SHREE GURU KRIPA'S INSTITUTE OF MANAGEMENT

Guideline Answers for November 2011 – Financial Reporting

Question No. **1** is **Compulsory.**
Answer any **FIVE questions** from the remaining **SIX** questions.

Question 1(a) – AS – 12: Accounting for Government Grants 5 Marks

Primus Hospitals Ltd had acquired 40 units of Doppler scan machines from Holiver USA at a Cost of US $ 1,65,100 per unit in the beginning of Financial Year 2008–09. The prevailing rate of exchange was ₹ 50 to the US $. The acquisition was partly funded out of a government grant of ₹ 5 crore. The grant relating to such machines was given with a rider that in the event of a change in management, the entity is bound to return the grant. In April 2011, 51% control in the company was taken over by an overseas investor. The expected Productive Period of such an asset is normally reckoned at 5 years. The depreciation rate adopted was 20% p.a S.L.M basis. The company had incurred expenditure of US $ 4000 towards Bank charges and ₹ 7,500 per unit as sea freight. You are also informed that neither Capital Reserve nor deferred Income account has been maintained by the company. You are required to suggest the accounting treatment as a result of the return of the grant, in the light of the relevant AS.

Solution:

Particulars	Amount (₹)
Cost of Purchase = $1,65,100 × 40 units	$ 66,04,000
Conversion Rate	50/$
1. Cost of Purchase in ₹	33,02,00,000
2. Purchase related cost:	
(a) Bank charges: $ 4,000 × ₹ 50	2,00,000
(b) Sea Freight: ₹ 7,500 per unit × 40 units	3,00,000
3. Total Purchase Cost (3+4)	33,07,00,000
4. Government Grant:	(5,00,00,000)
5. Cost after deduction of Government Grant: 33,07,00,000-5,00,00,000	28,07,00,000
6. Depreciation @ 20% for 3years : 28,07,00,000 × 20% × 3 years	(16,84,20,000)
7. Written Down Value of as at 1.4.2011	11,22,80,000
8. Refund of Government Grant	5,00,00,000
9. Revised Carrying Amount of the Asset	**16,22,80,000**

The WDV balance ₹ 16,22,00,000 should be depreciated for the balance period of 2 years i.e. 8,11,40,000 in each year.

Notes and Assumptions:

1. **Method of Accounting for Government Grant:** Assets (i.e. Doppler Machine) in respect of which Government Grant is received, is a depreciable asset. Therefore, as per AS 12, the Grant Received should be accounted for under either – (a) Deferred Income Method or (b) Asset Reduction Method. Since, Deferred Income Method is not followed, it can be inferred that the Company follows Asset Cost Reduction Method.
2. **Refund of Grant:**
   (a) As on 1.4.2011 the 51% of the Ownership Interest in the Company has been taken over by an overseas investor. This implies that control of the Company has been transferred, and consequently the management will also get transferred. Therefore, the condition attached to the Government grant is violated, and hence grant is to be refunded to the Government.
   (b) Refund of Government Grant will involve reversal of accounting for Government Grant Received i.e. the carrying amount of asset should be increased by the amount refunded.
3. **Alternative Solution:** Refund of Government Grant should be accounted for as follows —

To the extent WDV of Asset would have been had Deferred Income Method followed	Balancing Figure
Debited to Asset Account	Debited to P&L Account

Note:

(a) If Deferred Income Method was followed, carrying amount of the asset would be = Total Purchase Cost ₹ 33,07,00,000 Less Depreciation for 3 Years at 20% SLM ₹ 19,84,20,000 = ₹ 13,22,80,000 (WDV on the date of refund under Deferred Income Method)

(b) Therefore, refund amount to be debited to the Asset is restricted to = ₹ 13,22,80,000 Less Existing Carrying Amount ₹ 11,22,80,000 = ₹ 2,00,00,000

(c) Balancing Figure of ₹ 3,00,00,000 should be debited to P&L Account.

Question 1(b) – AS 1 and AS 10 — 5 Marks

The following balances are extracted from the Books of Ram Ltd. a real estate company on 31st March, 2011

	DR (₹ In '000)	CR (₹ In '000)
Leasehold Premises	42	
Equipment, fixtures and fittings at cost on 1.4.10	264	
Depreciation on equipment, fixtures and fittings on 1.4.10		164

The following additional in formations are also provided.

1. Depreciation on equipment, fittings and fixtures is provided @ 15% on written down value.
2. On 1st October 2010, the company moved to a new premise. The premises are on a 12 year lease and the lease premium paid amounted to ₹ 42,000. The company used sub-contract labour of ₹ 40,000 and materials at cost of ₹ 38,000 in the refurbishment of the premises. These are to be considered as part of the cost of lease hold premises.

You are required to prepare the 'Notes to accounts' including significant accounting policies forming part of the financial statements, for disclosure of above facts and information provided.

Solution:

1. Depreciation of Equipment, Fixtures and Fittings:

WDV of Equipment, fixture & fitting as on 1.4.2010 = Cost of Asset –Accumulated Depreciation
= 264 – 164

Depreciation @ 15% of Equipment, fixture & fitting = 100 × 15% = 15 or ₹ 15,000

2. Leasehold Premises:

(a) Lease Premium paid towards the leasehold premises is for a period of 12 Years. Therefore, the total cost towards leasehold property should be amortized over a period of 12 Years.

(b) **Note:** In the absence of specific information, it is presumed that the lease is in the nature of Operating Lease. This is because, Premises generally have a much larger useful life, and 12 Years do not constitute substantial period of time for the same.

(c) The Total cost incurred = Lease premium + Sub Contract Labour + Cost of Materials.
= 42,000 + 40,000 + 38,000 **= ₹ 1,20,000**

(d) Annual Amortisation = Total Cost ₹ 1,20,000 ÷ Lease Period 12 Years = ₹ 10,000

(e) Since, in the given question the leasehold premise was taken only on 1st October, and therefore, amortization can be done only for 6 Months. Hence, amortization for the current period = $\frac{10{,}000}{12} \times 6$ months = **₹ 5,000**

3. Notes on Accounts:

(a) **Fixed Assets:** Fixed Assets are carried at historical cost and depreciated at 15% on diminishing balance method over its useful life.

(b) **Leasehold Premises:** Cost incurred on the Leasehold Premises are amortized over the Lease period. The lease is in the nature of Operating Lease. There are no future payments for the leasehold premise.

Question 1(c) – Employee Share Purchase Plan — 5 Marks

On 1st April 2010, A company offered 100 shares to each of its 500 employees at ₹ 50 per share. The employees are given a month to decide whether or not to accept the offer. The shares issued under the plan (ESPP) shall be subject to lock-in on transfers for three years from grant date. The market price of shares of the company on the grant date is ₹ 60 per share. Due to post-vesting restrictions on transfer, the fair value of shares issued under the plan is estimated at ₹ 56 per share.

On 30th April, 2010, 400 employees accepted the offer and paid ₹ 50 per share purchased. Nominal value of each share is ₹ 10.

Record the issue of shares in the book of the company under the aforesaid plan.

Solution:

1. Benefit to employee under the Share Purchase Plan = Fair Value per Share ₹ 56 **Less** Issue Price per Share **₹ 50 =** ₹ 6 per Share
2. No. of shares purchased by the employees under the scheme = 400 employees × 100 shares / employee = 40,000 shares
3. Total Value of Benefits to Employees = 40,000 shares × ₹ 6 / share = ₹ 2,40,000
4. Expected Vesting Period = 1 month. Expense recognized in 2010-11 = ₹ 2,40,000

Journal Entry

Date	Particulars	Dr. ₹	Cr.₹
30/4/2010	Bank A/c (40,000 × 50) Dr.	20,00,000	
	Employee Compensation A/c Dr.	2,40,000	
	To Share Capital A/c (40,000 × 10)		4,00,000
	To Securities Premium A/c [(40,000 × (56-10)]		18,40,000
	(Being issue and allotment of 40,000 Equity Shares of ₹ 10 each, at ₹ 50 per Share under Employees Stock Purchase Plan Shares issued, of shares valued at ₹ 56 per Share)		

Question 1(d) – Human Resource Accounting 5 Marks

From the following details, compute the total value of human resources of skilled and unskilled group of employees according to Lev and Schwartz (1971) model.

Particulars		Skilled	Unskilled
(i)	Annual average earning of an employee till the retirement age.	₹ 60,000	₹ 40,000
(ii)	Age of retirement	65 years	62 years
(iii)	Discount rate	15%	15%
(iv)	No of employees in the group	30	40
(v)	Average age	62 years	60 years

Solution:

Particulars		Skilled	Unskilled
1.	Average Age	62 years	60 years
2.	Age of Retirement	65 years	62 years
3.	Remaining Period of employment	3 years	2 years
4.	Annual Earnings / Employee	60,000	40,000
5.	Annuity Factor at 15% for 3 / 2 Years	2.2832	1.6257
6.	Value of Employees = Present Value of future earnings of employees = Annual Earnings × Annuity Factor		
(a)	Skilled: (60,000 × Annuity Factor at 15% for 3 years)	**₹ 1,36,992**	
(b)	Unskilled: 40,000 × Annuity Factor at 15% for 2 years)		**₹ 65,028**
7.	No of employees	30	40
8.	Therefore, total Value of Human Resources	**₹ 41,09,760**	**₹ 26,01,120**
		(1,36,992 × 30 employees)	(65,028 × 40 employees)

Total Value of Human Resources

Skilled	₹ 41,09,760
Unskilled	₹ 26,01,120
Total	**₹ 67,10,880**

Question 2 – Consolidated Financial Statements 16 Marks

Kim and Kin floated a new company KimKin Ltd on 1st April, 2010 with a Capital of ₹ 5 Lakhs represented by 50,000 ordinary shares of ₹ 10 each, subscribed equally by both groups.

KimKin Ltd made the following acquisitions on the same date:

(1) 3,000 shares of ₹ 10 each in Klean Ltd. at ₹ 35,000.

(2) 10,000 shares of ₹ 10 each in Klinic Ltd. for ₹ 72,000.

(3) 8,000 equity shares of ₹ 10 each in Klear Ltd. for ₹ 92,000 and 200 8% Cumulative Preference shares @ 140 per share.

The following are the summarized Balance sheets of the three companies as on 31.03.2011.

LIABILITIES	Klean Ltd	Klinic Ltd	Klear Ltd
Equity Share Capital	40,000	1,20,000	1,00,000
8% Cumulative Preference Capital (₹ 100/- shares)			25,000
Reserves (31.03.2010)	3,000		7,500
Profit & Loss Account	6,000		15,000
Sundry Creditors	2,900	8,000	7,500
Total	51,900	1,28,000	1,55,000
ASSETS			
Goodwill (Self Generated)	4,000		15,000
Freehold Land	8,000	52,000	50,000
Plant & Machinery	16,000	19,000	37,000
Inventories	8,900	25,000	26,000
Sundry Debtors	4,000	12,000	15,500
Bank	11,000	2,000	15,500
Profit & Loss A/c		18,000	
Total	51,900	1,28,000	1,55,000

You are supplied with the following information and requested to compile the consolidate Balance Sheet as on 31st March 2011 of the entire Group.

1. The Freehold Land of Klear Ltd carries a Fair Value of the ₹ 65,000 as on 1.04.2010.
2. The Plant and Machinery of Klinic Ltd to be depreciated by ₹ 3,000-.
3. Inventories of Klean Ltd are undervalued by ₹ 2,000.
4. On Balance Sheet date Kimkin Ltd owed Klean Ltd ₹ 10,500 and is owed ₹ 8,200 by Klinic Ltd. Klear Ltd is owed ₹ 1,300 by Klean Ltd and ₹ 2,000 by Klinic Ltd.
5. The balance in P&L A/c on date of acquisition were: Klean Ltd. ₹ 2,000 (Cr); Klinic Ltd ₹ 12,000 (Dr) and Klear Ltd ₹ 4,000 (Cr) The Credit balances of Klean Ltd & Klear Ltd were wholly distributed as Dividends in June 2010.
6. During 2010-11 Klean Ltd & Klear Ltd declared and paid interim dividends of 8% and 10% respectively.
7. Klear Ltd has discharged dividend obligations towards its Preference Shareholders upto March 2009.

Solution:

1. Basic Information

Company Status	Dates	Holding Status Pattern			
		Company	Group Int.		Min. Int.
Holding Company= Kim Kin Ltd Subsidiary Companies = Klean Ltd; Klinic Ltd; and Klear Ltd	Date of Acquisition: 01.04.2010 Date of Consolidation : 31.03.2011	Klean	3,000/4,000 shares	75%	25%
		Klinic	10,000/12,000 shares	83.33%	16.67%
		Klear	8,000/10,000 shares	80%	20%

Since, Balance Sheet of the Parent Company KimKin Ltd is not available, the same is prepared as at 31.03.2011,

Balance Sheet of KimKin Ltd as on 31.03.2011

Liabilities	Amount (₹)	Assets	Amount (₹)
Share Capital		3,000 shares of ₹ 10 each in Klean Ltd	35,000
Authorised:		10,000 Equity shares of ₹ 10 each in Klinic Ltd	72,000
5,00,000 shares of ₹	5,00,000	8,000 shares of ₹ 10 each in KLear Ltd	92,000
50,000 shares of ₹ 10 each fully paid up	5,00,000	200 8% Cumulative Preference Shares at ₹ 140 per Share	28,000
Profit and Loss Account	16,700		
Payable to Klean Ltd	10,500	Cash	2,92,000
		Receivable from Klinic Ltd	8,200
Total	**5,27,200**	**Total**	**5,27,200**

Working Note for Cash Balance:

	Description		Amount (₹)
	Cash Received from Promoters		5,00,000
Less:	Amount Invested in Subsidiary Companies –		
	(a) Equity Shares of Klean Ltd	(35,000)	
	(b) Equity Shares of Klinic Ltd	(72,000)	
	(c) Equity Shares of Klear Ltd	(92,000)	
	(d) Preference Shares of Klear Ltd	(28,000)	(2,27,000)
Add:	Dividends Received from Subsidiary Companies—		
	(a) Klean Ltd – Equity Dividend for Periods upto 31.03.2010 [Total 2,000 × 75%]	1,500	
	(b) Klean Ltd – Equity Interim Dividend for the current year [3000 Sh. × FV ₹ 10 × 8%]	2,400	
	(c) Klear Ltd – Equity Dividend for Periods upto 31.03.2010 [Total ₹ 2,000 × 80%]	1,600	
	(d) Klear Ltd – Preference Dividend for FY 0910 [200 Sh. × FV ₹ 100 × 8%]	1,600	
	(e) Klear Ltd – Equity Interim Dividend for Current Year [8000 Sh. × FV ₹ 10 × 10%]	8,000	
	(f) Klear Ltd – Preference Dividend for FY 1011 [200 Sh. × FV ₹ 100 × 8%]	1,600	16,700
Less:	Money Advanced to Klinic Ltd (Amount owed by Klinic to KimKin Ltd)		(8,200)
Add:	Money Received from Klean Ltd (Amount owed by KimKin to Klean Ltd)		10,500
	Closing Cash and Bank Balance		**2,92,000**

Note:

1. Since the nature of transactions between the companies are not know, it is presumed that it is in the nature of cash advances.

2. It is assumed that Pre Acquisition Dividends have not yet adjusted against Cost of Investment. Therefore, aggregate of dividends received during the year will be held in P&L Account. Total Pre Acquisition Dividend = Aggregate of (a), (c) and (d) = 1,500 + 1,600 + 1,600 = ₹ 4,700.

3. It is assumed that apart from the above transactions, there are no other transactions in the books of Parent Company Kim Kin Ltd.

2. Analysis of Reserves

A. Reserves of Klean Ltd

(a) General Reserve of Klean Limited

Balance on 31.03.2011 ₹ 3,000

DOA ₹ **3,000**	Transfer between DOA & DOC **Nil**
Pre. Acquisition	Post Acquisition
Group Interest ₹ 2,250 (75%)	
Min. Interest ₹ 750 (25%)	

(b) Profit and Loss Account of Klean Limited

	Balance as per B/s on 31.03.2011	₹ 6,000
Add:	Inventory Undervalued	₹ 2,000
Less:	Self Generated Goodwill w/off	(₹ 4,000)
	Corrected Balance on 31.03.2011	₹ 4,000

DOA ₹ 2,000	Profit between DOA & DOC ₹ 4,000
Less: Dividend Paid ₹ 2,000	Post–Acquisition
Balance Nil	Group Interest 3,000 (75%)
Pre Acquisition	Minority Interest 1,000 (25%)

B. Reserves of Klinic Ltd

Profit and Loss Account of Klinic Limited

	Balance as per B/s on 31.03.2011	(₹ 18,000)
Less:	Depreciation	(₹ 3,000)
	Corrected Balance on 31.03.2011	(₹ 21,000)

DOA	(₹ 12,000)	Profit between DOA & DOC	(₹ 9,000)
	Pre-Acquisition		Post–Acquisition
Group Interest	10,000 (83.33%)	Group Interest	7,500 (83.33%)
Minority Interest	2,000 (16.67%)	Minority Interest	1,500 (16.67%)

C. Reserves of Klear Ltd

(a) General Reserve of Klear Ltd

Balance on 31.03.2011 ₹ 7,500

DOA	₹ 7,500	Transfer between DOA & DOC	**Nil**
	Pre-Acquisition		
Group Interest	₹ 6,000 (80%)		
Min. Interest	₹ 1,500(20%)		

(b) Profit and Loss Account of Klear Ltd

	Balance as per B/s on 31.03.2011	₹ 15,000
Less:	Self-Generated Goodwill w/off	(₹ 15,000)
	Corrected Balance on 31.03.2011	NIL

DOA	₹ 4,000	Profit between DOA & DOC	NIL
Less: Dividend Paid	₹ 4,000 (Note)		Post–Acquisition
Balance	Nil		
	Pre-Acquisition		

Note: Out of ₹ 4,000, first arrears of Preference of ₹ 2,000 for the FY 2009–10 will be paid. Balance of ₹ 2,000 will be appropriated towards Equity Dividend.

(c) Revaluation Reserve of Klear Ltd

Particulars	₹
Fair Value of Freehold Land of Klear Ltd as at 01.04.2010	₹ 65,000
Carrying Amount in Balance Sheet of Klear Ltd	₹ 50,000
Revaluation Gain	₹ 15,000
It is in the nature of Pre Acquisition Reserves.	
Group Interest	₹ 12,000 (₹ 15,000 x 80%)
Minority Interest	₹ 3,000 (₹ 15,000 x 20%)

Note:

1. Equity Dividend at 8% and 10% respectively for Klean Ltd and Klear Ltd are declared and already paid, and hence no adjustment is required in the P&L Balance as available in the Balance Sheet.

2. Interim Equity Dividend can be paid only after paying arrears of Preference Dividend on Cumulative Preference Share Capital. Therefore, it is presumed that preference dividend has been paid during the year for periods upto 31.03.2011.

3. Consolidation of Balances [Amount in ₹]

Description		Total	Min. Interest	Group Int. – Pre. Acqn.	Group Int. – Post Acqn.	
					Reserves	P & L
(a) Klean Ltd (Gr. 80%, Min. 20%)						
Equity Share Capital		40,000	10,000	30,000	–	–
Reserves		3,000	750	2,250	–	–
Profit & Loss		4,000	1,000	–	–	3,000
Revaluation Gain [65,000 – 50,000]		15,000	3,750	11,250	–	–
Sub Total		**62,000**	**15,500**	**43,500**	**–**	**3,000**
(b) Klinic (Gr. 83.33%, Min.16.67%)						
Equity Share Capital		1,20,000	20,000	1,00,000	–	–
Reserves		–	–	–	–	–
Profit & Loss		(21,000)	(3,500)	(10,000)	–	(7,500)
Sub Total		**99,000**	**16,500**	**90,000**	**–**	**(7,500)**
(c) Klear Ltd (Gr.75%, Min.25%)						
Equity Share Capital		1,00,000	20,000	80,000	–	–
8% Cum. Pref. Share Capital		25,000	5,000	20,000	–	–
Reserves		7,500	1,500	6,000	–	–
Profit & Loss		Nil	Nil	–	–	Nil
Sub Total		**1,32,500**	**26,500**	**1,06,000**	**–**	**-**
Gross Total			**58,500**	**2,39,500**	**–**	**(4,500)**
Balance from Parent Company						
Cost of Investment in	Klean Ltd (Equity)		**–**	(35,000)	**–**	**–**
	Klinic Ltd (Equity)		**–**	(72,000)	**–**	**–**
	Klear Ltd (Equity)		**–**	(92,000)	**–**	**–**
	Klear Ltd (Pref.)		**–**	(28,000)	**–**	**–**
Balance in Profit and Loss Account			**–**	**–**	**–**	16,700
Adjustment for Pre. Acqn. Dividend				4,700		(4,700)
Total			**58,500**	**17,200**	**–**	**7,500**
				Capital Res.		

4. Consolidated Balance Sheet of Kim Kin Ltd and its subsidiaries as on 31.03.2011

Liabilities	₹	Assets	₹
Share Capital		**Fixed Asset**	
Authorised: 50,000 shares of 10 each	5,00,000	Freehold Land	1,25,000
Issued ,Subscribed, paid up 50,000 shares of 10 each, fully paid up	5,00,000	(8,000+52,000+50,000+15,000]	
		Plant & Machinery [16,000+19,000+37,000-3,000]	69,000
Reserves and Surplus:			
Capital Reserve	17,200		
Profit and Loss Account	7,500	**Current Assets**	
Minority Interest	58,500	Stock	61,900
Current Liabilities & Provisions		[8,900+2,000+25,000+26,000]	
Sundry Creditors (10,500 + 2,900 + 8,000 + 7,500 – 8,200 – 1,300 – 2,000 – 10,500)	6,900	Debtors (4,000+12,000+15,500+8,200 – 8,200 - 10,500-1,300-2,000)	17,700
		Bank / Cash (11,000+2,000+11,500+2,92,000)	3,16,500
Total	**5,90,100**	**Total**	**5,90,100**

Note: It is assumed the money advanced by and to the parent Company KimKin Limited is recorded as Creditors and Debtors in the books of Subsidiary Company.

Question 3 – Takeover without Liquidation 16 Marks

As part of its expansion Strategy White Ltd has decided to amalgamate its business with that of Black Ltd and a new company Black & White Ltd being incorporated on the 1st of September 2010 having an authorized equity capital of 2 crore shares of ₹ 10/- each. M/s Black & White Ltd. shall in turn acquire the entire ownership of White Ltd and Black White in consideration for issuing its equity at 25% premium on 1st Oct. 2010. It is also agreed that the consideration shall be based on the product of the profits available to equity shareholders of each entity, times its PE multiple. The Preference Shareholders & Debenture holders are to be satisfied by the issue of similar instruments in Black & White Ltd on 1.10.2010 in lieu of their existing holdings.

Accordingly the relevant information is supplied to you as under:

Particulars	White Ltd	Black Ltd
Paid up Equity of ₹ 10 class (No's)	3 Lakh	1.2 Lakhs
88% Preference Shares ₹ 10/- paid (No's)	–	1 Lakh
5% Redeemable Debentures 2015 of ₹ 10/- each (No's)₹	–	0.8 Lakh
Profits before Interest & Taxation (Rupees)	6,00,000	4,40,000
Price to Earnings Multiple	15	10

To augment the Cash retention level of Black White Ltd it is decided that on 1st Oct 2010 Black * White Ltd. shall collect full application money for the issue of 20,00,000 equity shares @ 40% premium under Private Placement. The allotment of the shares will be made on 31.12.2010 and such shares shall qualify for dividend from 2011 only.

Black & White Ltd also shall avail a 12.50% TOD of ₹ 15 lakhs to meet its preliminary expenses and cost of working which amount to ₹ 12 lakhs and ₹ 2 lakhs respectively. The TOD will be availed on 1st Nov 2010 and closed on 31st Dec. 2010. Preliminary expenditure is tax deductible @ 20% each year.

Due to an accounting omission the opening inventory of Black Ltd of ₹ 5 Lakh & the closing stock of White Ltd. of ₹ 2.20 lakh was understated & overstated by 5% and 10% respectively.

The dividend schedule proposed is that all companies would pay interim dividend for equity, for the period from 1st Oct 2010 to 31st Dec. 2010. The rates of dividend being White Ltd. @ 5%, Black Ltd @ 2% and Black & White Ltd @ 3.5%. The preference Shareholders & debenture holders dues for the post take over period are discharged on 31.12.2010.

It is proposed that in the period Oct–Dec 2010 Black & White Ltd would carry out trade in futures that would generate an absolute post tax return of 18% by using the funds generated from the Private Placement. The trades would be squared off on 31.12.2010. Proceeds from such transactions are not liable to withholding taxes.

You are required to prepare a projected Profit & Loss A/c for the period ended 31st Dec. 2010 and a Balance Sheet on that date for Black & White Ltd. The corporation tax rate for the company is 40%.

Solution:

1. Basic Information

Company Status	Dates	Holding Status
Holding Company = Black and White Limited Subsidiary 1 = Black Limited Subsidiary 2 = White Limited	Date of Acquisition: 01.10.2010 Date of Consolidation : 31.12.2010	Black Ltd and White Limited are wholly owned subsidiary

Note: Stand–alone Balance Sheet of Black and White Ltd alone is required to be prepared.

2. Computation of Purchase Consideration (Amount in ₹.)

	Particulars	Black	White
	Profit before Interest and Taxes	4,40,000	6,00,000
Less:	Understatement of Opening Inventory (₹ 5,00,000×5%)	(25,000)	Nil
Less:	Overstatement of Closing Inventory (₹ 2,20,000×10%)	Nil	(22,000)
	Adjusted Earnings before Interest and Taxes	4,15,000	5,78,000
Less:	Interest on 5% Redeemable Debentures 2015 (80,000 Debentures of ₹ 10 each at interest of 5%)	(40,000)	Nil
	Profit before tax	3,75,000	5,78,000
Less:	Taxes @ 40%	(1,50,000)	(2,31,200)
	Profit after taxes	2,25,000	3,46,800
Less:	Preference Dividend @ 8% of 1,00,000 shares of ₹ 10each	(80,000)	Nil
	Profit available to Equity Shareholders	**1,45,000**	**3,46,800**

Particulars	Black	White
Profit Earning Ratio	10	15
Purchase Consideration (Equity Earnings × PE Ratio)	**14,50,000**	**52,02,000**
Issue Price: ₹ 12.50 (₹ 10 + 25% Premium)	12.5	12.5
No. of Shares to be issued (Consideration ÷ Issue Price)	1,16,000 (14,68,000/12.50)	4,16,160 (52,02,000/12.50)
Equity Share Capital @ ₹ 10/ Share	11,60,000	41,61,600
Securities Premium@ ₹ 2.50/Share	2,90,000	10,40,400
Total Equity Share Capital Value (11,60,000 + 41,61,600)	₹ 53,21,600	
Total Securities Premium (2,90,000 + 10,40,000)	₹ 13,30,400	
Total No. of Equity Shares (1,16,000 + 4,16,160)	5,32,160	

3. Capital Raised by way of Private Placement

Particulars		Amount in ₹
Issue Price	(Face Value ₹ 10 + 40% Premium)	₹ 14
No. of Shares Issued		20,00,000
Total Cash Received	(Shares Issued 20 Lakhs × Issue Price ₹ 14)	2,80,00,000
Appropriated towards	Share Capital (20 Lakhs × Face Value ₹ 10)	2,00,00,000
	Securities Premium (20 Lakhs Shares × Premium ₹ 4)	80,00,000

4. Interest on Temporary Overdraft

Note: Interest is payable only to the extent, Overdraft facility is utilized (₹ 14 Lakhs), not on the amount availed as OD (₹ 15 Lakhs).

Particulars	Amount (in ₹)
Preliminary Expenses	12,00,000
Cost of Working	2,00,000
Temporary OD Availed	**14,00,000**
Interest on Temporary OD (₹ 14 Lakhs × 12.5% × 2 Months / 12 Months)	29,167

5. Dividend and Interest Paid by the Companies

Particulars	Black Ltd	White Ltd	Black & White Ltd
(a) Equity Dividend (Interim Dividend)	1,50,000 (30,00,000 × 5%)	24,000 (12,00,000 × 2%)	1,86,256 (53,21,600 × 3.5%)
(b) Preference Dividend	20,000 (10,00,000×8%×3/12)	—	20,000 (10,00,000×8%×3/12)
(c) Debenture Interest	10,000 (8,00,000×5%×3/12)	—	10,000 (8,00,000×5%×3/12)

Note:

(a) Debenture holders and Preference Shareholders are discharged by Black & White Ltd by issue of similar instruments of Black & White Ltd. This implies, the existing Debentures and Preference Shares outstanding in the books of Black Ltd are also acquired by Black and White Ltd.

(b) All the above income are distributed before the period ending 31.12.2010.

6. Return on Futures Trading Activity

Post Tax Returns on Futures Trading	18%
Therefore, Pre Tax Return = Post tax Return ÷ (1 – Tax Rate) = 18 ÷ (1 – 0.40)	30%
Funds Deployed in Futures Trading	₹ 280 Lakhs
Therefore, Income from Futures Trading	₹ 84 Lakhs

Note: All Positions are Squared on 31.12.2010, hence there is an increase in Cash Balance is only to the extent of profits of ₹ 84,00,000 earned on the business.

7. Trading and Profit and Loss Account of Black and White Limited for the year ended as at 31.03.2011

Particulars	Amount (in ₹)	Particulars	Amount (in ₹)
To Cost of Working A/c	2,00,000	By Futures Trading Income A/c	84,00,000
To Interest on Temporary Bank OD	29,167	By Dividend Income	
To Debenture Interest Paid A/c	10,000	(a) Equity Shares of Black Ltd	1,50,000
To Profit before Taxation c/d	83,64,833	(b) Equity Shares of White Ltd	24,000
		(c) Pref. Shares of Black Ltd	20,000
		By Interest Income from Black Ltd	10,000
Total	**86,04,000**	**Total**	**86,04,000**
To Provision for Taxation A/c	32,49,933	By Profit before tax b/d	83,64,833
To Profit after Tax c/d	51,14,900		
Total	**83,34,833**	**Total**	**83,34,833**
To Preference Dividend A/c	20,000	**By Profit after Tax b/f**	51,14,900
To Interim Equity Dividend	1,86,256		
To Balance C/d to Balance Sheet	**49,08,644**		
Total	**51,14,900**	**Total**	**51,14,900**

Note: Computation of Provision for Tax

	Particulars	Amount (in ₹)
	Profit before Tax	83,64,833
Less:	20% of Preliminary expenses (12,00,000 × 20%)	(2,40,000)
	Taxable Income	**81,24,833**
	Tax provision at 40%	**32,49,933**

It is assumed that Dividend Income is also subject to income tax. Alternatively, it can be assumed that Dividend income are not subject to tax.

8. Balance Sheet of Black and White Limited for the year ending as on 31.12.2010

Liabilities	₹	Assets	₹
1. Share Capital:		**1. Fixed Assets**	Nil
Authorized Share Capital:		**2. Investments:**	
2 Crore Equity Shares of ₹ 10 each	20,00,00,000	(a) Investment Black Limited	
1 Lakh (assumed) 8% Pref. Shares of ₹ 10 each	10,00,000	Equity Shares	14,50,000
	20,10,00,000	8% Pref. Shares	10,00,000
Issued, Subscribed, Paid up		5% Debentures	8,00,000
25,32,160 Equity shares of ₹ 10 each, fully paid up	2,53,21,600	(b) Investment in White Ltd	
(5,32,160 Shares issued for non–cash consideration)		Equity Shares	52,02,000
1,00,000 8% Preference shares of ₹ 10 each, fully paid up (issued for non–cash consideration)	10,00,000	**3. Curr. Assets, Loans & Adv.**	
2. Reserves and Surplus:		Cash at Bank (See Note)	3,49,58,577
Securities Premium (13,30,400 + 80,00,000)	93,30,400	**4. Miscellaneous Expenses:**	
Profit & Loss Account	49,08,644	Preliminary Expenses	12,00,000
3. Secured Loans: 5% Redeemable Deb.	8,00,000		
4. Current Liabs & Provision: Provn. for Tax	32,49,933		
Total	**4,46,10,577**	**Total**	**4,46,10,577**

Note for Cash and Bank Balance:

	Capital Raised by Private Placement of Equity	2,80,00,000
Add:	Retained Profits	49,08,644
Add:	Provision for Taxes (not yet paid)	32,49,933
Less:	Preliminary Expenses incurred	12,00,000
	Closing Cash Balance	**3,49,58,577**

Question 4(a) – Value Added Statement 8 Marks

Prepare a value added statement for the year ended on 31.3.2011 and reconciliation of total value added with profit before taxation, from the profit and loss account of Paradise Ltd. for the year ended 31.3.2011.

Particulars	Amount in ₹ Lakhs
INCOME:	
Sales	254.00
Other income	6.00
	260.00
EXPENDITURE	
Operating cost	222.00
Excise duty	11.20
Interest on Bank overdraft	1.00
Interest on 9% debenture	15.00
	249.20
Profit before depreciation	10.80
Depreciation	4.10
Profit before tax	6.70
Provision for tax	2.40
Profit after tax	4.30
Proposed dividend	0.30
Retained profit	4.00

The following additional information are given:

(i) Sales represents net sales after adjusting discounts, returns and sales tax.

(ii) Operating cost includes ₹ 82.00 lakhs as wages, salaries and other benefits to employees.

(iii) Bank overdraft is temporary.

Solution:

1. Value Added Statement of Paradise Limited for the year ending 31.03.2011

	Particulars	₹ Lakhs
	Sales (Net of Excise Duty) (₹ 254 Lakhs **Less** ₹ 11.20 Lakhs)	242.80
Add:	Other Income	6.00
Less:	Operating Cost (Total Cost ₹ 220 Lakhs **Less** Wages ₹ 82 Lakhs)	(140.00)
Less:	Interest on Bank Overdraft (since it is on Bank OD, it is in the nature of operating cost rather than Financing Cost. Alternatively, it can be treated as a Financing Cost)	(1.00)
	Total Value Added	**107.80**

2. Value Applied for the year ending 31.03.2011

Particulars	Amount (in ₹ Lakhs)	% of Value Added
To Employees : Wages and Salaries A/c	82.00	76.07
To Government: Income Tax	2.40	2.23
To Finance Providers: Interest on Debentures	15.00	13.91
To Finance Providers: Proposed Dividend	0.30	0.28
To Retained Earnings as		
Depreciation	**4.10**	3.80
Retained Profit	**40.00**	3.71
TOTAL VALUE APPLIED	**107.80**	**100.00**

3. Reconciliation between Total Value Added and Profits Before Taxation

	Particulars	Amount (in ₹ Lakhs)
	Profit before Taxation	**6.70**
Add:	Depreciation	4.10
	Employee Costs	82.00
	Interest on Debentures	15.00
	Total Value Added	**107.80**

Question 4(b) – AS 21 – Accounting for Investment in Subsidiary and Disposal 8 Marks

Eagle Ltd had acquired 51% in Sparrow Ltd for ₹ 75.80 lakhs on April, 1st 2010. On date of the acquisition Sparrow's Assets stood at ₹ 196 lakhs and liabilities at ₹ 16 lakhs. The Net asset position of Sparrow Ltd as on 31st March, 2011 & 30th September 2011 were ₹ 280 lakhs & ₹ 395 lakhs respectively, the increase resulting from profits earned during the period.

On 1St Oct, 2011 25.5% holdings were sold for ₹ 125 lakhs. You are required explain the nature of the relationship between the two companies on the relevant dates and the accounting adjustments that are necessary as a result of any change in the relationship. The profit arising on part sale of investment, carrying value of the portion unsold, goodwill/capital reserve that arises on change in nature of the investment may also be worked out by you.

Solution:

1. Basic Information

Company Status	Dates	Holding Status
Holding Company = Eagle Limited Subsidiary Company = Sparrow Limited	Date of Acquisition: 01.04.2010	51% shares of Sparrow Limited held by Eagle Limited

Notes:

(a) If Eagle Limited owns majority of voting power and the shares are held with an intention to dispose them in the near future (12 months or less), the enterprise will be excluded from preparing Consolidated Financial Statements

(b) 'Intention' at the time of purchase of investment should be considered for determining Consolidation

(c) If at the time of purchase, intention is to hold the Investments for Long Term and subsequently if the Parent Company decides to dispose the instrument (but not yet disposed), it should still be included for consolidation purposes.

(d) Therefore, on all the three dates i.e. 01.04.2010, 31.03.2011 and 30.09.2011, investment in Sparrow Ltd should be accounted for as if it is a subsidiary.

2. Computation Of Capital Reserve As On 01.04.2010 (Sparrow Ltd Is Subsidiary)

	Particulars	Amount (In ₹ Lakhs)
	Net Asset Value of Sparrow Limited as on 01.04.2010 (196.00 – 16.00)	180.00
	Share of Eagle in Value of Sparrow Ltd at 51% of the NAV (180.00 × 51%)	91.80
Less:	Consideration Paid	(75.80)
	Capital Reserve [In Eagle's Consolidated Financial Statement]	**16.00**

Accounting: Consolidated Financial Statement should be prepared as per AS-21 Line by Line addition of assets and liabilities after elimination of mutual items

3. Computation of Capital Reserve as on 31.03.2011 (Sparrow Ltd is Subsidiary)

(a) Since there is no change in holding pattern as at 31.03.2011, Capital Reserve on Consolidation will still be ₹ 16 Lakhs

(b) Accounting for Post–Acquisition Reserves

	Particulars	(In ₹ Lakhs)
	Net Asset Value of Sparrow Limited as on 31.03.2011	280.00
Less:	Net Asset Value as at date of acquisition	180.00
	Increase Net Asset = Post Acquisition Reserves	**100.00**
	Therefore, Share of Eagle in Post Acqn. Reserves (to be included as part of Group Reserves)	51.00
	Minority Interest in the Consolidated Financial Statements of Eagle Ltd, including share in Post–Acquisition Reserves (Net Aset Value as at 31.03.2011 ₹ 280 Lakhs x 49%)	137.20
	Capital Reserve on Consolidation	16.00

Accounting: Consolidated Financial Statement should be prepared as per AS-21 Line by Line addition of assets and liabilities after elimination of mutual items

4. Computation of Capital Reserve as on 30.09.2011(Sparrow Ltd is Subsidiary)

Since there is no change in holding pattern as at 31.03.2011, Capital Reserve on Consolidation will still be ₹ 16 Lakhs

	Particulars	(In ₹ Lakhs)
	Net Asset Value of Sparrow Limited as on 30.09.2011	395.00
Less:	NAV of Sparrow Limited on date of acquisition	(180.00)
	Increase Net Asset = Post Acquisition Reserves	**215.00**
	Therefore, Share of Eagle in Post Acqn. Reserves (to be included as part of Group Reserves) [215 Lakhs x 51%]	109.65
	Minority Interest in the Consolidated Financial Statements of Eagle Ltd, including share in Post–Acquisition Reserves (Net Aset Value as at 31.03.2011 ₹ 395 Lakhs x 49%)	193.55
	Capital Reserve on Consolidation	**16.00**

Accounting: Consolidated Financial Statement should be prepared as per AS-21 Line by Line addition of assets and liabilities after elimination of mutual items

5. Computation of Gain on Sale Consideration as on 01.10.2011 (Sparrow Ltd is an Associate)

(a) Separate Financial Statements: In the separate financial statements of Eagle Ltd, the profit on sale computed as follows will be transferred to Profit and Loss Account – (₹ In Lakhs)

	Sale Consideration	125.00
Less:	Proportionate Cost [75.80 x ½]	37.90
	Profit on Sale	**87.10**

(b) Consolidated Financial Statements: Profit on Sale will be computed as follows

	Sale Consideration	125.00
Less:	Proportionate Net Asset Value [395.80 x 25.50%]	100.73
	Profit on Sale	**24.27**

(c) Consolidated Financial Statements: Balance in Capital Reserve will be reduced by ₹ 8 Lakhs (being half of Capital Reserve on Acquisition) and transferred to Profit and Loss Account. Remaining ₹ 8 Lakhs will be included as part of Carrying Amount of Investment of Associate in the Consolidated Financial Statements.

Accounting: Consolidated Financial Statement should be prepared as per AS-21 Line by Line addition of assets and liabilities after elimination of mutual items

(a) In Consolidated Financial Statements OF Eagle Ltd, the Sparrow Ltd becomes an associate on 01.10.2010 (20% or more ownership).

(b) Profit on sale of a portion of subsidiary should be adjusted against Capital Reserve/Goodwill.

(c) The investment in Sparrow Ltd will be carried at cost and Equity Method of accounting will be used for consolidation.

Question 5 – Value of Equity Shares – Intrinsic Value Method — 16 Marks

The following is the Balance Sheet of BAT Ltd. as on 31st March, 2010:

LIABILITIES	₹	ASSETS	₹
3,00,000 Equity shares of ₹ 10 each fully paid 12.5%	30,00,000	Goodwill	3,00,000
		Building	20,00,000
Redeemable preference shares of ₹ 100 each fully paid	20,00,000	Plant & Machinery	22,00,000
		Furniture	10,00,000
General Reserve	15,00,000	Investments	16,00,000
Profit & Loss A/c	3,00,000	Stock	12,00,000
Secured Loan	10,00,000	Debtors	20,00,000
Creditors	30,00,000	Bank Balance	4,00,000
		Preliminary Expenses	1,00,000
Total	108,00,000	Total	108,00,000

Additional Information:

(i) Fixed assets worth 20% more than book value. Stock is overvalued by ₹ 1,00,000. Debtors are to be reduced by ₹ 40,000. Trade investments, which constitute 10% of the total investments are to be valued at 10% below cost.

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

(iii) In 2008-2009 Furniture with a book value of ₹ 1,00,000 was sold for ₹ 50,000. This loss should be treated as non-recurring or extraordinary item for the purpose of calculating adjusted average profit.

(iv) In 2007-2008 new machinery costing ₹ 2,00,000 was purchased, but wrongly charged to revenue. This amount should be adjusted taking depreciation at 10% on reducing value method.

(v) Return on capital employed is 20% in similar business.

(vi) Goodwill is to be valued at two years purchase of super profits based on simple average profits of last four years.

Profits of last four years are as under:

YEAR	Amount (₹)
2006-2007	13,00,000
2007-2008	14,00,000
2008-2009	16,00,000
2009-2010	18,00,000

(vii) It is assumed that preference dividend has been paid till date.

(viii) Depreciation on the overall increase value of assets (worth 205 more than book value) need not be considered. Depreciation on the additional value of only plant and machinery to be considered taking depreciation at 10% on reducing value method while calculating average adjusted profit.

Find out the intrinsic value of the equity share. Ignore income tax and dividend tax.

Solution:

1. Computation of Closing Capital Employed

Particulars		₹	₹
1. Fixed Assets			
(a) Building	20,00,000 + 20%		24,00,000
(b) Plant and Machinery	22,00,000 + 20%	26,40,000	
Add: Additional Plant & Machinery	1,45,800 + 20% (W.N.2)	1,74,960	28,14,960
(c) Furniture	10,00,000 + 20%		12,00,000
2. Trading Investments	Cost (16,00,000 × 10%)	1,60,000	
	Less: Reduction in Value @ 10%	(16,000)	1,44,000
3. Current Assets			
(a) Stock	(12,00,000 – 1,00,000)		11,00,000
(b) Debtors	(20,00,000 – 40,000)		19,60,000
(c) Bank Balance			4,00,000
4. Current Liabilities – Creditors			(30,00,000)
5. Secured Loans			(10,00,000)
Net Assets to Shareholders			60,18,960
6. Redeemable Pref. Shares			(20,00,000)
Net Assets to Equity Shareholders			**40,18,960**

Working Notes:

(a) Depreciation on Plant and Machinery Charged to Revenue

	Particulars	₹
	Cost Incorrectly Written Off	2,00,000
Less:	Depreciation 2007-08 (10%)	20,000
		1,80,000
Less:	Depreciation for 2008-09 (10%)	18,000
		1,62,000
Less:	Depreciation for 2009-10 (10%)	16,200
	WDV as on 01.04.2010	**1,45,800**

(b) Analysis of Investments

Total Investments Held ₹ 16,00,000

- Trade Investments at 10% of Total Cost — ₹ 1,60,000
- Non Trade Investments at 90% — ₹ 14,40,000
  - Purchased on 01.04.2008 at 50% — ₹ 7,20,000
  - Purchased on 01.04.2009 at 50% — ₹ 7,20,000

Note: Therefore, Income from Non Trade Investments for Financial Year 2008–09 = ₹ 7,20,000 × 15% = ₹ 1,08,000, and income for Financial Year 2009–10 = ₹ 14,40,000 × 15% = ₹ 2,16,000

2. Computation of Future Maintainable Profits / Equity Earnings

(a) Computation of Annual Adjusted Profits

	Particulars	2006-09	2007-08	2008-09	2009-10
	Profits (given)	13,00,000	14,00,000	16,00,000	18,00,000
Less:	Overvaluation of Stock	–	–	–	(1,00,000)
Less:	Debtors (Bad Debts)	–	–	–	(40,000)
Less:	Income from Non-Trading Investments	–	–	(1,08,000)	(2,16,000)
Add:	Non-recurring loss on sale of furniture	–	–	50,000	–
Add:	Machinery wrongly charged to revenue	–	2,00,000	–	–
Less:	Depreciation on above	–	(20,000)	(18,00)	(16,200)
	Adjusted Profits	**13,00,000**	**15,80,000**	**15,24,000**	**14,27,800**

Note: The given profits are identified only as profits, and therefore it is Profit After Tax i.e. profit after all charges and expenses, but before any appropriations. Therefore, they are before Preference Dividends (which is an appropriation of profit). Hence, for determining future maintainable equity earnings, Preference Dividends should be reduced.

(b) Computation of Average Adjusted Profits:-

(13,00,000 + 15,80,000 + 15,24,000 + 14,27,800) ÷ 4 = ₹ 58,31,800 ÷ 4 = ₹ 14,57,950

(c) Computation of Future Maintainable Profits / Equity Earnings

	Particulars	₹
	Past Average Adjusted Profits	14,57,950
Adj:	Adjustments for the Futrue	NIL
	Therefore, Future Maintainable Profits	**14,57,950**
Less:	Preference Dividends	(2,50,000)
	Future Maintainable Equity Earnings	**12,07,950**

(d) Computation of Super Profits and Goodwill

Particulars	₹	₹
Base for Capital Employed Closing Capital Employed for	All Sh. Holders	Equity Sh. Holders
Capital Employed	60,18,960	40,18,960
Normal Return at 20% of Capital Employed	12,03,792	8,03,792
Future Maintainable Profits	14,57,950	12,07,950
Super Profits (Future Maintainable Profits **Less** Normal Profits)	**2,54,158**	**4,04,158**
Therefore, Goodwill at 2 Years Purchase of Super Profits	**5,08,316**	**8,08,316**

Note: Alternatively, Average Capital Employed can be used as a base instead of Closing Capital Employed.

3. Value to Equity Shareholders

Particulars	₹	₹
Base for Capital Employed Closing Capital Employed for	All Sh. Holders	Equity Sh. Holders
Net Assets to Equity Holders	40,18,960	40,18,960
Goodwill	5,08,316	8,08,316
Non Trade Investments	14,40,000	14,40,000
Value to Equity Shareholders	**59,67,276**	**62,67,276**
No. of Equity Shares Outstanding	**3,00,000**	**3,00,000**
Therefore, Intrinsic Value Per Equity Share	**19.89**	**20.89**

Question 6(a) – Computation of EVA 8 Marks

Life Industries Ltd (LIL) furnishes the following information from which you are required to calculate the Prevailing Economic Value Added of the company and also explain the reason for difference, if any, between the EVA as calculated by you and the MVA. (Market Value Added) of LIL amounting to ₹ 14,005 crore.

Common Shares of ₹ 1,000/- Face Value	1,58,200
12% Debentures ₹ 10/- Face Value	50,00,000
Current Tax rate	30%
Financial Leverage	1.1 times
Share Premium Account (Lakh Rupees)	155
Free Reserves (Lakh Rupees)	154
Capital Reserve (Lakh Rupees)	109

It is a prevailing practice for companies in the industry to which LIL belongs to pay at least a dividend of 15% p.a. to its common shareholders.

Solution:

1. Computation of Operating Profit Before Taxes

Assuming EBIT = x, Financial Leverage = 1.1 = $\frac{\text{EBIT}}{\text{EBT}} = \frac{\text{EBIT}}{\text{EBIT Less Interest}} = \frac{x}{x \text{ Less ₹ 60 Lakhs}}$

Therefore, EBIT = X = 1.1X **Less** 66 Lakhs

∴ 0.1X = ₹ 66 Lakhs, This implies X = ₹ 660 Lakhs = Operating Profit (EBIT)

Therefore, Operating Profit After Taxes = ₹ 660 Lakhs x (1 – Tax Rate of 30%) = ₹ 462 Lakhs

2. Computation of Capital Employed and Weighted Average Cost of Capital

Sources of Finance	Capital Amount (₹ Lakhs)	Cost	Product
Equity Capital	1,582	15%	237.30
Reserves	154	15%	42.00
Share Premium	155	15%	23.25
Capital Reserve	109	15%	16.35
12% Debentures	500	(12%-30%) = 8.4%	42.00
Total	**2,500**		**342.00**

Therefore, Weighted Average Cost of Capital = 342 / 2,500 = 13.68%

3. Computation of EVA

Economic Value Added = Operating Profit After Taxes **Less** [Capital Employed x WACC]

= ₹ 462 Lakhs Less ₹ 342 Lakhs = **₹ 120 Lakhs**

4. EVA vs. MVA

(a) EVA represents excess of earnings over the cost of financing, whereas Market Value Added represents excess of Market Value over the Book Value of shares. (Similar to Super Profits)

(b) In a way, Market Value Added is comparable to the capitalized value of Economic Value Added of an entity. The capitalized value of EVA using 15% (cost of equity) as appropriate discount rate is ₹ 800 Lakhs or ₹ 8 Crores (EVA ₹ 120 Lakhs / 15%), whereas the actual Market Value Added is given by ₹ 14005 Crores.

(c) The difference can be due to factors which influence the market movements of prices, but not influencing the earning capacity of the entity.

Question 6(b) – Mutual Funds –Computation of Net Asset Value per Unit — 8 Marks

Sparrow Holdings is a S.E.B.I. Registered Mutual Fund which made its maiden N.F.O (New Fund offer) on 10th April, 2010 @ ₹ 10/- Face Value per unit. Subscription was received for 90 lakhs units. An undertaking arrangement was also entered into with Affinity Capital Markets Ltd that agreed to underwrite the entire NFO of 100 lakh units on a commission of 1.5%.

Out of the monies received ₹ 892.50 lakhs was invested in various capital market instruments. The marketing expenses for the N.F.O amounted to ₹ 11.25 lakhs. During the F.Y. ended March, 2011 the Fund sold securities having cost of ₹ 127.25 lakhs (FV 54.36 lakhs) for ₹ 141.25 lakhs. The fund in turn purchased securities for ₹ 130 lakhs. The management expenses of the fund are regulated by S.E.B.I. stipulations which state that the same shall not exceed 0.25% of the average funds invested during the year. The actual amount spent towards management expenses was ₹ 2.47 lakhs of which ₹ 47,000 was in arrear. The dividends earned on the investments held amounted to ₹ 2.51 lakhs of which a sum of ₹ 25,000 is yet to be collected. The fund distributed 80% of realized earnings. The closing Market Value of the Portfolio was ₹ 1120.23 lakhs.

You are required to determine the closing per unit NAV of the Fund.

Solution:

1. Computation of Closing Cash and Bank Balance [Cash and Bank Account]

Description	₹ Lakhs	Description	₹ Lakhs
To Capital Raised (100 Lakhs Units x ₹ 10)	1,000.00	By Underwriting Comm. (1000 Lakhs x 15%)	15.00
To Proceeds on Sale of Securities	141.25	By Amount Invested	892.50
To Dividends Received (Earned ₹ 2.51 Lakhs Less Outstanding ₹ 0.25 Lakhs)	2.26	By Marketing Expenses Paid	11.25
		By Securities Purchased	130.00
		By Management Expenses (Incurred ₹ 2.47 Lakhs **Less** Not Paid ₹ 0.47 Lakhs)	2.00
		By Dividends Paid to Unitholders	13.01
		By Closing Balance (b/f)	**79.75**
Total	**1,143.51**	**Total**	**1,143.51**

Note: Dividend Paid to Unitholders = 80% of Realized Earnings

(a) Total Realized Earnings = Dividend Income Received ₹ 2.26 Lakhs **Add** Profit on Sale of Securities 14.00 = **16.26 Lakhs.** Therefore, Dividend Paid to Unitholders = 80% x ₹ 16.26 Lakhs = ₹ 13.01 Lakhs

(b) Profit on Sale of Securities = Sale Proceeds ₹ 141.25 Lakhs Less Cost of Purchase ₹ 127.25 = ₹ 14 Lakhs

2. Computation of Closing Net Assets of the Mutual Fund

	Particulars	₹ Lakhs
	Cash and Bank Balances (as per Workings above)	79.75
Add:	Dividend Receivable	0.25
Add:	Market value of Investments (as given)	1,120.23
Less:	Management Expenses outstanding	(0.47)
	Net Assets value of the fund	**1199.76**
	No. of Units Outstanding (in Lakhs)	100
	Therefore, NAV per Unit	₹ 12

Answer any FOUR parts of this question: 4 × 4 = 16 Marks

Question 7(a) – Value of Host Component in Embedded Derivative 4 Marks

Mega Ltd. issued ₹ 100,00,000 worth of 8% Debentures of face value ₹ 100/- each on par value basis on 1st Jan, 2011. These Debentures are redeemable at 12% premium at the end of 2014 or exchangeable for Ordinary shares of Mega Ltd on 1:1 basis. The interest rate for similar debentures that do not carry conversion entitlement is 12%. You are required to calculate the value of the debt portion of the above compound financial instrument.

The Present Value of the rupee at the end of years 1 to 4 at 8% and 12% are supplied to you as –

End of Year	1	2	3	4
8%	0.926	0.857	0.794	0.735
12%	0.893	0.797	0.712	0.636

Solution:

1. Computation of Fair Value at T_0 [= PV of Cash Flows at Effective Interest Rate]

Description	Year	Cash Flows (₹ Lakhs)	Discount Factor @ 12%	Discounted Cash Flows (₹ Lakhs)
Interest Amount (₹ 100.00 Lakhs × 8%)	1 to 4	8.00	3.038 (Annuity Factor @ 12% for 4 Years)	24.30
Redemption Amount	4	112.00	0.636	71.23
Total Cash Flows = Fair Value at T_0				**95.53**

2. Components of Embedded Derivative

Nominal Value of Debenture Issue – ₹ 100.00 Lakhs

Value of Debt (₹ Lakhs) 95.53

Value of Equity (Embedded Derivative) 4.47 (balancing figure)

Question 7(b) – AS 28 – Impairment Loss on Revalued Asset 4 Marks

G Ltd acquired a machine on 1st April, 2005 for ₹ 7 crore that had an estimated useful life of 7 years. The machine is depreciated on straight line basis and does not carry any residual value. On 1st April, 2009, the carrying value of the machine was reassessed at ₹ 5.10 crore and the surplus arising out of the revaluation being credited to revaluation reserve. For the YE March 2011 conditions indicating an impairment of the machine existed and the amount recoverable ascertained to be only ₹ 79 lakhs. You are required to calculate the loss on impairment of the machine and show how this loss is to be treated in the books of G Ltd. G Ltd had followed the policy of writing down the revaluation surplus by the increased charge of depreciation resulting from the revaluation.

Solution:

1. Computation of Depreciation Per Annum (before Revaluation)

Value of Machine as on 01.04.2005	₹ 7.00 Crores
Useful Life	7 Years
Residual Value	Nil
Depreciation Per Annum (7.00 Crores/7 Years)	₹ 1.00 Crore
Therefore, Depreciation for 4 Years (FY0506 to FY0809)	₹ 4 Crores
Therefore, WDV on 01.04.2009 i.e. date of revaluation (Original Cost ₹ 7 Crores Less Depn. ₹ 4 Crores)	₹ 3 Crores

2. Computation of Revaluation Gain and Revised Depreciation

Carrying Amount of machine as on 01.04.2009	₹ 3.00 Crores
Revalued Amount of the machine as on 01.04.2009	₹ 5.10 Crores
Gain on Revaluation credited to Revaluation Reserve	**₹ 2.10 Crores**
Remaining Useful Life	3 Years
Revised Depreciation = Revalued Amount ₹ 5.10 Crores ÷ Remaining Useful Life 3 Years	₹ 1.70 Crores
Excess Depreciation (Revised Depreciation ₹ 1.70 Crores **Less** Original Depn ₹ 1 Crore)	₹ 0.70 Crore

3. Computation of Impairment Loss

	Revalued Amount of the machine as on 01.04.2009	₹ 5.10 Crores
Less:	Depreciation for FY0910 and FY1011 (₹ 1.70 Crores × 2 Years)	₹ 3.40 Crores
	Carrying Amount on date of Impairment Loss testing	₹ 1.70 Crores
Less:	Recoverable Amount Remaining Useful Life	₹ 0.79 Crores
	Impairment Loss	**₹ 0.91 Crores**

4. Balance in Revaluation Reserve as on 31.03.2011

	Revaluation Reserve as on 01.04.2009	₹ 2.10 Crores
Less:	Excess Depreciation, adjusted (₹ 0.70 Crores × 2 Years)	₹ 1.40 Crores
	Balance in Revaluation Reserve on the date of Impairment Loss testing	**₹ 0.70 Crores**

5. Adjustment of Impairment Loss

Total Impairment Loss – ₹ 0.91 Crores

Adjusted Against Revaluation Reserve	Adjusted Against P&L A/c
0.70 Crores	0.21 Crores

Question 7(c) – Accounting for Financial Asset – Loans Receivable – Use of Effective Interest Rate 4 Marks

FEE Ltd borrows a sum of ₹ 20 crore from COFEE Ltd repayable as a single bullet payment at the end of 5 years. The interest thereon @ 5% p.a. is payable at yearly rests. Since the market rate is 8% FEE Ltd paid an origination fee of ₹ 2.40 Crores to COFEE Ltd for the lower rate of interest. Apart from the above, there are no other transactions between the two parties. You are required to show the value at which COFEE Ltd would recognize the loan and the annual interest thereof.

Solution:

1. Computation of Present Value of Loan Repayments at Time Zero [At inception]

Description	Year	Cash Flows (₹ Crores)	Discount Factor @ 8%	Discounted Cash Flows (₹ Crores)
Origination Fee	0	2.40	1	2.40
Interest Amount (₹ 20.00 Crores × 5%)	1 to 5	1.00	3.993 (Annuity Factor @ 8% for 5 Years)	3.99
Principal Repayment	5	20.00	0.6806	13.61
Total Cash Flows = Fair Value at T_0		**27.40**		**20.00**

2. Computation of Present Value of Loan Repayments at Time One [At the end of Year 1]

Description	Year	Cash Flows (₹ Crores)	Discount Factor @ 8%	Discounted Cash Flows (₹ Crores)
Interest Amount (₹ 20.00 Crores × 5%)	1 to 4	1.00	3.312 (Annuity Factor @ 8% for 5 Years)	3.31
Principal Repayment	4	20.00	0.735	14.70
Total Cash Flows = Fair Value as at T_1		**21.00**		**18.01**

3. Disclosure of Loan

(a) Since, the Origination Fee is attributable to the Loan, the said cash flow is also adjusted against the Loan Receivable.

(b) Loan Receivable from FEE Ltd is in the nature of a Financial Asset in the books of COFEE Ltd. Therefore, it should be carried in the Financial Statements at Fair Value determined using the Effective Interest Rate.

(c) Therefore, at T_0, Loan should be recorded at ₹ 20 Crores, by passing the following Journal Entry —

Loan Receivable from FEE Ltd A/c Dr.	20.00 Crores	
To Cash and Bank A/c		20.00 Crores

(d) Upon receipt of Origination Fee, the following Journal Entry should be passed –

Cash and Bank A/c Dr.	2.40 Crores	
To Loan Receivable from FEE Ltd A/c		2.40 Crores

Therefore, effectively at T_0, balance in "Loan Receivable from FEE Ltd A/c" will be ₹ 17.60 Crores.

(e) At T1, balance in "Loan Receivable from FEE Ltd A/c" will be ₹ 18.01 Crores by passing the following journal entries –

Loan Receivable from FEE Ltd A/c Dr.	0.41 Crores	
To Discount Unwinding (Interest Income) A/c		0.41 Crores
(Being unwinding of discount on Loan Receivable from FEE Ltd, due to restatement of carrying amount at Fair Value using effective interest rate of 8%. Amount of Discount = Fair Value at T_1 ₹ 18.01 Crores Less Carrying Amount ₹ 17.60 Crores)		

4. Annual Interest

Annual Interest Received is ₹ 1 Crore i.e. Principal Advanced ₹ 20 Crores × 5% = ₹ 1 Crore. The following Journal Entry should be passed

Cash and Bank A/c Dr. To Interest Income A/c	1.00 Crores	 1.00 Crores

Therefore, aggregate income = Interest Received ₹ 1.00 Crores **Plus** Unwinding of Discount 0.41 Crore = ₹ 1.41 Crores.

Note: (a) Interest at the effective rate of 8% on the Net Loan of ₹ 17.60 Crores at T_0 = ₹ 1.41 Crores.
(b) Aggregate of discount unwinding over the loan period will be equivalent to ₹ 2.40 Crores i.e. Origination Fee. This implies that, the Origination Fee will be recognized as income over the Loan Period, rather than at T_0.

Question 7 (d) – Accounting for Mutual Funds – Dividend Equalisation Reserve — 4 Marks

On 1st April 1, 2010 a mutual fund scheme had 9 Lakh units, face value of ₹ 10 each outstanding. The scheme earned ₹ 81 Lakhs in 2010-2011. out of which ₹ 45 Lakhs was earned in first half year. 1 lakh units were sold on 30th Sept, 2010 at NAV ₹ 60. Show important accounting entries for sale of units and distribution of dividend at the end of 2010–11.

Solution:

1. Allocation of Earnings

	Particulars	No. of Units Outstanding	Total earnings (₹ in Lakhs)	Earnings Per Unit	Old Units (9 Lakhs)	New Units (1 Lakh)
	First Half-Year	9	45.0	45 / 9 = 5.00	9 × 5 = 45.0	Nil
	Second half-year (₹ 3.60/ unit)	10	36.0	36 / 10 = 3.60	9 × 3.6 = 32.4	1 × 3.6 = 3.6
	Sub-total		81.0	—	77.4	3.6
Add:	Equalisation Payment recovered (1 Lakhs Units × Earnings Per Unit for First Half Year)		5.0	—	—	5.0
Earnings Available for Distribution			86.00			

Note: Equalisation payment = Earnings Per Unit for the First Half Year

2. Journal Entries

Date	Particulars		Debit	Credit
30.09.10	Bank A/c	Dr.	65.00	
	To Unit Capital (1 Lakh Units × Face Value ₹ 10)			10.00
	To Reserves (Premium on Issue)			50.00
	To Dividend Equalisation (1 Lakh Units × Equalisation Amt. ₹ 5)			5.00
	(For issue / sale of 1 Lakhs units at an issue price of ₹ 65 per unit)			
31.03.11	Dividend Equalisation A/c	Dr.	5.00	
	To Revenue A/c			5.00
	(Dividend equalisation amount transferred to Revenue Account for determination of distributable surplus)			
31.03.10	Revenue A/c	Dr.	86.00	
	To Bank A/c			86.00
	(Distribution of surplus as dividends to all Unit Holders)			

Question 7 (e) AS 30 – Financial Instrument — 4 Marks

BEE Ltd. has entered into a contract by which it has the option to sell its identified property, plant and equipment (PPE) to AXE Ltd. for ₹ 100 lakhs after 3 years whereas its current market price is ₹ 150 lakhs. Is the put option of BEE Ltd. a financial instrument? Explain.

Solution:

1. **Event:** BEE Ltd has entered into a contract for selling its identified property, plant and equipment to AXE Ltd for ₹ 100 Lakhs for 3 Years
2. **Applicability :** AS 30 is applicable and it states that a Financial Instrument is settle able by cash or its cash equivalents
3. **Inference:** In this Case the Underlying asset is a land which is to be transferred on exercise of this put option the Put option of BEE Ltd is not a financial Instrument
4. **Conclusion:** The Put option of BEE Ltd is not a financial Instrument.