

## SHARE-BASED PAYMENTS

---

Reference: The students are advised to refer the full text of the Guidance Note on Accounting for Employee Share-based Payments. This Guidance Note was issued in 2005 and deals with share-based payment to employees only. However, AS 10 'Accounting for Fixed Assets', AS 13 'Accounting for Investments' and AS 14 'Accounting for Amalgamations' also deal with share-based payment in some situations. SEBI has also issued guidelines on accounting for employee share-based payment applicable to listed companies. These Guidelines differ from ICAI's Guidance Note in some respects.

### 1. Introduction

Share plans and share option plans have become a common feature of remuneration packages for directors, senior executives and other employees in many countries. Shares and share options may also be used to pay suppliers (e.g. for professional services). IFRS 2 "Share-based Payments" fills a gap in accounting for the recognition and measurement of such transactions under IFRS.

### 2. Definitions

#### Share-based payment arrangement

An agreement between an entity (or another group entity or a shareholder of a group entity) and another party (including an employee) which entitles the other party to receive:

- Equity instruments (including shares or share options) of the entity (or another group entity); or
- Cash (or other assets) for amounts based on the price (or value) of equity instruments of the entity (or another group entity),

Provided specified vesting conditions (if any) are met.

"Vest" means to become an entitlement. A party's right to shares of an entity may be free or at a pre-arranged exercise price.

#### Share-based payment transaction

A transaction in a share based payment arrangement in which the entity:

- Receives goods or services from a supplier (including an employee); or
- incurs an obligation (to the supplier) when another group entity receives those goods or services.

**Equity instrument:** A contract that gives a residual interest in the assets of an entity after deducting all its liabilities.

**Share option:** A contract that gives the holder the right, but not the obligation, to subscribe to the entity's shares at a fixed (or determinable) price for a specified period of time.

**Vesting conditions:** The conditions that must be satisfied for a person to become entitled to receive cash, other assets or equity instruments under a share-based payment arrangement.

Examples of vesting conditions include completion of a specified service period and meeting performance targets (e.g. a specified increase in revenue over a specified period of time).

### 3. Types of Transactions

The Standard identifies three types of share-based payment transactions:

- Equity-settled share-based payment transactions;
- Cash-settled share-based payment transactions; and
- Share-based payment transactions with cash alternatives

#### Equity-settled

The entity receives services:

- As consideration for its own equity instruments; or
- Has **no obligation** to settle the transaction with the supplier.

#### Cash-settled

The entity acquires services by incurring liabilities for amounts that are based on the price (or value) of equity instruments of the entity or another group entity.

#### Share-based payment transactions with cash alternatives

Where an entity has a choice of issuing shares or paying cash then the entity shall recognise a liability if it determines that it has an obligation to settle the liability in cash. If on settlement the entity issues shares rather than paying cash then the value of the liability should be transferred to equity.

### 4. Employee share-based payments

Employee share-based payments are incentive payments to employees in form of shares. The expression employee share-based payments also include cash incentives to employees, the size of which is linked with value of shares. The payment in form of shares generally involve grant of options to employees to subscribe shares of employer's enterprise at a concessional price, called the exercise price.

The employees gain the excess of market price of share at the time of exercise over the specified exercise price. In case of employee share-based payments in form of cash incentive, the excess of market price on specified future date and a stated price is paid in cash. In either case, the value of incentive depends on increase in share value, which is the generally accepted indicator financial success of a business. By linking incentives with value of shares,

### 7.3 Financial Reporting

---

the employee share-based payment plans effectively integrate personal goals of employees with that of the enterprise.

The day a share-based payment plan is announced and accepted by employees is called the grant date and the day, when the employees become entitled to such payments, is called the vesting date. The period between these two dates is called the vesting period. To qualify for the incentives, the employees put in their efforts during the vesting period to fulfil specified vesting conditions, e.g. reaching a specified sales/profit target. Exercise date is the date when an option is exercised by paying the exercise price.

The value of share-based payment depends on the market value of shares on vesting date/exercise date and hence cannot be known with certainty before these dates. Nevertheless, since the share-based payments are payments for services rendered by employees during the vesting period, the value of share-based payments should be recognised as expense during the vesting period, i.e. before value of such payments are known with certainty.

Two principal issues involved in accounting for employee share-based payments are

- (i) problem of valuation of share-based payments before vesting date and
- (ii) problem of allocation of the estimated value of share-based payment to a particular accounting period during the vesting period for recognition as expense.

The International Accounting Standards Board (IASB) has issued the International Financial Reporting Standard (IFRS) 2, on share-based payments. This chapter is however based on the Guidance Note on Accounting for Employee Share-based Payments, issued by the Institute of Chartered Accountants of India.

## 5. Employee share based payment plans

Employee share-based payment plans generally take the form of Employee Stock Option Plans (ESOP), Employee Stock Purchase Plans (ESPP) and Stock Appreciation Rights (SAR).

The Employee Stock Option Plan (ESOP) is a contract that gives the employees of an enterprise the right, but not obligation, for a specified period to purchase or subscribe to the specified number shares of the enterprise at a fixed or determinable price, called the exercise price.

The Employee Stock Purchase Plan (ESPP), is a plan under which the enterprise offers shares to its employees at a discounted price as part of public issue or otherwise.

The Stock Appreciation Rights (SAR) are rights that entitle the employees to receive cash or shares for an amount equivalent to the excess of market price on exercise date over a stated price.

The date when a share-based payment plan is announced and agreed, is called the grant date.

For accounting purposes, employee share-based payment plans are classified into the following categories:

- (a) Equity-settled: Under these plans, the employees receive shares, e.g. ESOP

- (b) Cash-settled: Under these plans, the employees receive cash based on the price (or value) of the enterprise's shares, e.g. Stock Appreciation Rights (SAR).
- (c) Employee share-based payment plans with cash alternatives: Under these plans, either the enterprise or the employee has a choice of whether the enterprise settles the payment in cash or by issue of shares.

The entitlements to share-based payments are based on satisfaction of specified conditions. The specified conditions are vesting conditions and the period taken to satisfy the vesting conditions is the vesting period. The share-based payments are incentives for services rendered by employees over the vesting period and hence are recognised as Employees' Compensation Expense over the vesting period.

The examples of vesting condition include, a sales target, a profit target, a target market price of shares or service conditions such as continuous employment during the vesting period. Market condition is a vesting condition related to market price of shares of the enterprise, e.g. a condition that the payments will be made provided the market price of shares increases by at least 40% over that on grant date, within a period of three years.

## 6. Equity settled employee share-based payment plans

Payments under these plans are made in form of shares. Under these plans, the enterprise offers new shares issued by it to its employees. The issue price for the shares issued under these plans is the exercise price. At their option, the employees may pay the exercise price and become shareholders of the enterprise. The options are granted subject to fulfilment of specified vesting conditions. This form of plan is commonly called Employees Stock Option Plans (ESOP).

Under an ESOP, the employees gain the excess of market price of underlying share on exercise date over the exercise price. The option is not exercised if market price of underlying share on exercise date falls below the exercise price. For example, consider an option at exercise ₹ 45. If market price per share on exercise date is ₹ 50, an employee gains ₹ 5, by purchasing the share at exercise price is ₹ 45. The option is not exercised if market price falls below ₹ 45. Clearly, the ESOP is a call option held by the employees, which is settled by actual delivery of underlying shares. The employer is the writer of the option, but does not charge any option premium. The employer recognises the premium sacrificed, i.e. the value of call, as expense over the vesting period. The value of call for the purpose of accounting for share-based payments can be either the intrinsic value or fair value.

The fair value of an option is defined as the amount for which stock option granted can be exchanged between knowledgeable, willing parties in an arm's length transaction. This should be present value of expected gain of employees on exercise of the option. The expected gain is excess of expected market price at the time of exercise of option over the exercise price. The fair values of options depend on factors like, exercise price, current market price of underlying shares, expected volatility of return from the shares, risk-free rate of return, expected dividends, time allowed to exercise the option after vesting (i.e. life of option) and so on. Standard option pricing models, like Black-Scholes-Merton formula are modified suitably to ascertain fair value the options granted to employees.

## 7.5 Financial Reporting

---

Intrinsic value of an option is the excess of market price of the underlying share on the grant date over the exercise price. For example, if market price per share on grant date is ₹ 50 and the exercise of the option is 48, the intrinsic value of option on grant date is ₹ 2.

The value of an Employees Stock Option plan is initially based on fair value/intrinsic value per share on grant date. This is the minimum value of ESOP an enterprise must recognise as expense over vesting period. Where, after the grant date, the terms of an option are modified in a manner to increase its value, e.g. reduction of exercise price, the enterprise must also recognise the increased value of option as expense over vesting period remaining at the time of modification.

The aggregate value of option granted depends on the number of employees satisfying the vesting conditions and the number of options granted to each employee.

Suppose fair value of an option is ₹ 15 per share. If one option is granted per employee and if each option consists of 100 shares, the value of option granted to each employee is ₹ 1,500 (₹ 15 × 100). If the enterprise expects 200 employees to satisfy the vesting conditions at the end of vesting period, the fair value of option to be recognised as expense is ₹ 3 lakh (₹ 1,500 × 200). If vesting period is 5 years, the enterprise should recognise ₹ 60,000 (₹ 3 lakh / 5) as expense per year for 5 years.

### Example

Ajanta grants 120 share options to each of its 460 employees. Each grant is conditional on the employee working for Ajanta over the next three years. Ajanta has estimated that the fair value of each share option is ₹ 12.

Ajanta estimates that 25% of employees will leave during the three-year period and so forfeit their rights to the share options.

Everything turns out exactly as expected.

Required:

Calculate the amounts to be recognized as expense during the vesting period.

### Solution

Year	Calculation	Expense for	Cumulative
		Period	expense
		₹	₹
1	55,200 options x 75% x ₹ 12 x 1/3 years	1,65,600	1,65,600
2	(55,200 options x 75% x ₹ 12 x 2/3 years) - ₹ 165,600	1,65,600	3,31,200
3	(55,200 options x 75% x ₹ 12 x 3/3 years)- ₹ 331,200	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 upto the previous accounting period.

## 7. Accounting procedure for ESOP

The amount recognised as expense in a period is debited to 'Employees' Compensation A/c' with a corresponding credit to an equity account called Stock Options Outstanding A/c'. The amount recognised as expense can be either the intrinsic value or fair value. The Stock Options Outstanding A/c' is transitional in nature as it gets ultimately transferred to another equity account such as share capital, securities premium account and/or general reserve at the time of settlement. Till such transfer, the credit balance of Stock Options Outstanding A/c is shown in balance sheet under a separate heading, between 'Share Capital' and 'Reserves and Surplus'.

The balance of Employees' Compensation A/c is transferred to the Profit & Loss A/c of the period. In case capitalisation is justified, the balance of Employees' Compensation A/c is transferred to the concerned Asset A/c instead of the Profit & Loss A/c.

On exercise of the option, the enterprise issues shares on receipt of the exercise price. The consideration for such shares comprises of the exercise price and the aggregate value of option recognised as expense, standing to the credit of Stock Options Outstanding A/c. In a situation where the right to obtain shares or stock options expires unexercised, the balance standing to the credit of the relevant equity account should be transferred to General Reserve.

### Illustration 1

*The following particulars in respect of stock options granted by a company are available:*

Grant date	April 1, 2008
Number of employees covered	525
Number options granted per employee	100
Vesting condition: Continuous employment for 3 years	
Nominal value per share (₹ )	100
Exercise price per share (₹ )	125
Market price per share on grant date (₹ )	149
Vesting date	March 31, 2011
Exercise Date	March 31, 2012
Fair value of option per share on grant date (₹ )	30

*Position on 31/03/09*

- (a) Estimated annual rate of departure 2%
- (b) Number of employees left = 15

*Position on 31/03/10*

- (a) Estimated annual rate of departure 3%
- (b) Number of employees left = 10

*Position on 31/03/11*

- (a) Number of employees left = 8

## 7.7 Financial Reporting

---

(b) Number of employees entitled to exercise option = 492

Position on 31/03/12

(a) Number of employees exercising the option = 480

(b) Number of employees not exercising the option = 12

Compute expenses to recognise in each year by (i) fair value method (ii) intrinsic value method and show important accounts in books of the company by both of the methods.

**Solution**

*Fair Value Method*

### Year 2008-09

Fair value of option per share = ₹ 30

Number of shares expected to vest under the scheme

$$= (525 \times 0.98 \times 0.98 \times 0.98) \times 100 = 49,400$$

$$\text{Fair value} = 49,400 \times ₹ 30 = ₹ 14,82,000$$

Vesting period = 3 years

$$\text{Value of option recognised as expense in 2008-09} = ₹ 14,82,000 / 3 = ₹ 4,94,000$$

### Year 2009-10

Fair value of option per share = ₹ 30

Number of shares expected to vest under the scheme

$$= (525 - 15) \times 0.97 \times 0.97 \times 0.97 \times 100 = 47,986$$

$$\text{Fair value} = 47,986 \times ₹ 30 = ₹ 14,39,580$$

Vesting period = 3 years

Number of years expired = 2 years

Cumulative value of option to recognise as expense in 2008-09 and 2009-10

$$= (₹ 14,39,580 / 3) \times 2 = ₹ 9,59,720$$

Value of option recognised as expense in 2009-10

$$= ₹ 9,59,720 - ₹ 4,94,000 = ₹ 4,65,720$$

### Year 2010-11

Fair value of option per share = ₹ 30

Number of shares actually vested under the scheme =  $492 \times 100 = 49,200$

$$\text{Fair value} = 49,200 \times ₹ 30 = ₹ 14,76,000$$

Cumulative value of option to recognise as expense in 3 years = ₹ 14,76,000

$$\text{Value of option recognised as expense in 2010-11} = ₹ 14,76,000 - ₹ 9,59,720 = ₹ 5,16,280$$

**Year 2011-12**

Fair value of option per share = ₹ 30

Number of shares not subscribed =  $(492 - 480) \times 100 = 1,200$ Value of option forfeited =  $1,200 \times 30 = ₹ 36,000$ **Employees' Compensation A/c**

Year		₹	Year		₹
2008-09	To ESOP Outstanding A/c	<u>4,94,000</u>	2008-09	By Profit & Loss A/c	<u>4,94,000</u>
		<u>4,94,000</u>			<u>4,94,000</u>
2009-10	To ESOP Outstanding A/c	<u>4,65,720</u>	2009-10	By Profit & Loss A/c	<u>4,65,720</u>
		<u>4,65,720</u>			<u>4,65,720</u>
2010-11	To ESOP Outstanding A/c	<u>5,16,280</u>	2010-11	By Profit & Loss A/c	<u>5,16,280</u>
		<u>5,16,280</u>			<u>5,16,280</u>

**ESOP Outstanding A/c**

Year		₹	Year		₹
2008-09	To Balance c/d	4,94,000	2008-09	By Employees' Compensation A/c	<u>4,94,000</u>
		<u>4,94,000</u>			<u>4,94,000</u>
2009-10	To Balance c/d	9,59,720	2009-10	By Balance b/d	4,94,000
		<u>9,59,720</u>		By Employees' Compensation A/c	<u>4,65,720</u>
2010-11	To Balance c/d	14,76,000	2010-11	By Balance b/d	9,59,720
		<u>14,76,000</u>		By Employees' Compensation A/c	<u>5,16,280</u>
2011-12	To General Reserve (1,200 × 30)	36,000	2011-12	By Balance b/d (49,200 × 30)	<u>14,76,000</u>
	To Share Capital (48,000 × 100)	48,00,000		By Bank (48,000 × 125)	60,00,000
	To Securities Premium (48,000 × 55)	<u>26,40,000</u>			<u>74,76,000</u>

**Note: Securities Premium**

	₹
Exercise price received per share	125
Value of service received per share	30
Consideration received per share	155
Less: Nominal value per share	(100)
Securities premium per share	55

## 7.9 Financial Reporting

---

### *Intrinsic Value Method*

#### **Year 2008-09**

Intrinsic value of option per share = ₹ 149 – ₹ 125 = ₹ 24

Number of shares expected to vest under the scheme

$$= (525 \times 0.98 \times 0.98 \times 0.98) \times 100 = 49,400$$

Intrinsic value = 49,400 × ₹ 24 = ₹ 11,85,600

Vesting period = 3 years

Value of option recognised as expense in 2008-09 = ₹ 11,85,600 / 3 = ₹ 3,95,200

#### **Year 2009-10**

Intrinsic value of option per share = ₹ 149 – ₹ 125 = ₹ 24

Number of shares expected to vest under the scheme

$$= (525 - 15) \times 0.97 \times 0.97 \times 0.97 \times 100 = 47,986$$

Intrinsic value = 47,986 × ₹ 24 = ₹ 11,51,664

Vesting period = 3 years

Number of years expired = 2 years

Cumulative value of option to recognise as expense in 2008-09 and 2009-10

$$= (\text{₹ } 11,51,664 / 3) \times 2 = \text{₹ } 7,67,776$$

Value of option recognised as expense in 2009-10

$$= \text{₹ } 7,67,776 - \text{₹ } 3,95,200 = \text{₹ } 3,72,576$$

#### **Year 2010-11**

Intrinsic value of option per share = ₹ 149 – ₹ 125 = ₹ 24

Number of shares actually vested under the scheme = 492 × 100 = 49,200

Intrinsic value = 49,200 × ₹ 24 = ₹ 11,80,800

Cumulative value of option to recognise as expense in 3 years = ₹ 11,80,800

Value of option recognised as expense in 2010-11

$$= \text{₹ } 11,80,800 - \text{₹ } 7,67,776 = \text{₹ } 4,13,024$$

#### **Year 2011-12**

Intrinsic value of option per share = ₹ 149 – ₹ 125 = ₹ 24

Number of shares not subscribed = (492 – 480) × 100 = 1,200

Value of option forfeited = 1,200 × 24 = ₹ 28,800

## Employees' Compensation A/c

Year		₹	Year		₹
2008-09	To ESOP Outstanding A/c	<u>3,95,200</u> <u>3,95,200</u>	2008-09	By Profit & Loss A/c	<u>3,95,200</u> <u>3,95,200</u>
2009-10	To ESOP Outstanding A/c	<u>3,72,576</u> <u>3,72,576</u>	2009-10	By Profit & Loss A/c	<u>3,72,576</u> <u>3,72,576</u>
2010-11	To ESOP Outstanding A/c	<u>4,13,024</u> <u>4,13,024</u>	2010-11	By Profit & Loss A/c	<u>4,13,024</u> <u>4,13,024</u>

## ESOP Outstanding A/c

Year		₹	Year		₹
2008-09	To Balance c/d	3,95,200	2008-09	By Employees' Compensation A/c	<u>3,95,200</u> <u>3,95,200</u>
2009-10	To Balance c/d	<u>3,95,200</u> <u>7,67,776</u>	2009-10	By Balance b/d By Employees' Compensation A/c	<u>3,72,576</u> <u>7,67,776</u> <u>3,95,200</u>
2010-11	To Balance c/d	<u>7,67,776</u> <u>11,80,800</u>	2010-11	By Balance b/d By Employees' Compensation A/c	<u>7,67,776</u> <u>4,13,024</u> <u>11,80,800</u>
2011-12	To General Reserve (1,200 × 24) To Share Capital (48,000 × 100) To Securities Premium (48,000 × 49)	28,800 48,00,000 <u>23,52,000</u> <u>71,80,800</u>	2011-12	By Balance b/d (49,200 × 24) By Bank (48,000 × 125)	11,80,800 60,00,000 <u>71,80,800</u>

Note: Securities Premium

	₹
Exercise price received per share	125
Value of service received per share	<u>24</u>
Consideration received per share	149
Less: Nominal value per share	(100)
Securities premium per share	<u>49</u>

## 8. Variation in Vesting Period

The vesting period, i.e. the time taken to satisfy the vesting conditions can be uncertain. For example, if employees are granted ESOP subject condition that the enterprise achieves a 50% market share, the vesting period can be known only when the market share of the company actually reaches the specified 50% level. In these cases, allocation of option value for recognition as expense in a particular accounting period should be based on estimated vesting period. The initial estimate of vesting period on grant date should be reviewed and revised if necessary, at the end of each accounting period. In case of revision of vesting period, the basis of allocation of option value to a particular accounting period should be based on revised estimate of vesting period.

Where the vesting condition is a market condition, e.g. when an option is granted subject to condition that the market price of the share reaches a specified level, the fair value of option is reduced due to the possibility that the vesting condition may not be satisfied. Such fair values are recognised as expense whether or not the market condition is satisfied, over the vesting period estimated on grant date. The estimates of vesting periods are not revised subsequently in these cases.

### Illustration 2

*The following particulars in respect of stock options granted by a company are available:*

Grant date	April 1, 2008
Number of employees covered	500
Number options granted per employee	100
Fair value of option per share on grant date (₹ )	25

*The vesting period shall be determined as below:*

- (a) If the company earns ₹ 120 crore or above after taxes in 2008-09, the options will vest on 31/03/09.
- (b) If condition (a) is not satisfied but the company earns ₹ 250 crores or above after taxes in aggregate in 2008-09 and 2009-10, the options will vest on 31/03/10.
- (c) If conditions (a) and (b) are not satisfied but the company earns ₹ 400 crores or above after taxes in aggregate in 2008-09, 2009-10 and 2010-11, the options will vest on 31/03/11.

#### *Position on 31/03/09*

- (a) The company earned ₹ 115 crore after taxes in 2008-09
- (b) The company expects to earn ₹ 140 crores in 2009-10 after taxes
- (c) Expected vesting date: March 31, 2010
- (d) Number of employees expected to be entitled to option = 474

#### *Position on 31/03/10*

- (a) The company earned ₹ 130 crore after taxes in 2009-10
- (b) The company expects to earn ₹ 160 crores in 2010-11 after taxes

(c) *Expected vesting date: March 31, 2011*  
 (d) *Number of employees expected to be entitled to option = 465*

**Position on 31/03/11**

(a) *The company earned ₹ 165 crore after taxes in 2010-11*  
 (b) *Number of employees on whom the option actually vested = 450*

*Compute expenses to recognise in each year.*

**Solution**

**Year 2008-09**

Fair value of option per share = ₹ 25

Number of shares expected to vest under the scheme =  $474 \times 100 = 47,400$

Fair value =  $47,400 \times ₹ 25 = ₹ 11,85,000$

Expected vesting period = 2 years

Value of option recognised as expense in 2008-09 =  $₹ 11,85,000 / 2 = ₹ 5,92,500$

**Year 2009-10**

Fair value of option per share = ₹ 25

Number of shares expected to vest under the scheme =  $465 \times 100 = 46,500$

Fair value =  $46,500 \times ₹ 25 = ₹ 11,62,500$

Expected vesting period = 3 years

Cumulative value of option to recognise as expense in 2008-09 and 2009-10

=  $(₹ 11,62,500 / 3) \times 2 = ₹ 7,75,000$

Value of option recognised as expense in 2008-09 = ₹ 5,92,500

Value of option recognised as expense in 2009-10

= ₹ 7,75,000 – ₹ 5,92,500 = ₹ 1,82,500

**Year 2010-11**

Fair value of option per share = ₹ 25

Number of shares actually vested under the scheme =  $450 \times 100 = 45,000$

Fair value =  $45,000 \times ₹ 25 = ₹ 11,25,000$

Vesting period = 3 years

Cumulative value of option to recognise as expense in 2008-09, 2009-10 and 2010-11

= ₹ 11,25,000

Value of option recognised as expense in 2008-09 and 2009-10 = ₹ 7,75,000

Value of option recognised as expense in 2010-11

= ₹ 11,25,000 – ₹ 7,75,000 = ₹ 3,50,000

## 7.13 Financial Reporting

---

### Illustration 3

*The following particulars in respect of stock options granted by a company are available:*

Grant date	April 1,2008
Number of employees covered	50
Number options granted per employee	1,000
Fair value of option per share on grant date (₹ )	9

*The options will vest to employees serving continuously for 3 years from vesting date, provided the share price is ₹ 70 or above at the end of 2010-11.*

*The estimates of number employees satisfying the condition of continuous employment were 48 on 31/03/09, 47 on 31/03/10. The number of employees actually satisfying the condition of continuous employment was 45.*

*The share price at the end of 2010-11 was ₹ 68*

*Compute expenses to recognise in each year and show important accounts in books of the company.*

### Solution

The vesting of options is subject to satisfaction of two conditions viz. service condition of continuous employment for 3 years and market condition that the share price at the end of 2010-11 is not less than ₹ 70.

Since the share price on 31/03/11 was ₹ 68, the actual vesting as nil. Despite this, the company should recognise value of option over 3-year vesting period from 2008-09 to 2010-11.

#### Year 2008-09

Fair value of option per share = ₹ 9

Number of shares expected to vest under the scheme =  $48 \times 1,000 = 48,000$

Fair value =  $48,000 \times ₹ 9 = ₹ 4,32,000$

Expected vesting period = 3 years

Value of option recognised as expense in 2008-09 =  $₹ 4,32,000 / 3 = ₹ 1,44,000$

#### Year 2009-10

Fair value of option per share = ₹ 9

Number of shares expected to vest under the scheme =  $47 \times 1,000 = 47,000$

Fair value =  $47,000 \times ₹ 9 = ₹ 4,23,000$

Expected vesting period = 3 years

Cumulative value of option to recognise as expense in 2008-09 and 2009-10

=  $(₹ 4,23,000 / 3) \times 2 = ₹ 2,82,000$

Value of option recognised as expense in 2008-09 = ₹ 1,44,000

Value of option recognised as expense in 2009-10

$$= ₹ 2,82,000 - ₹ 1,44,000 = ₹ 1,38,000$$

### Year 2010-11

Fair value of option per share = ₹ 9

Number of shares actually vested under the scheme =  $45 \times 1,000 = 45,000$

$$\text{Fair value} = 45,000 \times ₹ 9 = ₹ 4,05,000$$

Vesting period = 3 years

Cumulative value of option to recognise as expense in 2008-09, 2009-10 and 2010-11

$$= ₹ 4,05,000$$

Value of option recognised as expense in 2008-09 and 2009-10 = ₹ 2,82,000

Value of option recognised as expense in 2010-11

$$= ₹ 4,05,000 - ₹ 2,82,000 = ₹ 1,23,000$$

### Employees' Compensation A/c

Year		₹	Year		₹
2008-09	To ESOP Outstanding A/c	1,44,000	2008-09	By Profit & Loss A/c	1,44,000
		1,44,000			1,44,000
2009-10	To ESOP Outstanding A/c	1,38,000	2009-10	By Profit & Loss A/c	1,38,000
		1,38,000			1,38,000
2010-11	To ESOP Outstanding A/c	1,23,000	2010-11	By Profit & Loss A/c	1,23,000
		1,23,000			1,23,000

### ESOP Outstanding A/c

Year		₹	Year		₹
2008-09	To Balance c/d	1,44,000	2008-09	By Employees' Compensation A/c	1,44,000
		1,44,000			1,44,000
2009-10	To Balance c/d	2,82,000	2009-10	By Balance b/d By Employees' Compensation A/c	1,44,000 1,38,000
		2,82,000			2,82,000
2010-11	To General Reserve	4,05,000	2010-11	By Balance b/d By Employees' Compensation A/c	2,82,000 1,23,000
		4,05,000			4,05,000

## 9. Graded Vesting

Graded vesting refers to a situation where options under a plan vest on different dates. For example, a plan may provide that shares offered to an employee shall vest in proportion of 2:3:5 in three years commencing from fourth year. Thus if an employee is offered 100 shares under the plan, 20 shares shall vest in year 4, 30 shares shall vest in year 5 and 50 shares shall vest in year 6. In these cases, based on vesting dates, the plan is segregated into

## 7.15 Financial Reporting

---

different groups. Each of these groups is then treated as a separate plan with specific vesting period and expected life.

Since one of the factors affecting fair value of an option is expected life, the fair value for each group should be computed separately. Fair value of a group is then allocated to accounting periods and recognised as expense for the period with reference to vesting period for the group.

Intrinsic value of an option does not depend on its expected life. Intrinsic value of option per share shall therefore be same for each group. In the same way as fair value, intrinsic value of a group is allocated to accounting periods and recognised as expense for the period with reference to vesting period for the group.

### Illustration 4

*The following particulars in respect of stock options granted by a company are available:*

Grant date	April 1,2008
Number of employees covered	400
Number options granted per employee	60
Nominal value per share (₹)	100
Exercise price per share (₹)	125

*Shares offered were put in three groups. Group I was for 20% of shares offered with vesting period one-year. Group II was for 40% of shares offered with vesting period two-years. Group III was for 40% of shares offered with vesting period three-years. Fair value of option per share on grant date was ₹ 10 for Group I, ₹ 12.50 for Group II and ₹ 14 for Group III.*

### Position on 31/03/09

- (a) Number of employees left = 40
- (b) Estimate of number of employees to leave in 2009-10 = 36
- (c) Estimate of number of employees to leave in 2010-11 = 34
- (d) Number of employees exercising options in Group I = 350

### Position on 31/03/10

- (a) Number of employees left = 35
- (b) Estimate of number of employees to leave in 2010-11 = 30
- (c) Number of employees exercising options in Group II = 319

### Position on 31/03/11

- (a) Number of employees left = 28
- (b) Number of employees at the end of last vesting period = 297
- (c) Number of employees exercising options in Group III = 295

*Options not exercised immediately on vesting, were forfeited.*

*Compute expenses to recognise in each year and show important accounts in books of the company by both of the methods.*

**Solution****Expected vesting**

Year	Group	Number of employees expected to qualify	Number of shares vested to each employee	Total number of shares expected to vest	Fair value of option per share	Fair value of option
2008-09	I	360	12	4,320	10.00	43,200
	II	324	24	7,776	12.50	97,200
	III	290	24	6,960	14.00	97,440
2009-10	II	325	24	7,800	12.50	97,500
	III	295	24	7,080	14.00	99,120
2010-11	III	297	24	7,128	14.00	99,792

**Expense recognised in year 2008-09**

	₹
Group I	43,200
Group II	48,600
Group III	<u>32,480</u>
	<u>1,24,280</u>

**Expense recognised in year 2009-10**

	₹
Group I	43,200
Group II	97,500
Group III	<u>66,080</u>
Cumulative expense for 2008-09 and 2009-10	2,06,780
Less: Expense recognised in 2008-09	<u>(1,24,280)</u>
Expense recognised in 2009-10	<u>82,500</u>

**Expense recognised in year 2010-11**

	₹
Group I	43,200
Group II	97,500
Group III	<u>99,792</u>
Cumulative expense for 2008-09 to 2010-11	2,40,492
Less: Expense recognised in 2008-09 and 2009-10	<u>(2,06,780)</u>
Expense recognised in 2009-10	<u>33,712</u>

## 7.17 Financial Reporting

### Options Forfeited

	Group I 2008-09	Group II 2009-10	Group III 2010-11
Number of employees qualifying	360	325	297
Less: Number of employees exercising	(350)	(319)	(295)
Number of employees not exercising	10	6	2
Number of options per employee	12	24	24
Number of options forfeited	120	144	48

### Employees' Compensation A/c

Year		₹	Year		₹
2008-09	To ESOP Outstanding A/c	1,24,280	2008-09	By Profit & Loss A/c	1,24,280
		1,24,280			1,24,280
2009-10	To ESOP Outstanding A/c	82,500	2009-10	By Profit & Loss A/c	82,500
		82,500			82,500
2010-11	To ESOP Outstanding A/c	33,712	2010-11	By Profit & Loss A/c	33,712
		33,712			33,712

### ESOP Outstanding A/c

Year		₹	Year		₹
2008-09	To General Reserve (120 × 10)	1,200	2008-09	By Employees' Compensation A/c	1,24,280
	To Share Capital (4,200 × 100)	4,20,000		By Bank (4,200 × 125)	5,25,000
	To Securities Premium (4,200 × 35)	1,47,000			
	To Balance c/d	81,080			6,49,280
		6,49,280			
2009-10	To General Reserve (144 × 12.50)	1,800	2009-10	By Balance b/d	81,080
	To Share Capital (7,656 × 100)	7,65,600		By Employees' Compensation A/c	82,500
	To Securities Premium (7,656 × 37.50)	2,87,100		By Bank (7,656 × 125)	9,57,000
	To Balance c/d	66,080			11,20,580
		11,20,580			
2010-11	To General Reserve (48 × 14)	672	2010-11	By Balance b/d	66,080
	To Share Capital (7,080 × 100)	7,08,000		By Employees' Compensation A/c	33,712
	To Securities Premium (7,080 × 39)	2,76,120		By Bank (7,080 × 125)	8,85,000
		9,84,792			9,84,792

Securities Premium

	<i>Group I</i> 2008-09	<i>Group II</i> 2009-10	<i>Group III</i> 2010-11
Exercise price received per share	125.00	125.00	125.00
Value of service received per share	<u>10.00</u>	<u>12.50</u>	<u>14.00</u>
Consideration received per share	135.00	137.50	139.00
Less: Nominal value per share	(100.00)	<u>100.00</u>	(100.00)
Securities premium per share	<u>35.00</u>	<u>37.50</u>	<u>39.00</u>

**10. Employees' Stock Purchase Plans (ESPP)**

Under these plans, employees are given an option to subscribe to shares of employer in a public issue or otherwise. The exercise price is set at a specified rate of discount on the issue price/ market price on the date of exercise. For example, a company may offer specified number of shares to its employees at 20% discount on market price on grant date. ESPP with option features is treated as ESOP. For example, consider a case where shares are offered to employees at 80% of market price. If employees have the option to pay either 80% of market price of shares on grant date or to pay 80% of market price on date of purchase, the plan is treated as ESOP rather than ESPP. The fair value of ESPP can be less than the discount due to post-vesting restrictions on transfers and similar other factors. The fair value of ESPP is recognised over the vesting period in the same way as ESOP.

**Illustration 5**

*On April 1, 2011, a company offered 100 shares to each of its 500 employees at ₹ 40 per share. The employees are given a month to decide whether or not to accept the offer. The shares issued under the plan 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 ₹ 50 per share. Due to post-vesting restrictions on transfer, the fair value of shares issued under the plan is estimated at ₹ 48 per share.*

*On April 30, 2011, 400 employees accepted the offer and paid ₹ 40 per share purchased. Nominal value of each share is ₹ 10.*

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

**Solution**

Fair value of ESPP per share = ₹ 48 – ₹ 40 = ₹ 8

Number of share issued =  $400 \times 100 = 40,000$

Fair value of ESPP =  $40,000 \times ₹ 8 = ₹ 3,20,000$

Vesting period = One month

Expense recognised in 2011-12 = ₹ 3,20,000

## 7.19 Financial Reporting

Date		₹	₹	
April 30, 2011	Bank	16,00,000		$40,000 \times ₹ 40$
	Employees' Compensation A/c	3,20,000		$40,000 \times ₹ 8$
	To Share Capital		4,00,000	$40,000 \times ₹ 10$
	To Securities Premium		15,20,000	$40,000 \times ₹ 38$

## 11. Modifications

If the modification reduces the fair value of the options granted, the modification should be ignored. If the modification increases the fair value of the options granted (e.g., when exercise price is reduced), the incremental fair value is recognised as expense over the remaining vesting period. The incremental fair value is the difference between (i) fair value of the modified option estimated on the date of the modification and (ii) fair value of the original option estimated on the date of modification. If the modification occurs after the vesting date, the incremental fair value is recognised immediately, or over the additional vesting period if the employee is required to complete an additional period of service before becoming unconditionally entitled to the options.

### Illustration 6

The following particulars in respect of stock options granted by a company are available:

Grant date	April 1, 2008
Number of employees covered	600
Number options granted per employee	60
Vesting condition: Continuous employment for 3 years	
Nominal value per share (₹ )	100
Exercise price per share (₹ )	125
Vesting date	March 31, 2011
Exercise Date	March 31, 2012
Fair value of option per share on grant date (₹ )	14

### Position on 31/03/09

- (a) Number of employees left = 30
- (b) Estimate of number of employees to leave in 2009-10 and 2010-11 = 70
- (c) Exercise price was reduced to ₹ 120
- (d) Fair value of original option on 31/03/09 = ₹ 13
- (e) Fair value of option at reduced exercise price on 31/03/09 = ₹ 15
- (f) Vesting date for modified option was March 31, 2011

### Position on 31/03/10

- (a) Number of employees left = 35
- (b) Estimate of number of employees to leave in 2010-11 = 30

**Position on 31/03/11**

- (a) Number of employees left = 28
- (b) Number of employees entitled to exercise option = 507

**Position on 31/03/12**

- (a) Number of employees exercising the option = 500
- (b) Number of employees not exercising the option = 7

Compute the amount of expense the company should recognise in each of the years 2008-09, 2009-10 and 2010-11 and show important accounts in books of the company.

**Solution****Year 2008-09**

Fair value of option per share = ₹ 15

Number of shares expected to vest under the scheme =  $(600 - 100) \times 60 = 30,000$

Fair value =  $30,000 \times ₹ 14 = ₹ 4,20,000$

Vesting period = 3 years

Value of option recognised as expense in 2008-09 =  $₹ 4,20,000 / 3 = ₹ 1,40,000$

**Year 2009-10**

Fair value of option per share = ₹ 14

Incremental fair value of option per share = ₹ 15 – ₹ 13 = ₹ 2

Number of shares expected to vest under the scheme =  $(600 - 95) \times 60 = 30,300$

Fair value of option =  $30,300 \times ₹ 14 = ₹ 4,24,200$

Incremental fair value =  $30,300 \times ₹ 2 = ₹ 60,600$

Vesting period = 3 years;

Remaining vesting period = 2 years (including current year)

Cumulative value of option to recognise as expense in 2008-09 and 2009-10

=  $(₹ 4,24,200 / 3) \times 2 + ₹ 60,600 / 2 = ₹ 3,13,100$

Value of option recognised as expense in 2008-09 = ₹ 1,40,000

Value of option recognised as expense in 2009-10

= ₹ 3,13,100 – ₹ 1,40,000 = ₹ 1,73,100

**Year 2010-11**

Fair value of option per share = ₹ 14

Number of shares actually vested under the scheme =  $507 \times 60 = 30,420$

Fair value of option =  $30,420 \times ₹ 14 = ₹ 4,25,880$

Incremental fair value =  $30,420 \times ₹ 2 = ₹ 60,840$

## 7.21 Financial Reporting

Cumulative value of option to recognise as expense in 3 years

$$= ₹ 4,25,880 + ₹ 60,840 = ₹ 4,86,720$$

Value of option recognised as expense in 2008-09 and 2009-10 = ₹ 3,13,100

Value of option recognised as expense in 2010-11 = ₹ 4,86,720 - ₹ 3,13,100 = ₹ 1,73,620

### Employees' Compensation A/c

Year		₹	Year		₹
2008-09	To ESOP Outstanding A/c	1,40,000 1,40,000	2008-09	By Profit & Loss A/c	1,40,000 1,40,000
2009-10	To ESOP Outstanding A/c	1,73,100 1,73,100	2009-10	By Profit & Loss A/c	1,73,100 1,73,100
2010-11	To ESOP Outstanding A/c	1,73,620 1,73,620	2010-11	By Profit & Loss A/c	1,73,620 1,73,620

### ESOP Outstanding A/c

Year		₹	Year		₹
2008-09	To Balance c/d	1,40,000 1,40,000	2008-09	By Employees' Compensation A/c	1,40,000 1,40,000
2009-10	To Balance c/d	3,13,100 3,13,100	2009-10	By Balance b/d By Employees' Compensation A/c	1,40,000 1,73,100 1,73,100
2010-11	To Balance c/d	4,86,720 4,86,720	2010-11	By Balance b/d By Employees' Compensation A/c	3,13,100 3,13,100 1,73,620 1,73,620
2011-12	To General Reserve (420 × 16) To Share Capital (30,000 × 100) To Securities Premium (30,000 × 36)	6,720 30,00,000 10,80,000	2011-12	By Balance b/d (30,420 × 16) By Bank (30,000 × 120)	4,86,720 36,00,000 40,86,720

Note: Securities Premium

	₹
Exercise price received per share	120
Value of service received per share	16
Consideration received per share	136
Less: Nominal value per share	(100)
Securities premium per share	36

## 12. Cancellation and Settlements during Vesting Period

If an enterprise cancels or settles a grant of shares or stock options during the vesting period (other than a grant cancelled by forfeiture when the vesting conditions are not satisfied):

- (a) The entire amount of unamortised value of option should be recognised immediately.
- (b) Payments made to the employees on cancellation or settlement should be debited to ESOP Outstanding A/c to the maximum extent of fair value of options granted, measured at the cancellation / settlement date. Any payment in excess of the fair value is recognised as an expense.
- (c) If new options are granted to the employees in replacement for the cancelled options, the replacement is regarded as modification. The incremental fair value for the purpose is the difference between the fair value of replaced option and net fair value of cancelled option, as on the date of replacement. The net fair value of the cancelled option is their fair value, immediately before the cancellation, less the amount of any payment made to the employee on cancellation that is debited to ESOP Outstanding A/c, in accordance with (b) above.

## 13. Dilution of Earning Per Share (EPS) due to ESOP Granted

Dilution of EPS is anticipated fall in EPS. Dilution occurs when expected proportionate increase in number of shares is more than expected proportionate increase in profit available to equity shareholders. For example, if number of shares increases from 10,000 to 11,000 (10% increase) and profit available to equity shareholders increases from ₹ 50,000 to ₹ 52,500 (5% increase) the EPS falls from ₹ 5 to ₹ 4.77. The Accounting Standard (AS) 20, Earning per Share, requires disclosure of basic and diluted EPS.

One factor contributing to dilution of EPS is issue of shares at less than fair value. This happens because issue of shares at less than fair value implies issue of certain number of shares for no consideration. For example, consider the case of a share warrant for 4,000 shares at exercise price ₹ 40. On exercise of the warrant, the issuer collects ₹ 1,60,000. If fair of the shares is ₹ 50, the issue proceed is equivalent of price of 3,200. The issuer, by setting the exercise price at ₹ 40, instead of ₹ 50, allows the warrant holder to have 800 shares for no consideration. The shares issued for no consideration increase number of shares but does not increase resources available to the issuer and consequently, no increase in profit can be anticipated. These shares are taken in computation of diluted EPS as potential equity.

$$\text{Number of shares issued for consideration} = \frac{\text{Expected issue proceeds}}{\text{Fair value per share}}$$

Number of shares issued for no consideration

$$= \text{Number of shares issued} - \text{Number of shares issued for consideration}$$

Issue of shares under a scheme of share-based payment, increases the number of shares outstanding. Since the shares are issued at exercise price, which is lower than the fair value of shares issued, in the same way as share warrants, an ESOP gives rise to situation of dilution of EPS. In calculating the number of shares issued for no consideration, the expected

## 7.23 Financial Reporting

---

proceeds from the exercise of option is taken as sum of (i) Exercise Price (ii) Value of services to be rendered by employees in future upto the vesting date. This value of services is measured as unamortised value of option.

### Illustration 7

The following particulars in respect of stock options granted by a company are available:

Number of shares	4,00,000
Grant date	April 1, 2008
Number of employees covered	600
Number options granted per employee	100
Vesting condition: Continuous employment for 3 years	
Nominal value per share (₹)	10
Exercise price per share (₹)	45
Vesting date	March 31, 2011
Exercise Date	May 31, 2012
Fair value of option per share on grant date (₹)	15

#### Position on 31/03/09

- (a) Number of employees expected to satisfy service condition = 540
- (b) Number of employees left = 15
- (c) Profit before amortisation of ESOP cost = ₹ 11.90 lakh
- (d) Fair value per share = ₹ 60

#### Position on 31/03/10

- (a) Number of employees expected to satisfy service condition = 552
- (b) Number of employees left = 20
- (c) Profit before amortisation of ESOP cost = ₹ 12.62 lakh
- (d) Fair value per share = ₹ 66

#### Position on 31/03/11

- (i) Number of employees left = 11
- (ii) Number of employees entitled to exercise option = 554
- (iii) Profit before amortisation of ESOP cost = ₹ 13.79 lakh
- (iv) Fair value per share = ₹ 72

#### Position on 31/05/12

- (a) Number of employees exercising the option = 550
- (b) Number of employees not exercising the option = 4
- (c) Show Employees Compensation A/c, ESOP Outstanding A/c from 2008-09 to 2011-12.
- (d) Compute basic and diluted EPS for the years 2008-09 to 2010-11.

**Solution****Year 2008-09**

Fair value of option per share = ₹ 15

Number of shares expected to vest under the scheme =  $540 \times 100 = 54,000$

Fair value =  $54,000 \times ₹ 15 = ₹ 8,10,000$

Vesting period = 3 years

Value of option recognised as expense in 2008-09 =  $₹ 8,10,000 / 3 = ₹ 2,70,000$

**Year 2009-10**

Fair value of option per share = ₹ 15

Number of shares expected to vest under the scheme =  $552 \times 100 = 55,200$

Fair value =  $55,200 \times ₹ 15 = ₹ 8,28,000$

Vesting period = 3 years

Number of years expired = 2 years

Cumulative value of option to recognise as expense in 2008-09 and 2009-10

=  $(₹ 8,28,000 / 3) \times 2 = ₹ 5,52,000$

Value of option recognised as expense in 2009-10

=  $₹ 5,52,000 - ₹ 2,70,000 = ₹ 2,82,000$

**Year 2010-11**

Fair value of option per share = ₹ 15

Number of shares actually vested under the scheme =  $554 \times 100 = 55,400$

Fair value =  $55,400 \times ₹ 15 = ₹ 8,31,000$

Cumulative value of option to recognise as expense in 3 years = ₹ 8,31,000

Value of option recognised as expense in 2008-09

=  $₹ 8,31,000 - ₹ 5,52,000 = ₹ 2,79,000$

**Year 2011-12**

Fair value of option per share = ₹ 15

Number of shares not subscribed =  $(554 - 550) \times 100 = 400$

Value of option forfeited =  $400 \times ₹ 15 = ₹ 6,000$

**Employees' Compensation A/c**

Year		₹	Year		₹
2008-09	To ESOP Outstanding A/c	2,70,000	2008-09	By Profit & Loss A/c	2,70,000
		2,70,000			2,70,000

## 7.25 Financial Reporting

2009-10	To ESOP Outstanding A/c	2,82,000	2009-10	By Profit & Loss A/c	2,82,000
		2,82,000			2,82,000
2010-11	To ESOP Outstanding A/c	2,79,000	2010-11	By Profit & Loss A/c	2,79,000
		2,79,000			2,79,000

### ESOP Outstanding A/c

Year		₹	Year		₹
2008-09	To Balance c/d	2,70,000	2008-09	By Employees' Compensation A/c	2,70,000
		2,70,000			2,70,000
2009-10	To Balance c/d	5,52,000	2009-10	By Balance b/d	2,70,000
		5,52,000		By Employees' Compensation A/c	2,82,000
2010-11	To Balance c/d	8,31,000	2010-11	By Balance b/d	5,52,000
		8,31,000		By Employees' Compensation A/c	2,79,000
2011-12	To General Reserve (400 × 15)	6,000	2011-12	By Balance b/d (55,400 × 15)	8,31,000
	To Share Capital (55,000 × 10)	5,50,000		By Bank (55,000 × 45)	24,75,000
	To Securities Premium (55,000 × 50)	27,50,000			
		33,06,000			33,06,000

### Note: Securities Premium

	₹
Exercise price received per share	45
Value of service received per share	15
Consideration received per share	60
Less: Nominal value per share	(10)
Securities premium per share	50

### Computation of Basic EPS

	2008-09 ₹ 000	2009-10 ₹ 000	2010-11 ₹ 000
Profit before amortisation of ESOP costs	1,190	1,262	1,379
Less: ESOP cost amortised	(270)	(282)	(279)

Net profit for shareholders	920	980	1,100
Number of shares outstanding ('000)	400	400	400
Basic EPS	2.30	2.45	2.75

### Potential Equity

	2008-09	2009-10	2010-11
A. Actual number of employees	585	565	554
B. Option granted per employee	100	100	100
C. Number of options outstanding	58,500	56,500	55,400
D. Unamortised ESOP cost per option (₹ )	10	5	Nil
E. Exercise Price (₹ 45)	45	45	45
F. Expected exercise price to be received (C x E): ₹ 000	2,632.5	2,542.5	2,493.0
G. Unamortised ESOP cost (C x D) : ₹ 000	585.0	282.5	Nil
H. Total proceeds: ₹ 000	3,217.5	2,825.0	2,493.0
I. Fair value per share (₹ )	60	66	72
J. Number of shares issued for consideration (H/I)	53,625	42,803	34,625
K. Potential Equity (C – J)	4,875	13,697	20,775

### Computation of Diluted EPS

	2008-9 ₹	2009-10 ₹	2010-11 ₹
Net profit for shareholders	9,20,000	9,80,000	11,00,000
Number of shares outstanding	4,00,000	4,00,000	4,00,000
Potential Equity	4,875	13,697	20,775
Total number of share	4,04,875	4,13,697	4,20,775
Diluted EPS	2.27	2.37	2.61

## 14. Stock Appreciation Rights (SAR)

Stock Appreciation Rights (SAR) entitle the employees to claim cash payment to the extent of excess of market price of underlying shares on exercise date over the exercise price. Stock Appreciation Rights are not exercised if market price of underlying shares on exercise date is less than the exercise price. SAR is therefore a call option held by employees. The employer recognises the value of call as expense over the vesting period.

The accounting procedures for ESOP and SAR are similar except that: (i) The liability for SAR is recognised as Provision instead of ESOP Outstanding and (ii) value per option is reassessed at each reporting date.

### Illustration 8

*A company announced a Stock Appreciation Right on 01/04/08 for each of its 525 employees. The scheme gives the employees the right to claim cash payment equivalent to excess on market price of company's shares on exercise date over the exercise price ₹ 125 per share in respect of 100 shares, subject to condition of continuous employment for 3 years. The SAR is*

## 7.27 Financial Reporting

---

exercisable after 31/03/11 but before 30/06/11. The fair value of SAR was ₹ 21 in 2008-09, ₹ 23 in 2009-10 and ₹ 24 in 2010-11. In 2008-09 the company estimates that 2% of the employees shall leave the company annually. This was revised to 3% in 2009-10. Actually, 15 employees left the company in 2008-09, 10 left in 2009-10 and 8 left in 2010-11. The SAR therefore actually vested to 492 employees. On 30/06/11, when the SAR was exercised, the intrinsic value was ₹ 25 per share.

Show Provision for SAR A/c by fair value method.

### Solution

#### Provision of SARs A/c (For 2008-09)

	₹		₹
To Balance c/d	<u>3,45,800</u>	By Employee Compensation Expense	<u>3,45,800</u>
	<u>3,45,800</u>		<u>3,45,800</u>

#### Provision of SARs A/c (For 2009-10)

To Balance c/d	7,36,000	By Balance b/d	3,45,800
	<u>                  </u>	By Employee Compensation Expenses	<u>3,90,200</u>
	<u>7,36,000</u>		<u>7,36,000</u>

#### Provision of SARs A/c (For 2011-12)

To Balance c/d	11,80,800	By Balance b/d	7,36,000
	<u>                  </u>	By Employee Compensation Expenses	<u>4,44,800</u>
	<u>11,80,800</u>		<u>11,80,800</u>

#### Provision of SARs A/c (For 2011-12)

To Bank		By Balance b/d	11,80,800
(49,200 x 25)	<u>12,30,000</u>	By Employee Expenses	<u>49,200</u>
	<u>12,30,000</u>		<u>12,30,000</u>

The Provision for SAR is a liability as settlement of SAR is through cash payment equivalent to an excess of market price of company's shares on exercise date over the exercise price.

### Working Notes:

#### Year 2008-09

- A. Number of employees to whom SARs were announced (492+15+10+8)  
= 525 employees
- B. Total number of employees after three years, on the basis of the estimation in 2008-09  
=  $(525 \times 0.98 \times 0.98 \times 0.98) = 494$  employees
- C. No. of SARs expected to vest = 494 employees  $\times 100 = 49,400$  SARs
- D. Fair value of SARs = 49,400 SARs  $\times$  ₹ 21 = ₹ 1,037,400
- E. Vesting period = 3 years

F. Recognised as expense in 2008 – 09 = ₹ 10,37,400 / 3 years = ₹ 3,45,800

**Year 2009-10**

G. Total number of employees after three years, on the basis of the estimation in 2009-10 =  $[(525 - 15) \times 0.97 \times 0.97] = 480$  employees

H. No. of SARs expected to vest  
= 480 employees ' 100 = 48,000 SARs

I. Fair value of SARs = 48,000 SARs ' ₹ 23 = ₹ 11,04,000

J. Vesting period = 3 years

K. No. of years expired = 2 years

L. Cumulative value of SARs to recognize as expense  
= 11,04,000/3 ' 2 = ₹ 7,36,000

M. SARs recognize as expense in 2009 – 10  
= ₹ 7,36,000 – ₹ 3,45,800 = ₹ 3,90,200

**Year 2010-11**

N. Fair value of SARs = ₹ 24

O. SARs actually vested = 492 employees ' 100 = 49,200 SARs

P. Fair value = 49,200 SARs ' ₹ 24 = ₹ 11,80,800

Q. Cumulative value to be recognized = ₹ 11,80,800

R. Value of SARs to be recognized as an expense = ₹ 11,80,800 – ₹ 7,36,000 = ₹ 4,44,800

**Year 2011 – 12**

S. Cash payment of SARs = 49,200 SARs ' ₹ 25 = ₹ 12,30,000

T. Value of SARs to be recognized as an expense in 2011 – 12  
= ₹ 12,30,000 – ₹ 11,80,800 = ₹ 49,200

## 15. Employee Share-based Payment Plans with Cash Alternatives

These plans consist of two components viz., (i) liability, i.e., the employer's obligation to pay price differential in cash and (ii) equity, i.e., the employer's obligation to issue shares at exercise price. The company should first measure, on the grant date, fair value of the plan on the assumption that all employees will exercise their options in favour of (i) cash settlement (ii) equity settlement. The fair value of plan for cash settlement is the fair value of the liability component. The excess, if any, of fair value of plan for equity settlement over the liability component is the fair value of equity component. The accounting procedure for equity component is same as that for ESOP. The accounting procedure for liability component is same as that for SAR.

On the date of settlement, the company should remeasure the liability to its fair value. If the

## 7.29 Financial Reporting

---

employees opt for shares, the amount of liability should be treated as the consideration for the shares issued. If the employees opt for cash settlement, the balance in ESOP Outstanding A/c should be transferred to general reserve.

### Illustration 9

A company announced a share-based payment plan for its employees on 01/04/08, subject to a vesting period of 3 years. By the plan, the employees can (i) either claim difference between exercise price ₹ 150 per share and market price of those shares on vesting date in respect of 10,000 shares or (ii) can subscribe to 12,000 shares at exercise price ₹ 150 per share, subject to lock in period of 5 years. On 01/04/08, fair value of the option, without considering restrictions on transfers was ₹ 30 and that after considering restrictions on transfer was ₹ 27. The fair value estimates, without considering transfer restrictions were ₹ 31.50, ₹ 32.70 and ₹ 34 respectively, at the end of 2008-09, 2009-10 and 2010-11.

Show important accounts in books of the company if employees opt for (i) cash settlement (ii) equity settlement.

### Solution

	₹	
Fair value under equity settlement = $12,000 \times ₹ 27$	3,24,000	
Less: Fair value under cash settlement = $10,000 \times ₹ 30$	(3,00,000)	Liability component
	24,000	Equity component

Vesting period = 3 years

Expense to be recognised each year for equity component = ₹ 24,000 / 3 = ₹ 8,000

#### Expense recognised for liability component

##### 2008-09

Number of shares = 10,000

Fair value = ₹ 31.50 per share

Fair value of liability component =  $10,000 \times ₹ 31.50 = ₹ 3,15,000$

Vesting period = 3 years

Expense recognised = ₹ 3,15,000/3 = ₹ 1,05,000

##### 2009-10

Number of shares = 10,000

Fair value = ₹ 32.70 per share

Fair value of liability component =  $10,000 \times ₹ 32.70 = ₹ 3,27,000$

Vesting period = 3 years

Number of years expired = 2 years

Cumulative expense to be recognised upto 2009-10

$$= (\text{₹ } 3,27,000/3) \times 2 = \text{₹ } 2,18,000$$

Expense recognised in 2008-09 = ₹ 1,05,000

Expense recognised in 2009-10 = ₹ 2,18,000 – ₹ 1,05,000 = ₹ 1,13,000

### 2010-11

Number of shares = 10,000

Fair value = ₹ 34 per share

Fair value of liability component = 10,000 × ₹ 34 = ₹ 3,40,000

Vesting period = 3 years

Number of years expired = 3 years

Cumulative expense to be recognised upto 2010-11 = ₹ 3,40,000

Cumulative expense to be recognised upto 2009-10 = ₹ 2,18,000

Expense recognised in 2010-11 = ₹ 3,40,000 – ₹ 2,18,000 = ₹ 1,22,000

### Employees' Compensation A/c

Year		₹	Year		₹
2008-09	To Provision For Liability	1,05,000	2008-09	By Profit & Loss A/c	1,13,000
	To ESOP Outstanding	8,000			1,13,000
2009-10		1,13,000	2009-10		1,21,000
	To Provision For Liability	1,13,000		By Profit & Loss A/c	1,21,000
2010-11	To ESOP Outstanding	8,000	2010-11		1,21,000
		1,21,000		By Profit & Loss A/c	1,30,000
	To Provision For Liability	1,22,000			1,30,000
	To ESOP Outstanding	8,000			1,30,000
		1,30,000			

### Provision for Liability Component A/c

Year		₹	Year		₹
2008-09	To Balance c/d	1,05,000	2008-09	By Employees' Compensation A/c	1,05,000
		1,05,000			1,05,000
2009-10	To Balance c/d	2,18,000	2009-10	By Balance b/d	1,05,000
		2,18,000		By Employees' Compensation A/c	1,13,000
2010-11	To Balance c/d	3,40,000	2010-11	By Balance b/d	2,18,000
		3,40,000		By Employees' Compensation A/c	1,22,000
		3,40,000			3,40,000

## 7.31 Financial Reporting

### ESOP Outstanding A/c

Year		₹	Year		₹
2008-09	To Balance c/d	<u>8,000</u> <u>8,000</u>	2008-09	By Employees' Compensation A/c	<u>8,000</u> <u>8,000</u>
2009-10	To Balance c/d	16,000 _____ <u>16,000</u>	2009-10	By Balance b/d By Employees' Compensation A/c	8,000 <u>8,000</u> <u>16,000</u>
2010-11	To Balance c/d	24,000 _____ <u>24,000</u>	2010-11	By Balance b/d By Employees' Compensation A/c	16,000 <u>8,000</u> <u>24,000</u>

### Cash Settlement

### Provision for Liability Component A/c

		₹			₹
2011-12	To Bank	<u>3,40,000</u> <u>3,40,000</u>	2011-12	By Balance b/d	<u>3,40,000</u> <u>3,40,000</u>

### ESOP Outstanding A/c

Year		₹	Year		₹
2011-12	To General Reserve	<u>24,000</u> <u>24,000</u>	2011-12	By Balance b/d	<u>24,000</u> <u>24,000</u>

### Equity Settlement

### Provision for Liability Component A/c

		₹			₹
2011-12	To ESOP Outstanding A/c	<u>3,40,000</u> <u>3,40,000</u>	2011-12	By Balance b/d	<u>3,40,000</u> <u>3,40,000</u>

### ESOP Outstanding A/c

Year		₹	Year		₹
2011-12	To Share Capital To Securities Premium	12,00,000 9,64,000 _____ <u>21,64,000</u>	2011-12	By Balance b/d By Provision for Liability Component By Bank	24,000 3,40,000 <u>18,00,000</u> <u>21,64,000</u>

## 16 Disclosures

The Guidance Note on Accounting for Employee Share-based Payments issued by The Institute of Chartered Accountants of India requires enterprises to disclose the following in respect of such payments:

1. Method used to account for the employee share-based payment plans. Where an

enterprise uses the intrinsic value method, it should also disclose the impact on the net results and EPS- both basic and diluted –for the accounting period, had the fair value method been used.

2. Information that enables users of the financial statements to understand the nature and extent of employee share-based payment plans that existed during the period. In particular, it should disclose:
  - (a) A description of each type of employee share-based payment plan that existed at any time during the period, including the general terms and conditions of each plan, such as vesting requirement, the maximum term of options granted, and the method of settlement (e.g., whether in cash or equity).
  - (b) The number and weighted average exercise prices of stock options for each of the following groups of options:
    - (i) Outstanding at the beginning of the period;
    - (ii) Granted during the period;
    - (iii) Forfeited during the period;
    - (iv) Exercised during the period;
    - (v) Expired during the period;
    - (vi) Outstanding at the end of the period; and
    - (vii) Exercisable at the end of the period
  - (c) For stock options exercised during the period, the weighted average share price at the date of exercise. If options were exercised on a regular basis throughout the period, the enterprise may instead disclose the weighted average share price during the period.
  - (d) For stock options outstanding at the end of the period, the range of exercise prices and weighted average remaining contractual life (comprising the vesting period and the exercise period). If the range of exercise prices is wide, the outstanding options should be divided into ranges that are meaningful for assessing the number and timing of additional shares that may be issued and the cash that may be received upon exercise of those options.
1. An enterprise should disclose the following information to enable users of the financial statements to understand how the fair value of shares or stock options granted, during the period, was determined:
  - (a) For stock options granted during the period, the weighted average fair value of those options at the grant date and information on how that fair value was measured, including:
    - (i) The option pricing model used and the inputs to that model, including the weighted average share price, exercise price, expected volatility, option life (comprising the vesting period and the exercise period), expected dividends, the risk-free interest rate and any other inputs to the model, including the method used and the assumptions

## 7.33 Financial Reporting

---

made to incorporate the effects of expected early exercise;

- (ii) How expected volatility was determined, including an explanation of the extent to which expected volatility; and
- (iii) Whether and how any other features of the option grant were incorporated into the measurement of fair value, such as a market condition.

- (b) For other instrument granted during the period (i.e., other than stock options), the number and weighted average fair value of those instruments at the granted date, and information on how that fair value was measured, including:
  - (i) If fair value was not measured on the basis of an observable market price, how it was determined;
  - (ii) Whether and how expected dividends were incorporated into the measured of fair value; and
  - (iii) Whether and how any other features of the instruments granted were incorporated into the measurement of fair value.
- (c) For the employee share-based payment plants that were modified during the period:
  - (i) An explanation of those modifications;
  - (ii) The incremental fair value granted (as a result of those modifications); and
  - (iii) Information on how the incremental fair value granted was measured, consistently with the requirements set out in (a) and (b) above, where applicable.

2. An enterprise should disclose the following information to enable users of the financial statement to understand the effect of employee share-based payment plans on the profit or loss of the enterprise for the period and on its financial position:
  - (a) The total expense recognized for the period arising from employee share-based payment plans in which the services received did not qualify for recognition as a part of the cost of an asset and hence were recognized immediately as an expense, including separate disclosure of that portion of the total expense that arises from transactions accounted for as equity-settled employee share-based payment plans;
  - (b) For liability arising from employee share-based payment plans:
    - (i) The total carrying amount at the end of the period; and
    - (ii) The total intrinsic value at the end of the period of liabilities for which the right of the employee to cash or other assets had vested by the end of the period (e.g., vested stock appreciation rights).

**Illustration 10**

The following particulars in respect of stock options granted by a company are available:

Grant date	April 1, 2008
Number of employees covered	300
Vesting condition: Continuous employment upto 31/03/11	100
Nominal value per share (₹ )	10
Exercise price per share (₹ )	40
Fair value of option per share on grant date (₹ )	20
Exercise date	July 31, 2011

The number options to vest per employee shall depend on company's average annual earning after tax during vesting period as per the table below:

Average annual earning after tax	Number of options per employee
Less than ₹ 100 crores	Nil
₹ 100 crores to less than ₹ 120 crores	30
₹ 120 crores to less than ₹ 150 crores	45
Above ₹ 150 crores	60

**Position on 31/03/09**

(a) The company expects to earn ₹ 115 crores after tax on average per year during vesting period.  
 (b) Number of employees expected to be entitled to option = 280

**Position on 31/03/10**

(a) The company expects to earn ₹ 130 crores after tax on average per year during vesting period.  
 (b) Number of employees expected to be entitled to option = 270

**Position on 31/03/11**

(a) The company earned ₹ 128 crores after tax on average per year during vesting period.  
 (b) Number of employees entitled to option = 275

**Position on July 31, 2011**

Number of employees exercising option = 265

Compute expenses to recognise in each year and show important accounts in books of the company.

**Solution**

Expense recognised in year 2008-09 = ₹ 56,000  
 Expense recognised in year 2009-10 = ₹ 1,06,000  
 Expense recognised in year 2010-11 = ₹ 85,500  
 Value of options forfeited = ₹ 9,000