

## 5. ACCOUNTING FOR EMPLOYEE STOCK OPTION PLAN

### ASSIGNMENT SOLUTIONS

#### PROBLEM NO: 1

##### Journal Entries

Date	Particulars	Debit (Rs.)	Credit (Rs.)
15.03.13	Bank A/c (9,500 x 40) <span style="float: right;">Dr.</span>	3,80,000	
	To Employee Compensation Expenses A/c (W.N.1) <span style="float: right;">Dr.</span>	8,55,000	
31.03.13	To Equity Share Capital A/c (9,500 X 10)		95,000
	To Securities Premium A/c (9,500 X 120)		11,40,000
	(Being allotment to employees of 9,500 Equity Share of Rs. 10 each at a premium of Rs. 120 per share in exercise of stock options by employees)		
31.03.13	Profit & Loss A/c <span style="float: right;">Dr.</span>	8,55,000	
	To Employee Compensation expenses A/c		8,55,000
	(Being transfer of employee compensation expenses to P & L A/c)		

#### WORKING NOTES:

1. Market Price per Share Rs. 130
- Exercising price per option Rs. 40
- Intrinsic Value of each option Rs. 90
- No. of Options exercised by employees 9,500 options
- Value of Compensation expenses to be recognized = 9,500 x Rs. 90 = Rs. 8,55,000.

#### PROBLEM NO: 2

Date	Particulars	Debit (Rs.)	Credit (Rs.)
15.03.13	Bank A/c <span style="float: right;">Dr.</span>	2,40,000	
	To Employee Compensation Expenses A/c <span style="float: right;">Dr.</span>	4,32,000	
31.03.13	To Equity Share Capital A/c		48,000
	To Securities Premium A/c		6,24,000
	(Being allotment to employees of 4,800 Equity Share of Rs. 10 each at a premium of Rs. 130 per share at an exercise price of Rs.50 each)		
31.03.13	Profit & Loss A/c <span style="float: right;">Dr.</span>	4,32,000	
	To Employee Compensation expenses A/c		4,32,000
	(Being transfer of employee compensation expenses to P & L A/c)		

#### Working Note:

1. Employee Compensation Expenses = Discount between Market Price and option price = Rs. 140 - Rs. 50 = Rs. 90 per share = Rs. 90 x 4,800 = Rs. 4,32,000/- in total.
2. The Employees Compensation Expense is transferred to Securities Premium Account.
3. Securities Premium Account = Rs. 50 - Rs. 10 = Rs. 40 per share + Rs. 90 per share on account of discount of option price over market price = Rs. 130 per share = Rs. 130 x 4,800 = Rs. 6, 24,000/- in total.

#### PROBLEM NO: 3

Fair value of an option = Rs. 28

Difference between Fair value and Issue Price = Rs. 28 - Rs. 25 = 3.

Number of employees accepting the offer = 400 employees x 50% = 200 employees

Number of shares issued = 200 employees x 100 shares/employee = 20,000 shares

Employee Compensation Expenses recognized in 2014-15 = 20,000 shares x Rs. 3 = Rs. 60,000

Securities Premium A/c = Rs. 28 - 10 = Rs. 18 per share = 20,000 x 18 = Rs. 3,60,000

**Journal Entry:**

Date	Particulars	Debit (Rs.)	Credit (Rs.)
30.04.14	Bank A/c (20,000 shares X Rs.25) Dr.	5,00,000	
	Employee Compensation Expenses A/c Dr.	60,000	
	To Equity Share Capital A/c		2,00,000
	To Securities Premium A/c		3,60,000
	(Being stock purchase option accepted by 200 employees for 100 shares each at Rs.25 per share on a fair value of Rs.28 per share)		

**Note:** Employees compensation expenses amounting Rs. 60,000 will ultimately be charged to profit & loss account.

**PROBLEM NO: 4**

- i) Value of options =  $1,250 \times (\text{Rs.}200 - \text{Rs.}80) = \text{Rs.}1,50,000$   
 ii) Amount to be recognised =  $\text{Rs.}1,50,000 / 3 = \text{Rs.}50,000$  each year.

**In the books of HCL****Journal**

Date	Particulars	L.F.	Dr. (Rs.)	Cr. (Rs.)
31 <sup>st</sup> March, 2013	Employee Compensation Expense A/c Dr. To Employee stock option outstanding A/c (Being expenses in respect of ESOP recognised for the year 1)		50,000	50,000
31 <sup>st</sup> March, 2013	P & L A/c Dr. To Employee Compensation Expenses A/c (Being Employee Compensation Expenses for the year transfer to P&L A/c)		50,000	50,000
31 <sup>st</sup> March, 2014	Employee Compensation Expense A/c Dr. To Employee stock option outstanding A/c (Being expenses in respect of ESOP recognised for the year-2)		50,000	50,000
31 <sup>st</sup> March, 2014	P & L A/c Dr. To Employee Compensation Expenses A/c (Being Employee Compensation Expenses for the year transfer to P&L A/c)		50,000	50,000
31 <sup>st</sup> March, 2015	Employee Stock Options Outstanding A/c Dr. To General reserve A/c (W.V.) (Being the reversal of compensation accounting on lapse of 450 options)		4,000	4,000
31 <sup>st</sup> March, 2015	P & L A/c Dr. To Employee Compensation Expenses A/c (Being Employee Compensation Expenses for the year transfer to P&L A/c)		32,000	32,000
31 <sup>st</sup> August, 2015	Bank A/c (800 x Rs.80) A/c Dr. Employee Stock Options Outstanding A/c Dr. To Equity Share Capital A/c (800 × 10) To Securities Premium A/c (800 × 190) (Being the exercise of 800 options)		64,000 96,000	8,000 1,52,000

**Dr. Employee Stock Options Outstanding A/c Cr.**

Date	Particulars	Rs.	Date	Particulars	Rs.
31.03.13	To Balance c/d	50,000	31.03.13	By Employee Compensation Exp. A/c	50,000
		<b>50,000</b>			<b>50,000</b>
31.03.14	To Balance c/d	1,00,000	01.04.13	By Balance b/d	50,000
			31.03.14	By Employee Compensation Exp. A/c	50,000
		<b>1,00,000</b>			<b>1,00,000</b>
31.03.15	To General reserve	36,000	01.04.14	By Balance b/d	1,00,000
	To Balance c/d	96,000	31.03.15	By Employee Compensation Exp. A/c	32,000
		<b>1,32,000</b>			<b>1,32,000</b>
	To Equity share capital	8,000	01.04.15	By Balance b/d	96,000
	To Securities premium	1,52,000	31.08.15	By Bank A/c	64,000
		<b>1,60,000</b>			<b>1,60,000</b>

**DISCLOSURE IN THE BALANCE SHEET:** Employee Stock Options Outstanding will appear in the Balance Sheet as part of reserves and surplus on shareholders' equity as per Schedule III.

**WORKING NOTE:**

Employee Stock Option Expense recognised	1,00,000
<b>Less:</b> Employee Stock Option Expense to be recognised	<u>(96,000)</u>
Excess Employee Compensation Expense to be reversed	<u>4,000</u>

**PROBLEM NO: 5****In the Books of 'P' Ltd.****Journal Entries:**

Date	Particulars	Debit (Rs.)	Credit (Rs.)
31.03.11	Employees Compensation exp. A/c Dr.	80,000	
	To Employee Stock Options o/s A/c		80,000
	(Being Compensation exp. Recognized for 6 months in respect of employees stock options on SLM basis) [8000 x (170 - 80) / 4 ½ years x 6m / 12m = 80,000]		
31.03.11	P & L A/c Dr.	80,000	
	To Employees Compensation exp. A/c		80,000
	(Being Compensation exp. Transferred to P & L A/c)		
31.03.12	Employees Compensation exp. A/c Dr.	1,60,000	
	To Employee Stock Options O/S A/c		1,60,000
	(Being Compensation exp. Recognized for the full year)		
31.03.12	P & L A/c Dr.	1,60,000	
	To Employees Compensation expenses A/c		1,60,000
	(Being Compensation expenses transferred to P & L A/c)		
31.03.13	Employees Compensation expenses A/c Dr.	80,000	
	To Employee Stock Options O/S A/c		80,000
	(Being Compensation expenses recognized in respect of 4000 options for full year) [4,000 x (170 - 80) / 4 ½ years x Full year]		
31.03.13	P & L A/c Dr.	80,000	
	To Employees Compensation expenses A/c		80,000
	(Being Compensation expenses transferred to P & L A/c)		
31.03.13	Employees Stock Options o/s A/c Dr.	1,20,000	
	To General Reserve A/c		1,20,000
	(Being excess compensation expenses transferred to General Reserve A/c) [(80,000 + 1,60,000) x 4,000 / 8,000 = 1,20,000]		
31.03.14	Employees Compensation expenses A/c Dr.	80,000	
	To Employee Stock Options O/S A/c		80,000
	(Being Compensation expenses recognized in respect of stock options of 4000)		
31.03.14	P & L A/c Dr.	80,000	
	To Employees Compensation expenses A/c		80,000
	(Being Compensation expenses transferred to P & L A/c)		
31.03.15	Employees Compensation expenses A/c Dr.	80,000	
	To Employee Stock Options O/S A/c		80,000
	(Being Compensation expenses recognized in respect of stock options of 4000)		
31.03.15	P & L A/c Dr.	80,000	
	To Employees Compensation expenses A/c		80,000
	(Being Compensation expenses transferred to P & L A/c)		
30.09.15	Bank A/c (3000 x Rs. 80) Dr.	2,40,000	
	Employees stock options O/S A/c (3000 x Rs.90)	2,70,000	
	To Equity share capital A/c (3000 x 10)		30,000
	To Securities Premium A/c (3000 x 160)		4,80,000
	(Being 3000 employees stock options exercised at an exercise price of Rs.80 each)		

30.09.15	Employees Stock Options O/s A/c	Dr.	90,000	
	To General Reserve A/c			90,000
	(Being balance in ESOS transferred to General Reserve A/c)			

**WORKING NOTES:**

1. Fair value of each option Rs.170 - Rs.80 = Rs.90
2. Amount Transferred to General Reserve

$$\text{On 01.12.2012 4,000 Unvested options} = (80,000 + 1,60,000) \times \frac{4,000}{8,000} = \text{Rs. } 1,20,000$$

$$\text{On 30.09.2015 1,000 Unexercised lapsed options} = 1000 \times \text{Rs.90} = \text{Rs.90,000.}$$

**PROBLEM NO: 6**

Year	Calculation	Expenses for the period (Rs.)	Cumulative expense (Rs.)
1	55,200 options x 75% x Rs. 12 x 1/3 years	1,65,600	1,65,600
2	(55,200 options x 75% x Rs. 12 x 2/3 years) - Rs. 1,65,600	1,65,600	3,31,200
3	(55,200 options x 75% x Rs. 12 x 3/3 years) - Rs. 3,31,200	1,65,600	4,96,800

An enterprise should review all estimates taken in consideration for valuation of option. The value of options recognised as expense in an accounting period is the excess of cumulative expense as per latest estimates upto the current accounting period over total expense recognised up to the previous accounting period.

**PROBLEM NO: 7****Journal Entries in the Books of ABC Ltd**

Date	Particulars	Debit (Rs.)	Credit (Rs.)
Year 1	Employee compensation expense A/c To Stock Options Outstanding A/c (Being compensation expense recognized in respect of the ESOP)	Dr. 13,69,010	13,69,010
Year 1	Profit or loss A/c To employee compensation expenses A/c (Being compensation expenses transferred to P&L A/c)	Dr. 13,69,010	13,69,010
Year 2	Employee compensation expense A/c To Stock Options Outstanding A/c (Being compensation expense recognized in respect of the ESOP)	Dr. 11,22,740	11,22,740
Year 2	Profit or loss A/c To employee compensation expenses A/c (Being compensation expenses transferred to P&L A/c)	Dr. 11,22,740	11,22,740
Year 3	Employee compensation expense A/c To Stock Options Outstanding A/c (Being compensation expense recognized in respect of ESOP)	Dr. 12,88,250	12,88,250
Year 3	Profit or loss A/c To employee compensation expenses A/c (Being compensation expenses transferred to P&L A/c)	Dr. 12,88,250	12,88,250
Year 5	Bank A/c (200 x 300 x 50) Stock Options Outstanding A/c (Rs.15) To Share Capital A/c (200 X 300 X 10) To Securities Premium A/c (Rs.55) (Being shares issued to the employees against the options vested in them in pursuance of the Employee Stock Option Plan)	Dr. Dr. 30,00,000 9,00,000	6,00,000 33,00,000
Year 6	Bank A/c (600 X 300 X 50) Stock Options Outstanding A/c (@ Rs.15) To Share Capital A/c @ Rs.10 (600 X 300 X 10) To Securities Premium A/c (@ Rs.55) (Being shares issued to the employees against the options vested in them in pursuance of the Employee Stock Option Plan)	Dr. Dr. 90,00,000 27,00,000	18,00,000 99,00,000
Year 6	Stock Options Outstanding A/c (40 X 300 X 15) To General Reserve (Being the balance standing to the credit of the Stock Options Outstanding Account, in respect of vested options expired unexercised, transferred to the general reserve)	Dr. 1,80,000	1,80,000

**Working Notes:**

1. The enterprise estimates the fair value of the options expected to vest at the end of the vesting period as below:

No. of options expected to vest =  $300 \times 1,000 \times 0.97 \times 0.97, 0.97 = 2,73,802$  options

Fair value of options expected to vest =  $2,73,802$  options  $\times$  Rs.15 = Rs.41,07,030

2. As the enterprise still expects actual forfeitures to average 3 per cent per year over the 3-year vesting period, therefore, it recognize Rs.41,07,030/3 towards the employee services.

3. The revised number of options expected to vest

=  $2,49,175$  ( $3,00,000 \times 0.94 \times 0.94 \times 0.94$ )

The fair value of revised options expected to vest.

= Rs.37,37,625 ( $2,49,175 \times$  Rs.15)

The expense to be recognized during the year is determined as below:

Revised total fair value Rs.37,37,625

Revised cumulative expense at the end of the year 2

= ( $Rs.37,37,625 \times 2/3$ ) Rs.24,91,750

**Less:** Expense already recognized in year 1 Rs.13,69,010 ( $4107030 \times 1/3$ )

Expense to be recognized in year 2 Rs.11,22,740

4. The expense to be recognized during the year is determined as below:

No. of options actually vested =  $840 \times 300 = 2,52,000$

Fair value of options actually vested ( $Rs.2,52,000 \times$  Rs.15) Rs.37,80,000

Expense already recognized Rs.24,91,750

Expense to be recognized in year 3 Rs.12,88,250

**PROBLEM NO: 8****Calculation of ESOP cost to be amortized**

	2015-2016	2016-2017
Fair value of options per share	Rs.18	Rs.18
No. of options expected to vest under the scheme	93,000 ( $930 \times 100$ )	88,000 ( $880 \times 100$ )
Fair value of options	16,74,000	Rs. 15,84,000
Value of options recognized as expenses	( $Rs.16,74,000 / 2$ ) 8,37,000	( $Rs.15,84,000 - Rs.8,37,000$ ) 7,47,000

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**THE END**