000	Investments:		
General Reserve	50,000	25,000	750 Shares in Y Ltd	1,75,000	–
Investment Allowance			2,000 Shares in D		2,50,000
Reserve		15,000	Ltd	–	
20,000					
12% Debentures			Current Assets	4,00,000	1,00,000
(₹ 100 each)	1,50,000	50,000			
Sundry Creditors	30,000	10,000			
	75,00,000	4,00,000		7,50,000	4,00,000

Calculate the amount of purchase consideration for D Ltd. and Y Ltd. and draw up the balance sheet of DY Ltd. after considering the following:

(a) Fixed assets of D Ltd. are to be reduced by ₹ 25,000 and that of Y Ltd. are to be taken at ₹ 1,50,000.

(b) 12% debentureholders of D Ltd. and Y Ltd. are discharged by DY Ltd. by issuing such number of its 15% debentures of ₹ 100 each so as to maintain the same amount of interest.

(c) Shares of DY Ltd. are of ₹ 100 each.

Solution:

Calculation of Purchase consideration

(i) Value of Net Assets of D Ltd. and Y Ltd. as on 31st March, 2012

		D Ltd. ₹		Y Ltd. ₹
Assets taken over:				
Fixed Assets	3,50,000		1,50,000	
Current Assets	2,00,000	5,50,000	50,000	2,00,000
Less: Liabilities taken over:				
Debentures	1,20,000*		40,000**	
Sundry Creditors	30,000	1,50,000	10,000	50,000
		4,00,000		1,50,000

$$* \ 1,50,000 \times \frac{12}{100} \times \frac{100}{15} = \text{Rs.}1,20,000$$

$$** \ 50,000 \times \frac{12}{100} \times \frac{100}{15} = \text{Rs.}40,000$$

(ii) Value of Shares of D Ltd. and Y Ltd.

The value of shares of D Ltd. is ₹ 4,00,000 plus 1/4 of the value of the shares of Y Ltd.

Similarly, the value of shares of Y Ltd. is ₹ 1,50,000 plus 2/5 of the value of shares of D Ltd.

Let a denote the value of shares of D Ltd. and m denote the value of shares of Y Ltd. then

a = 4,00,000 + 1/4 m ; and

m = 1,50,000 + 2/5 a.

Substituting the value of m,

a = 40,000 + 1/4 (1,50,000 + 2/5 a)

a = 4,00,000 + 37,500 + 1/10 a

9/10 a = 4,37,500

a = 4,86,111

m = 1,50,000 + 2/5 (4,86,111)

m = 3,44,444

(iii) Amount of Purchase Consideration

	D Ltd.	Y Ltd.
	₹	₹
Total value of shares (as determined above)	4,86,112	3,44,444
Less: Internal investments:		
2/5 for shares held by Y Ltd.	1,94,445	
1/4 for shares held by D Ltd.	________	86,111
Amount due to outsiders	2,91,667	2,58,333

Purchase Consideration will be satisfied by DY Ltd. as follows:

	D Ltd.	Y Ltd.
	₹	₹
In shares (of ₹ 100 each)	2,91,600	2,58,300
In cash	67	33

(iv) Net Amount of Goodwill/Capital Reserve

	₹	₹
Total Purchase Consideration		
D Ltd.	2,91,667	
Y Ltd.	2,58,333	5,50,000
Less: Net Assets taken over		
D Ltd.	4,00,000	
Y Ltd.	1,50,000	5,50,000
		Nil

(Alternatively, the calculations may be made separately for both the companies)

Balance Sheet of DY Ltd. as at 31st March, 2012

Liabilities	Amount	Assets	Amount
	₹		₹
Share Capital 5,499 shares of ₹ 100 each	5,49,900	Goodwill	–
(All the above shares are allotted as fully paid-up for consideration other than cash)		Fixed Assets	5,00,000
		Investments	–
Investment Allowance Reserve	35,000	Current Assets	2,49,900

15% Debentures	1,60,000	(2,50,000 – 67 – 33)	
Sundry Creditors	40,000	Miscellaneous Expenditure (to the extent not written off or adjusted): Amalgamation Adjustment Account	35,000
	7,84,900		7,84,900

Question 17: The following are the Balance Sheets of M Ltd. and B Ltd. as on 31st December, 2011:

Liabilities	M Ltd.	B Ltd.	Assets	M Ltd.	B Ltd.
	₹	₹		₹	₹
Share Capital Equity Shares of ₹ 10 each	12,00,000	6,00,000	Fixed Assets Investment:	14,00,000	5,00,000
10% Pref. Shares of ₹ 100 each	4,00,000	2,00,000	12,000 Shares of B Ltd.	1,60,000	–
			5,000 Shares of M Ltd.	–	1,60,000
Reserves and Surplus	6,00,000	4,00,000			
Secured Loans:			Current Assets:		
12% Debentures	4,00,000	3,00,000	Stock	4,80,000	6,40,000
Current Liabilities:			Debtors	7,20,000	3,80,000
Sundry Creditors	4,40,000	2,50,000	Bills Receivable	1,20,000	40,000
Bills Payable	60,000	50,000	Cash at Bank	2,20,000	80,000
	31,00,000	18,00,000		31,00,000	18,00,000

Fixed Assets of both the companies are to be revalued at 15% above book value. Stock in Trade and Debtors are taken over at 5% lesser than their book value. Both the companies are to pay 10% Equity dividend, Preference dividend having been already paid.

After the above transactions are given effect to, M Ltd. will absorb B Ltd. on the following terms:

(i) 8 Equity Shares of ₹ 10 each will be issued by M Ltd. at par against 6 shares of B Ltd.

(ii) 10% Preference Shareholders of B Ltd. will be paid at 10% discount by issue of 10% Preference Shares of ₹ 100 each at par in M Ltd.

(iii) 12% Debentureholders of B Ltd. are to be paid at 8% premium by 12% Debentures in M Ltd. issued at a discount of 10%.

(iv) ₹ 60,000 is to be paid by M Ltd. to B Ltd. for Liquidation expenses. Sundry Creditors of B Ltd. include ₹ 10,000 due to M Ltd.

Prepare:

(a) Absorption entries in the books of M Ltd.

(b) Statement of consideration payable by M Ltd.

Solution:

(a) **Absorption Entries in the Books of M Ltd.**

		Dr.	Cr.
		₹	₹
Fixed Assets	Dr.	2,10,000	
To Revaluation Reserve			2,10,000
(Revaluation of fixed assets at 15% above book value)			
Bank Account	Dr.	12,000	
To Reserves and Surplus			12,000
(Dividend received from B Ltd. on 6,000 shares)			
Reserve and Surplus	Dr.	1,20,000	
To Equity Dividend			1,20,000
(Declaration of equity dividend @ 10%)			
Equity Dividend	Dr.	1,20,000	
To Bank Account			1,20,000
(Payment of equity dividend)			
Business Purchase Account	Dr.	7,20,000	
To Liquidator of B Ltd.			7,20,000
(Consideration payable for the business taken over from B Ltd.)			
Fixed Assets (115% ₹ 5,00,000)	Dr.	5,75,000	
Stock (90% ₹ 6,40,000)	Dr.	6,08,000	
Debtors	Dr.	3,80,000	
Bills Receivable	Dr.	40,000	
Cash at Bank (₹ 80,000 – ₹ 60,000 dividend paid + ₹ 10,000 dividend received)	Dr.	30,000	
To Provision for Bad Debts (5% of ₹. 3,80,000)			19,000
To Sundry Creditors			2,50,000
To 12% Debentures in B Ltd.			3,24,000
To Bills Payable			50,000
To Business Purchase Account			7,80,000
To Investments in B Ltd.			1,60,000
To Capital Reserve (Balancing figure)			50,000
(Incorporation of various assets and liabilities taken over from B Ltd. at agreed values and cancellation of investment in B Ltd. account, profit being credited to capital reserve)			
Liquidator of B Ltd.	Dr.	7,20,000	

To Equity Share Capital			5,40,000
To 10% Preference Share Capital			1,80,000
Discharge of consideration for B Ltd.'s business)			
Capital Reserve	Dr.	60,000	
To Bank Account			60,000
(Payment of liquidation expenses)			
12% Debentures in B Ltd. (₹ 3,00,000 × 108%)	Dr.	3,24,000	
Discount on Issue of Debentures	Dr.	36,000	
To 12% Debentures			3,60,000
(Allotment of 12% Debentures to debenture holders at a discount of 10% to discharge the liability on B Ltd. debentures)			
Sundry Creditors	Dr.	20,000	
To Sundry Debtors			20,000
(Cancellation of mutual owing)			

(b) Statement of Consideration payable by M Ltd.

For equity shares held by outsiders

Shares held by them 60,000 – 12,000 = 48,000

Shares to be allotted $\frac{48,000}{6} \times 8 =$ 64,000

as 10,000 shares are already will B Ltd; i.e. M Ltd. will now issue only 54,000 shares of ₹ 10 each i.e 54,000 ₹ (i).

For 10% preference shares, to be paid at 10% discount

₹. 2,00,000 × $\frac{90}{100}$ 1,80,000 (ii)

Consideration amount [(i) + (ii)] 7,20,000

Note: It has been assumed that dividend on equity shares have been paid by both the companies.

Question 18: The following are the Balance Sheets of RS Ltd. and XY Ltd. as on 31.3.2012: (` in '000s)

Liabilities	RS Ltd. ₹	XY Ltd. ₹	Assets	RS Ltd. ₹	XY Ltd. ₹
Share Capital:			Fixed Assets net of depreciation	8,100	2,550
Equity Shares of ₹ 100 each fully paid up	6,000	3,000	Investments	2,100	–
Reserves and Surplus	2,400	–	Sundry Debtors	1,200	450
10% Debentures	1,500	–	Cash and Bank	750	–
Loan from Financial Institutions	750	1,200	Profit and Loss Account	–	2,400
Bank Overdraft	–	300			
Sundry Creditors	900	900			
Proposed Dividend	600	—			
	12,150	5,400		12,150	5,400

It was decided that XY Ltd. will acquire the business of RS Ltd. for enjoying the benefit of carry forward of business loss. After acquisition, XY Ltd. will be renamed as XYZ Ltd. The following scheme has been approved for the merger:

(i) XY Ltd. will reduce its shares to ₹ 10 and then consolidate 10 such shares into one share of ₹ 100 each (New Share).

(ii) Financial institutions agreed to waive 15% of the loan of XY Ltd.

(iii) Shareholders of RS Ltd. will be given one new share of XY Ltd. in exchange of every share held in RS Ltd.

(iv) RS Ltd. will cancel 20% holding of XY Ltd. Investments were held at ₹ 750 thousands.

(v) After merger the proposed dividend of RS Ltd. will be paid to the shareholders of RS Ltd.

(vi) Authorised Capital of XY Ltd. will be raised accordingly to carry out the scheme.

(vii) Sundry creditors of XY Ltd. includes payable to RS Ltd. ₹ 3,00,000.

Pass the necessary entries to implement the scheme in the books of RS Ltd. and XY Ltd. and prepare a Balance Sheet of XYZ Ltd.

Solution:

Journal Entries in the books of RS Ltd.

(₹ '000)

		Dr. ₹	Cr. ₹
10% Debentures A/c	Dr.	1,500	
Loan from Financial Institutions A/c	Dr.	750	
Sundry Creditors A/c	Dr.	900	
Proposed Dividend A/c	Dr.	600	
Realisation A/c	Dr.	8,400	
To Fixed Assets A/c			8,100
To Investments A/c			2,100
To Sundry Debtors A/c			1,200
To Cash and Bank A/c			750
(Transfer of assets and liabilities to realisation account)			
Share Capital A/c	Dr.	6,000	
Reserve and Surplus A/c	Dr.	2,400	
To Equity Shareholders A/c			8,400
(Transfer of share capital, reserve and surplus to shareholders account)			
Equity Shareholders A/c	Dr.	750	
To Realisation A/c			750
(Cancellation of 20% holding of XY Ltd. held as investments)			
Shares in XYZ Ltd.	Dr.	6,000	
To Realisation A/c			6,000
(Issue of shares by XYZ Ltd. in the ratio of 1 : 1)			
Equity Shareholders A/c	Dr.	1,650	
To Realisation A/c			1,650
(Transfer of loss on realisation)			

Particulars		Dr.	Cr.
Equity Shareholders A/c	Dr.	6,000	
To Shares in XYZ Ltd.			6,000
(Distribution of Shares of XYZ Ltd. among the shareholders)			

Journal Entries in the books of XY Ltd.

(₹ '000)

Particulars		Dr. ₹	Cr. ₹
Equity Share Capital (Face value – ₹ 100) A/c	Dr.	3,000	
To Equity Share Capital (Face value – ₹ 10) A/c			300
To Reconstruction A/c			2,700
(Face value of equity shares of ₹ 100 each reduced to ₹ 10 each)			
Equity Share Capital (Face value – ₹ 10 each) A/c	Dr.	300	
To Equity Share Capital A/c (Face value – ₹ 100 each)			300
(Consolidation of 30,000 equity shares of ₹ 10 each to 3,000 equity shares of ₹ 100 each)			
Loan from Financial Institutions A/c	Dr.	180	
To Reconstruction A/c			180
(Waiver of 15%of loan by financial institutions)			
Reconstruction A/c (2,700 + 180)	Dr.	2,880	
To Profit and Loss A/c			2,400
To Capital Reserve			480
(Balance of Reconstruction account availed to write off the Profit and Loss Account)			
Proposed Dividend A/c	Dr.	600	
To Bank A/c			600
(Payment of Proposed dividend to shareholders of RS Ltd.)			
Fixed Assets A/c	Dr.	8,100	
Other Investments A/c	Dr.	1,350	
Sundry Debtors A/c	Dr.	1,200	
Cash and Bank A/c	Dr.	750	
To Reserves A/c			1,710
To 10% Debentures A/c			1,500
To Loan from Financial Institutions A/c			750
To Sundry Creditors A/c			900
To Proposed Dividend A/c			600
To Business Purchase A/c			5,940
(Incorporation of various assets and liabilities acquired from RS Ltd. after cancellation of investment held by RS Ltd. in XY Ltd., profit on acquisition credited to Reserves Account)			
Business Purchase A/c	Dr.	5,940	
To Liquidator of RS Ltd.			5,940

(Consideration Payable on business acquired from RS Ltd.)			
Liquidator of RS Ltd.	Dr.	5,940	
To Equity Share Capital of XYZ Ltd.			5,940
(Discharge of purchase consideration in the form of equity shares of XYZ Ltd.)			
Sundry Creditors A/c	Dr.	300	
To Sundry Debtors A/c			300
(Cancellation of intercompany owings)			

Balance Sheet of XYZ Ltd. as on 31st March, 2012 (immediately after acquisition)

(₹ in 000's)

Liabilities	₹	Assets	₹
Share Capital:		Fixed Assets net of depreciation	10,650
62,400 Equity Shares @ ₹ 100		Investments	1,350
each (5,940 + 60 + 240)	6,240	Sundry Debtors	1,350
Capital Reserve	1,680		
General Reserve	1,710		
10% Debentures	1,500		
Loan from financial institutions	1,770		
Bank Overdraft (300 – 750 + 600)	150		
Sundry Creditors	1,500		
	13,350		13,350

Working Notes:

		₹
1.	Original Share Capital of XY Ltd.	
	30,000 Equity Shares of ₹ 100 each	30,00,000
	Share Capital of XY Ltd. after Reduction	
	30,000 Equity Shares of ₹ 10 each	3,00,000
2.	Share Capital of XY Ltd. after Reconsolidation	
	3,000 Equity Shares of ₹ 100 each	3,00,000
3.	Reduced value of holdings of RS Ltd. in XY Ltd.	
	RS Ltd. was holding 20% of XY Ltd., that is,	
	6,000 Equity Shares of ₹ 100 each	6,00,000
	which has now reduced to 600 Equity Shares of ₹ 100 each	60,000

4.

Calculation of Purchase Consideration

Equity Share Capital of RS Ltd. 60,000 Equity Shares of ₹ 100 each		60,00,000
Exchange Ratio = 1 : 1		
No. of Equity Shares to be given	60,000	
Less: No. of Equity Shares already held by RS Ltd.	600	
	59,400	
Purchase consideration		
59,400 Equity Shares of ₹ 100 each		59,40,000

5. Aggregate Reserves in the new company on acquisition

Reserves of RS Ltd. acquired		24,00,000
Less: Loss on investments held by RS Ltd.		
Value of investments cancelled	7,50,000	
Less: Reduced value of shares of XY Ltd.	60,000	6,90,000
Amount of Reserves to be carried to Balance Sheet		17,10,000

6. Share Capital in Combined Balance Sheet of XYZ Ltd.

Holding of RS Ltd. (600 Equity Shares @ ₹. 100 each)	60,000
Other Existing Shares (2400 Equity Shares of ₹. 100 each)	2,40,000
Given as Purchase Consideration (59,400 equity shares @ ₹.100 each)	59,40,000
	62,40,000

7. It has been assumed that the bank overdraft and cash balance can be netted of.

Question 19: The Balance Sheet of MM Ltd. on 31st March, 2012 is as under:

Liabilities	₹	Assets	₹
Authorised, issued equity share capital		Goodwill	5,00,000
50,000 shares of ₹ 100 each	50,00,000	Plant and machinery	45,00,000
25,000 preference shares (7%) of		Stock	7,50,000
₹ 100 each	25,00,000	Debtors	18,75,000
Sundry creditors	18,75,000	Preliminary expenses	2,50,000
Bank overdraft	7,50,000	Cash	3,75,000
		Profit and loss account	17,50,000
	1,00,00,000		1,00,00,000

Two years' preference dividends are in arrears. The company had bad time during the last two years and hopes for better business in future, earning profit and paying dividend provided the capital base is reduced.

An internal reconstruction scheme as follows was agreed to by all concerned:

(i) Creditors agreed to forego 50% of the claim.

(ii) Preference shareholders withdrew arrear dividend claim. They also agreed to lower their capital claim by 20% by reducing nominal value in consideration of 9% dividend effective after reorganization in case equity shareholders' loss exceed 50% on the application of the scheme.

(iii) Bank agreed to convert overdraft into term loan to the extent required for making current ratio equal to 2 : 1.

(iv) Revalued figure for plant and machinery was accepted as ₹. 37,50,000.

(v) Debtors to the extent of ₹. 10,00,000 were considered good.

(vi) Equity shares shall be exchanged for the same number of equity shares at a revised denomination as required after the reorganisation.

Show:

(a) Total loss to be borne by the equity and preference shareholders for the reorganization;

(b) Share of loss to the individual classes of shareholders;

(c) New structure of share capital after reorganization;

(d) Working capital of the reorganized Company; and

(e) A proforma balance sheet after reorganization.

Solution:

(a) Loss to be borne by Equity and Preference Shareholders

	₹
Profit and loss account (debit balance)	18,75,000
Preliminary expenses	2,50,000
Goodwill	5,00,000
Plant and machinery (₹ 45,00,000 – ₹ 37,50,000)	7,50,000
Debtors (₹ 18,75,000 – ₹ 10,00,000)	8,75,000
Amount to be written off	41,25,000
Less: 50% of sundry creditors	8,75,000
Total loss to be borne by the equity and preference shareholders	32,50,000

(b) Share of loss to preference shareholders and equity shareholders

Total loss of ₹ 32,00,000 being more than 50% of equity share capital i.e. ₹ 25,00,000.

Preference shareholders' share of loss = 20% of ₹ 25,00,000	= ₹ 5,00,000
Equity shareholders' share of loss (₹ 32,50,000 – ₹ 5,00,000)	= ₹ 27,50,000
Total loss	₹ 32,50,000

(c) New structure of share capital after reorganisation

	₹
Equity shares:	
50,000 equity shares of ₹ 45 each, fully paid up (₹ 50,00,000 – ₹ 27,50,000)	22,50,000
Preference shares:	
25,000, 9% preference shares of ₹ 80 each, fully paid up (₹ 25,00,000 – ₹ 5,00,000)	20,00,000
	42,50,000

(d) Working capital of the reorganized company

	₹.	₹.
Current Assets:		
Stock		7,50,000
Debtors		10,00,000
Cash		3,75,000
		21,25,000
Less: Current liabilities:		
Creditors	8,75,000	

Bank overdraft	1,87,500	10,62,500
Working capital		10,62,500

Note:
Current ratio shall be 2 : 1, i.e. total current liabilities shall be 50% of Rs. 21,25,000 (i.e. Rs. 6,00,000 + 8,00,000 + 3,00,000) = Rs. 8,50,000. Therefore, Bank overdraft = Rs. 1,50,000 (Rs. 8,50,000 less creditors Rs. 7,00,000).

(e) Balance Sheet of MM Ltd. (and reduced) as on 31st March, 2012

Liabilities	₹	Assets	₹
Share Capital Authorised (issued and paid up)		Fixed Assets	
50,000 equity shares of ₹ 45 each	22,50,000	Plant and Machinery	37,50,000
25,000, 9% preference shares of ₹ 80 each	20,00,000	Current Assets	
Unsecured loan		Stock	7,50,000
Term loan with Bank	4,50,000	Debtors	10,00,000
Current liabilities		Cash	3,75,000
Bank overdraft	1,50,000		
Creditors	8,75,000		
	58,75,000		58,75,000

Question 20: The Balance Sheets of Spring Ltd. and its subsidiary Winter Ltd. as on 31st March, 2011 are as under:

Liabilities	Spring Ltd. ₹	Winter Ltd. ₹	Assets	Spring Ltd. ₹	Winter Ltd. ₹
Equity shares of ₹ 10 each	4,80,000	2,00,000	Goodwill	45,000	30,000
10% Preference shares of ₹ 10 each	70,000	38,000	Plant and machinery	1,20,000	50,000
General reserve	55,000	42,000	Motor vehicles	95,000	75,000
Profit and loss account	1,00,000	60,000	Furniture and fittings	65,000	40,000
Bank overdraft	12,000	7,000	Investments	2,60,000	45,000
Sundry creditors	43,000	48,000	Stock	45,000	72,000
Bills payable	–	16,000	Cash at bank	22,500	21,000
			Debtors	93,000	78,000
			Bills receivable	14,500	–
	7,60,000	4,11,000		7,60,000	4,11,000

Details of acquisition of shares by Spring Ltd. are as under:

Nature of shares	No. of shares acquired	Date of acquisition	Cost of acquisition ₹
Preference shares	1,425	1.4.2008	31,000
Equity shares	8,000	1.4.2009	95,000
Equity shares	7,000	1.4.2010	80,000

Other information:

(i) On 1.4.2010 profit and loss account and general reserve of Winter Ltd. had credit balances of ₹ 30,000 and ₹ 20,000 respectively.

(ii) Dividend @ 10% was paid by Winter Ltd. for the year 2009-2010 out of its profit and loss account balance as on 1.4.2010. Spring Ltd. credited its share of dividend to its profit and loss account.

(iii) Winter Ltd. allotted bonus shares out of general reserve at the rate of 1 share for every 10 shares held. Accounting thereof has not yet been made.

(iv) Bills receivable of Spring Ltd. were drawn upon Winter Ltd.

(v) During the year 2010-2011 Spring Ltd. purchased goods from Winter Ltd. for ₹ 10,000 at a sale price of ₹ 12,000. 40% of these goods remained unsold at close of the year.

(vi) On 1.4.2010 motor vehicles of Winter Ltd. were overvalued by ₹ 10,000. Applicable depreciation rate is 20%.

(vii) Dividends recommended for the year 2010-2011 in the holding and the subsidiary companies are 15% and 10% respectively.

Prepare consolidated Balance Sheet as on 31st March, 2011.

Solution:

Consolidated Balance Sheet of Spring Ltd. and its subsidiary Winter Ltd. as on 31st March, 2011

Liabilities	₹	Amount ₹	Assets	₹	Amount ₹
Share Capital			Fixed Assets		
Authorised, Issued and paid up capital		–	Goodwill		
48,000 equity shares of ₹ 10			Spring Ltd.	45,000	
each		4,80,000	Winter Ltd.	30,000	
70,000 10% preference shares of ₹				75,000	
10 each		70,000	Add: Goodwill on		
Minority Interest (W.N . 3)		98,675	consolidation (W.N. 2)	19,750	94,750
Reserves and Surplus			Plant and Machinery		
General reserve (W.N. 5)		71,500	Spring Ltd.	1,20,000	
Profit and loss account (W.N. 4)		50,775	Winter Ltd.	50,000	1,70,000
Current Liabilities and Provisions			Motor Vehicles		
Bank Overdraft			Spring Ltd.	95,000	
Spring Ltd.	12,000		Winter Ltd.		
Winter Ltd.	7,000	19,000	(75,000 – 10,000 + 2,000)	67,000	1,62,000
Sundry Creditors			Furniture & Fittings		
Spring Ltd.	43,000		Spring Ltd.	65,000	
Winter Ltd.	48,000	91,000	Winter Ltd.	40,000	1,05,000
Bills payable			Investments		
Winter Ltd.	16,000		Spring Ltd.		
Less: Mutual debt	14,500	1,500	(2,60,000 – 2,06,000)	54,000	
Proposed Dividend			Winter Ltd.	45,000	99,000
Equity	72,000		Current assets, loans		
Preference	7,000	79,000	and advances		

Liabilities	₹	Assets	₹	₹
		Current assets		
		Stock		
		Spring Ltd.	45,000	
		Winter Ltd.	72,000	
			1,17,000	
		Less: Unrealised profit	800	1,16,200
		Debtors		
		Spring Ltd.	93,000	
		Winter Ltd.	78,000	1,71,000
		Cash at Bank		
		Spring Ltd.	22,500	
		Winter Ltd.	21,000	43,500
		Loans and advances		
		Bills receivable		
		Spring Ltd.	14,500	
		Less: Mutual Debt	14,500	Nil
	9,61,450			9,61,450

Working Notes:

(1) **Analysis of Profits of Winter Ltd.**

		₹	Capital Profits ₹	Revenue Reserve ₹	Revenue Profit ₹
(a)	General Reserve as on 1.4.2010	20,000			
	Less: Bonus issue (1/10 of ₹ 2,00,000)	20,000	–	–	
(b)	Addition to General Reserve during 2010-2011 (₹ 42,000 – ₹ 20,000)			22,000	
(c)	Profit and Loss Account balance as on 1.4.2010	30,000			
	Less: Dividend paid for the year 2009-2010	20,000	10,000		
(d)	Profit for the year 2010-2011 (₹ 60,000 – ₹ 10,000)				50,000
(e)	Adjustment for over valuation of motor vehicles		(10,000)		
(f)	Adjustment of revenue profit due to overcharged depreciation (20% on ₹ 10,000)				2,000
(g)	Preference dividend for the year 2010-2011 @ 10%				(3,800)
			–	22,000	48,200
	Spring Ltd.'s share (3/4)			16,500	36,150
	Minority Interest (1/4)			5,500	12,050
				22,000	48,200

		₹	₹
(2)	**Cost of Control**		
	Cost of investments in Winter Ltd.		2,06,000
	Less: Paid up value of equity shares (including bonus shares)	1,65,000	
	[8,000 + 7,000 + (10% of 15,000)] × ₹ 10		
	Paid-up value of preference shares	14,250	
	Pre-acquisition dividend*	7,000	1,86,250
	Cost of control/Goodwill		19,750
(3)	**Minority Interest**		
	Equity share capital [₹ 50,000 + ₹ 5,000 (Bonus)]		55,000
	Preference share capital (₹ 38,000 – ₹ 14,250)		23,750
	Share of revenue reserve		5,500
	Share of revenue profit		12,050
	Proposed preference dividend		2,375
			98,675
(4)	**Profit and Loss Account – Spring Ltd.**		
	Balance		1,00,000
	Share in profit of Winter Ltd.		36,150
	Share in proposed preference dividend of Winter Ltd.		1,425
			1,37,575
	Less: Pre-acquisition dividend credited to profit and loss account	7,000	
	Unrealised profit on stock (40% of ₹ 2,000)	800	
	Proposed equity dividend	72,000	
	Proposed preference dividend	7,000	86,800
			50,775
(5)	**General reserve – Spring Ltd.**		
	Balance		55,000
	Add: Share in Winter Ltd.		16,500
			71,500

Note: No information has been given in the question regarding date of bonus issue by Winter. It is also not mentioned whether the bonus shares are issued from pre-acquisition general reserve or post-acquisition general reserve. The above solution is given on the basis that Winter Ltd. allotted bonus shares out of pre-acquisition general reserve.

* The dividend on 7,000 shares only (acquired on 1.4.2010) is a pre-acquisition dividend.

Question 21

X Ltd. purchases its raw materials from Y Ltd. and sells goods to Z Ltd. In order to ensure regular supply of raw materials and patronage for finished goods, X Ltd. through its wholly owned subsidiary, X Investments Ltd. acquires on 31st December, 2010, 51% of equity capital of Y Ltd. for ₹ 150 crores and 76% of equity capital of Z Ltd. for ₹ 300 crores. X Investments Ltd. was floated by X Ltd. in 2004 from which date it was wholly owned by X Ltd.

The following are the Balance Sheets of the four companies as on 31st December, 2010:

	X Ltd.		X Investments Ltd.		Y Ltd.		Z Ltd.	
(₹ in crores)	₹		₹		₹		₹	
Share Capital:								
Equity (Fully paid) ₹ 10 each	250		50		100		150	
Reserves and Surplus	750	100	200	250	150	250	200	350
Loan Funds:								
Secured	150		–		50		200	
Unsecured	100	250	500	500	100	150	150	350
Total Sources		1250		750		400		700
Fixed Assets:								
Cost	600		–		150		300	
Less: Depreciation	350	250	–	–	70	80	170	130
Investments at cost in Equity Shares, fully paid								
X Investments Ltd.		50		–		–		–
Y Ltd.		–		150		–		–
Z Ltd.		–		300		–		–
Other Companies								
(Market Value ₹ 1160 Cr.)		–		290		–		–
Net Current Assets:								
Current Assets	1050		10		960		2000	
Current Liabilities	100	950	–	10	640	320	1430	570
		1250		750		400		700

There are no intercompany transactions outstanding between the companies.

You are asked to prepare consolidated balance sheet as at 31st December, 2010 in vertical form.

Solution:

Consolidated Balance Sheet of X Ltd. and its subsidiaries

X Investments Ltd., Y Ltd. and Z Ltd. as at 31st December, 2010

			(₹ in crores)
I	SOURCES OF FUNDS		
	(1) Shareholders' funds:		
	(a) Capital	250.00	
	(b) Reserves and surplus	950.00	
			1200.00
	(2) Minority interest in:		
	(a) Y Ltd.	122.50	
	(b) Z Ltd.	84.00	

					206.50
(3)	Loan funds:				
	(a) Secured loans			400.00	
	(b) Unsecured loans			850.00	
					1,250.00
	TOTAL				2,656.50
II	APPLICATION OF FUNDS				
(1)	Fixed assets:				
	(a) Goodwill on consolidation of:				
	Y Ltd.		22.50		
	Z Ltd.		34.00		
				56.50	
	(b) Others:				
	Gross block		1,050.00		
	Less: Depreciation		590.00		
				460.00	
					516.50
(2)	Investments at cost (in equity shares of other companies – Market value ₹ 116 crores)				290.00
(3)	Current assets			4,020.00	
	Less: Current liabilities			2,170.00	
	Net current assets				1,850.00
	TOTAL				2,656.50

Working Notes:

(A) X Investments Ltd.

(₹ in crores)

		Capital Profit	Revenue Profit	Share Capital
(1)	Analysis of Profits and Share Capital:			
(i)	Y Ltd.	150.00	–	100.00
	Minority Interest (49%)	73.50	–	49.00
	Share of X Investments Ltd.	76.50	–	51.00
(ii)	Z Ltd.	200.00	–	150.00
	Minority Interest (24%)	48.00	–	36.00
	Share of X Investments Ltd.	152.00	–	114.00

(2)	Cost of Control:		Y Ltd.		Z Ltd.
	Cost of investments		150.00		300.00
	Less: Paid up value of shares	51.00		114.00	
	Capital profits	76.50		152.00	
			127.50		266.60

		Y Ltd.	Z Ltd.
	Goodwill on consolidation	22.50	34.00
(3)	Minority interest	Y Ltd.	Z Ltd.
	Share Capital	49.00	36.00
	Capital Profits	73.50	48.00
	Revenue Profits	–	–
		122.50	84.00

(4) **Group Balance Sheet of X Investments Ltd. and its subsidiaries Y Ltd. and Z Ltd. as at 31st December, 2010**

(₹ in crores)

I	SOURCES OF FUNDS			
	(1) Shareholders' funds:			
	(a) Capital		50.00	
	(b) Reserves and surplus		200.00	
				250.00
	(2) Minority interest in:			
	(a) Y Ltd.		122.50	
	(b) Z Ltd.		84.00	
				206.50
	(3) Loan funds:			
	(a) Secured loans		250.00	
	(b) Unsecured loans		750.00	
				1,000.00
	TOTAL			1,456.50
II	APPLICATION OF FUNDS			
	(1) Fixed assets:			
	(a) Goodwill on consolidation of:			
	Y Ltd.	22.50		
	Z Ltd.	34.00		
			56.50	
	(b) Others:			
	Gross block	450.00		
	Less: Depreciation	240.00		
			210.00	
				266.50
	(2) Investments at cost (Market value ₹ 116 crores)			290.00
	(3) Current assets		2,970.00	
	Less: Current liabilities		2,070.0	
	Net current assets			900.00
	TOTAL			1,456.50

(B) X Ltd.

		Capital Profit	Revenue Profit
(i)	Analysis of Profits of X Investments Ltd.:		
	Reserves and Surplus	–	200
	Minority Interest	–	–
	(X Investments Ltd. being wholly owned subsidiary of X Ltd.)		
(ii)	Minority Interest in X Investments Ltd.	–	–
(iii)	Cost of Control:		
	Cost of investments in X Investments Ltd.		50
	Less: Paid-up value of shares held in X Investments Ltd. by X Ltd.	50	
	Capital Profit	–	50
	Cost of Control		–

Question 22

From the following Balance Sheets of a group of companies and the other information provided, draw up the consolidated Balance Sheet as on 31.3.2011. Figures given are in ₹ Lakhs:

Balance Sheets as on 31.3.2011

	X	Y	Z		X	Y	Z
Shares capital (in shares of ₹ 10 each)	1,650	1,100	550	Fixed Assets less depreciation	715	825	550
Reserves	275	220	165	Cost of investment in Y Ltd.	990	–	–
Profit and loss balance	330	275	220	Cost of investment in Z Ltd.	220	–	–
Bills payables	55	–	27.5	Cost of investment in Z Ltd.	–	440	–
Creditors	165	55	50	Stock	275	110	110
Y Ltd. balance	–	–	82.5	Debtors	385	55	110
Z Ltd. balance	275	–	–	Bills receivables	–	55	110
				Z Ltd. balance	–	55	–
				X Ltd. balance	–	–	165
				Cash and bank balance	165	110	55
	2,750	1,650	1,100		2,750	1,650	1,100

a) X Ltd. holds 8,80,000 shares and 1,65,000 shares respectively in Y Ltd. and Z Ltd.; Y Ltd. holds 3,30,000 shares in Z Ltd. These investments were made on 1.7.2010 on which date the provision was as follows:

	Y Ltd.	Z Ltd.
Reserves	110	55
Profit and loss account	165	88

b) In December, 2010 Y Ltd. invoiced goods to X Ltd. for ₹ 220 lakhs at cost plus 25%. The closing stock of X Ltd. includes such goods valued at ₹ 27.5 lakhs.

c) Z Ltd. sold to Y Ltd. an equipment costing ₹ 132 lakhs at a profit of 25% on selling price on 1.1.2011. Depreciation at 10% per annum was provided by Y Ltd. on this equipment.

d) Bills payables of Z Ltd. represent acceptances given to Y Ltd. out of which Y Ltd. had discounted bills worth ₹ 16.5 lakhs.

e) Debtors of X Ltd. Include ₹ 16.5 lakhs being the amount due from Y Ltd.

f) X Ltd. proposes dividend at 10%.

Solution:

Consolidated Balance Sheet of X Ltd.

and its subsidiaries Y Ltd. and Z Ltd. as at 31st March, 2011

(₹ in lakhs)

Liabilities		Amount	Assets		Amount
Share capital		1,650.00	Fixed Assets		
Minority Interest			X Ltd.	715.00	
Y Ltd.	346.94		Y Ltd.	825.00	
Z Ltd.	89.21	436.15	Z Ltd.	550.00	
Capital Reserve		73.70		2,090.00	
			Less: Unrealised profit	42.90	2,047.10
Other Reserves		448.80	Stock		
Profit and Loss Account		312.95	X Ltd.	275.00	
Bills Payables			Y Ltd.	110.00	
X Ltd.	55.00		Z Ltd.	110.00	
Y Ltd.	27.50			495.00	
	82.50		Less: Unrealised profit	5.5	489.50
Less: Mutual indebtedness	11.00	71.50	Debtors		
			X Ltd.	385.00	
Creditors			Y Ltd.	55.00	
X Ltd.	165.00		Z Ltd.	110.00	
Y Ltd.	55.00			550.00	
Z Ltd.	55.00		Less: Mutual		

			indebtedness	27.50	522.50
	275.00		Cash and Bank Balances		330.00
Less: Mutual indebtedness	27.50	247.50	Bills Receivables Y Ltd.	55.00	
Current Account Balances			Z Ltd.	110.00	
				165.00	
X Ltd.	275.00		Less: Mutual indebtedness	11.00	154.00
Z Ltd.	82.50				
	357.50				
Less: Mutual indebtedness (55+165)	220.00	137.50			
Proposed Dividend		165.00			______
		3,543.10			3,543.10

Working Notes:

(₹ in lakhs)

(1) Analysis of Profits of Z Ltd.	Capital Profit	Revenue Reserve	Revenue profit
Reserves on 1.7.2010	55.00		
Profit and Loss A/c on 1.7.2010	88.00		
Increase in Reserves		110.00	
Increase in Profit	_____	_____	132.00
	143.00	110.00	132.00
Less: Minority Interest (10%)	14.30	11.00	13.20
	128.70	99.00	118.80
Share of X Ltd.	42.90	33.00	39.60
Share of Y Ltd.	85.80	66.00	79.20

(2) Analysis of Profits of Y Ltd.			
Reserves on 1.7.2010	110.00		
Profit and Loss A/c on 1.7.2010	165.00		
Increase in Reserves		110.00	
Increase in Profit	_____	_____	110.00
	275.00	110.00	110.00
Share in Z Ltd.	_____	66.00	79.20

	275.00	176.00	189.20
Less: Minority Interest (20%)	55.00	35.20	37.84
Share of X Ltd.	220.00	140.80	151.36

(3) Cost of Control

Investments in Y Ltd.			990.00
Investments in Z Ltd.			660.00
			1,650.00
Less: Paid up value of investments			
in Y Ltd.	880.00		
in Z Ltd.	495.00	1,375.00	
Capital Profit			
in Y Ltd.	220.00		
in Z Ltd.	128.70	348.70	1,723.70
Capital Reserve			73.70

(4) Minority Interest

	Y Ltd.	Z Ltd.
Share Capital	220.00	55.00
Capital Profit	55.00	14.30
Revenue Reserves	35.20	11.00
Revenue Profits	37.84	13.20
	348.04	93.50
Less: Unrealised profit on stock (20% of 5.5)	1.1	
Unrealised profit on equipment (10% of 42.90)	_____	4.29
	346.94	89.21

(5) Unrealised Profit on equipment sale

Cost	132.00
Profit	44.00
Selling Price	176.00

Unrealised profit = $44 - 44 \times \frac{10}{100} \times \frac{3}{12}$ = 44.00 – 1.1 = 42.90

(6) Profit and Loss Account – X Ltd.

Balance	330.00
Less: Proposed Dividend	165.00
	165.00
Share in Y Ltd.	151.36
Share in Z Ltd.	39.60
	355.96
Less: Unrealised profit on equipment (90% of 42.90)	38.61
	317.35
Less: Unrealised profit on stock $\left(27.50 \times \frac{25}{125} \times 80\%\right)$	4.4
	312.95

(7) Reserves – X Ltd.

X Ltd.	275.00
Share in Y Ltd.	140.80
Share in Z Ltd.	33.00
	448.80

Question 23

Following are the Balance Sheets of Mumbai Limited, Delhi Limited, Amritsar Limited and Kanpur Limited as at 31st December, 2010:

Liabilities	Mumbai Ltd.	Delhi Ltd.	Amritsar Ltd.	Kanpur Ltd.
Share Capital (₹ 100 face value)	1,00,00,000	80,00,000	40,00,000	1,20,00,000
General Reserve	40,00,000	8,00,000	5,00,000	20,00,000
Profit & Loss Account	20,00,000	8,00,000	5,00,000	6,40,000
Sundry Creditors	6,00,000	2,00,000	1,00,000	1,60,000
	1,76,00,000	98,00,000	51,00,000	1,48,00,000
Assets				
Investments :				
30,000 shares in Delhi Ltd.	70,00,000	—	—	—
10,000 shares in Amritsar Ltd	22,00,000	—	—	—
5,000 shares in Amritsar Ltd.	—	10,00,000	—	—
Shares in Kanpur Ltd. @ ₹ 120	72,00,000	36,00,000	12,00,000	—
Fixed Assets	—	40,00,000	30,00,000	1,40,00,000
Current Assets	2,00,000	12,00,000	9,00,000	8,00,000
	1,76,00,000	98,00,000	51,00,000	1,48,00,000

Balance in General Reserve Account and Profit & Loss Account, when shares were purchased in different companies were:

	Mumbai Ltd.	Delhi Ltd.	Amritsar Ltd.	Kanpur Ltd.
General Reserve Account	20,00,000	4,00,000	2,00,000	12,00,000
Profit & Loss Account	12,00,000	4,00,000	1,00,000	1,20,000

Required :

Prepare the consolidated Balance Sheet of the group as at 31st December, 2000 (Calculations may be rounded off to the nearest rupee).

Solution: Consolidated Balance Sheet of Mumbai Ltd. and its subsidiaries Delhi Ltd., Amritsar Ltd. and Kanpur Ltd. as at 31st December, 2010

Liabilities	₹	Assets	₹
Share Capital	1,00,00,0000	Goodwill	12,75,000
(Fully paid shares of ₹ 100 each)		Fixed Assets	2,10,00,000
Minority Interest	62,50,625	Current Assets	31,00,000
General Reserve	51,02,083		
Profit and Loss Account	29,62,292		
Sundry Creditors	11,60,000		
	2,53,75,000		2,53,75,000

Working Notes:

(i) Analysis of profits of Kanpur Ltd.

	Capital Profit ₹	Revenue Reserve ₹	Revenue Profit ₹
General Reserve on the date of purchase of shares	12,00,000		
Profit and Loss A/c on the date of purchase of shares	1,20,000		
Increase in General Reserve		8,00,000	
Increase in profit			5,20,000
	13,20,000	8,00,000	5,20,000
Less : Minority Interest (1/6)	1,10,000.00	1,33,333	86,667
	5,50,000.00	6,66,667	4,33,333
Share of Mumbai Ltd. (1/2)	3,30,000.00	4,00,000	2,60,000
Share of Delhi Ltd. (1/4)	1,65,000.00	2,00,000	1,30,000
Share of Amritsar Ltd. (1/12)	1,10,000	66,667	43,333

(ii) Analysis of profits of Amritsar Ltd.

	Capital Profit ₹	Revenue Reserve ₹	Revenue Profit ₹
General Reserve on the date of purchase of shares	2,00,000		
Profit and Loss A/c on the date of purchase of shares	1,00,000		
Increase in General Reserve		3,00,000	
Increase in Profit and Loss A/c			4,00,000
Share in Kanpur Ltd.		66,667	43,333
	3,00,000	3,66,667	4,43,333
Less : Minority Interest (1/4)	75,000	91,667	1,10,833
	2,25,000	2,75,000	3,32,500
Share of Mumbai Ltd. (1/2)	1,50,000	1,83,333	2,21,667
Share of Delhi Ltd. (1/4)	75,000	91,667	1,10,833

(iii) Analysis of profits of Delhi Ltd.

	Capital Profit ₹	Revenue Reserve ₹	Revenue Profit ₹
General Reserve on the date of purchase of shares	4,00,000		
Profit and Loss A/c on the date of purchase of shares	4,00,000		

Increase in General Reserve		4,00,000	
Increase in Profit and Loss A/c			4,00,000
Share in Kanpur Ltd.		2,00,000	1,30,000
Share in Amritsar Ltd.		91,667	1,10,833
	80,00,000	6,91,667	6,40,833
Less : Minority Interest (1/4)	2,00,000	1,72,917	1,60,208
Share of Mumbai Ltd. (3/4)	6,00,000	5,18,750	4,80,625

(iv) Cost of control

Investments in		₹
Delhi Ltd.	70,00,000	
Amritsar Ltd.	32,00,000	
Kanpur Ltd.	1,20,00,000	
	2,22,00,000	
Paid up value of investments in		
Delhi Ltd.	60,00,000	
Amritsar Ltd.	30,00,000	
Kanpur Ltd.	1,00,00,000	
Capital profits in		(1,90,00,000)
Delhi Ltd.	6,00,000	
Amritsar Ltd.	2,25,000	
Kanpur Ltd.	11,00,000	(19,25,000)
Goodwill		12,75,000

(v) Minority interest

Share Capital:		
Delhi Ltd. (1/4)	20,00,000	
Amritsar Ltd. (1/4)	10,00,000	
Kanpur Ltd (1/6)	20,00,000	50,00,000
Share in profits & reserves (Pre and Post-Acquisitions)		
Delhi Ltd.	5,33,125	
Amritsar Ltd.	2,77,500	
Kanpur Ltd.	4,40,000	12,50,625
		62,50,625

(vi) General Reserve — Mumbai Ltd.

Balance as on 31.12.2010 (given)	40,00,000
Share in	
Delhi Ltd.	5,18,750
Amritsar Ltd.	1,83,335
Kanpur Ltd.	4,00,000
	51,02,083

(vii) Profit and Loss Account — Mumbai Ltd.

Balance as on 31.12.2010 (given)	20,00,000
Share in	
Delhi Ltd.	4,80,625
Amritsar Ltd.	2,21,667
Kanpur Ltd.	2,60,000
	29,62,292

Question 24: The following are the Balance Sheets of Arun Ltd., Brown Ltd. and Crown Ltd. as at 31.12.2010:

Liabilities:	Arun Ltd.	Brown Ltd.	Crown Ltd.
	₹	₹	₹
Share Capital (Shares of ₹100 each)	10,80,000	7,20,000	4,32,000
Reserves	1,44,000	72,000	54,000
Profit and Loss Account	3,60,000	2,16,000	1,80,000
Sundry Creditors	1,44,000	1,80,000	1,08,000
Arun Ltd.	--	72,000	57,600
Total	17,28,000	12,60,000	8,31,600
Assets:			
Goodwill	1,44,000	1,08,000	72,000
Fixed Assets	5,04,000	3,60,000	4,32,000
Shares in:			
Brown Ltd. (5,400 Shares)	6,48,000	--	--
Crown Ltd. (720 Shares)	1,08,000	--	--
Crown Ltd. (2,520 Shares)	--	3,74,000	--
Due from: Brown Ltd.	86,400	--	--
Crown Ltd.	57,600	--	--
Current Assets	1,80,000	4,17,600	3,27,000
Total	17,28,000	12,60,000	8,31,000

(i) All shares were acquired on 1.7.2010.

(ii) On 1.1.2010 the balances to the various accounts were as under:

Particulars	Arun Ltd.	Brown Ltd.	Crown Ltd.
	₹	₹	₹
Reserves	72,000	72,000	36,000
Profit and Loss account	36,000	(Dr.) 36,000	21,600

(iii) During 2010, Profits accrued evenly.

(iv) In August, 2010, each company paid interim dividend of 10%. Arun Ltd. and Brown Ltd. have credited their profit and loss account with the dividends received.

(v) During 2010, Crown Ltd. sold an equipment costing ₹ 72,000 to Brown Ltd. for ₹ 86,400 and Brown Ltd. in turn sold the same to Arun Ltd. for ₹ 93,600.

Prepare the consolidated Balance Sheet as at 31.12.2010 of Arun Ltd. and its subsidiaries.

Solution:

Consolidated Balance Sheet of Arun Ltd. and its subsidiaries as on 31.12.2010

Liabilities	₹	Assets	₹
Share Capital (Shares of ₹ 100 each)	10,80,000	Goodwill (W. N. 5)	3,25,800
Minority Interest (W. N. 4)	4,20,712	Fixed Assets	12,74,400
Reserves (W. N. 8)	1,49,438	Current Assets	9,25,200
Profit & Loss A/c (W. N. 8)	4,57,650	Cash in Transit (W. N. 7)	14,400
Sundry Creditors	4,32,000		
	25,39,800		25,39,800

Working Notes

1. Shareholding Pattern

	Number of Shares	%age of Holding
In Brown Ltd.:		
Arun Ltd.	5,400	75%
Minority Interest	1,800	25%
In Crown Ltd.:		
Arun Ltd.	720	16.667%
Brown Ltd.	2,520	58.333%
Minority Interest	1,080	25%

2. Analysis of apportionment of profit in Crown Ltd.

(a) Calculation of Unrealized Profit in Equipment

Crown Ltd sold equipment to Brown Ltd. at a profit of ₹ 14,400 and this would be apportioned to

	₹
Arun Ltd.	2,399
Brown Ltd.	8,401
Minority Interest	3,600
	14,400

Brown Ltd sold the equipment to Arun Ltd. at a profit of ₹ 7,200. This would be apportioned to:

	₹
Arun Ltd.	5,400
Minority Interest	1,800
	7,200

The above amounts are to be deducted from the respective share of profits.

(b) Reserves

	₹	
Closing balance	54,000	
Opening balance	36,000	Capital Profit
Current year Appropriation	18,000	
Apportionment of Profit from 1.1.2010 to 30.6.2010	9,000	Capital Profit
Apportionment of Profit from 1.7.2010 to 31.12.2010	9,000	Revenue Reserve

(c) Profit and Loss Account

Closing balance	1,80,000	
Opening balance	21,600	Capital Profit
Current year profits before interim dividend	2,01,600	
Apportionment of Profit from 1.1.2010 to 30.6.2010	1,00,800	
Less: Interim Dividend	43,200	
	57,600	Capital Profit
From 1.7.2010 to 31.12.2010	1,00,800	Revenue Profit

(d) Apportionment of profits of Crown Ltd.

	Pre-Acquisition	***Post Acquisition***	
	Capital Profit	Revenue Reserve	Revenue Profit
	₹	₹	₹
Reserves	45,000	9,000	--
Profit & Loss Account	79,200	--	1,00,800
	1,24,200	9,000	1,00,800
Arun Ltd [16.667%]	20,700	1,499	16,799
Brown Ltd. [58.333%]	72,450	5,251	58,801
Minority Interest [25%]	31,050	2,250	25,200

3. Analysis of Profit of Brown Ltd

(a) Reserves

	₹	
Closing balance	72,000	
Opening balance	72,000	(Capital Profit)
Current year Appropriation	Nil	

(b) Profit and Loss Account

	₹
Closing balance	2,16,000
Opening balance (Dr.)	36,000

Current year Appropriation after interim dividend	2,52,000
Interim Dividend	72,000
Profit before Interim Dividend	3,24,000
Less: Dividend from Crown Ltd.	25,200
	2,98,800
Apportionment of Profit from 1.1.2010 to 30.6.2010	1,49,400
Less: Interim Dividend	72,000
Capital profit	77,400
Apportionment of Profit from 1.7.2010 to 31.12.2010 (Revenue profit)	1,49,400

(c) Apportionment of Profit of Brown Ltd.

	Pre-Acquisition	***Post-Acquisition***	
	Capital Profit	Revenue Reserve	Revenue Profit
	₹	₹	₹
Reserves	72,000	--	--
Profit & Loss Account (Opening balance (-) 36,000 + 77,400)	41,400		1,49,400
Less: Unrealised Profit of Equipment from Crown Ltd.			(8,401)
Share of Post-Acquisition Profit of Crown Ltd.	--	5,251	58,801
	1,13,400	5,251	1,99,800
Arun Ltd. 75%	85,050	3,938	1,49,850
Minority Interest 25%	28,350	1,312	49,950

4. Minority Interest

	Brown Ltd. ₹	Crown Ltd. ₹
Share Capital	1,80,000	1,08,000
Capital Profit	28,350	31,050
Revenue: Reserves	1,312	2,250
Profit & Loss Account	49,950	25,200
Unrealised Profit on Equipment	(1,800)	(3,600)
	2,57,812	1,62,900

Total Minority Interest: ₹ 2,57,812+ ₹ 1,62,900 = ₹ 4,20,712

5. Cost of Control

	Arun Ltd. in Brown Ltd.	Arun Ltd. in Crown Ltd.	Brown Ltd in Crown Ltd.
	₹	₹	₹
Amount Invested	6,48,000	1,80,000	3,74,400
Less: Pre-acquisition dividend*	54,000	7,200	25,200
Adjusted Cost of Investment (A)	5,94,000	1,00,800	3,49,200
Share capital	5,40,000	72,000	2,52,000
Capital Profit	85,050	20,700	72,450
(B)	6,25,050	92,700	3,24,450
Capital Reserve/Goodwill (A)-(B)	(31,050)	8,100	24,750
Net Goodwill	₹ 1,800		

Goodwill on Consolidation ₹ (1,44,000+ 1,08,000+72,000+1,800) = ₹ 3,25,800

6. Dividend declared

	Brown Ltd.	Crown Ltd.
	₹	₹
Dividend declared	72,000	43,200
Share of: Arun Ltd.	54,000	7,200
Brown Ltd.		25,200
Minority	18,000	10,800

7. Inter-Company Transactions

(a) Owings

	Dr. Arun Ltd.	Cr. Brown Ltd.	Cr. Crown Ltd.
	₹	₹	₹
Balance in books	1,44,000	72,000	57,600
Less: Inter- co. owings	1,29,600	72,000	57,600
Cash-in-transit	14,400	NIL	NIL

(b) Fixed Assets

	₹
Total Fixed Assets	12,96,000
Less: Unrealised Profit on sale of equipment	21,600
Amount to be taken to consolidated Balance Sheet	12,74,400

* The entire amount of interim dividend of 10 % has been treated as pre-acquisition dividend.

8. Reserves and Profit and Loss Account balances in the Consolidated Balance Sheet

	Reserves ₹	Profit and Loss A/c ₹
Balance in Books	1,44,000	3,60,000
Add: Shares of Post Acquisition Profits:		
From Brown Ltd.	3,938	1,49,850
From Crown Ltd	1,499	16,799
Less: Pre-Acquisition dividend:		
From Brown Ltd.		(54,000)
From Crown Ltd		(72,000)
Less: Unrealised Profit on Equipment:		
From Brown Ltd.		(5,400)
From Crown Ltd.		(2,399)
	1,49,437	4,57,650

Question 25: The draft Balance Sheets of 3 Companies as at 31st March, 2011 are as below:

(In ₹ 000's)

Liabilities	Morning Ltd.	Evening Ltd.	Night Ltd.
Share Capital – shares of ₹ 100 each	1,00,000	50,000	25,000
Reserves	4,500	2,500	2,250
P/L A/c (1.4.10)	3,750	5,000	2,000
Profit for 2010-11	17,500	9,500	4,500
Loan from Morning Ltd.	–	12,500	–-
Creditors	6,250	2,500	3,500
	1,32,000	82,000	37,250
Assets			
Investments:			
4,00,000 shares in Evening	45,000	–	–
1,87,000 shares in Night	20,000	–	–
Loan to Evening Ltd.	12,500	–	–
Sundry assets	54,500	82,800	37,250
	1,32,000	82,800	37,250

Following additional information is also available:

(a) Dividend is proposed by each company at 10%.

(b) Stock transferred by Night Ltd. to Evening Ltd. fully paid for was ₹ 20 lacs on which the former made a Profit of ₹ 7.5 lacs. On 31st March, 2011, this was in the inventory of the latter.

(c) Loan referred to is against 8% interest. Neither Morning Ltd. nor Evening Ltd. has considered the interest.

(d) Reserves as on 1.4.2010 of Evening Ltd. and Night Ltd. were ₹ 20,00,000 and ₹ 18,75,000 respectively.

(e) Cash-in-transit from Evening Ltd. to Morning Ltd. was ₹1,00,000 as on 31.3.2011.

(f) The shares of the subsidiaries were all acquired by Morning Ltd. on 1st April, 2010.

Prepare consolidated Balance Sheet as on 31st March, 2011. Workings should be part of the answer.

Solution: Consolidated Balance Sheet of Morning Ltd. with its subsidiaries Evening Ltd. and Night Ltd.

As on 31st March, 2011

(₹ in thousand)

Liabilities	₹	₹	₹	Assets	₹	₹	₹
Share Capital			1,00,000	Sundry Assets*			
Minority Interest				Morning Ltd.		54,500	
Evening Ltd.		12,200		Evening Ltd.	82,000		
Night Ltd.		7,812.50	20,012.50	Less: Unrealized profit	750	81,250	
Capital Reserve [Refer Note 5]			2,256.25	Night Ltd.		37,250	1,73,000
General Reserve							
Morning Ltd.		4,500					
Evening Ltd.		400					
Night Ltd.		281.25	5,181.25				
Profit & Loss A/c							
Balance on 1.04.10	3,750						
Profit during 10-11	17,500						
Add: Interest on Loan	1,000						
	22,250						
Less: Proposed dividend	10,000	12,250					
Add: P& L Account of Evening Ltd.		6,800					
Add: P& L Account of Night Ltd		2,625	21,675				

* The total of Sundry Assets of the Group mutually sets off the effect of Cash-in-transit of Rs.1 lac from Evening Ltd. to Morning Ltd. Hence, cash in transit has not been separately shown.

Creditors			
Morning Ltd.	6,250		
Evening Ltd.	2,500		
Night Ltd	3,500	12,250	
Proposed Dividend			
Morning Ltd.	10,000		
Evening Ltd. (Minority)	1,000		
Night Ltd. (Minority)	625	11,625	
		1,73,000	1,73,000

Workings Notes:

A. Morning Ltd.'s holding in Evening Ltd. is 4,00,000 shares out of 5,00,000 shares, i.e., 4/5th or 80%; Minority holding 1/5th or 20%.

B. Morning Ltd.'s holding in Night Ltd. is 1,87,500 shares out of 2,00,000 shares, i.e., 3/4th or 75%; Minority holding 1/4th or 25%.

Analysis of Reserves and Profits of Subsidiary Companies

	Evening Ltd. (₹'000)	Night Ltd ₹('000)	Minority interest in Evening Ltd. (1/5) ₹('000)	Minority interest in Night Ltd. (1/4) ₹('000)
1. **Capital Reserve (pre-acquisition reserves and profits)**				
Reserves on 1.04.2010	2,000	1,875		
Profit on 1.04.2010	5,000	2,000		
	7,000	3,875		
Less: Minority interest	1,400	968.75	1,400	968.75
	5,600	2,906.25		
2. **General Reserve**				
Reserves as per Balance Sheet	2,500	2,500		
Less: Capital Reserve [See Note A]	2,000	1,875		
	500	375		
Less: Minority interest	100	93.75	100	37.5
	160	281.25		

3. **Profit and Loss Account**

Profit for the year as per Balance Sheet	9,500	4,500		
Less: Interest on Loan (12,500 × 8%)	1,000			
	8,500			
Less: Minority Interest	1,700	1,125	1,750	1,125
	6,800	3,375		
Less: Unrealised profit on stock transfer		750*		
	6,800	2,625		

4.

Share Capital

As per Balance sheet	50,000	25,000		
Less: Minority interest	10,000	6,250	10,000	6,250
Transferred for computation of Goodwill/Capital Reserve	40,000	18,750	13,200	8,437.50
Less: Proposed dividend shown separately			1,000	625
Transferred to Consolidated Balance Sheet			12,200	7,812.50

5. **Computation of Cost of Control i.e. Goodwill / Capital Reserve on consolidation**

(₹ in thousand)

	Evening Ltd.	Night Ltd.
Cost of Investments	45,000	20,000
Less: Paid up value of shares [Refer Note 4]	40,000	18,750
	5,000	1,250
Less: Capital Reserve [Refer Note 1]	5,600	2,906.25
	(500)	(1,656.25)
Total Capital Reserve (₹ 600 + ₹ 1,656.25)	2,256.25	

* As per para 17 of AS 21, 'Unrealised profits resulting from intra-group transactions that are included in the carrying amount of assets, such as inventory and fixed assets, are eliminated in full.

Question No.26:

The Balance Sheets of R Ltd. for the years ended on 31.3.2009, 31.3.2010 and 31.3.2011 are as follows:

	31.3.2009	31.3.2010	31.3.2011
Liabilities	₹	₹	₹
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
	70,80,000	79,20,000	88,80,000
Assets	₹	₹	₹
Goodwill	20,00,000	16,00,000	12,00,000
Building and 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
	70,80,000	79,20,000	88,80,000

Actual valuation were as under:	**31.3.2009**	**31.3.2010**	**31.3.2011**
	₹	₹	₹
Building and 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 2008–2009 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 R Ltd. is 15½%.

The balance in the General Reserve account on 1st April, 2008 was ₹ 20 lakhs.

The goodwill shown on 31.3.2009 was purchased on 1.4.2008 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 31.3.2011.

Solution:

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 below.
2. Assumed that the building and machinery figure as revalued is after considering depreciation.

	31.3.2009	31.3.2010	31.3.2011
	₹	₹	₹

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

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

	31.3.2009	31.3.2010	31.3.2011
	₹	₹	₹
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: 15% Normal Return	10,80,000	10,95,000	12,00,000
Super Profit	3,20,000	6,65,000	9,20,000

Average super profits = (₹3,20,000 + ₹6,65,000 + ₹9,20,000) / 3

= 19,05,000/ 3 = Rs 6,35,000

Goodwill = 5 years purchase = ₹ 6,35,000 × 5 = ₹ 31,75,000.

	₹
Total Net Assets (31/3/2002)	84,80,000
Less: Goodwill	12,00,000
	72,80,000
Add: Goodwill	31,75,000
Value of Business	1,04,55,000

Question 27:

On the basis of the following information, calculate the value of goodwill of Gee Ltd. at three years' purchase of super profits, if any, earned by the company in the previous four completed accounting years.

Balance Sheet of Gee Ltd. as at 31st March, 2011

Liabilities	₹ in lakhs	Assets	₹ in lakhs
Share Capital:		Goodwill	1,240
Authorised	30,000	Land and Buildings	7,400
Issued and Subscribed		Machinery	15,040
20 crore equity shares of ₹ 10 each, fully paid up		Furniture and Fixtures	4,060
	20,000	Patents and Trade Marks	128
Capital Reserve	1,040	9% Non-trading Investments	2,400
General Reserve	10,172	Stock	3,492
Surplus i.e. credit balance of Profit and Loss (appropriation) A/c		Debtors	2,456
	1,908	Cash in hand and at Bank	2,184
Trade Creditors	2,272	Preliminary Expenses	80
Provision for Taxation (net)	88		
Proposed Dividend for 2009-2010	3,000		
	38,480		38,480

The profits before tax of the four years have been as follows:

Year ended 31st March	Profit before tax in lakhs of Rupees
2007	12,760
2008	10,000
2009	12,432
2010	11,600

The rate of income tax for the accounting year 2006-2007 was 40%. Thereafter it has been 38% for all the years so far. But for the accounting year 2010-2011 it will be 35%.

In the accounting year 2006-2007, the company earned an extraordinary income of ₹ 4 crore due to a special foreign contract. In August, 2007 there was an earthquake due to which the company lost property worth ₹ 200 lakhs and the insurance policy did not cover the loss due to earthquake or riots.

9% Non-trading investments appearing in the above mentioned Balance Sheet were purchased at par by the company on 1st April, 2008.

The normal rate of return for the industry in which the company is engaged is 20%. Also note that the company's shareholders, in their general meeting have passed a resolution sanctioning the directors an additional remuneration of ₹ 200 lakhs every year beginning from the accounting year 2010-2011.

Solution:

(1) Capital employed as on 31st March, 2011

(Refer to 'Note')

		₹ in lakhs
Land and Buildings		7,400
Machinery		15,040
Furniture and Fixtures		4,060
Patents and Trade Marks		128
Stock		3,492
Debtors		2,456
Cash in hand and at Bank		2,184
		34,760
Less: Trade creditors	2,272	
Provision for taxation (net)	88	2,360
		32,400

(2) Future maintainable profit **(Amounts in lakhs of rupees)**

	2006-07	2007-08	2008-09	2009-2010
	₹	₹	₹	₹
Profit before tax	12,760	10,000	12,432	11,600
Less: Extra-ordinary income due to foreign contract	400			
Add: Loss due to earthquake		200		
Less: Income from non-trading investments			216	216
	12,360	10,200	12,216	11,384

As there is no trend, simple average profits will be considered for calculation of goodwill.

Total adjusted trading profits for the last four years = ₹ (12,360 + 10,200 + 12,216 + 11,384)
= ₹ 46,160 lakhs

	₹ in lakhs	
Average trading profit before tax = $\left(\frac{\text{Rs.46,160 lakhs}}{4}\right)$	11,540	
Less: Additional remuneration to directors	200	
Less: Income tax @ 35% (approx.)	3,969	(Approx)
	7,371	

(3) Valuation of goodwill on super profits basis

Future maintainable profits	7,371
Less: Normal profits (20% of ₹ 32,400 lakhs)	6,480

Super Profits	891

Goodwill at 3 years' purchase of super profits = 3 x ₹ 891 lakhs = ₹ 2,673 lakhs

Note:

In the above solution, goodwill has been calculated on the basis of closing capital employed (i.e. on 31st March, 2011). Goodwill should be calculated on the basis of 'average capital employed' and not 'actual capital employed' as no trend is being observed in the previous years' profits. The average capital employed cannot be calculated in the absence of details about profits for the year ended 31st March, 2011. Since the current year's profit has not been given in the question, goodwill has been calculated on the basis of capital employed as on 31st March, 2011.

Question 28: The following is the extract from the Balance Sheets of Popular Ltd.:

Liabilities	As at 31.3.2010 ₹ in lakhs	As at 31.3.2011 ₹ in lakhs	Assets	As at 31.3.2010 ₹ in lakhs	As at 31.3.2011 ₹ in lakhs
Share capital	1,500	1,500	Fixed assets	1,650	1,950
General reserve	1,200	1,275	10% investment	750	750
Profit and Loss account	180	270	Stock	780	900
18% term loan	540	495	Debtors	510	330
Sundry creditors	105	135	Cash at bank	138	135
Provision for tax	33	39	Fictitious assets	30	24
Proposed dividend	300	375			
	3,858	4,089		3,858	4,089

Additional information:

(i) Replacement values of Fixed assets were ₹ 3,300 lakhs on 31.3.10 and ₹ 3,750 lakhs on 31.3.2011 respectively.

(ii) Rate of depreciation adopted on fixed assets was 5% p.a.

(iii) 50% of the stock is to be valued at 120% of its book value.

(iv) 50% of investments were trade investments.

(v) Debtors on 31st March, 2011 included foreign debtors of $35,000 recorded in the books at ₹35 per U.S. Dollar. The closing exchange rate was $ 1= ₹39.

(vi) Creditors on 31st March, 2011 included foreign creditors of $60,000 recorded in the books at $ 1 = ₹33. The closing exchange rate was $ 1 = ₹39.

(vii) Profits for the year 2010-11 included ₹ 180 lakhs of government subsidy which was not likely to recur.

(viii) ₹ 375 lakhs of Research and Development expenditure was written off to the Profit and Loss Account in the current year. This expenditure was not likely to recur.

(ix) Future maintainable profits (pre-tax) are likely to be higher by 10%.

(x) Tax rate during 2010-11 was 50%, effective future tax rate will be 40%.

(xi) Normal rate of return expected is 15%.

One of the directors of the company Arvind, fears that the company does not enjoy a goodwill in the prevalent market circumstances. Critically examine this and establish whether Popular Co. has or has not any goodwill. If your answers were positive on the existence of goodwill, show the leverage effect it has on the company's result. Industry average return was 12% on long-term funds and 15% on equity funds.

Solution:

1. Calculation of Capital employed (CE) — **₹ in lakhs**

		As on 31.3.10	As on 31.3.11
Replacement Cost of Fixed Assets		3,300.00	3,750.00
Trade Investment (50%)		375.00	375.00
Current cost of stock			
$390 + 390 \times \frac{120}{100}$		858.00	
$450 + 450 \times \frac{120}{100}$			990.00
Debtors		510.00	334.20
Cash-at-Bank		138.00	135.00
	Total (A)	5,181.00	5,584.20
Less:	Outside Liabilities		
	18% term loan	540.00	495.00
	Sundry creditors	105.00	145.80
	Provision for tax	33.00	39.00
	Total (B)	678.00	679.80
Capital employed (A-B)		4,503.00	4,904.40

Average Capital employed at current value = $\frac{\text{CE as on 31.3.2010} + \text{CE as on 31.3.2011}}{2}$

$= \frac{4{,}503 + 4{,}904.40}{2} = 4{,}703.70$ Lakhs

2. Future Maintainable Profit

		₹ in Lakhs	
Increase in General Reserve		75	
Increase in Profit and Loss Account		90	
Proposed Dividends		375	
Profit After Tax		540	
Pre-Tax Profit = $\frac{540}{1-0.5}$			1,080
Less:	Fictitious Assets written off (30 –248)	6.00	
	Non-Trading investment income (10% of ₹375)	37.50	
	Subsidy	180.00	
	Exchange Loss on creditors [0.6 lakhs × (117-99)]	10.80	
	Additional Depreciation on increase in value of Fixed		

	Assets (current year) (3,750 – 1,950 = $1{,}800 \times \frac{5}{100}$) i.e.,	90.00	324.30
			755.70
Add:	Exchange Gain on Debtors [0.35 lakhs × (117-105)]	4.20	
	Research and development expenses written off	375.00	
	Stock Adjustment (90-78)	12.00	391.20
			1,146.90
Add:	Expected increase of 10%		114.69
Future Maintainable Profit before Tax			1,261.59
Less:	Tax @ 40% (40% of Rs1,261.59)		504.63
Future Maintainable Profit			756.95

3. Valuation of Goodwill — ₹ in lakhs

(i) According to Capitalisation of Future Maintainable Profit Method

Capitalised value of Future Maintainable Profit $= \frac{768.84}{15} \times 100$	5,049.39
Less: Average capital employed	4,703.70
Value of Goodwill	345.69

Or

(ii) According to Capitalisation of Super Profit Method — ₹ In lakhs

Future Maintainable Profit	756.95
Less: Normal Profit @ 15% on average capital employed (1567.90 ×15%)	705.56
Super Profit	51.39
Capitalised value of super profit $\frac{17.13}{15} \times 100$ i.e. Goodwill	342.60

Goodwill exists, hence director's fear is not valid.

Leverage Effect on Goodwill

₹ in lakhs

Future Maintainable Profit on equity fund		756.95
Future Maintainable Profit on Long-term Trading Capital employed		
Future Maintainable Profit After Tax	756.95	
Add: Interest on Long-term Loan (Term Loan) (After considering Tax) 495× 18% = 89.1× $\frac{50}{100}$	44.55	712.40

Average capital employed (Equity approach)	4,703.70
Add: 18% Term Loan (540+495)/2	517.50
Average capital employed (Long-term Fund approach)	5,221.20

Value of Goodwill

(A) Equity Approach

Capitalised value of Future Maintainable Profit = $\frac{756.96}{15} x 100$ =	5,046.39
Less: Average capital employed	4,703.70
Value of Goodwill	342.69

(B) Long-Term Fund Approach

Capitalised value of Future Maintainable Profit = $\frac{801.51}{12} \times 100 =$	6,679.25
Less: Average capital employed	5,221.20
Value of Goodwill	1,458.05

Comments on Leverage effect of Goodwill:

Adverse Leverage effect on goodwill is 371.79 lakhs (i.e., ₹486.02-114.23). In other words, Leverage Ratio of Popular Ltd. is low as compared to industry for which its goodwill value has been reduced when calculated with reference to equity fund as compared to the value arrived at with reference to long term fund.

Working Notes:

			₹ in lakhs
(1)	Stock adjustment		
	(i)	Excess current cost of closing stock over its Historical cost (990 –9300)	90.00
	(ii)	Excess current cost of opening stock over its Historical cost (858-780)	78.00
	(iii)	Difference [(i– ii)]	12.00
(2)	Debtors' adjustment		
	(i)	Value of foreign exchange debtors at the closing exchange rate ($1,05,000×39)	40.95
	(ii)	Value of foreign exchange debtors at the original exchange rate ($1,05,000×35)	36.75
	(iii)	Difference [(i) – (ii)]	4.20
(3)	Creditors' adjustment		
	(i)	Value of foreign exchange creditors at the closing exchange rate ($1,80,000×39)	70.20
	(ii)	Value of foreign exchange creditors at the original exchange rate($1,80,000×33)	59.40
	(iii)	Difference [(i) – (ii)]	10.80

Question 29: **The Balance Sheet of RNR Limited as on 31.12.2010 is as follows:**

Liabilities	(Rupees in Lakhs)	Assets	(Rupees in Lakhs)
1,00,000 equity shares of ₹ 10 each fully paid	10	Goodwill	5
		Fixed assets	15
1,00,000 equity shares of ₹ 6 each, fully paid up	6	Other tangible assets	5
		Intangible assets (market value)	3
Reserves and Surplus	4	Miscellaneous expenditure to	
Liabilities	10	the extent not written off	2
	30		30

Fixed assets are worth ₹ 24 lakhs. Other Tangible assets are revalued at ₹ 3 lakhs. The company is expected to settle the disputed bonus claim of ₹ 1 lakh not provided for in the accounts. Goodwill appearing in the Balance Sheet is purchased goodwill. It is considered reasonable to increase the value of goodwill by an amount equal to average of the book value and a valuation made at 3 years' purchase of average super-profit for the last 4 years.

After tax, profits and dividend rates were as follows :

Year	PAT (₹ in Lakhs)	Dividend %
2007	30.00	11%
2008	35.00	12%
2009	40.0	13%
2010	41.00	14%

Normal expectation in the industry to which the company belongs is 10%.

Akbar holds 20,000 equity shares of ₹ 100 each fully paid and 10,000 equity shares of ₹ 60 each, fully paid up. He wants to sell away his holdings.

(i) Determine the break-up value and market value of both kinds of shares.

(ii) What should be the fair value of shares, if controlling interest is being sold ?

Solution:

(i) Break-up value of Re. 10 of share capital $= \dfrac{\text{Rs. } 289.80 \text{ lakhs}}{\text{Rs. } 160.00 \text{ lakhs}}$

= ₹ 18.10

Break up value of ₹ 100 paid up share = 18.10 × 100 = ₹ 181.00

Break up value of ₹ 60 paid up share = 18.10 × 60 = ₹ 108.60

Market value of shares :

Average dividend $= \left(\dfrac{11\% + 12\% + 13\% + 14\%}{4}\right)$ = 12.5%

Market value of ₹ 100 paid up share $= \dfrac{12.5\%}{10\%} \times 100$ = ₹ 125.00

Market value of ₹ 60 paid up share = $\frac{12.5\%}{10\%}$ × 60 = ₹ 75.00

(ii) Break up value of share will remain as before even if the controlling interest is being sold. But the market value of shares will be different as the controlling interest would enable the declaration of dividend upto the limit of disposable profit.

$$\frac{\text{Average Profit}^*}{\text{Paid up value of shares}} \times 100 = \frac{\text{Rs. 34 lakhs}}{\text{Rs. 160 lakhs}} \times 100 = 21.25\%$$

Market value of shares :

For ₹ 100 paid up share = $\frac{21.25\%}{10\%}$ × 100 = ₹ 212.50

For ₹ 60 paid up share = $\frac{21.25\%}{10\%}$ × 60 = ₹ 127.50

Fair value of shares = $\frac{\text{Breakup value} + \text{Market value}}{2}$

Fair value of ₹ 100 paid up share = $\frac{181.00 + 212.50}{2}$ = ₹ 196.80

Fair value of ₹ 6 paid up share = $\frac{108.60 + 127.50}{2}$ = ₹ 118.10

* (Transfer to reserves has been ignored)

Working Notes:

(₹ in lakhs)

(a) Calculation of average capital employed

Fixed assets		240.00
Other tangible assets		30.00
Intangible assets		30.00
		300.00
Less : Liabilities	100	
Bonus	10	110.00
		190.00
Less : ½ of profits [½ (41 – Bonus 10)]		15.50
Average capital employed		174.50

(b) Calculation of super profit

Average profit	= ¼ (30 + 35 + 40 + 41 – Bonus 10)	
	= ¼ × 136	34.00
Less : Normal profit	= 10 % of ₹ 174.50 lakhs	17.45
Super profit		16.55

(c) Calculation of goodwill

3 Years' purchase of average super-profit = 3 × 16.55 = ₹ 49.65 lakhs

Increase in value of goodwill = ½ (book value + 3 years' super profit)

= ½ (50 + 49.65)

= ₹ 49.825 lakhs

Net assets as revalued including	
book value of goodwill	240.00
Add : Increase in goodwill (rounded-off)	49.80
Net assets available for shareholders	289.80

Note : In the above solution, tax effect of disputed bonus and corporate dividend tax have been ignored.

Question 30: Following are the information of two companies for the year ended 31st March, 2011 :

Particulars	Company A	Company B
Equity Shares of ₹ 100 each	8,00,000	10,00,000
10% Pref. Shares of ₹ 100 each	6,00,000	4,00,000
Profit after tax	3,00,000	3,00,000

Assume the Market expectation is 18% and 80% of the Profits are distributed.

(i) What is the rate you would pay to the Equity Shares of each Company ?

(a) If you are buying a small lot.

(b) If you are buying controlling interest shares.

(ii) If you plan to invest only in preference shares which company's preference shares would you prefer ?

(iii) Would your rates be different for buying small lot, if the company 'A' retains 30% and company 'B' 10% of the profits?

Solution:

(i) (a) Buying a small lot of equity shares: If the purpose of valuation is to provide data base to aid a decision of buying a small (non-controlling) position of the equity of the companies, dividend capitalisation method is most appropriate. Under this method, value of equity share is given by:

$$\frac{\text{Dividend per share}}{\text{Market capitalisation rate}} \times 100$$

Company A : ₹ $\frac{24}{18} \times 100$ = ₹ 133.33

Company B : ₹ $\frac{20.8}{18} \times 100$ = ₹ 115.60

(b) Buying controlling interest equity shares

If the purpose of valuation is to provide data base to aid a decision of buying controlling interest in the company, EPS capitalisation method is most appropriate. Under this method, value of equity is given by:

$$\frac{\text{Earning per share(EPS)}}{\text{Market capitalisation rate}} \times 100$$

Company A : ₹ $\frac{30}{18} \times 100$ = ₹ 166.67

Company B : ₹ $\frac{26}{18} \times 100$ = ₹ 144.44

(ii) Preference Dividend coverage ratios of both companies are to be compared to make such decision.

Preference dividend coverage ratio is given by:

$$\frac{\text{Profit after tax}}{\text{Preference Dividend}} \times 100$$

Company A : $\frac{\text{Rs. } 3,00,000}{\text{Rs. } 60,000} = 5 \text{ times}$

Company B : $\frac{\text{Rs. } 3,00,000}{\text{Rs. } 40,000} = 7.5 \text{ times}$

If we are planning to invest only in preference shares, we would prefer shares of B Company as there is more coverage for preference dividend.

(iii) Yes, the rates will be different for buying a small lot of equity shares, if the company 'A' retains 30% and company 'B' 10% of profits.

The new rates will be calculated as follows:

Company A : ₹ $\frac{2.1}{18} \times 100$ = ₹ 11.67

Company B : ₹ $\frac{2.34}{18} \times 100$ = ₹ 13.00

Working Notes:

1. Computation of Earnings per share and dividend per share (companies distribute 80% of profits)

	Company A	Company B
Profit before tax	3,00,000	3,00,000
Less: Preference dividend	60,000	40,000
Earnings available to equity shareholders (A)	2,40,000	2,60,000
Number of Equity Shares (B)	8,000	10,000
Earning per share (A/B)	30.0	26.00
Retained earnings 20%	48,000	52,000
Dividend declared 80% (C)	1,92,000	2,08,000
Dividend per share (C/B)	24.00	20.80

2. Computation of dividend per share (Company A retains 30% and Company B 10% of profits)

Earnings available for Equity Shareholders	2,40,000	2,60,000
Number of Equity Shares	8,000	10,000

Retained Earnings	72,000	26,000
Dividend Distribution	1,68,000	2,34,000
Dividend per share	21.00	23.40

Question 31: The following is the Balance Sheet of N Ltd. as on 31st March, 2011:

Balance Sheet

Liabilities	₹	Assets	₹
Equity shares of ₹ 10 each fully paid		Goodwill	80,000
	8,00,000	Building	4,80,000
13.5% Redeemable preference shares		Machinery	4,40,000
of ₹ 100 each fully paid	4,00,000	Furniture	2,00,000
General Reserve	3,20,000	Vehicles	3,60,000
Profit and Loss Account	64,000	Investments	3,20,000
Bank Loan (Secured against fixed assets)	2,40,000	Stock	2,20,000
Bills Payable	1,20,000	Debtors	3,60,000
Creditors	6,20,000	Bank Balance	64,000
		Preliminary Expenses	40,000
	25,64,000		25,64,000

Further information:

(i) Return on capital employed is 20% in similar businesses.

(ii) Fixed assets are worth 30% more than book value. Stock is overvalued by ₹ 20,000, Debtors are to be reduced by ₹ 4,000. Trade investments, which constitute 10% of the total investments are to be valued at 10% below cost.

(iii) Trade investments were purchased on 1.4.2010. 50% of non-Trade Investments were purchased on 1.4.2009 and the rest on 1.4.2008. Non-Trade Investments yielded 15% return on cost.

(iv) In 2008-2009 new machinery costing ₹ 40,000 was purchased, but wrongly charged to revenue. This amount should be adjusted taking depreciation at 10% on reducing value method.

(v) In 2009-2010 furniture with a book value of ₹ 20,000 was sold for ₹ 12,000.

(vi) For calculating goodwill two years purchase of super profits based on simple average profits of last four years are to be considered. Profits of last four years are as under:

2007-2008 ₹ 3,20,000, 2008-2009 ₹ 3,60,000, 2009-2010 ₹ 4,20,000, 2010-2011 ₹ 4,40,000.

(vii) Additional depreciation provision at the rate of 10% on the additional value of Plant and Machinery alone may be considered for arriving at average profit.

Find out the intrinsic value of the equity share. Income-tax and Dividend tax are not to be considered.

Solution:

Calculation of intrinsic value of equity shares of N Ltd.

1. Calculation of Goodwill

(i) Capital employed

	₹	₹
Fixed Assets		

Building	4,80,000	
Machinery (₹ 4,40,000 + ₹ 29,160)	4,69,160	
Furniture	2,00,000	
Vehicles	3,60,000	
	15,09,160	
Add: 30% increase	4,52,748	
	19,61,908	
Trade investments (₹3,20,000 × 10% × 90%)	28,8000	
Debtors (₹ 3,60,000 – ₹ 4,000)	3,56,000	
Stock (₹ 2,20,000 – ₹ 20,000)	2,00,000	
Bank balance	64,000	26,10,708
Less: Outside liabilities		
Bank Loan	2,40,000	
Bills payable	1,20,000	
Creditors	6,20,000	9,80,000
Capital employed		16,30,708

(ii) Future maintainable profit

Calculation of average profit

	2007-08	2008-09	2009-2010	2010-2011
	₹	₹	₹	₹
Profit given	3,20,000	3,60,000	4,20,000	4,40,000
Add: Capital expenditure of machinery charged to revenue	-	40,000	-	-
Loss on sale of furniture	-	-	8,000	-
	3,20,000	4,00,000	4,28,000	4,40,000
Less: Depreciation on machinery		4,000	3,600	3,240
Income from non-trade investments		21,600	43,200	43,200
Reduction in value of stock				1,00,000
Bad debts				20,000
Adjusted profit	3,20,000	3,74,400	3,81,200	3.69.560

	₹
Total adjusted profit for four years (2007-2008 to 2010-2011)	14,45,160

Average profit (₹ 14,45,160/4)	3,61,290
Less: Depreciation at 10% on additional value of machinery	
(4,40,000 + 29,160) × 30/100 i.e. ₹ 1,40,748	14,075
Adjusted average profit	3,47,215

(iii) Normal Profit

20% on capital employed i.e. 20% on ₹ 16,30,708 ₹3,26,142

(iv) Super profit

Expected profit – normal profit

₹ 3,47,215 – ₹ 3,26,142 = ₹ 21,073

(v) Goodwill

2 years' purchase of super profit

₹ 21,073 × 2 = ₹ 42,146

2. Net assets available to equity shareholders

	₹	₹
Goodwill as calculated in 1(v) above		42,146
Sundry fixed assets		19,61,908
Trade and Non-trade investments		3,16,800
Debtors		3,56,000
Stock		2,00,000
Bank balance		64,000
		29,40,856
Less: Outside liabilities		
Bank loan	2,40,000	
Bills payable	1,20,000	
Creditors	6,20,000	9,80,000
Preference share capital		4,00,000
Net assets for equity shareholders		15,60,856

3. Valuation of equity shares

$$\text{Value of equity share} = \frac{\text{Net assets available to equity shareholders}}{\text{Number of equity shares}}$$

$$= \frac{\text{Rs.}15,60,856}{80,000}$$

= ₹ 19.51

Note:

1. Depreciation on the overall increased value of assets (worth 30% more than book value) has not been considered. Depreciation on the additional value of only plant and machinery has been considered taking depreciation at 10% on reducing value method while calculating average adjusted profit.
2. Loss on sale of furniture has been taken as non-recurring or extraordinary item.
3. It has been assumed that preference dividend has been paid till date.

Question 32

The directors of a public limited company are considering the acquisition of the entire share capital of an existing company X Ltd engaged in a line of business suited to them. The directors feel that acquisition of X will not create any further risk to their business interest.

The following is the Balance Sheet of X Ltd., as at 31st December, 2005:

Liabilities	₹	Assets	₹
Share Capital:		Fixed assets	3,00,000
2,000 equity shares of ₹100 each fully paid-up	2,00,000	Current assets: Stock	1,00,000
General reserve	1,50,000	Sundry debtors	1,70,000
Bank overdraft	1,20,000	Cash and bank balances	50,000
Sundry creditors	1,50,000		
	6,20,000		6,20,000

X's financial records for the past five years were as under:

	2010	2009	2008	2007	2006
	₹	₹	₹	₹	₹
Profits	40,000	37,000	35,000	30,000	31,000
Extra ordinary item(s)	1,750	2,000	(3,000)	(4,000)	500
	41,750	39,000	32,000	26,000	30,500
Dividends	24,000	20,000	20,000	16,000	16,000
	17,750	19,000	12,000	10,000	14,500

Additional information:

(i) There were no changes in the issued capital of X during this period.

(ii) The estimated values of X Ltd.'s assets on 31.12.2010 are:

	Replacement cost	Realisable value
	₹	₹
Fixed assets	4,00,000	2,70,000
Stock	1,50,000	1,60,000

(iii) It is anticipated that 1% of the debtors may prove to be difficult to be realized.

(iv) The cost of capital to the acquiring company is 10%.

(v) The current return of an investment of the acquiring company is 10%. Quoted companies with similar businesses and activities as X have a P/E ratio approximating to 8, although these companies tend to be larger than X.

Required:

Estimate the value of the total equity capital of X Ltd., on 31.12.2010 using each of the following bases:

(a) Balance sheet value

(b) Replacement cost

(c) Realisable value

(d) Gordon's dividend growth model

(e) P/E ratio model.

Solution:

			₹	₹
(a)	**Balance Sheet Value**			
	Capital		2,00,000	
	Reserve		1,50,000	3,50,000
(b)	**Replacement cost value**			
	Capital		2,00,000	
	Reserve		1,50,000	
	Appreciation:			
	Fixed assets	1,00,000		
	Stock	50,000	1,50,000	5,00,000
(c)	**Realizable value**			
	Capital		2,00,000	
	Reserve		1,50,000	
	Appreciation in stock		60,000	
	Depreciation in fixed assets		(30,000)	
	Book debts (Bad)*		(1,700)	3,78,300

(d) Gordon's dividend growth model

The formula to be used is $P = \frac{E(1-b)}{k-br}$

Where

P Price of share

E Earning per share

b retention ratio

k cost of capital

* It has been assumed that estimated bad debts would not be relevant for estimating values under bases (a) and (b).

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br growth rate

r rate of return on investment.

Profits retained: ₹17,750+ 19,000 + 12,000+ 10,000 + 14,500 = ₹ 73,250

Profits earned: ₹41,750 + 39,000 + 32,000+ 26,000+30,500 = ₹ 1,69,250

Retention ratio: $\frac{Rs.73,250}{Rs.1,69,250} = 0.43$

Return on investment for the year 2010 = $\frac{Rs.40,000}{2,00,000 + 1,50,000 + \frac{1}{2} \text{ of } 17,750}$ x 100

$= \frac{40,000}{3,58,875} \times 100 = 11.14$

Growth rate = Return on investment x retention ratio

= 11.14 x 0.43 = 4.79 %

Average profits = $\frac{Rs.1,69,250}{5} = Rs.33,850$

Market value = $\frac{Rs.33,850\,(1-.43)}{0.10-0.0479} = \frac{Rs.33,850 \times 0.57}{.0521} = Rs.3,70,336(approx.)$

(e) P/E ratio model

Comparable quoted companies have a P/E ratio of 8. X Ltd. is prima facie small company.

If a P/E ratio of 6 is adopted, the valuation will be 40,000 x 6 = ₹2,40,000

If a P/E ratio of 7 were to be adopted, the valuation will be 40,000 x 7 = ₹2,80,000

Question No.33:

From the following Profit & Loss Account of Brightex Co. Ltd., prepare a gross value added statement for the year ended 31.12.2011:

Show also the reconciliation between gross value added and profit before taxation.

Profit and Loss Account for the year ended 31.12.2011

	Notes	(₹'000)	(₹'000)
Income :			
Sales			31,200
Other Income			275
			31,475
Expenditure:			
Production and operational expenses	1	21,600	
Administration expenses (Factory)	2	900	

Interest & Other charges	3	3,120	
Depreciation		80	25,700
Profit before tax			5,775
Provision for tax			275
			5,500
Balance as per last Balance Sheet			300
			5,800
Transferred to fixed assets replacement reserve		2,000	
Dividend paid		900	
			2,800
Surplus carried to Balance Sheet			3,000

Notes:

1. Production & Operation expenses :

Consumption of raw materials	16,050
Consumption of stores	200
Local tax	40
Salaries to administrative staff	3,100
Other manufacturing expenses	2,210
	21,600

2. Administration expenses include salaries and commission to directors 25
3. Interest on other charges include :

(a) Interest on bank overdraft (Overdraft is of temporary nature) 545

(b) Fixed loan from I.C.I.C.I. 205

(c) Working capital loan from I.F.C.I. 100

(d) Excise duties amount to one-tenth of total value added by manufacturing and trading activities.

Solution:

Brightex Co. Ltd

Value Added Statement for the year ended 31st December, 2011

	₹ In Thousands	₹ In thousands	%
Sales		31,200	
Less: Cost of bought in material and services:			
Production and operational expenses (21,600 – 40 – 3,100)	18,460		
Administration expenses (180 – 5)	875		
Interest on bank overdraft	545		
Interest on working capital loan	100		
Excise duties (Refer to working note)	900		
Other/miscellaneous charges(444 – 180)	1,320	22,200	
Value added by manufacturing and trading activities		9,000	
Add: Other income		275	
Total Value Added		9,275	
Application of Value Added:			
To pay Employees :			
Salaries to Administrative staff		3,100	
To pay Directors:			

Salaries and Commission		25
To Pay Government :		
Local Tax	40	
Income Tax	275	315
To Pay Providers of Capital :		
Interest on Fixed Loan	255	
Dividend	800	1,055
To provide For Maintenance and Expansion of the Company :		
Depreciation	80	
Fixed Assets Replacement Reserve	200	
Retained Profit (600 - 60)	2,700	4,780
		9,275

Reconciliation of Total Value Added and Profit Before Taxation:

	₹ In Thousands	₹ In thousands
Profit before Tax		5,775
Add back:		
Depreciation	80	
Salaries to Administrative Staff	3,100	
Director's Remuneration	25	
Interest on Fixed Loan	255	
Local Tax	40	3,500
Total Value Added		9,275

Working Note:

Calculation of Excise Duty

		₹ In thousands
Interest and other charges		3,120
Less : Interest on bank overdraft	545	
Interest on loan from ICICI	255	
Interest on loan from IFCI	100	900
Excise duties and other/miscellaneous charges		2,220

Assuming that these miscellaneous charges have to be taken for arriving at Value Added (in the first part of Value Added Statement), the excise duty will be computed as follows.

Let excise duty be x; thus miscellaneous/ other charges = 2,220 - x

Thus x = 1/10 × [31,200 - {18,460 + 875 + 545 + 100 + x + (2,220 - x)}]

= 1/10 $\frac{1}{10}$ x [31,200 – 22,200] = 90

Other/ miscellaneous charges = 2,220 - 900 = 1,320

The above solution is given accordingly.

However, if other/miscellaneous charges are taken as any type of application of Value Added. (i.e, to be taken in the application part), then excise duty (x) will be computed as follows:

x = 1/10 x [31,200 - (18,460 + 875 + 545 + 100 + x)]

x = 1/10 x [11,220 - x]

or, 11x = 11,220

∴ x = 1,020

And thus total value added will be 10200 + 275 (other income) = 10,475

And accordingly, application part will be prepared, taking miscellaneous charges.

₹ ('000) 1,200 [i.e, 2,220 – 1,020] as the application of value added.

Question 34: From the following Profit and Loss Account of X Limited, prepare Gross Value Added Statement and show the reconciliation between Gross Value Added and Profit before taxation:

Profit and Loss Account for the year ended 31st March, 2011

	(₹ in lakhs)	(₹ in lakhs)
Income		
Sales		2,400
Other Income		150
		2,550
Expenditure		
Production and Operational Expenses	1,800	
Administrative Expenses	90	
Interest and Other Charges	90	
Depreciation	60	2,040
Profit before taxes		510
Provision for taxes		90
		420
Balance as per last Balance Sheet		30
		450
Transferred to:		
General Reserve		240
Proposed Dividend		60
Surplus carried to Balance Sheet		150
		450

Break-up of some of the Expenditure is as follows:

Production and Operational Expenses:	
Consumption of Raw Materials and Stores	960
Salaries, Wages and Bonus	180
Cess and Local Taxes	60
Other Manufacturing Expenses	600
	1,800
Administrative Expenses:	
Audit Fee	18
Salaries and Commission to Directors	24
Provision for Doubtful Debts	18
Other Expenses	30
	90
Interest and other Charges:	
On Working Capital Loans from Bank	30
On Fixed Loans from ICICI	45
On Debentures	15
	90

Solution:

X Limited

Gross Value Added Statement for the year ended 31st March, 2011

	₹ in lakhs	₹ in lakhs
Sales		
Less: Cost of bought in material or services:		2,400
Production and Operational Expenses (960 + 600)	1,560	
Administrative Expenses (18 + 18 +30)	66	
Interest on working capital loans	30	1656
Value added by manufacturing and trading activities		744
Add: Other Income		150
Total Value Added		894

Application of Value Added:

				%
To	Pay Employees:			
	Salaries, Wages and Bonus		180	20.14
	Pay Directors:			
To	Salaries and Commission		24	2.68
	Pay Government:			
To	Cess and Local taxes	60		
	Income Tax	90	150	16.78
	Pay Providers of Capital:			
To	Interest on Debentures	5		
	Interest on Fixed Loans	45		
	Dividend	60	120	13.42
	Provide for Maintenance and			
To	Expansion of the Company:			
	Depreciation	60		
	General Reserve	240		
	Retained Profit (150 – 30)	120	420	46.98
			894	100.00

Reconciliation between Gross Value Added and Profit before Taxation

	₹ in lakhs	₹ in lakhs
Profit before tax		510
Add back:		
Depreciation	60	
Salaries, Wages and Bonus	180	
Directors' Remuneration	24	
Cess and Local Taxes	60	
Interest on Debentures	15	
Interest on Fixed Loans	45	384
Total Value Added		894

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Question 35: The following is the Profit and Loss Account of Galaxy Ltd. for the year ended 31.03.2011. Prepare a Gross Value Added Statement of Galaxy Ltd. and show also the reconciliation between Gross Value Added and Profit before taxation.

Profit and Loss Account for the year ended 31.03.2011

	Notes	Amount	(₹ in lakhs)
Income:			
Sales		–	3,560
Other Income		–	220
			3,780
Expenditure:			
Production and operational expenses	(a)	2,564	–
Administration expenses (Factory)	(b)	132	–
Interest	(c)	116	–
Depreciation		68	2,880
Profit before taxes		–	900
Provision for taxes	(d)	–	120
Profit after tax		–	780
Balance as per last Balance Sheet		–	40
			820
Transferred to General Reserve		180	–
Dividend paid		380	–
		560	–
Surplus carried to Balance Sheet		260	–
		820	–

Notes:

(a) Production and Operational expenses	₹ in lakhs
Consumption of raw materials	1,172
Consumption of stores	236
Salaries, Wages, Gratuities etc. (Admn.)	328
Cess and Local taxes	392
Other manufacturing expenses	436
	2,564

(b) Administration expenses include salaries, commission to Directors ₹ 36.00 lakhs Provision for doubtful debts ₹ 25.20 lakhs.

	₹ in lakhs
(c) Interest on loan from ICICI Bank for working capital	36

Interest on loan from ICICI Bank for fixed loan	40
Interest on loan from IFCI for fixed loan	32
Interest on Debentures	8
	116

(d) The charges for taxation include a transfer of ₹ 12.00 lakhs to the credit of Deferred Tax Account.

(e) Cess and Local taxes include Excise Duty, which is equal to 10% of cost of bought-in material.

Solution: **Galaxy Ltd.**

Gross Value Added Statement for the year ended 31st March, 2011

	₹ in lakhs	₹ in lakhs
Sales		3,560
Less: Cost of bought in materials and services:		
Production and operational expenses (1,172+236+436)	1,844	
Administration expenses (132 – 36)	96	
Interest on working capital loan	36	
Excise duty (Refer working note)	220	2,196
Value added by manufacturing and trading activities		1,364
Add: Other income		220
Total value added		1,584

Application of Value Added

			%
To Employees			
Salaries, wages, gratuities etc.		328	20.71%
To Directors			
Salaries and commission		36	2.27%
To Government			
Cess and local taxes (392 – 220)	172		
Income tax	108	280	17.68%
To Providers of capital			
Interest on debentures	8		
Interest on fixed loan	76		
Dividends	380	460	29.04%
To Provide for maintenance and expansion of the company			
Depreciation	68		
General reserve	180		
Deferred tax	12		
Retained profits (260 – 40)	220	480	30.30%
		1,584	100%

Statement showing reconciliation of Gross Value Added with Profits before taxation

		₹ in lakhs
Profits before taxes		900
Add:		
Depreciation	68	
Directors' remuneration	36	

Salaries, wages & gratuities etc.	328	
Cess and local taxes	172	
Interest on debentures	8	
Interest on fixed loan	76	684
Total value added		1,584

Working Note:

Calculation of Excise Duty

Say cost of bought in materials and services is 'x'

Excise Duty is 10% of x = x/10

x = 1,844+96+36 + x/10

x = 1,976 + x/10 = 2,196 (approx.)

Excise Duty = 2,196 – 1,976 = ₹ 220

Question 36: On the basis of the following Profit and Loss Account of Zed Limited and the supplementary information provided thereafter, prepare Gross Value Added Statement of the company for the year ended 31st March, 2011. Also prepare another statement showing reconciliation of Gross Value Added with Profit before Taxation.

Profit and Loss Account of Zed Limited for the year ended 31st March, 2011.

	Amount (₹ in lakhs)	Amount (₹ in lakhs)
Income		
Sales		12,525
Other Income		325
		12,850
Expenditure		
Production and Operational Expenses	8,875	
Administrative Expenses	462.50	
Interest	587.50	
Depreciation	925.00	10,850
Profit before Taxation		2,000
Provision for Taxation		700
Profit after Taxation		1,300
Credit Balance as per last Balance Sheet		100
		1,400
Appropriations		
Transfer to General Reserve		250
Preference Dividend (Interim) paid		125
Proposed Preference Dividend (Final)		125
Proposed Equity Dividend		750
Balance carried to Balance Sheet		150
		1,400

Supplementary Information

Production and Operational Expenses consist of:

Raw Materials and Stores consumed		4,750

Wages, Salaries and Bonus	1,525
Local Taxes including Cess	550
Other Manufacturing Expenses	2,050
	8,875

Administrative Expenses consist of:

Salaries and Commission to Directors	150
Audit Fee	60
Provision for Bad and Doubtful Debts	50
Other Administrative Expenses	202.50
	462.50

Interest is on:

Loan from Bank for Working Capital	87.50
Debentures	500.00
	587.50

Solution: Gross Value Added Statement of Zed Ltd. for the year ended 31st March, 2011

		₹ in lakhs	₹ in lakhs
Sales			12,525
Less:	Cost of raw materials, stores and other services consumed	6,800	
	Administrative expenses	312.50	
	Interest on loan from bank for working capital	87.50	7,200
Value added by manufacturing and trading activities			5,325
Add:	Other income		325
	Total value added		5,650

Application of Value Added

		₹in lakhs	₹ in lakhs	%
To	Pay employees			
	Wages, salaries and bonus		1,525	26.99
To	pay directors			
	Salaries and commission to Directors		150	2.66
To	pay Government			
	Local taxes including cess	550		
	Income tax	700	1,250	22.12
To	pay providers of capital			
	Interest on debentures	500		
	Preference dividend	250		
	Equity dividend	750	1,500	26.55
To	provide for the maintenance and expansion of the company:			

Depreciation	925		
Transfer to general reserve	250		
Retained profit ₹ (150 – 120) lakhs	50	1,225	21.68
		5,650	100

Statement showing Reconciliation between Gross Value Added with Profit before Taxation

	₹ in lakhs	₹ in lakhs
Profit before taxation		2,000
Add back:		
Wages, salaries and bonus	1,525	
Salaries and commission to Directors	150	
Local taxes including cess	550	
Interest on debentures	500	
Depreciation	925	3,650
Gross Value Added		5,650

Question 37: From the following Profit and Loss account of New Mode Reporting Ltd., prepare a gross value added statement for the year ended 31st December, 2010. Show also the reconciliation between GVA and Profit before taxation:

Profit and Loss Account

	₹'000s	₹'000s
Income		
Sales	12,480	
Other income	110	12,590
Expenditure		
Production and Operational expenditure	8,640	
Administrative expenses	360	
Interest and other charges	1,248	
Depreciation	32	10,280
Profit before tax		2,310
Less: Provision for tax		110
Profit after tax		2,200
Add: balance as per last Balance Sheet		120
		2,320
Less: Transfer to Fixed assets replacement Reserve	800	
Dividend paid	320	1,120
Surplus carried to Balance Sheet		1,200

Additional information:

(i) Production and Operational expenses consists of

₹

Consumption of Raw materials	64,20,000
Consumption of Stores	80,000
Local tax	16,000
Salaries to Administrative staff	12,40,000
Other Manufacturing expenses	8,84,000

(ii) Administrative expenses include salaries and commission to directors – ₹10,000

(iii) Interest and other charges include-

		₹
(a)	Interest on bank overdraft (overdraft is of temporary nature)	2,18,000
(b)	Fixed loan from SIDBI	1,02,000
(c)	Working capital loan from IFCI	40,000
(d)	Excise duties	?

(iv) Excise duties amount to one-tenth of total value added by manufacturing and trading activities.

Solution:

(a) **New Mode Reporting Ltd.**

Value Added Statement for the year ended 31st December, 2010

(Figures in ₹'000)

Sales			12,480
Less:	Cost of Materials and Services:		
	Production and Operational Expenses (8,640 – 16-1,240)	7,384	
	Administrative Expenses (360 – 10)	350	
	Interest on Bank Overdraft	218	
	Interest on Working Capital Loan	40	
	Excise Duties (Refer to working note)	360	
	Other/miscellaneous charges (888 – 360)	528	8,880
Value added by manufacturing and trading activities			3,600
Add:	Other Income		110
Gross value added from operations			3,710

Application of Gross Value Added

		₹ in '000	₹in'000	%
To	Pay Employees:			
	Salaries to Administrative Staff		1240	33.42
To	Pay Directors:			
	Salaries and Commission		10	0.27
To	Pay Government:			
	Local Taxes	16		
	Income Tax	110	126	3.40
To	Pay Providers of Capital:			
	Interest on Fixed Loan	102		
	Dividend	320	422	11.37
To	Provide for maintenance and expansion of the company:			
	depreciation	32		
	Fixed Assets Replacement Reserve	800		
	Retained Profit (1200 – 120)	1080	1912	51.54
			3,710	100.00

Reconciliation between Gross Value added and Profit before Taxation

			₹in'000
Profit before Tax			2,310
Add Back:	Depreciation	32	
	Salaries to Administrative Staff	1240	
	Directors' Salaries and Commission	10	
	Interest on Fixed Loan	102	
	Local Tax	16	1400
Total value added			3710

Working Note:

Calculation of excise duty	₹'000	₹'000
Interest and other charges		1,248
Less: Interest on bank overdraft	218	
Interest on SIDBI loan	102	
Interest on IFCI loan	40	360
Excise duty and other charges		888

Assuming that these other /miscellaneous charges will be deducted for arriving at the value added, the excise duty will be calculated as follows:-

Let Excise Duties be denoted by - E

Then, other charges = 888 - E

Excise duty are $\frac{1}{10th}$ of value added

Hence E = $\frac{1}{10th}$ [12,480 – {7,384+ 350+218 + 40+E + (888 – E)}]

= $\frac{1}{10th}$ [12,480 – 8,880]

= $\frac{1}{10th}$ × 3,600= 360

Other/miscellaneous charge 888 – 360 = ₹528

The above solution has been given accordingly.

Alternatively, if other/miscellaneous charges are considered as application of value added (i.e., not deducted for deriving the value added), calculation of Excise Duties (E) will be as follows:

E = $\frac{1}{10th}$ [12,480 – (7,384 + 350 + 218+40+E)]

E = $\frac{1}{10th}$ × (4,488 - E)

11E = 4,488

E = ₹408

And thus other/miscellaneous charges will be ₹888 – 408 = ₹480

Gross Value added in this case will be ₹ 4,080 + 110 (Other income) = ₹4,190

And accordingly, application part will be prepared after taking other/miscellaneous charges.

Question No.38:

M Ltd. Group has three divisions A, B and C. Details of their turnover, results and net assets are given below:

	₹ ('000)
Division A	
Sales to B	9,150
Other Sales (Home)	180
Export Sales	12,270
	21,600
Division B	
Sales to C	90
Export Sales to Europe	600
	690
Division C	
Export Sales to America	540

	Head Office ₹ ('000)	Divisions A Rs('000)	B ₹('000)	C ₹('000)
Operating Profit or Loss before tax		480	60	(24)
Re-allocated cost from Head Office		144	72	72
Interest cost		12	15	3

Fixed assets	150	600	120	360
Net current assets	144	360	120	270
Long-term liabilities	114	60	30	360

Prepare a Segmental Report for publication in M Ltd. Group.

Solution: **M Ltd.**

Segmental Report

₹ ('000)

	Divisions			Inter segment Eliminations	Consolidated Total
	A	B	C		
Segment Revenue					
Sales:					
Domestic	180	–	–	–	180
Export	12,270	600	540	––	13,410
External Sales	12,450	600	540	–	13,590
Inter-segment Sales	9,150	90	––	9,240	––
Total Revenue	21,60	690	540	9,240	13,590
Segment result (given)	480	60	(24)		516
Head office expenses					(288)
Operating profit					228
Interest expense					(30)
Profit before tax					198
Other information					
Fixed assets	600	120	360		1,080
Net current assets	360	120	270		750
Segment assets	960	240	630		1,830
Unallocated corporate assets					294
Segment liabilities	60	30	360		450
Unallocated corporate liabilities					114

Sales Revenue by Geographical Market

(₹'000)

	Home Sales	Export Sales (by division A)	Export to Europe	Export to America	Consolidated Total
External Sales	180	12,27	600	540	13,590

Question 39: Prepare a segmental report for publication in Diversifiers Ltd. from the following details of the company's three divisions and the head office:

	₹('000)
Forging Shop Division	
Sales to Bright Bar Division	13,725
Other Domestic Sales	270
Export Sales	18,405
	32,400
Bright Bar Division	
Sales to Fitting Division	135
Export Sales to Rwanda	900
	1,035
Fitting Division	
Export Sales to Maldives	810

Particulars	Head Office ₹ ('000)	Forging Shop Division ₹ ('000)	Bright Bar Division ₹ ('000)	Fitting Division ₹ ('000)
Pre-tax operating result		720	90	(36)
Head office cost reallocated		216	108	108
Interest costs		18	24	6
Fixed assets	225	900	180	540
Net current assets	216	540	180	405
Long-term liabilities	171	90	45	540

Solution:

Diversifiers Ltd.
Segmental Report

(₹'000)

Particulars	Divisions Forging shop	Bright Bar	Fitting	Inter Segment Eliminations	Consolidated Total
Segment revenue					
Sales:					
Domestic	270	–	–	–	270
Export	18,405	900	810	–	20,115
External Sales	18,675	900	810	–	20,385
Inter-segment sales	13,725	135	–	13,860	–
Total revenue	32,400	1,035	810	13,860	20,385
Segment result (given)	720	90	(36)		774
Head office expenses					(432)
Operating profit					342
Interest expense					(48)
Profit before tax					294

Information in relation to assets and liabilities:					
Fixed assets	900	180	540	–	1,620
Net current assets	540	180	405	–	1,125
Segment assets	1,440	360	945	–	2,745
Unallocated corporate assets (225 + 216)	–	–	–	–	441
Total assets					3,186
Segment liabilities	90	45	540	–	675
Unallocated corporate liabilities					171
Total liabilities					846

Sales Revenue by Geographical Market

(₹'000)

	Home Sales	Export Sales (by forging shop division)	Export to Rwanda	Export to Maldives	Consolidated Total
External sales	270	18,405	900	810	20,385

Question No.40:

(a) Explain the concept of 'Economic value added' (EVA for short) and its uses.

(b) What is economic value added and how is it calculated? Discuss.

Answer

(a) Economic Value Added (EVA) for short, is primarily a benchmark to measure earnings efficiency. Though the term "Economic Profit" was very much there since the inception of "Economics", Stern Stewart & Co., of USA has got a registered Trade Mark for this by the name "EVA", an acronym for Economic Value Added.

EVA as a residual income measure of financial performance, is simply the operating profit after tax less a charge for the capital, equity as well as debt, used in the business. EVA includes both profit and loss as well as balance sheet efficiency as well as the ROCE, or ROE.

In addition, EVA is a management tool to focus managers on the impact of their decisions in increasing shareholders' wealth. These include both strategic decisions such as what investments to make, which businesses to exit, what financing structure is optimal; as well as operational decisions involving trade-offs between profit and asset efficiency such as whether to make in house or outsource, repair or replace a piece of equipment, whether to make short or long production runs etc.

Most importantly the real key to increasing shareholder wealth is to integrate the EVA framework in four key areas; to measure business performance; to guide managerial decision making; to align managerial incentives with shareholders' interests; and to improve the financial and business literacy throughout the organisation.

To better align managers interests with Shareholders – the EVA framework needs to be holistically applied in an integrated approach – simply measuring EVAs is not enough it must also become the basis of key management decisions as well as be linked to senior management's variable compensation.

(b) Economic Value Added (EVA) is primarily a benchmark to measure earnings efficiency. EVA as a residual income measure of financial performance is simply the operating profit after tax less a charge for the capital employed, equity as well as debt, used in the business.

Mathematically EVA= OPBT – Tax – (TCE × COC)

Where:

OPBT = Opening Profit Before Tax

TCE = Total Capital Employed

COC = Cost of Control

Because EVA includes both profit and loss as well as balance sheet efficiency as well as the opportunity cost of investor capital - it is better linked to changes in shareholders wealth and is superior to traditional financial measures such as PAT or percentage of return measures such as ROCE or ROE.

EVA, additionally, is a tool for management to focus on the impact of their decisions in increasing shareholders wealth. These include both strategic decisions such as what investments to make, which business to exit, what financing structure is optimal; as well as operational decisions involving trade-offs between profit and asset efficiency such as whether to make inhouse or outsource, repair or replace an equipment, whether to make short or long production runs etc.

Most importantly the real key to increasing shareholders wealth is to integrate EVA framework in four key areas, viz., to measure business performance, to guide managerial decision making, to align managerial incentives with the shareholders' interests and to improve the financial and business literacy throughout the organisation.

To better align managers interests with shareholders' - the EVA framework needs to be holistically applied in an integrated approach - simply measuring EVA is not enough; it must also become the basis of key management decisions as well as be linked to senior management's variable compensation.

However, EVA as a strategic tool has the following limitations:

1. Not easy to use; too complicated for small businesses.
2. Recommends inexpensive debts in order to reduce the cost of capital.
3. A passive tool, measures past performance.

Question 41

The following information is available of a concern; calculate E.V.A.:

Debt capital 12%	*Rs. 2,000 crores*
Equity capital	*Rs. 500 crores*
Reserve and surplus	*Rs. 7,500 crores*
Capital employed	*Rs. 10,000 crores*
Risk-free rate	*9%*
Beta factor	*1.05*
Market rate of return	*19%*
Equity (market) risk premium	*10%*
Operating profit after tax	*Rs.2,100 crores*
Tax rate	*30%*

Solution:

E.V.A. = NOPAT – COCE

NOPAT = Net Operating Profit after Tax

COCE = Cost of Capital Employed

COCE = Weighted Average Cost Of Capital × Average Capital Employed

= WACC × Capital Employed

Debt Capital		Rs.2,000 crores
Equity capital 500 + 7,500	=	Rs.8,000 crores
Capital employed	=	2,000+8,000 = Rs.10,000 crores
Debt to capital employed	=	$\frac{2,000}{10,000} = 0.20$
Equity to Capital employed	=	$\frac{8,000}{10,000} = 0.80$
Debt cost before Tax		12%
Less: Tax (30% of 12%)		3.6%
Debt cost after Tax		8.4%

According to Capital Asset Pricing Model (CAPM)

Cost of Equity Capital = Risk Free Rate + Beta × Equity Risk Premium

Or

= Risk Free Rate + Beta (Market Rate – Risk Free Rate)

= 9 + 1.05 × (19-9)

= 9 + 1.05 × 10 = 19.5%

WACC = Equity to CE x Cost of Equity capital + Debt to CE x Cost of debt

= 0.8× 19.5% + 0.20× 8.40%

= 15.60% + 1.68% = 17.28%

COCE = WACC × Capital employed

= 17.28% × 10,000 crores = 1728 crores

E.V.A. = NOPAT – COCE

= Rs. 2,100 – Rs. 1,728 = Rs. 372 crores

Question 42:

(a) *"The content of corporate social report is essentially based on social objectives." Discuss.*

(b) Enumerate the major heads identified for corporate social reporting purposes.

(c) *Write short note on Corporate Social Reporting.*

Answer

(a) The content of Corporate Social Report is essentially based on the social objectives. Brummet identified five areas wherein social objectives can be traced out, namely, Net Income Contribution, Human Resource Contribution, Public Contribution, Environmental Contribution and Product or Service Contribution.

In view of the social objectives, the importance of earning objective is not understated, rather attainment of social objectives is dependent on earning objective. A sick business entity becomes liability to the society and sustains social costs instead of generating social benefits.

Human Resource Contribution is the indicator of the impact of organisational activities (viz. pay and allowances, perks and incentives, recruitment, training and development, placement, promotion and transfer, welfare measure, etc.) on people of the organisation. Public Contribution is the indicator of general philanthropy in the cultural and social welfare programmes and contribution to national exchequer by way of tax and duties.

Industrial activity is supposed to consume irreplaceable resources and produces solid wastes. By this process it pollutes air and water, causes noise and spoils the environment. These are termed as negative social effects. The corporate social objective is the abatement of such negative effect. It is covered by environmental contribution.

Lastly, the Product or Service Contribution covers the qualitative aspects of the organisation's product or service. It includes quality guarantee, redressal of customers' grievances, honest exposure in advertisement etc.

Although Brummet covered wide range of objectives, still these are not essentially exhaustive. Social objectives are determined by socio-economic conditions of a country. It is difficult to set universal list of social objectives to be pursued by the corporate sector. For example, in India, regional imbalance, unemployment, reservation for weaker sections of the population, scarcity of foreign exchange, energy deficit, population pressure and illiteracy are some of the widely accepted socio-economic problems. And obviously the general expectation is that the corporate sector will positively contribute to such socio-economic problems. Since the socio-economic problems of a country change over time or the priority attached to a problem shifts. Brummet's over simplified set of contributions should be suitably moulded to fit in the perspective of socio-economic problems of a country.

(b) Considering the major socio-economic problems of the country, eight major heads may be identified for Social Reporting purposes:

I. Employment Opportunities.

II. Foreign Exchange Transactions

III. Energy Conservation.

IV. Research and Development.

V. Contribution to Government Exchequer.

VI. Social Projects

VII. Environmental Control.

VIII. Consumerism.

I. Creation of employment opportunities during the year may be classified into opportunities in India and opportunities abroad. In India employment may be created either by expansion/diversification in backward or other areas. However, employment protection by

absorption of sick units may also be treated as employment opportunities. Moreover, the corporate enterprise may create new openings abroad by adopting foreign projects. In all such cases, quantitative information needs to be disclosed giving break-up of SC/ST persons, physically handicapped persons, women and other workers appointed during the year. Tax advantage or subsidy received for establishing industrial units in backward areas or absorption of sick units should be disclosed properly. If the corporate enterprise follows human resource accounting system, it may show human assets created during the year and costs incurred for such purpose.

II. In view of the scanty foreign exchange reserve, it is desirable to disclose foreign exchange transactions in details. Foreign exchange inflows occur by exports or earnings from foreign projects. Also saving in foreign exchange is equivalent to foreign exchange inflows. An enterprise can save foreign exchange by import substitution and replacement of foreign technology/technician. Foreign exchange outflows are caused by purchase of' raw materials/spares, plant and machinery capital repayment, payment of dividend and interest. It is desirable to report inflows and outflows for each currency separately and a summary statement in Indian currency. Any tax advantage/export subsidy received for foreign exchange ernings should be disclosed as an item of social cost.

III. Energy purchased/generated and energy consumed per unit of standard product are to be reported along with consumption norm of the industry. Energy Audit Reports prepared by BICP may be followed for industry norms wherever applicable. Positive/negative variation in energy consumption should be reported along with reasons therefor.

IV. Recurring/non-recurring cost incurred for research and development is to be reported along with results. If possible, effect of research and development activities may be quantified in terms of cost saved/profit added. Any tax advantage/subsidy received is to be reported as social cost incurred along with the generation of social benefits from research and development.

V. Contribution to Government exchequer by way of sales tax, income tax, excise, custom and other duties needs to be reported as an item of social benefits.

VI. Contribution to social projects may be further classified into direct involvement of corporate enterprise and donations to different organisations. Social projects like construction of road, establishment of school, college, research institute, hospital, stadium, etc. may be earmarked alongwith the categories of beneficiaries and cost involved.

In case of donation to any organisation, the nature of the organisation may be stated along with the tax advantage received by way of such donations.

(Contribution of the corporate enterprise for development of sports and games, cultural matters and self-employment programmes may be reported as creation of social benefit).

VII. Negative social effect caused by the corporate enterprise may be quantified stating use of irreplaceable resources and nature of pollution caused. Action taken and cost involved for pollution control should be reported as an item of social benefit.

VIII. Failures in terms of complaints received against improper quality, poor service etc. may be reported under social costs. Action taken and cost involved for undertaking quality control and customers' service should be reported under social benefits.

(c) Corporate Social Reporting is the information communique with respect to discharge of social responsibilities of corporate entity. The transition in accounting function from historical cost based profitability accounting to social responsibility accounting is a good fit to the present-day data requirement of the "Users of accounts".

The content of Corporate Social Report is essentially based on the social objectives, namely Net Income Contribution, Human Resource Contribution, Public Contribution, Environmental Contribution and Product or Service Contribution.

Considering the major socio-economic problems of the country, eight major heads can be identified for social reporting purpose:

(i) Employment Opportunities;

(ii) Foreign Exchange Transactions;

(iii) Energy Conservation;

(iv) Research and Development;

(v) Contribution to Government Exchequer;

(vi) Social Projects;

(vii) Environmental Control;

(viii) Consumerism.

Initially, it is difficult to express social costs incurred by a corporate enterprise and social benefits generated in money terms. Until suitable methologies are available for conversion of social cost-benefit in money terms, it is desirable to begin with descriptive social report. Further research is necessary in this area either to improve heads of corporate social reporting in the context of dynamic socio-economic environment.

Question 42:

From the following information taken from the books of F Ltd. relating to staff and community benefits, prepare a statement classifying the various items under the appropriate heads, required under Corporate Social Reporting.

	Rs.
Environmental Improvements	20,10,000
Medical facilities	45,00,000
Training Programmes	10,25,000
Generation of Job Opportunities	60,75,000
Municipal Taxes	10,70,000
Increase in cost of living in the vicinity due to a thermal power station	16,55,000
Concessional transport, water supply	11,25,000
Extra work put in by staff and officers for drought relief	18,50,000
Leave encashment and leave travel benefits	52,00,000
Educational facilities for children of staff members	21,60,000
Subsidised canteen facilities	14,40,000
Generation of business	25,00,000

Answer

F Ltd.

Statement relating to staff and community benefits

			Rs.
I. Social Benefits and Cost to Staff			
	Social Benefits to Staff		
A.			
	1.	Medical facilities	45,00,000
	2.	Training programmes	10,25,000
	3.	Concessional transport, water supply	11,25,000
	4.	Leave encashment and leave travel benefits	52,00,000
	5.	Educational facilities for children of staff members	21,60,000
	6.	Subsidised canteen facilities	14,40,000
		Total	1,54,50,000
	Social Costs to Staff		
B.		Extra work put in by staff and officers for drought relief	18,50,000
Net Social Benefits to Staff (A – B)			1,36,00,000
II. Social Benefits and Cost to Community			
A.	**Social Benefits to Community**		
	1.	Environmental improvements	20,10,000
	2.	Generation of job opportunities	60,75,000

		10,70,000
3.	Municipal taxes	25,00,000
4.	Generation of business	1,16,55,000
	Total	

B. Social Costs to Community

Increase in cost of living in the vicinity due to a thermal power station	16,55,000
	1,00,00,000

Net Social Benefits to Community (A – B)

Question 43

From the following information of Steel India Ltd. for the year ended 31st March, 2011, prepare their Social Balance Sheet as on that date:

- A specialist has valued their human assets at Rs.828 lakhs.
- Their investments were classified as:

(Rs. in lakhs)

	Residential	Hospital	School	Welfare
Buildings	17.00	1.00	1.40	0.80
Equipments	2.80	1.00	1.00	-

- Water, electricity and gas supply systems totalled Rs.1 lakh.
- Their Net owned funds were Rs.26 lakhs.

Answer: **Social Balance Sheet of Steel India Ltd. as at 31.03.2011**

(Rs. in lakhs)

Liabilities:		
Organization Equity		26.00
Social Equity (Contribution by staff)		828.00
Total		854.00
Assets:		
Social Capital Investment:		
(a) Buildings		
(i) Residential	17.00	
(ii) Hospital	1.00	

(iii) School	1.40	
(iv) Welfare	0.80	20.20
(b) Equipments		
(i) Residential	2.80	
(ii) Hospital	1.00	
(iii) School	1.00	4.80
(c) Water, Electricity and Gas supply systems		1.00
Human assets (as valued by the specialist)		828.00
Total		854.00

Question 44:

Write short notes on:

(a) Jaggi and Lau model on valuation on group basis of Human Resources.

(b) Opportunity cost (HRA).

(c) Human Resource Accounting.

Answer

(a) According to Jaggi and Lau Model, proper valuation of human resources is not possible unless the contributions of individuals as a group are taken into consideration. A group refers to homogeneous employees whether working in the same department or division of the organisation or not. An individual's expected service tenure in the organisation is difficult to predict but on a group basis it is relatively easy to estimate the percentage of people in a group likely to leave the organisation in future. This model attempted to calculate the present value of all existing employees in each rank. Such present value is measured with the help of the following steps:

(i) Ascertain the number of employees in each rank.

(ii) Estimate the probability that an employee will be in his rank within the organisation or terminated/promoted in the next period. This probability will be estimated for a specified time period.

(iii) Ascertain the economic value of an employee in a specified rank during each time period.

(iv) The present value of existing employees in each rank is obtained by multiplying the above three factors and applying an appropriate discount rate.

Jaggi and Lau simplified the process of measuring the value of human resources by considering a group of employees as valuation base. But in the process, they ignored the exceptional qualities of certain skilled employees. The performance of a group may be seriously affected in the event of exit of a single individual.

(b) **Opportunity Cost:** It is one of the Economic value models used for measurement and valuation of Human assets. As per this model, opportunity cost is the value of an employee in his alternative use. This opportunity cost is used as a basis for estimating the value of Human resources. Opportunity cost value may be established by competitive bidding within the firm so that in effect, Managers must bid for any scarce employee. A Human asset will have a value only if it is a scarce resource, that is, when its employment in one division denies it to another division. This method excludes employees of the type of which can be readily hired from outside the firm. Also, it is in very rare cases that managers would like to bid for an employee.

(c) Human Resource Accounting (HRA) is an attempt to identify, quantify and report investments made in human resources of an organization. Leading public sector units like OIL, BHEL, NTPC and SAIL etc. have started reporting human resources in their annual reports as additional information. Although human beings are considered as the prime mover for achieving productivity, and are placed above technology, equipment and money, the conventional accounting practice does not assign significance to the human resource. Human resources are not thus recognized as 'assets' in the Balance Sheet. While investments in human resources are not considered as assets and not amortised over the economic service life, the result is that the income and expenditure statement comprising current revenue and expenditure gives a distorted picture of the real affairs of the organization.

Accountants have been severely criticized by the Behavioural Scientists for their failure to value human resources, as this has come out as a handicap for effective management.

Human resource accounting provides scope for planning and decision making in relation to proper manpower planning. Also, such accounting can bring out the effect of various new rules, procedures and incentives relating to work force, and in turn, can act as an eye opener for modifications of existing statutes and laws.

Question 45: *Briefly describe the method of valuation of human resources as suggested by Jaggi and Lau. Also point out the special merit and demerit of this method.*

Answer

Jaggi and Lau suggested a model for valuation of human resources. According to them, proper valuation of human resources is not possible unless the contributions of individuals as a group are taken into consideration. A group refers to homogeneous employees whether working in the same department or division of the organization or not. An individual's expected service tenure in an organization is difficult to predict, but on a group basis, it is relatively easy to estimate the percentage of people in a group likely to leave the organization in future. This model attempts to calculate the present value of all existing employees in each rank. Such present value is measured with the help of the following steps:

(i) Ascertain the number of employees in each rank.

(ii) Estimate the probability that an employee will be in his rank within the organization on terminated/promoted in the next period. This probability will be estimated for a specified time-period.

(iii) Ascertain the economic value of an employee in a specified rank during each time period.

(iv) The present value of existing employees in each rank is obtained by multiplying the above three factors and applying an appropriate discount rate.

Jaggi and Lau tried to simplify the process of measuring the value of human resources by considering a group of employees as basis of valuation. But in the process they ignored the exceptional qualities of certain skilled employees. The performance of a group may be seriously affected in the event of exit of a single individual.

Merit

Jaggi and Lau model approached the valuation of human resources on the basis of grouping of employees. Under this method, calculations get simplified and the chances of errors get reduced.

Demerit

This model ignores individual skills of the employees. The varied skills of the employees is not recognized in the valuation process under Jaggi and Lau model.

Question 46(a)

Why Human Resources Asset is not recognised in the Balance sheet?

Answer

Although human beings are considered as the prime mover for achieving productivity, and are placed above technology, equipment and money, the conventional accounting practice does not assign significance to the human resources. Human resources are not recognized in balance sheet as there are no measurement criteria for recognition of human resources. Human resource accounting is at developing stage and no accounting principles have been established for valuation of human assets. Costs incurred on human resources are recognised as expenses in profit and loss account. Leading public sector units like OIL, BHEL, NTPC and SAIL etc. have started reporting human resources in their annual reports as additional information.

Question 46 (b)

A company has a capital base of Rs.1 crore and has earned profits to the tune of Rs.11 lakhs. The Return on Investment (ROI) of the particular industry to which the company belongs is 12.5%. If the services of a particular executive are acquired by the company, it is expected that the profits will increase by Rs.2.5 lakhs over and above the target profit.

Determine the amount of maximum bid price for that particular executive and the maximum salary that could be offered to him.

Answer

(b) Capital Base = Rs.1,00,00,000
Actual Profit = Rs. 11,00,000
Target Profit @ 12.5% = Rs. 12,50,000

Expected Profit on employing the particular executive

= Rs.12,50,000 + 2,50,000 = Rs.15,00,000

Additional Profit = Expected Profit – Actual Profit

= 15,00,000 – 11,00,000 = Rs.4,00,000

Maximum bid price = $\frac{\text{Additional Profit}}{\text{Rate of Return on Investment}}$

$= \frac{4,00,000}{12.5} \times 100 = \text{Rs.}32,00,000$

Maximum salary that can be offered = 12.5% of Rs.32,00,000 i.e., 4,00,000

Maximum salary can be offered to that particular executive upto the amount of additional profit i.e., Rs.4,00,000.

Question 47

(a) *What are derivatives and what are its characteristics?*

(b) *Explain currency options related to foreign exchange.*

(c) *Write short note on Interest Rate Swaps.*

Answer

(a) Derivative is a product whose value is derived from the value of one or more basic variables, called bases (underlying asset, index or reference rate), in a contracted manner. The underlying asset can be equity, forex, commodity or any other asset. For example, farmers may wish to sell their harvest of wheat at a future date to eliminate the risk of a change in prices by that date. Such a transaction is an example of a derivative. The price of the derivative is driven by the spot price of wheat which is the "underlying asset".

Derivative financial instruments can either be on the balance-sheet or off the balance sheet and include options contract, interest rate swaps, interest rate flows, interest rate collars, forward contracts, futures etc. A derivative instrument is therefore a financial instrument or other contract with the following three characteristics:

(a) It has one or more underlying and one or more notional amounts or payments provisions or both. These terms determine the amount of settlement or settlements and in some cases, whether or not settlement is required;

(b) It requires no initial net investment or an initial net investment that is smaller than what is required for similar responses to changes in market factors.

(c) Its terms require or permit net settlement; it can readily be settled net by means outside the contract or it provides for delivery of an asset that puts the recipient in a position not substantially different from net settlement.

Accounting for foreign exchange derivatives is guided by AS 11 (Revised 2003). The ICAI has also issued a Guidance Note dealing with the accounting procedures to be adopted while accounting for Equity Index Options and Equity Stock Options.

(b) Currency Options give the client the right, but not the obligation, to buy/sell a specific amount of currency at a specific price on a specific date. Currency options provide a tool for hedging foreign exchange risk arising out of the firm's operations. Currency options enable the business house to remove downside risk without limiting the upride potential. Options can be put option or call option. A put option is a contract that specifies the currency that the holder has the right to sell. A call option is a contract that specifies the currency that the holder has the right to buy.

(c) Interest rate swap can be defined as a financial contract between two parties (called counter parties) to exchange on a particular date in the future, one series of cash flows (fixed interest) for another series of cash flows (variable or floating interest) in the same currency on the same principal (an agreed amount called notional principal) for an agreed period of time. The contract will specify the interest rates, the benchmark rate to be followed, the notional principal amount for the transaction, etc. Interest rates are of two types, fixed interest rates and floating rates which vary according to changes in a standard benchmark interest rate. An investor holding a security which pays a floating interest rate is exposed to interest rate risk. The investor can manage this risk by entering into an interest rate swap.

Question 48(a)

Mr. Investor buys a stock option of ABC Co. Ltd. in July, 2009 with a strike price on 30.07.2009 of Rs. 250 to be expired on 30.08.2010. The premium is Rs. 20 per unit and the market lot is 100. The margin to be paid is Rs. 120 per unit.

Show the accounting treatment in the books of Buyer when:

(i) the option is settled by delivery of the asset, and

(ii) the option is settled in cash and the index price is Rs. 260 per unit.

Answer

Accounting entries in the books of buyer

				Rs.	Rs.
2009		*At the time of inception*			
July		Stock option premium account	Dr.	2,000	
		To Bank account			2,000
		(Being premium paid to buy a stock option)			
		Deposit for margin money account	Dr.	12,000	
		To Bank account			12,000
		(Being margin money paid on stock option)			
		At the time of settlement			
August	(i)	*Option is settled by delivery of the asset*			
		Shares of ABC Ltd. account	Dr.	25,000	
		To Deposit for margin money account			12,000
		To Bank account			13,000
		(Being option exercised and shares acquired, Rs. 12,000 margin money adjusted and the balance amount was paid)			
		Profit and loss account	Dr.	2,000	
		To Stock option premium account			2,000
		(Being the premium transferred to profit and loss account on exercise of option)			
	(ii)	*Option is settled in cash*			
		Profit and loss account	Dr.	2,000	
		To Stock option premium account			2,000
		(Being the premium transferred to profit and loss account)			
		Bank account (Rs. 100 × 10)	Dr.	1,000	
		To Profit and loss account			1,000
		(Being profit on exercise of option)			
		Bank account	Dr.	12,000	
		To Deposit for margin money account			12,000
		(Being margin on equity stock option received back on exercise of option)			

Question 48(b)

On 24th January, 2011 Chinnaswamy of Chennai sold goods to Watson of Washington, U.S.A. for an invoice price of $40,000 when the spot market rate was Rs.44.20 per US $. Payment was to be received after three months on 24th April, 2011. To mitigate the risk of loss from decline in the exchange-rate on the date of receipt of payment, Chinnnaswamy immediately acquired a forward contract to sell on 24th April, 2011 US $ 40,000 @ Rs.43.70. Chinnaswamy closed his books of account on 31st March, 2011 when the spot rate was Rs.43.20 per US $. On 24th April, 2011, the date of receipt of money by Chinnaswamy, the spot rate was Rs.42.70 per US $.

Pass journal entries in the books of Chinnaswamy to record the effect of all the above mentioned effects.

Answer

Journal Entries in the books of Chinnaswamy

2011		*Rs.*	*Rs.*
Jan. 24	Watson Dr.	17,68,000	
	To Sales Account		17,68,000
	(Credit sales made to Watson of Washington, USA for $40,000 recorded at spot market rate of Rs.44.20 per US $)		
" "	Forward (Rs.) Contract Receivable Account Dr.	17,48,000	
	Deferred Discount Account Dr.	20,000	
	To Forward ($) Contract Payable		17,68,000
	(Forward contract acquired to sell on 24th April, 2006 US $40,000 @ Rs.43.70)		
March 31	Exchange Loss Account Dr.	40,000	
	To Watson		40,000
	(Record of exchange loss @ Re.1 per $ due to market rate becoming Rs.43.20 per US $ rather than Rs.44.20 per US $)		
" "	Forward ($) Contract Payable Dr.	40,000	
	To Exchange Gain Account		40,000
	(Decrease in liability on forward contract due to fall in exchange rate)		
" "	Discount Account Dr.	14,667	
	To Deferred Discount Account		14,667
	(Record of proportionate discount expense for 66 days out of 90 days)		
April 24	Bank Account Dr.	17,08,000	
	Exchange Loss Account Dr.	20,000	
	To Watson		17,28,000
	(Receipt of $40,000 from Watson, USA customer @ Rs.42.70 per US $; exchange loss being Rs.20,000)		
" "	Forward ($) Contract Payable Account Dr.	17,28,000	

Date		Particulars	Dr. (Rs.)	Cr. (Rs.)
		To Exchange Gain Account		20,000
		To Bank Account		17,08,000
		(Settlement of forward contract by payment of $40,000)		
”	”	Bank Account Dr.	17,48,000	
”	”	To Forward (Rs.) Contract Receivable		17,48,000
		(Receipt of cash in settlement of forward contract receivable)		
”	”	Discount Account Dr.	5,333	
		To Deferred Discount Account		5,333
		(Recording of discount expense for 24 days: Rs.20,000 $\times \frac{24 \text{ days}}{90 \text{ days}}$ = Rs.5,333)