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SUGGESTED SOLUTION

FINAL May 2019 EXAM

SUBJECT - FR

Test Code - FNJ 7057 O

BRANCH - () (Date :)

Head Office : Shraddha, 3rd Floor, Near Chinai College, Andheri (E), Mumbai – 69.

Tel : (022) 26836666

Answer 1:
(A)

Calculation of Defined Benefit Obligation

If Darshan will complete minimum 5 year term, then it is assumed that he will retire in the 6th year.

Accordingly, Expected last drawn salary in the 6th year

= Rs. 15,52,303 x 110% x 110% x 110% x 110% x 110% = Rs. 25,00,000

Defined Benefit Obligation (DBO) = Rs. 25,00,000 x 25% x 5 = Rs. 31,25,000

Amount of Rs. 6,25,000 will be charged to Profit and Loss Account of the company every year as cost for Defined Benefit Obligation.

Calculation of Current Service Cost to be charged per year

Year	Equal apportioned amount of DBO [i.e. Rs. 31,25,000/5 years]	PV factor Discounting @ 8%	Current service cost (Present Value)
a	b	c	d = b x c
1	6,25,000	0.735 (4 Years)	4,59,375
2	6,25,000	0.794 (3 Years)	4,96,250
3	6,25,000	0.857 (2 Years)	5,35,625
4	6,25,000	0.926 (1 Year)	5,78,750
5	6,25,000	1 (0 Year)	6,25,000

Calculation of Interest Cost to be charged per year

Year	Opening balance	Interest cost	Current service cost	Closing balance
a	B	c = b x 8%	d	e = b + c + d
1	0	0	4,59,375	4,59,375
2	4,59,375	36,750	4,96,250	9,92,375
3	9,92,375	79,390	5,35,625	16,07,390
4	16,07,390	1,28,591	5,78,750	23,14,731
5	23,14,731	1,85,269*	6,25,000	31,25,000

*Due to approximations used in calculation, this figure is adjusted accordingly.

Note:

1. The question states that Darshan will complete minimum 5 year term. Accordingly, in the above solution, it is assumed that his retirement from service will be in the 6th year.
2. The above solution has been given assuming that the last drawn salary implies in the question is the annual emolument. However, alternatively one may assume last drawn salary as monthly salary. In such a situation the answer will be as follows: **(2.5 marks)**

Calculation of Defined Benefit Obligation

If Darshan will complete minimum 5 year term, then it is assumed that he will retire in the 6th year.

Accordingly, Expected last drawn salary in the 6th year

= Rs. 15,52,303 x 110% x 110% x 110% x 110% x 110% = Rs. 25,00,000

Defined Benefit Obligation (DBO) = (Rs. 25,00,000/12) x 25% x 5 = Rs. 2,60,417

Amount of Rs. 52,083 (2,60,417 / 5) will be charged to Profit and Loss Account of the company every year as cost for Defined Benefit Obligation.

Calculation of Current Service Cost to be charged per year

Year	*Equal apportioned amount of DBO [i.e. Rs. 2,60,417 / 5 years]*	*Discounting @ 8% PV factor*	*Current service cost (Present Value)*
a	*b*	*c*	*d = b x c*
1	52,083	0.735 (4 Years)	38,281
2	52,083	0.794 (3 Years)	41,354
3	52,083	0.857 (2 Years)	44,635
4	52,083	0.926 (1 Year)	48,229
5	52,083	1 (0 Year)	52,083

Year	*Opening balance*	*Interest cost*	*Current service cost*	*Closing balance*
a	*b*	*c = b x 8%*	*d*	*e = b + c + d*
1	0	0	38,281	38,281
2	38,281	3,063	41,354	82,698
3	82,698	6,616	44,635	1,33,949
4	1,33,949	10,716	48,229	1,92,894
5	1,92,894	15,440*	52,083	2,60,417

*Due to approximations used in calculation, this figure is adjusted accordingly. **(2.5 marks)**

(B)

Estimated tax liability on annual income = [Income Rs.1,800 lakhs less b/f losses Rs.630 lakhs (90% of 700)] x 33%

= 33% of Rs. 1,170 lakhs = Rs. 386.10 lakhs

As per Para 29(c) of AS 25 'Interim Financial Reporting', income tax expense is recognised in each interim period based on the best estimate of the weighted average annual income tax rate expected for the full financial year.

Thus, estimated weighted average annual income tax rate = Rs. 386.10 lakhs divided by Rs. 1,800 lakhs=21.45% **(2 marks)**

Tax expense to be recognised in each quarter	Rs. in lakhs
Quarter I – Rs. 700 lakhs x 21.45%	150.15
Quarter II – Rs. 300 lakhs x 21.45%	64.35
Quarter III – (Rs. 100 lakhs) x 21.45%	(21.45)
Quarter IV – Rs. 900 lakhs x 21.45%	193.05
	386.10

(3 marks)

(C)

(i) Calculation and allocation of impairment loss in 2014 *(Amount in Rs. lakhs)*

	Goodwill	***Identifiable assets***	***Total***
Historical cost	2,000	4,000	6,000
Accumulated depreciation/amortisation (4 yrs.)	(1,600)	(1,067)	(2,667)
Carrying amount before impairment	400	2,933	3,333
Impairment loss*	(400)	(213)	(613)
Carrying amount after impairment loss	0	2,720	2,720

(2 marks)

*** Notes:**

1. As per para 87 of AS 28, an impairment loss should be allocated to reduce the carrying amount of the assets of the unit in the following order:

   (a) first, to goodwill allocated to the cash-generating unit (if any); and

   (b) then, to the other assets of the unit on a pro-rata basis based on the carrying amount of each asset in the unit.

   Hence, first goodwill is impaired at full value and then identifiable assets are impaired to arrive at recoverable value.

2. Since the goodwill has arisen on acquisition of assets, AS 14 comes into the picture. As per para 19 of AS 14, goodwill shall amortise over a period not exceeding five years unless a somewhat longer period can be justified. Therefore, the amortization period of goodwill is considered as 5 years.

(ii) Carrying amount of the assets at the end of 2016 *(Amount in Rs. lakhs)*

End of 2016	***Goodwill***	***Identifiable assets***	***Total***
Carrying amount in 2016	0	2,225	2,225
Add: Reversal of impairment loss (W.N.2)	-	175	175
Carrying amount after reversal of impairment loss	-	2,400	2,400

(1 mark)

Working Note:

1. Calculation of depreciation after impairment till 2016 and reversal of impairment loss in 2016

			(Amount in Rs. lakhs)
	Goodwill	Identifiable assets	Total
Carrying amount after impairment loss in 2014	0	2,720	2,720
Additional depreciation (i.e. (2,720/11) x 2)	–	(495)	(495)

Carrying amount	0	2,225	2,225
Recoverable amount			3,420
Excess of recoverable amount over carrying amount			1,195

(1 mark)

Note: It is assumed that the restriction by the Government has been lifted at the end of the year 2016.

2. Determination of the amount to be impaired by calculating depreciated historical cost of the identifiable assets without impairment at the end of 2016

(Amount in Rs. lakhs)

End of 2016	*Identifiable assets*
Historical cost	4,000
Accumulated depreciation	(266.67 x 6 years) = (1,600)
Depreciated historical cost	2,400
Carrying amount (in W.N. 1)	2,225
Amount of reversal of impairment loss	175

(1 mark)

Notes:

1. As per para 107 of AS 28, in allocating a reversal of an impairment loss for a cash-generating unit, the carrying amount of an asset should not be increased above the lower of:
   (a) its recoverable amount (if determinable); and
   (b) the carrying amount that would have been determined (net of amortisation or depreciation) had no impairment loss been recognised for the asset in prior accounting periods.

   Hence impairment loss reversal is restricted to Rs. 175 lakhs only.

2. The reversal of impairment loss took place in the 6th year. However, goodwill is amortised in 5 years. Therefore, there would be no balance in the goodwill account in the 6th year even without impairment loss. Hence in W.N. 2 above there is no column for recalculation of goodwill.

(D)

Net effect on the Statement of Profit and Loss in the year of sale in the books of Lessee (Santa Ltd.)

For calculation of net effect on the statement of profit and loss on sale of equipment, it has to be judged whether lease is an operating lease or finance lease.

The lease term is for 10 years which covers the entire economic life of the equipment. At the inception of the lease, the present value of the minimum lease payments (MLP) is Rs. 6,14,400 [Rs. 1,00,000 x 6.144 (Annuity factor of Rs. 1 @10% for 10 years)] and amounts to at least substantially all of the fair value (sale price ie. Rs. 6,14,460) of the leased equipment. Thus lease is a finance lease.

As per para 48 of AS 19 "Leases", if a sale and leaseback transaction results in a finance lease, profit of Rs. 5,14,460 (Sale value Rs. 6,14,460 less carrying amount Rs.1,00,000) will not be

recognized as income in the year of sale in the books of lessee i.e. Santa Ltd. It should be deferred and amortised over the lease term in proportion to the depreciation of the leased asset.

Therefore, assuming that depreciation is charged on straight line basis, Santa Ltd. will recognize depreciation of Rs. 61,446 per annum for 10 years (Rs. 6,14,460 / 10) and amortise profit of Rs. 5,14,460 over the lease term of 10 years, i.e. Rs. 51,446 p.a. The net effect is a debit of (Rs. 61,446 - Rs. 51,446) Rs. 10,000 p.a. to the Statement of profit and loss, for 10 years as covered under the lease term. **(5 marks)**

Note: Had there been no sale and lease back transaction, the Statement of profit and loss for each year (covered in the lease term) would have been charged by (Rs. 1,00,000/10) Rs. 10,000, towards depreciation. Thus, the sale and lease back transaction will have no impact on profit or loss account to be reported by the lessee (vendor in the sales transaction) over the lease period.

Answer 2:
(A)

Journal Entries to record the derecognition of the Loan

	Rs.	*Rs.*	*Rs.*
Bank A/c	Dr.	9,90,000	
To Loan A/c			8,25,468
To Profit & Loss A/c (Bal. Fig)			1,64,532
(Being entry for securitization of 90% principal with 14% interest)			
Interest strip A/c	Dr.	97,601	
Servicing asset A/c	Dr.	53,237	
Principal strip A/c	Dr.	23,694	
To Loan A/c			1,74,532
(Being entry for interest, servicing asset and principal strips received)			

(4 marks)

Working Notes:

1. Calculation of securitized component of loan

	Rs.	*Rs.*
Fair Value		12,23,960
Less: Principal strip receivable (fair value)	29,000	
Less: Interest strip receivable (fair value) (1,84,620 – 65,160)	1,19,460	
Less: Value of service asset (fair value)	65,160	(2,13,620)
		10,10,340

(2 marks)

2. Apportionment of carrying amount in the ratio of fair values

	Fair value (Rs.)		***Apportionment (Rs.)***
Securitized component of loan	10,10,340	$\frac{10,10,340 \times 10,00,000}{12,23,960}$	8,25,468
Principal strip receivable	29,000	$\frac{29,000 \times 10,00,000}{12,23,960}$	23,694
Interest strip receivable	1,19,460	$\frac{1,19,460 \times 10,00,000}{12,23,960}$	97,601
Servicing asset	65,160	$\frac{65,160 \times 10,00,000}{12,23,960}$	53,237

(4 marks)

(B)

Determination of leverage effect on goodwill

			Rs.
a	Profit available for equity fund after tax		1,80,000
b	Profit (as per Long-term fund approach)		
	Profit for equity fund	1,80,000	
	Add: Interest on Long-term loan (net of tax) 4,50,000 x [10%x(1-0.4)]	27,000	2,07,000
c	Capital employed (by Equity approach)		11,50,000
d	Capital employed as per Long-term fund approach		
	Capital employed (by Equity approach)	11,50,000	
	Add: 10% Long term loan	4,50,000	16,00,000
e	Value of Goodwill		
	(A) By Equity Approach		
	Capitalised value of Profit as per equity approach (1,80,000/15 x 100)		12,00,000
	Less: Capital employed as per equity approach		(11,50,000)
	Value of Goodwill		50,000
	(B) By Long-Term Fund Approach		
	Capitalized value of Profit as per Long-term fund approach (2,07,000/12 x 100)		17,25,000
	Less: Capital employed as per Long-term fund approach		(16,00,000)
	Value of Goodwill		1,25,000

(5 marks)

Leverage effect on Goodwill:

Adverse leverage effect on goodwill is Rs. 75,000 (i.e. Rs. 1,25,000 – Rs.50,000) **(1 mark)**

In other words, leverage ratio is low for which its goodwill value has been reduced when calculated with reference to equity fund as compared to value arrived at with reference to long term fund.

Answer 3:

Calculation of Net Assets	Sunny Ltd.		Money Ltd.	
Goodwill (given to be of nil value)				
Machines and Plant	5,10,000		1,95,000	
Other Fixed Assets	90,000		15,000	
	6,00,000			2,10,000
Add: 15% increase in price	90,000	6,90,000		
Current Assets				
Inventories and debtors		1,85,000	35,000	
Less: Loading on Stock (25,000 x 25/ 125)			5,000	30,000
Debtors		1,00,500	35,000	
Less: Debtors considered bad			20,000	15,000
Prepaid expenses		24,500		2,000
Cash in Hand & Bank	1,78,000			25,000
Less: Payment of Dividend				
(10% of Rs. 8,00,000)	(80,000)	98,000		-
Value of Total Assets		10,98,000		2,82,000
Less : Liabilities				
Trade Payables		45,000		24,000
Provisions	95,000			12,000
Less: Proposed dividend paid and adjusted in cash (assumed that proposed dividend was included in provisions)	(80,000)	15,000		
Value of Net Assets of the Company		10,38,000		2,46,000

(4 marks)

Working Notes:

1 Calculation of Intrinsic Value of Shares

	Sunny Ltd.	Money Ltd.
Net Assets value as on 31.03.2013	10,38,000.00	2,46,000.00
No. of shares of the Company	80,000.00	20,000.00
Intrinsic Value of shares	12.975	12.30

(1 mark)

2. Calculation of Purchase Consideration

	Sunny Ltd.	Money Ltd.
Intrinsic Value of Shares	12.975	12.30
Premium to be paid by Z Ltd.	5.00	3.00
Amount to be paid per share	17.975	15.30
No. of shareholders agreeing to amalgamation	79,900	20,000
Total amount to be paid by Z Ltd.	14,36,202	3,06,000
No. of shares to be issued by Z Ltd. Rs. 10 per	1,43,620	30,600

share (Rs. 2 paid in cash)		
Total number of equity shares	1,74,220	
Payment to dissenting shareholders	22.98	
Total payment	2,298	
Total purchase consideration	14,38,500	3,06,000

(3 marks)

Entries in Books of Z Ltd.

	Rs.	*Rs.*
Business Purchase A/c	1,744,500	
To Liquidators of Sunny Ltd.		14,38,500
To Liquidators of Money Ltd		3,06,000
(Being the purchase of Sunny Ltd and Money Ltd.)		
Fixed Assets	9,00,000	
Inventories	2,15,000	
Debtors	1,15,500	
Prepaid Expenses	26,500	
Cash & Bank	1,23,000	
Goodwill (balancing figure)	4,60,000	
To Trade Payables		69,000
To Provisions		27,000
To Business Purchase A/c		17,44,500
(Being the assets and liabilities of the companies taken over at revalued values)		
Liquidators of Sunny Ltd.	14,38,500	
Liquidators of Money Ltd.	3,06,000	
To Equity Share Capital		17,42,200
To Cash		2,300
Amalgamation Adjustment A/c	24,000	
To Statutory Funds		24,000
(Being the statutory reserves of Sunny and Money Ltd.)		

(4 marks)

Balance Sheet of Z Ltd. as on 31st March, 2013

	Note No.	Rs.
Equity and liabilities		
Shareholders' Funds		
(a) Share Capital	1	17,42,200
(b) Reserves and Surplus	2	
Statutory Funds		24,000
Non-Current liabilities		
(a) Long-term borrowings		-
Current liabilities		

(b) Trade Payables	3	69,000
(c) Other Current liabilities		
(d) Short-term provisions	4	27,000
	Total	18,62,200
Assets		
Non-Current Assets		
(a) Fixed Assets		
(i) Tangible Assets	5	9,00,000
(ii) Intangible Assets	6	4,60,500
(b) Amalgamation Adjustment Account	7	24,000
Current Assets		
(a) Inventories	8	2,15,000
(b) Trade Receivables	9	1,15,500
(c) Cash and Bank Balances	10	1,20,700
(d) Short-term loans and advances	11	26,500
	Total	18,62,200

(4 marks)

Answer 4:

Conolidated Balance Sheet of H Ltd.
And its subsidiary S Ltd. as on 31st March, 2016

Particulars	*Note No.*	*(Rs. in lakhs)*
I. Equity and Liabilities		
(1) Shareholder's Funds		
(a) Share Capital	1	12,000
(b) Reserves and Surplus	2	7,159
(2) Minority Interest [W.N.6]		3,120
(3) Current Liabilities		
(a) Trade payables (1,461 + 854)		2,315
(b) Short term provisions	3	2,449
(c) Other current liabilities	4	487
Total		27,530
II. Assets		
(1) Non-current assets		
Fixed assets		
Tangible assets	5	14,954
(2) Current assets		
(a) Inventories	6	5,885
(b) Trade receivables (2,600 + 1,363)		3,963
(c) Cash and cash equivalents (1,490 + 204)		1,694
(d) Short term loans and advances		520
(e) Other current assets	7	514
Total		27,530

(3.5 marks)

Notes to Accounts

			(Rs. in lakhs)	(Rs. in lakhs)
1.	**Share Capital**			
	Authorised			15,000
	Issued and Subscribed:			
	Equity shares of Rs. 10 each, fully paid up			12,000
2.	**Reserves and surplus**			
	Capital Reserve (Note 5)		1,320	
	Consolidated General Reserve (W.N. 8)		2,892	
	Consolidated Profit and Loss Account:		2,947	7,159
3.	**Short term provisions**			
	Provision for Taxation			
	H Ltd.	855		
	S Ltd.	394	1,249	
	Proposed Dividend			
	H Ltd.		1,200	2,449
4.	**Other current liabilities**			
	Bills Payable			
	H Ltd.		372	
	S Ltd.		160	
			532	
	Less: Mutual owing		(45)	487
5.	**Tangible assets**			
	Land and Buildings			
	H Ltd.		2,718	
	Plant and Machinery			
	H Ltd.	4,905		
	S Ltd.	4,900	9,805	
	Furniture and Fittings			
	H Ltd.	1,845		
	S Ltd.	586	2,431	14,954
6.	**Inventories**			
	Stock			
	H Ltd.		3,949	
	S Ltd.		1,956	
			5,905	
	Less: Unrealised profit		(20)	5,885
7.	**Other current assets**			
	Bills Receivable			
	H Ltd.	360		
	S Ltd.	199		
		559		
	Less: Mutual Owing	(45)		514

(3.5 marks)

Working Notes:

1. Share holding pattern of S Ltd.

Shares as on 31.03.2016 (Includes bonus shares issued on 01.11.2015)	480 lakh shares (4,800 lakhs / Rs. 10)
H Ltd's holding as on 01.04.2015	180 lakhs
Add: Bonus received on 01.11.2015	108 lakhs (180 / 5 × 3)
Total H Ltd's holding as on 31.03.2016	288 lakhs i.e. 60 % [288 / 480 × 100]
Minority Shareholding	40%

2. S Ltd.'s General Reserve Account

		Rs. *in lakhs*			Rs. *in lakhs*
To	Bonus to Equity Shareholders	1,800	By	Balance b/d	3,000
To	Balance c/d	1,380	By	Profit and Loss A/c (Balancing figure)	180
		3,180			3,180

3. S Ltd.'s Profit and Loss Account

	Rs. in lakhs		*Rs. in lakhs*
To General Reserve [WN 1]	180	By Balance b/d	1,200
To Dividend paid (20% on Rs. 3,000 lakhs)	600	By Net Profit for the year* (Balancing figure)	1,200
To Balance c/d	1,620		
	2,400		2,400

*Out of Rs. 1,200 lakhs profit for the year, Rs. 180 lakhs have been transferred to reserves.

4. Distribution of Revenue profits

	Rs. in lakhs
Revenue profits (W. N. 2)	1,200
Less: Share of H Ltd. 60% (General Reserve Rs. 108 + Profit and Loss Account Rs. 612)	(720)
Share of Minority Shareholders (40%)	480

Note: The question can also be solved by taking Rs. 1,080 lakhs as post-acquisition Profit and Loss balance and Rs. 180 lakhs as post-acquisition General Reserve balance. The final answer will be same.

5. Calculation of Capital Profits

	Rs. in lakhs
General Reserve on the date of acquisition less bonus shares (Rs.3,000 – Rs.1,800)	1,200
Profit and loss account on the date of acquisition less dividend paid (Rs.1,200 – Rs.600)	600
	1,800

H Ltd.'s share = 60% of Rs. 1,800 lakhs = Rs. 1,080 lakhs

Minority interest = Rs. 1,800 – Rs. 1,080 = Rs.720 lakhs

6. Calculation of capital reserve

	Rs. in lakhs
Paid up value of shares held (60% of Rs.4,800)	2,880
Add: Share in capital profits [WN 4]	1,080
	3,960
Less: Cost of shares less dividend received (Rs. 3,000 – Rs. 360)	(2,640)
Capital reserve	1,320

7. Calculation of Minority Interest

	Rs. in lakhs
40% of share capital (40% of Rs. 4,800)	1,920
Add: Share in revenue profits [WN 3]	480
Share in capital profits [WN 4]	720
	3,120

8. Unrealised profit in respect of inventory

Rs. 100 lakhs X $\frac{25}{125}$ = Rs. 20 lakhs

9. Consolidated General Reserve Account

	Rs. in lakhs
H Ltd.	2,784
Add: Share in post-acquisition General Reserve of S Ltd.	108
	2,892

10. Consolidated Profit and Loss Account

	Rs. in lakhs
H Ltd.	2,715
Less: Dividend wrongly credited	(360)
	2,355
Add: Share in post-acquisition General Reserve of S Ltd.	612
Less: Unrealised Profit (100 / 125) x 25	(20)
	2,947

(9 marks)

Answer 5:

(A)

The option to acquire shares in KS Ltd. would be regarded as a derivative financial instrument. This is because the value of the option depends on the value of an underlying variable (KS Ltd.'s share price). As per paragraph 4.1.4 and 4.2.1 of Ind AS 109 'Financial Instruments', all derivatives are measured at fair value. On 1 April 2016, when QA Ltd. purchased 10 lakh options to acquire shares in KS Ltd. at Rs. 0.25 per option, QA Ltd. will recognise Option Asset for Rs. 2.5 lac by passing the following journal entry:

Option on KS Ltd. shares Dr. To Bank	Rs. 2.5 lac	 Rs. 2.5 lac

QA Ltd. shall measure the option at fair value at the end of every reporting period and also before exercise. The increase in share price on exercise date represents fair value of the option as the time value is zero on exercise date. Therefore, QA Ltd. Will measure the option at Rs. 6 lac (10 lac option x (2.6 – 2)) and recognize fair value gain of Rs. 3.5 lac in profit or loss.

The following journal entry will be passed:

Option on KS Ltd. shares Dr. To Fair value gain	Rs. 3.5 lac	 Rs. 3.5 lac

On exercise of the option on 31st December, 2016, QA Ltd. will pay Rs.20 lac for 10 lac shares of KS Ltd and the option derivative will be converted to shares of KS Ltd. Therefore, QA Ltd. will pass the following entry:

Investment in KS Ltd. equity shares Dr. To Bank To Option on KS Ltd. shares	Rs. 26 lac	 Rs. 20 lac Rs. 6 lac

Paragraph 5.1.1 of Ind AS 109 Financial Instruments requires that the transaction costs shall be added to fair value if the financial asset is measured at other than fair value through profit or loss.

In the given case, Rs. 1 lac incurred by QA Ltd. for acquiring equity shares of KS Ltd. will not be added to the fair value of the equity shares of KS Ltd. This is because equity shares of KS Ltd. are classified at fair value through profit or loss in accordance with paragraph 4.1.4 of Ind AS 109 Financial Instruments. Therefore, QA Ltd. shall recognise Rs. 1 lac incurred on acquisition of equity shares of KS Ltd. in profit or loss as on 31st March, 2017.

The investment is included in the statement of financial position at 31st March, 2017 as a current asset at its fair value of Rs. 29 lac. The increase in fair value of Rs. 3 lac is taken to the profit and loss. **(8 marks)**

(B)

Based on Fair Value Method

1. Since the options granted have a graded vesting schedule, the enterprise segregates the total plan into different groups, depending upon the vesting dates and treats each of these groups as a separate plan.
2. The enterprise determines the number of options expected to vest under each group as below:

Vesting Date (Year-end)		*Options expected to vest*
1	300 options x 1,000 employees x 25% x 0.97	72,750 options
2	300 options x 1,000 employees x 25% x 0.97 x .97	70,568 options
3	300 options x 1,000 employees x 50% x 0.97x .97 x .97	1,36,901 options
Total options expected to vest		2,80,219

	options

(1.5 mark)

3. Total compensation expense for the options expected to vest is determined as follows:

Vesting Date (Year-end)	*Expected Vesting (No. of Options)*	*Fair Value per Option (Rs.)*	*Compensation Expense (Rs.)*
1	72,750	10	7,27,500
2	70,568	13	9,17,384
3	1,36,901	15	20,53,515
	2,80,219		36,98,399

(1.5 mark)

4. Compensation expense, determined as above, is recognised over the respective vesting periods. Total compensation expense of Rs. 36,98,399, determined at the grant date, is attributed to the years 1, 2 and 3 as below:

Vesting Date	*Cost to be recognized*		
(End of year)	*Year 1*	*Year 2*	*Year 3*
1	7,27,500		
2	4,58,692	4,58,692	
3	6,84,505	6,84,505	6,84,505
Cost for the year	18,70,697	11,43,197	6,84,505
Cumulative cost	18,70,697	30,13,894	36,98,399

(2 mark)

Based on Intrinsic Value Method

In case of intrinsic value method, total compensation expense for the options expected to vest would be

Vesting Date (End of year)	*Expected Vesting (No. of Options)*	*Value per Option (Rs.)*	*Compensation Expense (Rs.)*
1	72,750	6	4,36,500
2	70,568	6	4,23,408
3	1,36,901	6	8,21,406
	2,80,219		16,81,314

(1.5 marks)

Total compensation expense of Rs.16,81,314, determined at the grant date, would be attributed to the years 1, 2 and 3 as below:

Vesting Date	*Cost to be recognized*		
(End of year)	*Year 1*	*Year 2*	*Year 3*
1	4,36,500		
2	2,11,704	2,11,704	
3	2,73,802	2,73,802	2,73,802
Cost for the year	9,22,006	4,85,506	2,73,802
Cumulative cost	9,22,006	14,07,512	16,81,314

(1.5 marks)

Answer 6:
(A)

Computation of Economic Value Added (EVA)

Particulars	*(Rs. in lacs)*
Net Operating Profit after Tax (NOPAT)	831.00
Less: Weighted average cost of operating capital employed (13.35% of 2,200) (See W.N.7)	(293.70)
Economic Value Added (EVA)	537.30

(1 mark)

Working Notes:

1. Net Operating Profit after Tax (NOPAT)

Earnings per share	Rs. 16
No. of Equity Shares	40 lacs
	Rs. in lacs
Profit after Interest, Tax & Preference Dividend [40 lacs x Rs. 16]	640.00
Add: Preference Dividend (15% of Rs. 200 lacs)	30.00
Profit after Tax	670.00
Add: Tax @ 30% [670/70 x 30]	287.14
Profit before Tax	957.14
Add: Interest on Debentures [15% of Rs. 1,600 lacs]	240.00
Profit before Interest & Tax	1,197.14
Less: Income from Non-Trade Investment [10% of Rs. 100 lacs]	(10.00)
Net Operating Profit before Tax	1,187.14
Less: Tax @ 30%	(356.14)
Net Operating Profit after Tax [NOPAT]	831.00

2. Cost of Equity = Risk Free Rate + Beta Factor x (Market Rate - Risk Free Rate)

= 9.85% + 1.65 (16.25-9.85) = 20.41%

3. Cost of Preference shares= 15%

4. Cost of Debt = Interest Rate x (1 - tax rate) = 15% x (1 - 0.30) = 10.5%

5. Total Capital Employed = [Equity Share Capital + Retained Earnings + Preference Share Capital + Debentures]

= [400 + (220 - 20) + 200 + 1,600] = 2,400

6. Weighted Average Cost of Capital (WACC) =

= [(600 / 2400) x 20.41%] + [(200 / 2400) x 15%] + [(1600 / 2400) x 10.50%]

= 5.10% + 1.25% + 7% = 13.35%

7. Operating Capital Employed

		Rs. in lacs
Total Capital		2,400
Less: Non-operating Capital Employed		
10% Non-Trade Investment	140	

Land and Building held as Investment	20	
Advance given for purchase of a Plant	10	
Capital work-in-progress	30	(200)
Operating Capital Employed		2,200

(1 mark x 7 = 7 marks)

(B)

Calculation of Closing per unit of NAV of the fund

	Rs. in lakhs
Net Assets of BSP Rock	
Closing cash balance (W.N.2)	79.99
Closing Market Value of Investments	1,120.23
Accrued Dividends (collectable)	0.25
	1,200.47
Less: Current Liabilities	
Outstanding Management Fee (payable)	(0.47)
Closing Net Assets (A)	1,200.00
Units outstanding (in lakhs) (B)	100.00
NAV per unit (A/B)	12.00

(3 marks)

Working Notes:

		Rs. in lakhs
1. Computation of opening cash balance		
Proceeds of NFO in full including underwriters commitment		1000.00
Less: Initial Purchase of Securities		(892.50)
		107.50
Less: Underwriting Commission	15.00	
Marketing Expenses	11.25	(26.25)
Opening Cash Balance		81.25
2. Computation of Closing cash balance		
Opening bank balance (W.N.1)		81.25
Add: Proceeds from sale of securities	141.25	
Dividends received on investment	2.26	143.51
		224.76
Less: Cost of Securities purchased	130.00	
Management Expenses (W.N.3)	1.76	
Capital Gains Distributed Rs. (141.25 - 127.25 x 80%)	11.20	
Dividends Distributed Rs. (2.26 x 80%)	1.81	(144.77)
Closing cash balance		79.99
3. Computation of Management Expenses Chargeable		
Actual Expense Incurred [A]		2.47
Opening Investment Made	892.50	
Closing Funds Invested (892.50 - 127.25 + 130)	895.25	
Total	1,787.75	

Average Funds Invested (1,787.75/2)	893.875	
0.25% of Average Funds Invested [B]		2.23
Lower of A or B		2.23
Less: Amount unpaid		(0.47)
Management expenses paid		1.76

(5 marks)

Answer 7:

(A)

Paragraph 46A of AS 11, 'The Effects of Changes in Foreign Exchange Rates' states that

(i) The exchange differences arising on reporting of long-term foreign currency monetary items at rates different from those at which they were initially recorded during the period, or reported in previous financial statements, in so far as they relate to the acquisition of a depreciable capital asset, can be added to or deducted from the cost of the asset and shall be depreciated over the balance life of the asset.

(ii) To exercise the above option, an asset or liability shall be designated as a long-term foreign currency monetary item, if the asset or liability is expressed in a foreign currency and has a term of twelve months or more at the date of origination of the asset or the liability.

In the given case, the company borrowed on 9 January 2018 for payment of imported second hand machineries by way of buyers' credit payable on 9 July 2018. Thus, the foreign currency monetary item, buyer's credit, has a term of less than twelve months at the date of origination of the buyers' credit. Therefore, the exchange differences on settlement of monetary items, ie payment to the vendor, should be recognised as income or as expenses in the period in which they arise in accordance with paragraph 13 of AS 11.

Accordingly, the treatment given is not in accordance with AS 11.

The company has correctly recognised the exchange difference of Rs. 4,43,250 arising on reporting of buyers' credit at rates different from those at which they were initially recorded during the period as loss in Statement of Profit and Loss. However, the gain capitalised on payment to the vendor is not as per AS 11. Such gain should also be shown in the Statement of Profit and Loss.

The company cannot capitalise the loss of Rs. 4,43,250 proportionately for 8 machines which were put to use as at 31 March, 2018.

In the given case, the company has imported second hand machines. Therefore, except for the shipping and installation of the machine, the machines were already in the condition of ready for use. Further, the evidence that 8 machines were put to use by 31 March 2018 within less than 3 months of their import indicates that the machines do not necessarily take a substantial period of time to get ready for its intended use. Therefore, the company can neither capitalise the interest cost of $ 3056 nor the actual loss on rollover of buyers' credit. The treatment given by the company of capitalising the borrowing costs as per the given facts, is incorrect and should be recognised in interest expense in the Statement of Profit and Loss. **(6 marks)**

(B)

Calculation of Market Share of S Ltd.

Last year's market share = 100% – (15 + 30 + 40)% = 15%

Increase or decrease in market share of other players [0.4+0.3– 0.5) = 0.2% i.e. increase in others' market share every year over the period of 6 years. Hence, market share of S Ltd. is expected to decrease by 0.2% every year over the period of 6 years, from the current level of 15%. **(2 mark)**

Brand Valuation under Market Approach

Year	Market Size (Rs. in Crores)	Market Share of S Ltd. (in %)	Market Share (Rs. in Crores)	Expected Profit (Rs. in Crores)	Discount Factor	Discounted Profit (Rs. in Crores)
1	10,000 x 108% = 10,800	14.8%	1598.4	@ 10% = 159.84	0.909	145.29
2	10,800 x 108% = 11,664	14.6%	1702.94	@ 12% = 204.35	0.826	168.80
3	11,664 x 108% = 12,597.12	14.4%	1813.99	@ 12% = 217.68	0.751	163.48
4	12,597.12 x 110% = 13,856.83	14.2%	1967.67	@ 12% = 236.12	0.683	161.27
5	13,856.83 x 110% = 15,242.52	14%	2133.95	@ 12% = 256.07	0.621	159.02
6	15,242.52 x 110% = 16,766.77	13.8%	2313.81	@ 12% = 277.66	0.564	156.60
	Brand Value					**954.46**

Brand Value of S Ltd. under Market Oriented Approach is Rs. 954.46 crores. **(8 marks)**