

**General Certificate of Education (Advanced Level)**

# **ACCOUNTING**

Grade 13

Teachers Instructional Manual  
(Implemented from year 2009)



**Department of Business Studies  
Faculty of Science and Technology  
National Institute of Education**

# **Accounting**

Teacher's Instructional Manual

Grade 13– 2010

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Faculty of Science & Technology  
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## Introduction

Curriculum developers of the NIE were able to introduce Competency Based Learning and Teaching curricula for grades 6 and 10 in 2007 and were also able to extend it to 7, 8 and 11 progressively every year and even to GCE (A/L) classes in 2009. In the same manner, syllabi and Teacher's Instruction Manuals for grades 12 and 13 for different subjects with competencies and competency levels that should be developed in students are presented descriptively. Information given on each subject will immensely help the teachers to prepare for the Learning – Teaching situations.

I would like to mention that curriculum developers have followed a different approach when preparing Teacher's Instruction Manuals for Advanced Level subjects when compared to the approaches they followed in preparing Junior Secondary and Senior Secondary curricula (Grades 10, 11).

In grades 6, 7, 8, 9, 10 and 11 teachers were oriented to a given format as to how they should handle the subject matter in the Learning – Teaching process, but in designing AL syllabi and Teacher's Instruction Manuals, freedom is given to the teachers to work as they wish.

At this level we expect teachers to use a suitable learning method from the suggested learning methods given in the Teacher's Instruction Manuals to develop competencies and competency levels relevant to each lesson or lesson unit.

Whatever the learning approach the teacher uses, it should be done effectively and satisfactorily to realize the expected competencies and competency levels.

I would like to note that the decision to give this freedom is taken, considering the importance of GCE (A/L) examinations and the sensitivity of other stakeholders who are in the education system to the Advanced Level examination. I hope that this Teacher's Instruction Manual would be of great help to teachers.

I hope the information, methods and instructions given in this Teacher's Instructional Manual will provide proper guidance to teachers to awaken the minds of our students.

**Dr. Upali Sedere**  
Director General  
National Institute of Education

## Foreword

Action taken over long years in the past to retain the known and learn the predetermined has made us little able today to construct even what is. The first curriculum reform of the new millennium on secondary education that comes to being with a drastic change in the learning-teaching process at school level attempts to overcome this inability while bringing about a set of worthy citizens for the country who are capable of revising the known, exploring the undetermined and constructing what might be.

If you are a teacher teaching this subject or any other subject in grades 6 to 11, it will not be difficult for you to align yourself with the new learning-teaching approaches that are recommended in a considerable way for the GCE (A/L) as well. This reform calls on the teacher to identify competency levels under each competency and plan activities to achieve them. The teachers entering the new role of transformation should understand that the procedures which emphasize the teacher in the learning-teaching process are of limited use for the present and that it is more meaningful for the children to learn co-operatively sharing their experiences. This situation, however, requires the teachers to provide a new direction for their teaching by selecting new learning-teaching methods that emphasize the student over the teacher.

If you study the Teachers' Instructional Guides (TIGs) prepared by the National Institute of Education for Mathematics, Science, Health and Physical Education, Technology and Commerce subjects of grades 6 to 11, you certainly will be able to acquire good understanding of the student-centred, competency based and activity-oriented approaches we have recommended for learning and teaching. The activities presented in these Guides attempt to bring learning, teaching assessment and evaluation on to the same platform and to help you to adopt co-operative learning techniques on the basis of the 5E Model.

Considering the need to establish an innovative teaching force we have selected just a few activities from the relevant activity continuum incorporated in the TIGs. Yet we have given you vast freedom to plan your own activities to suit the subject and the class requirements by studying the exemplar activities in the Guides and improving your understanding of the principles underlying the reform. The activities incorporated in the TIG, provide you with four types of information. At the beginning of each activity you are provided the final outcome that the children are expected to achieve through each activity. This learning outcome named 'Competency' is broad and long-term. The competency level stated next highlights one out of the number of abilities that the children have to develop to realize the competency.

The above explanation shows us that the competency levels are more specific and of a shorter duration when compared to the competency. The next section of the Guide presents a list of behaviours that the teacher has to observe at the end of each activity. To facilitate the task of both the teacher and the students, an attempt has been made to limit the number of such behaviours to five. These behaviours referred to as learning outcomes, are more specific than the competency level. They include three abilities derived from the subject and two others derived from the learning teaching process. Out of the three subject abilities listed in order of difficulty, the teacher has to direct the children to realize at least the first two through exploration. The next section of the activity presents what the teacher should do to engage the children for exploration. Although the implementation of each and every activity starts with this step of engagement, the teachers should

not forget that activity planning should begin with the 'exploration' which is the second 'E' of the 5E Model.

Instructions for the group exploration from the next section of the exemplar activities the teacher plans these instructions in such a way as to allow different groups studying different facets of the same problem to reach the expected ends through a variety of learning-teaching methods. For this, further the teacher can select either Inquiry-based Learning carried out through a series of questions or Experiential Learning where children learn by doing. It is the responsibility of the GCE (A/L) teacher to use the knowledge that the children acquire by any of the above methods to solve problems that are specific to the subject or that runs across a number of subjects of the curriculum is meaningful to plan such problem-based learning-teaching methods on the basis of real-life situations. For this you can select dilemmas, hypothetical situations, analogies or primary sources. Some techniques that can be used for the explorations are reading, information management, reflection, observation, discussion, formulation and testing of hypotheses, testing predictions, preparing questions and answers, simulation, problem solving and aesthetic activities such as drawing or composing. There is room here even for memorization although it is considered as a form of mechanical learning.

The students explore in small groups. Instead of depending on the knowledge available to the teacher, they attempt to construct their own knowledge and meaning with the support of the teacher. Moreover, they interact with others in the group to learn from others and also to improve the quality of their exploration findings. All this work successfully only if the teacher is capable of providing the students with the reading material and the other inputs they are in need of. The teacher also has to support student learning throughout the learning process by moving from one group to another. Although it is the discovery that is prominent in this type of learning you have to recognize this as a guided discovery rather than a free discovery. There is no doubt that students learning likewise with instructional scaffolding both by the teacher and the peers acquire a whole lot of worthwhile experiences that they find useful later in life.

Explanation follows the second stage of exploration. The small groups get ready to make innovative, team presentations on their findings. The special feature here is that the children have selected novel methods for their presentations. The responsibility for the presentation is also shared by all members of the group. In the next step of elaboration the children get the opportunity to clarify the unclear, correct the incorrect and fill any gaps that are left. They also can go beyond the known to present new ideas. All activities end with a brief lecture made by the teacher. This stage allows the teacher to go back to the transmission role. The teacher also has to deliver this lecture covering all the important points that the syllabus has prescribed for the relevant competency level. Step 3 of each Activity Plan guides the teachers in this compulsory final elaboration.

To overcome many problems that are associated with the general system of education today, the National Institute of Education has taken steps to move the teachers to the new transformation role recommended for them. This role that starts with a transaction gets extended to a lengthy exploration, a series of student explorations and elaborations and a summative transmission by the teacher. The students involve themselves in the exploration using reading material and other quality inputs provided to them by the teacher.

The students attend school daily to learn joyfully. They achieve a number of competencies that they need to be successful in life and the world of work. They prepare themselves for nation building by developing thinking skills, social skills and personal skills. For the success of all this, an examination system that inquires into the ability of students to face real challenges of life is very much needed in place of an examination system that focuses on the knowledge acquired by children through memorizing answers to model questions.

A number of activities have already begun at the national level to protect the real nature of school-based assessments. The written tests have been minimised to gain recognition for school-based assessments. Compulsory questions have been incorporated in the term tests along with a scheme of authentic evaluation to ensure real outcomes of learning. It is the co-ordinated responsibility of all citizens of the country to open up doors for a new Sri Lanka by striving for the success of this new programme on the basis of sound instructional leadership and quality assurance by the management.

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**Competency 12.0** : Uses Sri Lanka Accounting Standards  
**Competency level 12.1** : Analyses the legal background of Sri Lanka Accounting Standards

**Number of Periods** : 06

**Learning Outcomes** :

- Shows the importance of Sri Lanka Accounting and Auditing Standards Act No 15 of 1995.
- Describes the role of the Accounting Standards Committee and Sri Lanka Accounting and Auditing Standards Monitoring Board, in relation to accounting.
- Describe the role of The Institute of Chartered Accountants of Sri Lanka.
- Tends to make use of the legal sources needed for living.
- Confirms the institutional importance with regards to the formulation of the law.

**Learning-Teaching Process :**

**Engagement :**

- A business had an inventory of Rs. 200,000 on 31.03.2009. The Net realizable value of the inventory was Rs. 180,000.
- Facilitate a discussion among students regarding the manner in which the disclosure of inventory is done in the financial statements
- Various institutions and committees have passed rules and regulations to ensure that the information provided by accounting is true and fair. The main among these, are the accounting standards.

**Proposed Instructions for Learning :**

- Draw the attention to the topics given to each group from the following topics.
  - Accounting Standards Committee
  - Sri Lanka Accounting and Auditing Standards Monitoring Board
  - The Institute of Chartered Accountants of Sri Lanka
- After encouraging students to refer the reading material, give guidance to find out the information relevant to the topic.
- Provide advise to introduce the Sri Lanka Accounting and Auditing Standards Act No. 15 of 1995.
- Provide advise to introduce the topic given to each group.
- Inquire the effect of each topic on accounting.

- Provide advise to introduce the Sri Lanka Accounting and Auditing Standards Act no 15 of 1995.
  - Provide advise to introduce the topic given to each group.
  - Inquire the effect of each topic on accounting.
  - Find the impact for the formation of these.
  - Prepare groups to do a collective and creative presentation to the class.

**Guidance for Subject Matters :**

- The Sri Lanka Accounting and Auditing Standards Act, No 15 of 1995 emphasizes that the recommendations of the Sri Lanka Accounting Standards have to be followed in preparation and the presentation of financial statements of a specified Business Enterprise.
- The Sri Lanka Accounting Standards Committee has been established as clearly stipulated in the Sri Lanka Accounting and Auditing Standards Act No 15 of 1995. This committee assists the Institute of Chartered Accountants of Sri Lanka to prepare and recommend the Sri Lanka Accounting Standards.
- The Sri Lanka Accounting and Auditing Standards Monitoring Board has been established according to the Sri Lanka Accounting and Auditing Standards Act No. 15 of 1995.
- The Sri Lanka Accounting and Auditing Standards Monitoring Board has the power to examine whether the Sri Lankan Accounting Standards have been adhered to in preparation of accounting statements of a specified Business Enterprise, and to take necessary action if the standards have not been adhered to.
- The role of the Institute of Chartered Accountants of Sri Lanka.
- Development maintaining and revising the standards for the clearly Specified Business Enterprise using the legal powers vested in ICA by the Sri Lanka Accounting and Auditing Standards Act No 15 of 1995.

**Competency level 12.2** : Keeps Accounts and Discloses of Accounting Policies, Changes in Accounting Estimates and Errors

**Number of Periods** : 04

**Learning Outcomes:**

- Explains the Accounting Standard on Accounting Policies, Changes in Accounting Estimates and Errors.
- Keeps accounts for transactions & events adhere to the Accounting Standard 10.
- Discloses of important information relating to the Accounting Standard 10.
- Obtains appropriate information if arises

**Learning-Teaching Process :**

**Engagement :**

- Some information disclosed in the financial statements of Sisira Limited for the year ended 31.03.2009 are given below.
  - Profit after tax for the year ended 31.03.2009 is Rs. 200,000/-
  - The Income Statement balance at 1.04.2008 is Rs. 50,000/-
  - On 31.03.2009 machinery at cost is Rs. 250,000/- and the provision for depreciation is Rs. 100,000/-
- Depreciation policy is the straight line method, on 10 equal installments. The following information is identified for the financial year.
- The useful life time of the machinery is reconsidered and it is estimated to increase by two more years.
- Furniture purchased on 1.10.2007 for Rs. 20,000 has been included in the purchases account for that year. Depreciation is on straight line basis at the rate of 10%.
- The management has decided to depreciate this furniture on reducing balance method at the rate of 10% per annum.
- Lead a discussion using the above information highlighting the following points.
  - Accounting principles
  - Changes in accounting principles
  - Accounting estimates
  - Changes in accounting estimates
  - Errors

- Explain that the Accounting Policies, Changes in Accounting Estimates and Errors affect the fundamentals of the financial statements.

### **Proposed Instructions for Learning :**

- Draw the attention to the topics given to each group from the following topics.
  - Accounting Policies
  - Changes in Accounting Estimates
  - Errors
- Let each group make use of the reading material provided and define the topic given to the group.
- Guide the students to select information relevant to their topic from Sisira Ltd.
- Guide to present the effect on the fundamentals of the financial statements referring to the information given.
- Prepare groups to give a collective and creative presentation to the class.

### **Guidance for Subject Matters :**

- Definitions according to the Sri Lanka Accounting Standard 10
  - Accounting Policies  
Accounting policies are the specific principles, bases, conventions, rules and practices adopted by an enterprise in preparing and presenting financial statements.

#### ***Examples ;***

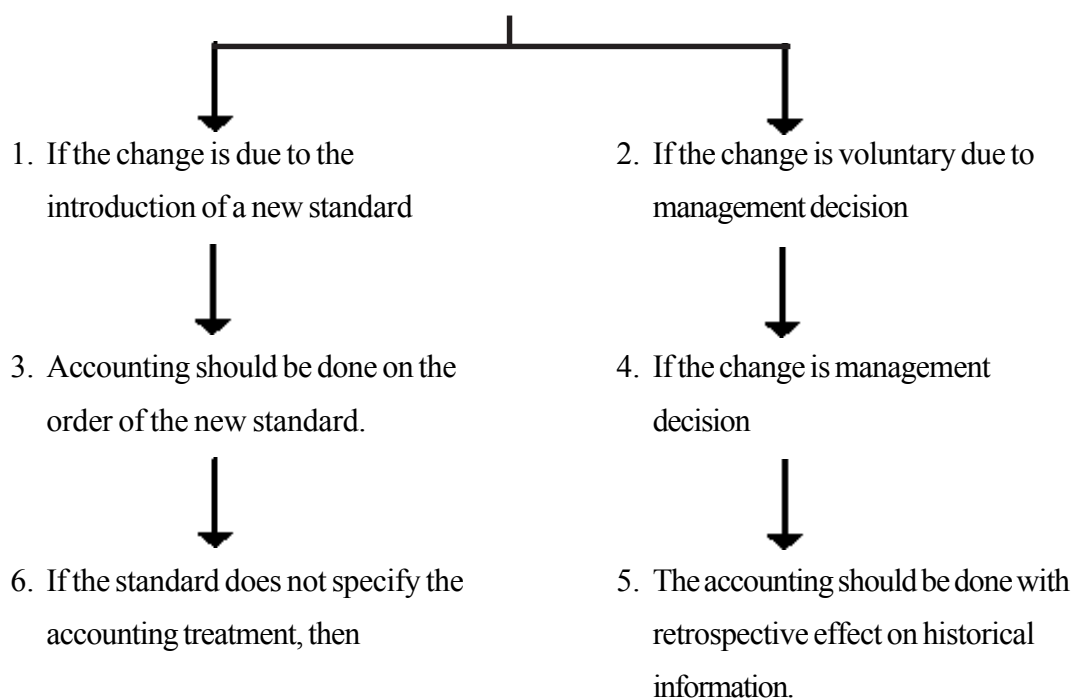
- Inventory measurement
- Revenue recognition policy
- Tax policy

### **Selecting Accounting Policies :**

- If an accounting standard clearly applies to a transaction, the accounting policy should adhere to the standard. If not, on the judgement of the management, the policies should be created and adhered to. Such policies should fulfill the following requirements.
- The information in the financial statements should cater to the requirements of the users of such information.

- The information presented by financial statements should confirm the confidence in the following.
  - The financial position, profitability, cash flows presented should be reliable.
  - Relevant
  - Neutral
  - Skillful
- There are two ways of change accounting policy of an enterprise.
  - As a requirement of an accounting standard  
or
  - Only if the change will result in more appropriate information on financial position, activities or cash flows of the enterprise.

### The Change in the Accounting Policies



### Changes in Accounting Estimates :

- The adjustment to the net value of an asset or a liability due to an estimate taking into consideration the currently prevailing situations regarding future incomes and commitments of the assets and liabilities of an enterprise is known as a **Change in Estimate**.
  - Estimate may be required

- Provision for doubtful debts
- Changes in the useful lifetime of a depreciable asset
- Inventory obsolescence
- Warranty obligations
- Fair values of financial assets
- An accounting estimate can change due to new information or if changes occur regarding the circumstances.
- The accounting treatment for the changes in accounting estimates is as follows:
  - If the change affects only the period in which the change occurred, then adjust the profit/loss of the period.
  - If the change affects both the period in which the change occurred and the future periods, then adjust the profit/loss of each period affected.
  - If the change affects assets, liabilities or equity, then adjust the related period assets, liabilities equity of fair value.

**Example :**

- Cost of building ,Rs 400 000 Estimated useful life is 20 years. Consider 10 years useful life after 5 years

$$\text{Deprecation each year for 5 year period} = \frac{400\ 000}{20} = 20\ 000$$

$$\text{Depreciation each year for 10 year period} = \frac{300\ 000}{10} = 30\ 000$$

- **Errors**

Errors can be described as omissions in one or more previous periods due to the non use or the improper use of information which can be reasonably expected to be considered in preparation and presenting the financial statements of a business enterprise. Errors may occur in present period or in previous period.

- Error occurred in present year should be rectified prior to the approval of the financial statement of that year. This standard consider the errors which occurred in prior periods too.

**Example ;**

- Arithmetical errors
- Errors in the use of accounting policies
- Oversight

**Retrospective Restatement :**

- Correcting the recognition, measurement and disclosure of amounts of elements of financial statements as if a prior period error had never occurred.
- Retrospective Application: Application of a new accounting policy to events and transactions as if the new accounting policy had always been applied.

**Examples of Disclosure :**

<b>Changes in Accounting Policy</b>	<b>Changes in Accounting Estimates</b>	<b>Errors in Previous Periods</b>
<ul style="list-style-type: none"><li>• The nature of the change in accounting policy</li><li>• The effect on future and existing periods</li></ul>	<ul style="list-style-type: none"><li>• Reasons for changing the Estimate</li><li>• Effect on the financial statements due to the change in the estimate</li></ul>	<ul style="list-style-type: none"><li>• Nature of the prior period error</li><li>• The correction at the beginning of the earliest prior period presented</li><li>• A description of how and in which period the error has been corrected</li></ul>



**Competency level 12.3** : Keeps Accounts and Discloses of, Events after the Balance Sheet Date

**Number of Periods** : 04

**Learning Outcomes** :

- Explains events after the Balance Sheet Date
- Classifies events after the Balance Sheet Date and give examples
- Explains the importance of events after the Balance Sheet Date to the users of financial statements
- List outs the details which are relevant and irrelevant in making decisions.
- Shows the importance of the presentation of information

**Learning-Teaching Process :**

- Present the following conversation between two ordinary shareholders of a company to the students.

**Sena** : See Sandun, This balance sheet is prepared as at 31<sup>st</sup> March 2009. Accounts receivables on that date is Rs. 80,000/-. But the balance sheet shows only Rs. 60,000. Upon investigation, I found that a debtor with Rs. 20,000 debt has gone bankrupt on 15<sup>th</sup> April 2009. So how did it happen?

**Sandun** : I also have a problem. Although the income statement shows a net profit of Rs. 10 million, no dividends have been declared for us. I do not know whether we will get the dividends.

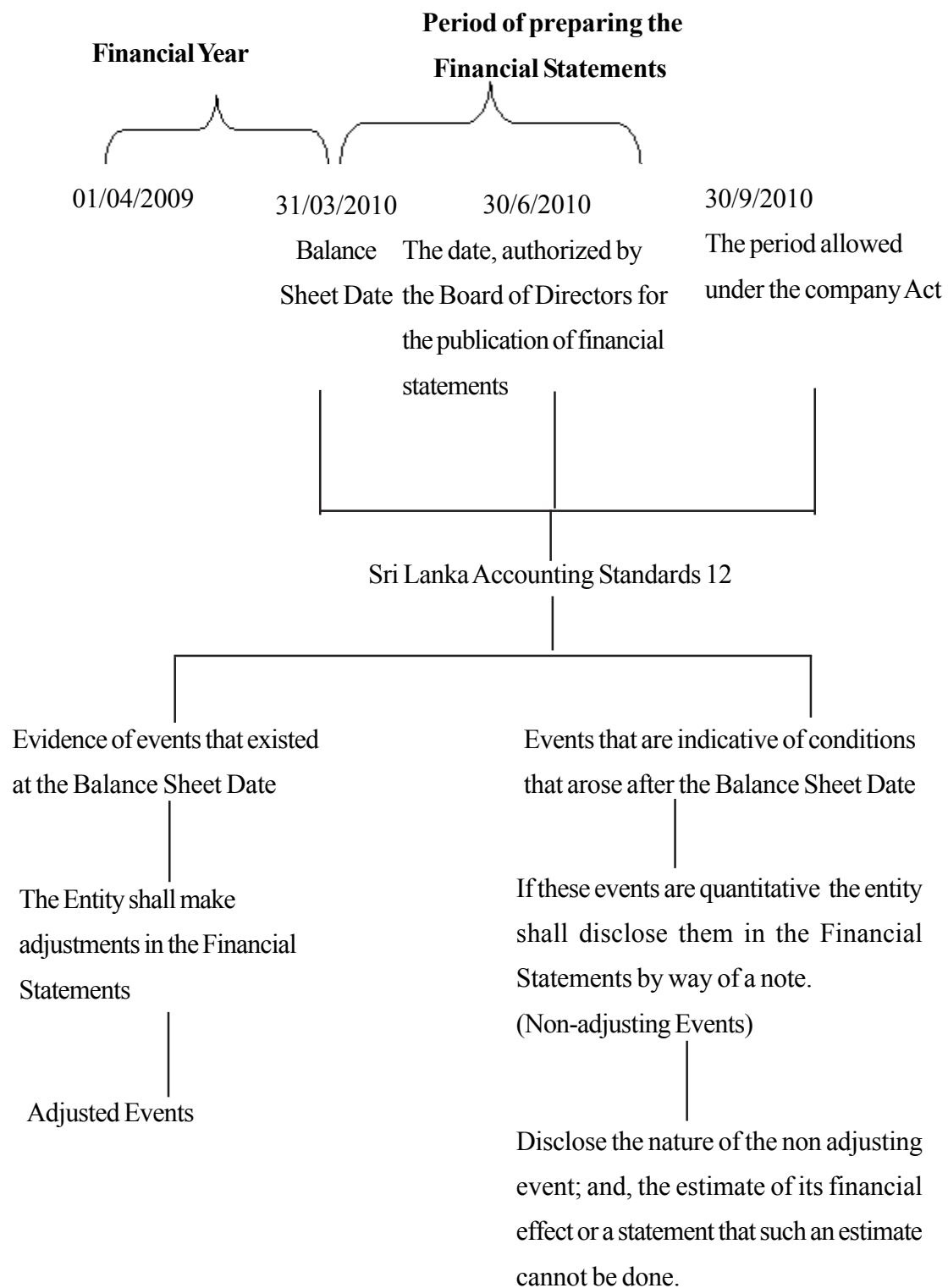
- Lead a discussion to highlight the following points using the above conversation.
  - The Balance Sheet Date of the business
  - Events after the Balance Sheet Date
  - Adjusting and non-adjusting events (in the Financial Statements)

**Proposed Instructions for Learning :**

- Draw the attention to the topic given to each group from the following topics.
  - Events that provide evidence of conditions that existed at the Balance Sheet date
  - Events that are indicative of conditions that arose after the Balance Sheet date.
- Let each group make use of the reading material provided and let them explain the topic given

- Let the students study the following examples.
  - The financial year of Perera & Co. Limited ended on 31<sup>st</sup> March 2009 and financial statements were approved by the directors on 30<sup>th</sup> May 2009. After 31<sup>st</sup> March 2009, the following information regarding the company has come to light. The closing inventory included some items with a cost of Rs. 350,000 and a net realizable value of Rs. 290,000. This was sold for Rs. 250,000 within a very short period after the financial year end.
  - Viraj, an employee of the company has filed a case against the company and on 15<sup>th</sup> April 2009, the court had awarded to Rs. 100,000 as compensation to Viraj.
  - A building worth Rs. 500,000 was damaged in a fire on 30<sup>th</sup> April 2009. The estimated damage is Rs. 150,000.
  - Investments costing Rs. 480,000 on 31<sup>st</sup> March 2009 had a valuation of Rs. 400,000 on 30<sup>th</sup> May 2009.
  - The Government has taken over a van owned by the company worth Rs. 1,000,000 on 7<sup>th</sup> May 2009.
    - Instruct the students to separate the above information according to the topics given to each group.
    - Get the students to explain how the disclosure is done in the financial statements for the above.
    - Prepare groups to give a collective and creative presentation to the class.

**Guidance for Subject Matters :**



- Explain with examples the events after the Balance Sheet date by studying the above note.
- Explain the adjustments to the financial statements or the disclosure through notes to the accounts.
- The following shows how the going concern concept affects events after the Balance Sheet date.
  - An entity shall not prepare its financial statements on a going concern basis if management decides to liquidate the business or cease trading due to the events after the Balance Sheet Date.

***Example ;***

- There is uncertainty of the continuity of the business due to labour disputes and strikes etc.
  - New Laws enacted by the government may affect the continuity of the business.
  - The destruction of the business due to fire, natural disasters like the Tsunami, floods.
- Present the Disclosures of the Financial Statements according to the Accounting Standard 12
    - The date when the Financial statements were authorized for issue
    - Who gave the authorization
    - Whether the owners of the entity or others have the power to amend the financial statements after issue.
  - Explain the following related to the Non-adjusting Events
    - The nature of the Event
    - The estimate of its financial effect or a statement that such an estimate cannot be done.

**Competency Level 12.4** : Keeps Accounts and Discloses of Provisions, Contingent Liabilities and Contingent Assets.

**Number of Periods** : 04

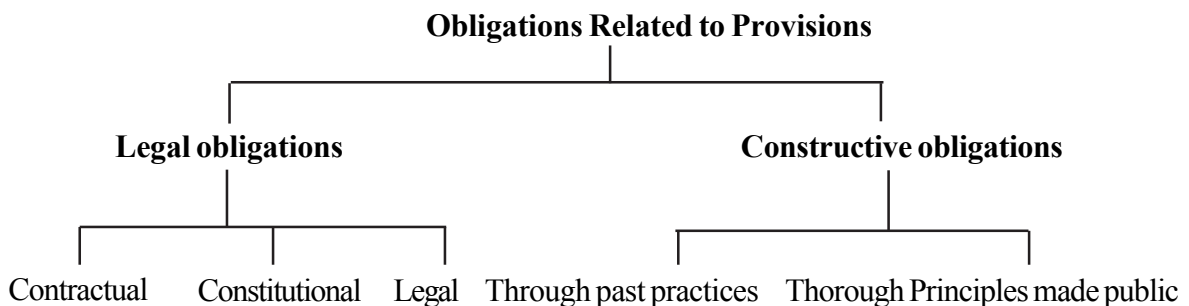
**Learning Outcomes** :

- Explains the Provisions, Contingent Liabilities and the Contingent Assets according to Sri Lanka Accounting Standard 36.
- Applies appropriate recognition criteria and measurement bases to the Provisions, Contingent Liabilities and the Contingent Assets.
- Discloses requirements of the Sri Lanka Accounting Standard 36.

**Learning-Teaching Process :**

**Guidance for Subject Matters :**

- Provisions  
A provision is a liability of uncertain timing or amount. Provisions can be distinguished from other liabilities such as trade payables and accruals which have a certain amount and timing.
- A provision shall be recognized when :
  - An enterprise has a present obligation (legal or constructive) as a result of a past event.
  - It is probable that an outflow of resources embodying economic benefits will be required to settle the obligation.
  - A reliable estimate can be made of the amount of the obligation.  
(if these conditions are not met, no provision shall be recognized.)
- Events giving rise to obligations can be categorized as:



- Treatment of Provisions in Financial Statements

***Examples ;***

- The Trial Balance as at 1<sup>st</sup> April 2008 includes a provision for Rs. 100,000 for Employee Compensation. As per the court ruling in 2009, the compensation to be paid is Rs. 120,000.  
Income Statement provision for employee compensation Account Dr. 20,000
- Accrued employee compensation provision Rs. 120,000 has to be shown in the Balance Sheet under current liabilities.

**Contingent Liabilities**

- A possible obligation that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the entity; or
- A present obligation that arises from past events but is not recognized because :
  - It is not probable that an outflow of resources embodying economic benefits will be required to settle the obligation; or
  - The amount of the obligation cannot be measured with sufficient reliability.

***Example ;***

- An employee files a case seeking compensation as he was terminated within the current year.
- Compensation payable due a closure of a section of the business.
- Warranty services for an item sold in the same year.
- Contingent liabilities may develop in a way not initially expected. Therefore they are assessed continually to determine whether an outflow of resources embodying economic benefits has become probable. If it becomes probable that an outflow of future economic benefits will be required for an item previously dealt with as a contingent liability, a provision is recognized in the financial statements of the period of which the change will probably occur (except in the rare circumstances where no reliable estimate can be made).

- **Contingent Assets**

A possible asset that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the enterprise

**Example ;**

- The compensation claimed for a land which was taken over by the Road Development Authority. As the external party has not decided on the compensation amount, recognized as an estimated income.

- Disclosures

<b>Provisions</b>	<b>Contingent Liabilities</b>	<b>Contingent Assets</b>
<ul style="list-style-type: none"><li>• Opening and closing balances of provisions</li><li>• Additional provision made within the current financial period.</li></ul>	<ul style="list-style-type: none"><li>• A brief description of the nature of the liability.</li><li>• An estimated financial effect</li><li>• An indication of the uncertainties relating to the amount or timing of any outflow; and</li><li>• The possibility of any reimbursement.</li></ul>	<ul style="list-style-type: none"><li>• A brief description of the nature of the contingent assets</li><li>• An estimated financial effect</li></ul>

**Competency Level 12.5** : Obtains the basic knowledge of Accounting for Leases.

**Number of Periods** : 04

**Learning Outcomes** :

- Defines Leases as per the Sri Lanka Accounting Standard 19
- Classifications of Leases
- Keeps Accounts in the books of the Lessee

**Learning-Teaching Process:**

**Guidance for Subject Matters :**

- The need for accounting on Leases arose as most business transactions are on credit basis.
- A Lease is an agreement whereby the lessor conveys to the lessee the right to use an asset for an agreed period of time in return for a payment or series of payments.
- Therefore two parties involved in the agreement.
  - Lessee
  - Lessor
- Classification of Leases as per the Sri Lanka Accounting Standard 19
  - Finance Lease
  - Operating lease
- Finance Lease

A Finance Lease is a lease that transfers substantially all the risks and rewards incident to ownership of an asset. Title may or may not eventually be transferred.

**Example ;** Motor vehicles, Specialized equipments.

- Operation Lease

An operating lease is a lease other than a finance lease

**Example ;**

- The accounting for the lease in the books of the Lessee as follows.
  - Finance Lease
- The fair value of the asset or sales price



The Asset Account	Debit	
Lease Creditor's Account		Credit
• Initial Deposit payment		
Lease Creditor's Account	Debit	
Cash/Bank		Credit
• Annual depreciation of the asset		
Asset depreciation Account	Debit	
Provision for depreciation Account		Credit
• Lease Interest amount		
Lease Interest or Income Statement	Debit	
Lease Creditor's Account		Credit
• Payment of lease installment		
Lease Creditor's Account	Debit	
Cash / bank Account		Credit

**Example ;** Sirilak Limited leased a special machinery from Dinakara Ltd on 1<sup>st</sup> January 2006. The conditions of the agreement are:

- Period of Lease agreement is 4 years.
- Initial deposit is Rs. 60,000
- Annual lease payment is Rs. 60,000 per year for 4 years starting from 31<sup>st</sup> December 2006 (inclusive of interest)
- Interest is 12% per annum
- Fair value of the asset is Rs.242,240
- Depreciation is 10% per annum using straight lime method.
- Record the above transactions in the books of Sirilak Limited.

### The Interest Calculation

	Rs.
Fair value of the Asset	242,240
<b>Less:</b> Initial deposit	-60,000
Balance as at 1.01.2006	182,240
Add: Interest for 2006 @12%	21,869
	204,109
<b>Less:</b> Instalment for 2006	-60,000
Balance as at 31.12.2006	144,109
Add: Interest for 2007 @12%	17,293
	161,402
<b>Less:</b> Instalment for 2007	-60,000
Balance as at 31.12.2007	101,402
<b>Add:</b> Interest for 2008 @12%	12,168
	113,570
<b>Less:</b> Instalment for 2008	-60,000
Balance as at 31.12.2008	53,570
<b>Add:</b> Interest for 2009 @12%	6,430
	60,000
<b>Less:</b> Instalment for 2009	-60,000
	0

- Calculation of first year profit  
 $182,240 \times 12/100 = 21,869$
- Same method is to be used for each year.

- In Lessee's books

**Lessor's Account ( Dinakara Limited)**

**Lease Creditors's Account**

01.01.2006 Cash (Initial Deposit)	60,000	01.01.2006 Machinery	242,240
31.12.2006 Cash (First Instalment)	60,000	31.12.2006 Lease interest	21,869
31.12.2006 Balance c/d	144,109		
	264,109		264,109
31.12.2007 Cash (First Installment)	60,000	01.01.2007 Balance b/d	144,109
31.12.2007 Balance c/d	101,402	31.12.2007 Lease interest	17,293
	161,402		161,402
		01.01.2008 Balance b/d	101,402

**Machinery Account**

1.1. Lease creditor	242240		
---------------------	--------	--	--

**Lease Interest Account**

31.12.06 Lease creditor	21,869	31.12 Income statement	21,869
31.12.07 Lease creditor	17,293	31.12 Income statement	17,293
	39,162		39,162

**Machinery Depreciation Account**

31.12.06 Provision for depreciation	24,224	31.12 Income statement	24,224
31.12.07 Provision for depreciation	24,224	31.12 Income statement	24,224
	48,448		48,448

**Provision for Depreciation Account**

31/12/06 Bal c/d	24,224	31/12 Depreciation	24,224
	<u>24,224</u>	1/1/2007 Bal b/d	<u>24,224</u>
31/12/07 Bal c/d	48,448	31/12/2007 Depreciation	24,224
	<u>48,448</u>		<u>48,448</u>
		1/1/2008 Balance b/d	48,448

- The accounts can be updated similarly in the future years as well.
- The information relating to Lease Accounting will be given in financial statements as follows:
  - Extracts from the financial statements in the 2<sup>nd</sup> year (from the above example)

**Income Statement**

**Rs.**

	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Administrative Expenses: Depreciation	24224	24224	24224	24224
Finance cost: Lease Interest	21869	17293	12168	6430

**Balance Sheet**

**Rs.**

	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
<b>Non-current Assets</b>				
Machinery – Net book value	218016	193792	169568	145344
<b>Non-current Liabilities</b>				
Lease Creditor	101,402	53570		
Current liabilities	42707	47832	53570	

- Accounting treatment for the Operating Lease in the books of the Lessee Assets leased under operational lease cannot be shown as assets in the Lessee's Balance Sheet. The lease payment for the current period has to be taken to account as shown below.
- The lease payment is considered as an expense for the period. The Lease instalment for the period

Lease Instalment Account	Debit
Cash / Accrued Lease instalment Acc.	Credit

- At the end of the financial period transfer the lease instalment to the Income Statement.
  - Debit Income Statement
  - Credit Lease Instalment Account

<b>Higher Level Calculation are not expected here</b>
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**Competency Level 12.6** : Keeps Accounts and Discloses of Revenue

**Number of Periods** : 04

**Learning Outcomes:**

- Explains Revenue according to Sri Lanka Accounting Standard 29.
- Presents the criteria for Measurement of Revenue.
- Highlights the transactions and events related to the three main areas of revenue generation.
- Discloses requirements of the Standard 29.

**Learning-Teaching Process:**

**Guidance for Subject Matters :**

- The Aim of Sri Lanka Accounting Standard 29, Revenue, is to provide a basis to
  - Identify
  - Account , and
  - Provide Disclosuresfor the revenue generated from transactions and events.
- This standard applies to revenue from
  - The sale of goods
  - The rendering of services
  - The use by others of entity assets yielding interest, royalties and dividends.
  - Definitions according to the standard

**Revenue**

- The gross inflow of economic benefits during the period arising in the course of the ordinary activities of an enterprise when those inflows result in increases in equity, other than increases relating to contributions from equity participants.
  - Revenue includes only the gross inflows of economic benefits received and receivable on the enterprise on its own account.
  - Amounts collected on behalf of third parties such as sales taxes, GST and value added tax are not economic benefits which flow to the enterprise and do not result in increases in equity.

## Measurement of Revenue

- The following criteria have to be fulfilled to recognize revenue.
  - It is probable that future economic benefits will flow to the enterprise
  - These benefits can be measured reliably.
- Revenue should be measured at the fair value of the consideration received or receivable.

*Example ;* Fair value of annual interest when Rs. 100,000 is invested in a bank with a 10% interest is Rs. 10,000.

- **Fair value** is the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction.

## Identification of the Transaction

- This standard applies to revenue arising from the following transactions and events
  - The sale of goods
  - The rendering of services

*Examples ;* interest, royalties and dividends.

- **Sale of Goods**

- Revenue from the sale of goods should be recognized when all the following conditions have been satisfied:
  - The enterprise has transferred to the buyer the significant risks and rewards of ownership of the goods.
  - The enterprise retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold.
  - The amount of revenue can be measured reliably.
  - It is probable that the economic benefits associated with the transaction will flow to the enterprise and
  - The costs incurred or to be incurred in respect of the transaction can be measured reliably.(if the cost cannot be measured reliably then it should not be recognized as a revenue but recognize a liability in the balance sheet).

- **Rendering of Services**

- When the outcome of a transaction involving the rendering of services can be estimated reliably, revenue associated with the transaction should be recognised by reference to the stage of completion of the transaction at the balance sheet date. The outcome of a transaction can be estimated reliably when all the following conditions are satisfied.

- The amount of revenue can be measured reliably.
- It is probable that the economic benefits associated with the transaction will flow to the enterprise
- The stage of completion of the transaction at the balance sheet date can be measured reliably; and
- The costs incurred for the transaction and the costs to complete the transaction can be measured reliably.
- The above criteria is necessary only if the completion of service takes more than one year.

*Example ;* Construction of a Highway.

- **Interest, Royalties and Dividends**

- Revenue arising from the use by others of enterprise assets yielding interest, royalties and dividends

- **Disclosures**

**An entity should disclose**

- The accounting policies adopted for the recognition of revenue including the methods adopted to determine the stage of completion of transactions relating to the rendering of services.
- The amount of each significant category of revenue recognized during the period including revenue arising from:
  - The sale of goods
  - The rendering of services
  - Interest
  - Royalties
  - Dividends; and
- The amount of revenue arising from exchanges of goods or services included in each significant category of revenue.



**Competency Level 12.7** : Keeps Accounts and Discloses of Intangible Assets

**Number of Periods** : 04

**Learning Outcomes** :

- Explains Intangible Assets according to Sri Lanka Accounting Standards 37.
- Identifies Intangible Assets.
- Clarifies Research and development phases
- Presents Disclosure requirements for Intangible Assets.
- Computes the cost of intangible assets

**Guidance for Subject Matters :**

**Definitions :**

- An Intangible Asset is an identifiable **non-monetary asset without physical substance** held for use in the production or supply of goods or services, for rental to others, or for administrative purposes.

*Example ;* Computer software, patents, copyrights, motion picture films, customer lists, mortgage, servicing rights, import quotas, franchises.

• **Identification of an Intangible Asset**

- An Intangible Asset shall be recognized if, and only if:
  - It is probable that the future economic benefits that are attributable to the asset will flow to the entity; and
  - The cost of the asset can be measured reliably.
    - An Intangible Asset shall be measured initially at cost.

• **Subsequent Expenditure**

- Subsequent expenditure shall be added to the cost of the Intangible Asset if the following conditions are met.
  - It is probable that this expenditure will enable the asset to generate future economic benefits in excess of its originally assessed standard of performance; and
  - This expenditure can be measured and attributed to the asset reliably.

*Example ;*

- New additions to software packages
- Increasing the market share

• **Internally Generated intangible assets**

- Internally generated goodwill shall not be recognized as an asset and has to be written off against the profit of the year.
- **Research Phase**
- Original and planned investigation undertaken with the prospect of gaining new scientific or technical knowledge and understanding.

***Example ;***

- Activities aimed at obtaining new knowledge.
- The search for, evaluation and final selection of, applications of research findings or other knowledge.
- The search for alternatives for materials, devices, products, processes, systems or services; and
- The formulation, design, evaluation and final selection of possible alternatives for new or improved materials, devices, products, processes, systems or services.
- The standard takes the view that, in the research phase of a project, an entity cannot demonstrate an intangible asset exists that will generate probable future benefits. Therefore, this expenditure is always recognized as an expense when it is incurred.
- **Development phase**
- The application of research findings or other knowledge to a plan or design for the production of new or substantially improved materials, devices, products, processes, systems or services prior to the commencement of commercial production or use.

***Example ;***

- The design, construction and testing of pre-production or pre-use prototypes and models;
- The design of tools, jigs, moulds and dies involving new technology;
- The design, construction and operation of a pilot plant that is not of a scale economically feasible for commercial production; and
- The design, construction and testing of a chosen alternative for new or improved materials, devices, products, processes, systems or services.

- These development costs shall be capitalized.
- Certain costs cannot be considered as either research or development.
- **Example ;**
  - Engineering research in the early stages of commercial development.
  - Prototypes prior to commercial production.
  - Developing tools, designs and moulds using new technology.
- Development costs can be capitalized if, and only if, an entity can demonstrate all of the following.
  - The technical feasibility of completing the intangible asset so that it will be available for use or sale.
  - Its intention to complete the intangible asset and use or sell it.
  - Its ability to use or sell the intangible asset.
  - How the intangible asset will generate probable future economic benefits.
  - The availability of adequate technical, financial and other services to complete the development and to use or sell the intangible asset, and,
  - Its ability to measure the expenditure attributable to the intangible asset during its development reliably.
- **Research and Development costs**
  - Staff salaries and other payments
  - The cost of goods and services consumed
  - Depreciation of assets
  - Cost of common services
- The following are considered as expenses and cannot be capitalized, therefore these should be written off to the profit as expenses.
  - Expenditure on training staff to operate the asset.
  - Expenditure on advertising and promotional activities.
- **Intangible Assets which are not relevant for this Standard**
  - Intangible assets covered by other standards.
  - Financial Assets
  - Intangible Assets from Insurance policies
- **Disclosures**
  - The useful lives or the amortization rates used.
  - The amortization method used.

- The gross carrying amount and the accumulated amortization ( aggregated with accumulated impairment losses) at the beginning and end of the period.
- Amortization recognized during the period.
- A details of Intangible Assets which are to be amortized over a period of 20 years.

**Acquisition as part of a Business combination, Acquisition by way of a government grant, and exchanges of assets are not discussed in here**

**Competency 13.0** : Ascertains the performance results, financial position and the cash flow of limited liability companies.

**Competency Level 13.1** : Analyses the legal background of a limited liability company.

**Number of Periods** : 06

**Learning Outcome** :

- Explains the classification of the companies and their nature according to section 3(1) of the Companies Act, No. 7 of 2007.
- Critiques the legal requirements to establish a Limited company.
- Describes the nature of shares, types of shares and the stated share capital

**Teaching – Learning Process :**

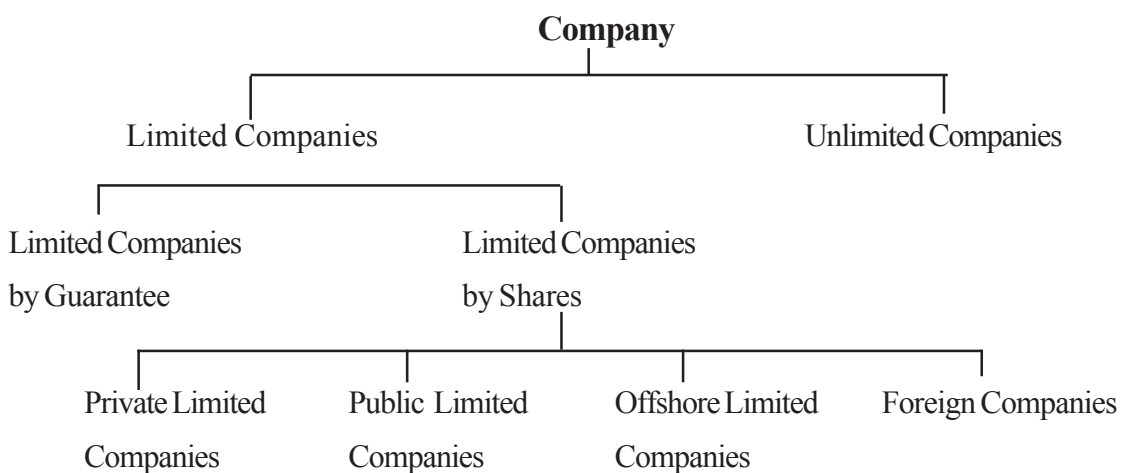
**Guidance for Subject Matters :**

- Minimum and maximum share holders

According to the Companies Act, No.7 of 2007, the minimum number of share holders in a private company as well as public company is two. The maximum number of the share holders in a private is 50. The maximum number of shareholders in public company is unlimited.

- The Companies Act, No. 7 of 2007

It is a legal document enacted by the resolution 07 of the parliament to include the procedures to be followed in commencing and carrying on a company in Sri Lanka. As said in the Companies Act, the companies could be classified as shown below.



- The document which should be submitted in establishing a Limited company.
  - The application form introduced by the Registrar of Companies
  - Articles of association of the company
  - A declaration by the directors disclosing the consent to act as directors
  - A letter of consent from the initial secretary to act as secretary of the company
- The Differences between the Limited private companies and the public Limited companies

<b>PRIVATE LIMITED</b>	<b>PUBLIC LIMITED</b>
<ul style="list-style-type: none"> <li>• Minimum share holder 1 maximum 50</li> <li>• No share could be sold to public</li> <li>• Minimum member of the Board of Directors 1</li> <li>• No solvency test is needed to issue the shares</li> <li>• Presenting financial statement along with annual report is not compulsory</li> </ul>	<ul style="list-style-type: none"> <li>• Minimum share holder 1 maximum unlimited</li> <li>• Shares could be sold / issued to public</li> <li>• Minimum member of the Board of Directors 2</li> <li>• A solvency test is needed in relation to the ability of pay its debts before a distribution is made in any shareholder</li> <li>• Presenting financial statement along with annual report is compulsory</li> </ul>

**Competency Level 13.2** : Records the transactions for issuing shares when the full consideration is received at once

**Number of Periods** : 06

**Learning Outcomes** :

- States that the issue of share is one of the ways of financing for a public limited company.
- Calculates the amount of money received on issue of shares
- Records the transaction of the value received at once in full.

**Guidance for Subject Matters :**

- A company may issue shares according to the section 51 of the Companies Act. and the company's articles .
- Before issuing any shares, the board shall decide the consideration for which shares will be issued.
- Consideration means the value of the shares issued.
- The consideration may take any form, including cash, promissory notes, and future services, property of any kind or other securities of the company.
- The entries for the consideration when it is received in full at once on application.

**Money received on application**

Bank account	Dr.	xxx	
Application and allotment account	Cr.		xxx

**Making allotment of shares**

Application and allotment account	Dr.	xxx	
Stated share capital account	Cr		xxx

**Or**

Bank account	Dr.	xxx	
Stated share capital account	Cr		xxx

**Competency level 13.3** : Records the transactions for issuing shares when the consideration in several instalment

**Number of Periods** : 10

**Learning Outcomes** :

- Describes the instances where the consideration of share is received on instalment basis
- Calculates the amount of stated capital collected from the instalment
- Records the transactions of receiving (consideration) money on the basis of collection.

**Guidance for Subject Matters :**

- Instances where the consideration of each instalment is given below:
  - On application
  - On allotment
  - On Calls (may be more than one call)
- Various rules are given under the Section 55 of the Companies Act in relation to calls.
- In case of applications received for more than the shares issued one of the following procedure could be followed.
- Reject the application on excess shares and refund the money on application
- Making allocation on pro-rata basis
- Allocation on pro rata basis means that in case of applications received for excess shares than the number of share issued ,the shares will be allocated on a specific ratio or a number ratio.
- The procedures to be followed under the alternative methods are as follows;
  - Refund all excess cash
  - Retain the excess cash on application to set off against allotment money or call money



- The journal entries for the money received on instalment basis

**Received money on application**

Bank account	Dr.	xxx	
Application and allotment account	Cr		xxx

**Refund the excess money received on application**

Application and allotment account	Cr	xxx	
Bank account	Dr.		xxx

**Allotment of shares**

Application and allotment account	Dr	xxx	
Share capital account	Cr		xxx

**Received the allotment money**

Bank account	Dr.	xxx	
Application and allotment account	Cr		xxx

**Arrears on allotment**

Allotment in arrears account	Dr	xxx	
Application and allotment account	Cr		xxx

**Making the first call**

First call account	Dr	xxx	
Share capital account	Cr		xxx

**Arrears on call**

Calls in arrears account	Dr.	xxx	
Calls account	Cr.		xxx

**Advance money received on call**

Bank account	Dr.	xxx	
Calls in advance account	Cr.		xxx

- Relevant adjustments should be made in accounts for the money received in advance on calls.
- Any amount of arrears subsequently received should be properly recorded in the books with the specific interest.

**Competency level 13.4** : Records the sales/ transfer of shares in arrears

**Number of Periods** : 20

**Learning Outcomes** :

- Explains that in case of the money due from the shareholder is not received in full, the company has lien right on it .
- Describes the way of reissuing the shares which are in arrears to another person by the board of directors
- Records the transactions in relation to reissue the shares which are in arrears.

**Guidance for Subject Matters :**

- The company has a lien right in relation to shares for which the call money is not paid in fully.
- Even after the due notice if the shareholder fails to pay the money, the board of directors has to the power to resale such shares to another person.
- The expense of the share reissue , the arrears amount and the interest thereon shall be deducted from the proceeds from the sale of shares. The remainder shall be paid to the original shareholder entitled to the shares.
- The amount repaid to the (original) previous shareholder should not exceed the amount paid by him upto now.
- The amount remaining after the repayment in resale account should be transferred to stated share capital account.

***Example ;***

- Kamal Public Limited Pompany published a prospect on 1 Jan 2009 in order to issue to the public 100 000 ordinary shares at 25/- each. .The value of the share is payable as follows:
  - On application 10/-
  - On allotment 10/-
  - On call 10/-
- Applications were received for 125 000 share upto the closing date of 1 Jan 2009. applications on 5000excess shares were rejected and refunded. The remaining were allotted on pro-rata basis on 10 Jan 2009. By 20 Feb. 2009 all allotment money was received duly except from a shareholder who held 5000 shares.

- The call was made on 1 March 2009. All the shareholders paid their call money duly except from those who were in arrears on allotment, by 15 March 2009. The shares in arrears were sold to another person at Rs: 32. After deducting the expense on resale and the arrears the remaining was paid to the previous shareholder.
- Suggested answer

### Shares Re-sale Account

#### Working: Available cash to previous shareholder

Date	Particulars	Debit	Credit
2009 25/01	Bank account Dr Application and allotment account Cr. (Received money on application of 125000 shares at 10/-)	1,250,000	1,250,000
10/02	Application and allotment account Dr Bank account Cr (Money refunded on 5000 excess shares)	50 000	50 000
10/02	Application and allotment account Dr Share capital account Cr. (made allotment for 100000 shares)	1,800,000	1,800,000
20/02	Bank account Dr Arrears in allotment account Dr Application and allotment account Cr (Money received on allotment )	570 000 30 000	600,000
01/03	Call account Dr Share capital account Cr. (Being made the call)	1,000,000	1,000,000
15/03	Bank account Dr Calls in arrears account Dr Call account Cr (Call money received on 95000 shares)	950 000 50 000	1,000,000

<b>Date</b>	<b>Particulars</b>	<b>Debit</b>	<b>Credit</b>
2009 25/03	Bank account Dr Share resale account Cr (Money received on sale of the shares at 32/- each )	160,000	160 000
25/03	Share re sale account Dr Bank account Cr (Paid expense on re-sale )	10 000	10 000
	Share resale account Dr Allotment in arrears account Cr Call in arrears account Cr (Being transferred the arrears account balance to the share resale account )	80 000	50 000 30 000
	Share resale account Dr Bank account Cr (Refunded the money to the previous share holder )	50 000	50 000
	Share re-sale account Dr Share capital account Cr (The balance of Share re-sale account was transferred to share capital account)	20 000	20 000

Allotment in arrears account	50 000	Bank account	160 000
Call in arrears account	30 000		
Expenses account	10 000		
Bank account	60 000		
Share capital account	10 000		
	<u>160 000</u>		<u>160 000</u>

	<b>Rs.</b>	<b>Rs.</b>
Proceeds from re-sale		160 000
<b>Less:</b> allotment in arrears	30 000	
Arrears in call	50 000	
Expense on re-sale	10 000	
		(90 000)
		70 000

- Only Rs.60 000 should be paid to the previous shareholder from the amount Rs. 70 000

**Competency Level 13.5** : Record the transactions relating to the capitalization of reserves and rights issue.

**Number of Periods** : 08

**Learning Outcome** :

- Explains how the capitalization of reserves is done through the issue of Bonus shares.
- Shows that only the existing ordinary shareholders are entitled to rights issue.
- Records the transaction in relation to issue of bonus and rights issue.

**Guidance for Subject Matters :**

- Bonus issue means that the company decides to capitalize the reserves at a normal value.
- Journal entries for Bonus issue as follows
- For the necessary reserves to issue bonus shares

Relevant reserve account	Dr	xxx	
Bonus issue account	Cr		xxx

(Transfer the balance of bonus share account to share capital account)

Bonus issue account	Dr	xxx	
Ordinary stated capital account	Cr		xxx

**Example:**

- An extract of the balance sheet of Rajarata Public Limited Company as at 31.03.2009 is given below

	<b>Rs.</b>	<b>Rs.</b>
<b>Stated share capital</b>		300 000
Ordinary shares (10 000)		
<b>Reserves</b>		
Capital reserves	20 000	
General reserve	20 000	
Retained profit	18 000	58 000
		358 000

- A bonus issue was made for 1000 shares at 40/- each on 01.10.2009 to the existing share holders.

**Relevant Journal entries:**

Capital reserve account	Dr	20 000	
General reserve account	Dr	20 000	
Bonus shares issue account	Cr		40 000
( Being necessary reserve utilized for bonus shares)			

Bonus shares issue account	Dr.	40 000	
Ordinary stated capital account	Cr		40 000
(Transferred the balance in bonus issue account to stated capital account)			

- Balance sheet extract after issuing bonus shares

**Rajarata public limited company**  
**Balance sheet as at 01.10. 2009**

	<b>Rs.</b>	<b>Rs.</b>
<b>Stated share capital</b>		340 000
Ordinary shares (11 000)		
<b>Reserves</b>		
Retained profit	18 000	18 000
		358 000

- Right issue means that when a company issues shares, only the existing shareholder are entitled to purchase those shares.
- According to the decision of the board of directors the rights issue will be allocated to the existing share holder at a given ratio on a fair value.
- In case of rights issue the shareholder should pay the value of the shares, but for the bonus shares no payment is made by the shareholders.

**Competency level 13.6** : Prepares income statement, statement of changes in equity, balance sheet and cash flow statement for limited liability company.

**Number of Periods** : 40

**Learning Outcomes** :

- Understands that the different financial statements are to be prepared for the use of management and for common purposes.
- Analyses the financial statement which is prepared for common purpose, the parts of it and the underlying legal background.
- Prepares the financial statement of a Public Limited Company.

**Guidance for Subject Matters :**

- The financial statements of a limited liability company are prepared by including all aspects needed for the purpose of management and by following the legal aspects and accounting conceptual framework for common purposes
- A detailed financial statements are prepared for purpose of management.
- The aspects to be considered in preparation of the detailed financial statements of a limited liability company
  - Net profit before tax
  - Adjustments for the current year tax
  - Self assessment method for the payment of tax payable on quarterly basis.
  - The difference between tax assessed by the Department of Inland Revenue and the provision made for taxation may cause for excess or deficit provision for taxation . An adjustment should be made in the current year taxation in order to transfer to the income statement.
- Preparing the income statement, balance sheet, cash flow statement in detailed manner for the purpose of management.
- The financial statements for common purpose should be as described in Sri Lanka Accounting Standards -03 and comply with rules given in the Companies Act, No 7 of 2007.
- Sri Lanka Accounting Standard recommends the bases to prepare the financial statement for the common purpose
- The financial statements for common purpose refers that ‘ A financial statements are prepared to provide information to regarding for decision making financial position , financial performance and cash flows



- According to Sri Lanka Accounting Standard – 03 the following should be included in financial statements .
  - Balance Sheet
  - Income Statement
  - Statement of changes in equity
  - Cash Flow Statment
  - Accounting policies and explanatory notes.
- Analysis of the expenses should be shown on the face of the Income Statement, as follows:
  - According to the nature of expenses.
  - According to the operational aspects.
  - Generally, the Income Statement is prepared according to the operational aspects.
  - The Income Statement should be prepared on the format recommended in the Sri Lanka Accounting Standard -03

..... **Ltd Company**  
**Income Statement**  
**For the year ended .....**

	Note	Rs	Rs
Sales			xxx
Less: Cost of sales			(xxx)
Gross Profit			xxx
Add: Other Income	(1)		xx
Less: Distribution Cost		xx	xxx
Administration Expenses		xx	
Other Expenses		xx	
Financial Expenses	(2)	xx	(xx)
Profit before tax	(3)		xxx
Less: Tax			(xx)
Profit for the year			xxx

..... Ltd Company  
**Statement of changes in equity**  
**For the year ended .....**

<b>Details</b>	<b>Ordinary Shares Rs:</b>	<b>Preferences Shares Rs:</b>	<b>Revaluation Reserve Rs:</b>	<b>General Reserve Rs:</b>	<b>Balance of P/L A/C Rs:</b>	<b>Total Rs:</b>
Opening balance	xx	xx	xx	xx	xx	xx
Additional Revaluation reserve	-	-	xx	-	-	xx
Share Issues	xx	-	(xx)	(xx)	-	-
Bonus Issue	xx	-	-	-	xx	xx
Profit for the year	-	-		xx	(xx)	-
General Reserve						
Interim Dividend						
Preferences					(xx)	(xx)
Ordinary					(xx)	(xx)
Proposed Dividend						
Preferences					(xx)	(xx)
Closing Balance	xx	xx	xx	xx	xx	xx

..... Company

**Balance Sheet**

as at .....

<b>ASSETS</b>	<b>Note</b>	<b>Rs.</b>	<b>Rs.</b>
<b>Non- Current Assets</b>			
Property plant and Equipment	(4)		xx
Investment			xx
Tangible Assets			xx
<b>Current Assets</b>			
Stock		xx	
Debtors and receivables		xx	
Other current Asset		xx	
Cash and Bank Balance		xx	xx
<b>Total Assets</b>			xxx
<b>Equity and Liabilities</b>			
<b>Equity</b>			
Stated capital - Ordinary shares		xx	
Preference Shares		xx	xx
<b>Reserves</b>			
Revaluation Reserves		xx	
General Reserves		xx	
Retained Profit		xx	xx
<b>Non – Current Liabilities</b>			xx
Long – term Loan/debetures		xx	
Long term financial provisions		xx	xx
<b>Current Liabilities</b>			
Creditors		xxx	
Current Tax Liability		xxx	
Short term provision		xxx	
Accrued Interest		xx	
Accrued expenses		xx	
Employees compensation – provision		xx	xx
<b>TOTAL EQUITY AND LIABILITES</b>			<b>xxx</b>

**Accounting Policies and Notes :**

- Accounting policies and notes are the part of financial statements.
- Non-disclosed information on the face disclosed information on the face and other additional information are important to take decisions . Related disclosure should be given here.

***Note (1) other Income***

- Profit on sale of property, plant and equipment
- Investment Income
- Interest received
- Rent received
- Discount received

***Note (2) profit before tax***

***Profit has been calculated after deducting the following expenses.***

- Directors Remuneration (An benefits in cash and non- cash)
  - Auditors fee and expenses
  - Deprecation on property, plant and equipment and loss on disposal
  - Writing off good will
  - Reduction in stock, loss of stock,
  - Contribution to Employees Provident Fund (EPE)
  - Contribution to Employees trust Fund (ETF)
  - Donation of Land
  - Donation of stock
  - Debentures and other Loan Interest
  - Employees compensation
  - Employees grativity
  - Loss on sale of investment, and reduction on value of investment (writing off)
  - Loss from fire and Flood
- } Expense on  
} Employees Salaries, EPF  
} ETE, etc.

***Note: (3) Income tax***

Current year Tax	xxx
(+/-) Excess/ deficit of Tax provision	<u>xx</u>
	<u>xx</u>

**Note (4) Property plant and Equipment**

**(1) Cost**

<b>Items</b>	<b>Opening Balance</b>	<b>Addition</b>	<b>Revaluation</b>	<b>Disposal</b>	<b>Closing Balance</b>
Land	xxx	-	xx		xxx
Building	xxx	xxx	-	-	xxx
Plant & Equipment	-	xxx	-	-	xxx
Motor Vehicles	xxx	-	-	(x)	xxx
Office Equipment	xxx	xxx	-	(xx)	xxx
	xxx	xxx	xx	(xx)	xxx

**(II) Provision for Depreciation**

<b>Items</b>	<b>Opening Balance</b>	<b>Depreciation for the year</b>	<b>Disposal</b>	<b>Closing Balance</b>
Building	xxx	xxx	-	xxx
Plant & Equipment	xxx	xx	-	xxx
Motor Vehicles	xxx	xxx	(xx)	xxx
Office Equipment	xxx	xxx	(xx)	xxx
	xxx	xxx	(xx)	xxx

Property, Plant & Equipment (NBV)

xx

**Example (1) FOR THE DIRECTORS**

**TRIAL BALANCE ON 31/3/2009 , EXTRACTED FROM ‘SOORIYAMAL’ LIMITED**

	<b>Rs:</b>	<b>Rs:</b>
Sales		1379,000
Cost of sales	800,000	
Furniture and fittings (at cost)	75,000	
Motor vehicle (at cost)	275,000	
Provision for depreciation (01.04.2008)		
Furniture & equipment		24,800
Motor vehicles		50,000
Land & building (at cost)	650,000	
Rs.2/- preference shares (10,000)capital		200,000
Ordinary Stated capital (30,000)		600,000
8% debenture		100,000
Debenture interest	4,000	
Stock on 31/03/2009	180,000	
Salaries	98,000	
Director s remuneration	63,000	
Auditors fees	12,000	
Rates & insurance	29,300	
Electricity expenses	12,000	
Debtors	48,000	
Creditors		35,000
Provision for taxation 2007/2008		13,700
Tax paid		
2007/2008	13,000	
2008/2009	60,000	
Interim dividend paid		
Preference shares	10,000	
Ordinary shares	30,000	
General reserve		20,000
Profit/loss account balance 01-04-2008		18,000
Bank balance	45,000	
Advertisement, selling expenses	38,500	
Provision for doubtfull debt		2,300
	<b>2,442,800</b>	<b>2,442, 800</b>

### Additional Information

1. Goods included in the closing stock on 31/03/2009 costing Rs: 20,000 were found to be damaged and it was expected to be sold only at Rs:15000/= . It was expected to incur a loss of Rs: 5000/- on the damaged goods.
2. Property plant and equipment are to be depreciated on straight line basis as follows.
  - (i) Furniture and equipment 5%
  - (ii) Motor vehicles 10%
3. Pre payment and accruals are as follows

	Accrued	Pre-payment
Rates and Insurance	Rs: -	1300
Salaries	Rs: 20,000	-
4. Provision for doubtful debts should be subjected to 5% of Debtors balance.
5. It was decided to pay the balance dividend to the preference shares and a fine of Rs: 1 for each ordinary shares.
6. Transfer Rs: 10,000 to General reserve
7. It was agreed that the Tax liability for the year 200/2008 was Rs: 13000 and it had been paid fully.

The income tax for the year 2008/2009 was estimated as Rs: 80000
8. Some scraps was sold for Rs: 9000 and that amount was included in the sales account

### Required:

- i. Income statement for the year ended 31/03/2009
- ii. Balance sheet as at 31/03/2009  
(for the purpose of directors)

## • **Cash Flow Statement**

- Cash flow statement is a financial statement to show the generation and uses of cash and cash equivalents during an accounting period.
- Cash flow statement shows the source of cash generated and the ways by which such cash was used in any accounting period
- Sri Lanka Accounting Standard -09 explains cash flow statement
- The objective of this standard is to require the provision of information about the historical changes in cash and cash equivalents of an enterprise by means of a cash flow statement which classifies cash flows during the period from operating, investing and financial activities.

### **Definitions and terms used in this standard**

**Cash** : Cash comprises cash in hand and demand deposits

**Cash equivalents:** Cash equivalents are short term, highly liquid investments that are readily convertible to known amounts of cash

**Example** : Short term investments three months Treasury Bills

**Cash flow** : Cash flow are the cash and cash equivalents which inflow into the enterprise and outflow from the enterprise.

### **Operating activities**

Operating activities are the principal revenue producing activities of the enterprise and other activities that are not investing or financial activities.

### **Investing activities**

Investing activities are the acquisition and disposal of long term assets and other investments not included in cash equivalents.

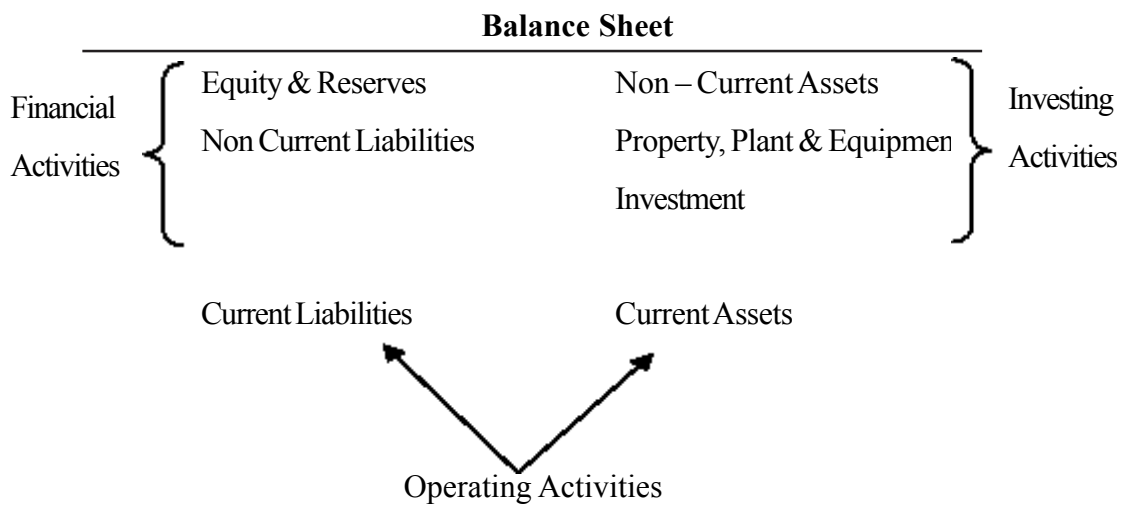
### **Financial activities**

Financial activities are activities that result in changes in size and composition of the equity capital and borrowings of the enterprise.



### The benefit of cash flow statement

- Identifying separately cash flow generated and used under each and every activity.
- Forecasting the profitability, liquidity and effectiveness of an enterprise
- Information that sufficient cash is available in the business to pay dividends, redeem the long-term loans, and expand the business
- Understand the relationship between the profits and net cash flow
- Operating activities, investment activities and financial activities could be shown on the balance sheet as follows



**Example: (1)**

The summary of cash receipts and payments of ‘Ruwan’ Public Ltd. Company, for the year ended 31/03/2009 are as follows.

<b>Cash Receipts</b>	<b>Rs: 000</b>
Cash sales	8900
Receipts from Trade debtors	10500
Bank Loan	500
Interest on fixed deposits	100
Cash receipt from the sale of computer	150
Sales of Investment	210
Issue of shares	400
	<hr/>
	20760
	<hr/> <hr/>

<b>Cash Payments</b>	
Administrative Expenses	1600
Distribution Expenses	1850
Cash purchases	6210
Paid to Trade Creditors	7500
Purchase of office Equipment	1000
Re-Payment of Loan	200
Interest on Loan paid	120
Taxation paid	950
Dividend paid	200
	<hr/>
	19630
	<hr/> <hr/>

**Additional Information**

- (I) The net book value of the computer Disposed is Rs:100,000
- (II) The depreciation for the year on delivery van is Rs: 200,000
- (III) The Net book value of the investment is Rs: 140,000
- (IV) Current assets and current liabilities on 31/3/ 2009 are as follows

(IV)

	<b>Rs.'000 2009</b>	<b>Rs:'000 2008</b>
Stock	470	530
Trade debtors	1050	840
Interest receivable	50	80
Creditors	860	720
Accrude Expenses	50	160
Taxation payable	150	100
Dividend payable	50	100
Interest payable	100	60
Cash in hand	500	300
Cash at bank	1530	600

**Required:**

- (a) Prepare the cash flow statement showing the operation activities on direct method.
- (b) Prepare the statement to show the terms of operating activities on indirect method.

**Example 01**

(A)

**'Ruwan' Public Limited Company  
Cash flow statement for the year  
ended 31/03/2009****Rs:'000**

<b>Operating Activities</b>		
Cash Sales	8900	
Receipts from debtors	10500	
Cash purchases	(6210)	
Paid to creditors	(7500)	
Expenses paid	(3450)	
Cash flow Generated from operating activities	2240	
Interest paid	(120)	
Taxation paid	(950)	
Net cash flow Generated from operating activities		1170
<b>Investment Activities</b>		
Proceeds from sale of computer	150	
Interest on fixed deposits	100	
Sale of Investment	210	
Purchases of office equipment	(1000)	
Net cash flow from the investment activities		(540)
<b>Financial Activities</b>		
Receipts from bank loan	500	
Issue of shares	400	
Re- payment of loan	(200)	
Dividend paid	(200)	
Net cash flow from financial Activities		500
Net Increase in cash and cash equivalents during the financial period		1130
Cash & Cash equivalents on 1/4/2008		900
Cash & Cash equivalents on 31/03/2009		2030

(b)

**‘Ruwan’ public Limited Company**  
**Cash flow statement (Extract of operating Activities)**  
**For the year ended 31/03/2009**

**Rs:’000**

<b>Operating Activities</b>		
Net profit before taxation	2120	
<b>Adjustment</b>		
Depreciation	200	
Profit on sale of computer	(50)	
Profit on Investment	(70)	
Interest	160	
<b>Profit before changes in working capital</b>	<b>2360</b>	
<b>Movement in working capital</b>		
Reduction in stock	60	
Debtors (Increased)	(210)	
Creditors (Increased)	140	
Accrued Expenses (Decreased )	(110)	
<b>Cash flow Generated from operating activities</b>	<b>2240</b>	
Interest paid	(120)	
Taxation paid	(950)	
Net cash flow Generated from operating activities		<b>1170</b>

**Workings**

Interest on Loan		Administrative Expenses	
Cash 120	Bal b/d 60	Cash 1600	Bal b/d 160
Bal c/d 100	Income statement 160	Bal c/d 50	Income statement 1490
<u>220</u>	<u>220</u>	<u>1650</u>	<u>1650</u>
	Bal b/d 100		Bal b/d 50

Interest income		Debtors control account	
Bal b/d 80	Cash 100	Bal b/d 840	Cash 10500
Income statement 170	Balance c/d 50	Income statement 10710	Balance c/d 1050
<u>50</u>	<u>50</u>	<u>11550</u>	<u>11550</u>
Bal b/d 50			

Cash Sales	8900
Credit Sales	10710
	<u>* 19610</u>

Creditors control account	
Cash 7500	Bal 720
Bal 860	Bal 7640
<u>8360</u>	<u>8360</u>

Cash purchases	6210
Credit purchases	7640
	<u>* 13850</u>

Profit before Taxation		
Income Statement		
Sales		19610
(-) Cost of sales		
Opening Stock	530	
Purchases	13850	
	14380	
(-) Closing stock	(470)	13910
		5700
Gross Profit		
Other Income		
Profit on sales of		
Computer	50	
Profit on Investment	70	120
		5820
(-) Distributing		
Expenses	2050	
Administrative		
Expenses	1490	
Financial Expenses	160	(3700)
Profit before tax		2120
		=====

**Example:2**

Balance Sheet of 'Sajana' PLC is given below.

	<b>31/3/2010</b>	<b>31/3/2009</b>
	<b>Rs: '000'</b>	<b>Rs: '000'</b>
Motor Vehicles	5000	4000
Computer Equipment	—	200
Investment	600	
Debtors	4000	2000
Stock	3000	2000
Cash Balance	400	800
Bank Balance	800	-
<b>Total Assets</b>	<b>13800</b>	<b>9000</b>
<b>Equity and Liabilities</b>		
Ordinary Stated Capital	3500	3000
Retained profit	2800	(800)
Debentures	1200	2000
Bank Loan	1200	1600
Creditor	3500	1500
Accrued Administrative Expenses	200	400
Proposed Dividend	400	300
Accrued Interest on Bank Loan	100	100
Accrued Interest on Debenture	200	100
Bank over draft		600
Income Tax	700	200
<b>Total Equity and Liabilities</b>	<b>13800</b>	<b>9000</b>



(3) The cash transactions that took place during year are as follows

	Rs: '000'
Cash Received from debtors	8000
Cash Sales	600
Cash from Sale of computer	280
Cash from Sales of Motor Vehicle	700
Interest Income from Investment	120
Issue of Ordinary Shares	500
Motor Vehicle acquired	2000
Paid to Creditors	3000
Administrative Expenses Paid	2000
Cash purchases	4000
Income Tax Paid	1000
Interest Paid on Bank Loan	100
Interest Paid on Debenture	400
Dividend Paid	300
Debentures redeemed	800
Repayment of bank Loan	400
Investments acquired	600

**Required**

- (1) Cash flow statement to show the operating Activities on direct Method
- (2) Income Statement (for publication) for the year ended 31/03/2010
- (3) Cash flow statement (Extract) to show the items of operating Activities under indirect Method
- (4) Calculation of Net profit for the year showing the followings clearly, with starting from the net cash flow from operating activities
  - (a) Cash flow from operating activities
  - (b) Operating profit before working capital items
  - (c) Net profit before Taxation
  - (d) Net profit after taxation

**Example: 2 Suggested Answer**

(1)

**‘Sajana’ PLC**  
**CASH FLOW STATEMENT**  
**FOR THE YEAR ENDED 31/03/2010**

	<b>Rs: ‘000’</b>	
<b>Operating Activities</b>		
Cash Sales	6000	
Receipts from debtors	8000	
Cash purchases	(4000)	
Paid to creditors	(3000)	
Operating expenses paid	(2000)	
Cash flow from operating Activities	5000	
Interest on loan paid	500	
Taxation paid	1000	
Net cash flow from operating Activities		3500
<b>Investment activities</b>		
Purchase of motor vehicle	(2000)	
Sale of computer equipment	280	
Purchase of Investments	(600)	
Sale of motor vehicle	700	
Interest on Investment received	<u>120</u>	
Net cash flow Investment Activities		(1500)
<b>Financial Activities</b>		
Issue of ordinary shares	500	
Redemption of Debentures	(800)	
Re payment of Bank Loan	(400)	
Dividend paid	(300)	
Net Cash flow from financial activities		(1000)
Net Cash flow during the year		1000
Cash and cash equivalents On 1/4/2009		<u>200</u>
Cash and cash equivalents on 31/3/2010		<u><u>1200</u></u>

(2)

**‘Sajana’ Public Limited Company**  
**Income Statement**  
**For the year ended 31/3/2010**

(Rs: ‘000’)

Sales		16000
Cost of sales		(8000)
Gross profit		8000
Other Income		300
		8300
Distribution cost	400	
Administrative cost	1800	
Financial cost	600	(2800)
Profit before Taxation		5500
Taxation		(1500)
Profit after taxation		4000

(3)

**‘Sajana’ Public Limited Company**  
**Cash Flow Statement for the**  
**Year ended 31/3/2010**

(Rs: ‘000’)

Operating Activities		
Net profit before taxation	5500	
Adjust: Depreciation on Motor Vehicle	400	
Investment Interest	(120)	
Profit on sale of computer	(80)	
Profit on sale of motor vehicle	(100)	
Interest Expenses	600	
Operating profit before Working Capital items	6200	
Changes in Working Capital items		
Stock	(1000)	
Debtors	(2000)	
Creditors	2000	
Accrued Administrative Expenses	(200)	
Cash flow from operating Activities	5000	
Taxation paid	(1000)	
Interest paid	(500)	
Net cash flow from operating activities		3500

(4) Statement for the calculation of Net profit after Taxation

(Rs:000)

Net Cash flow from operating Activities		3500
Add: Taxation paid	1000	
Interest paid	500	1500
(a) Cash flow from operating activities		5000
Working Capital items		
Stock	1000	
Debtors	2000	
Creditors	(2000)	
Accruals	200	1250
(b) Operating profit after working capital items		6200
Depreciation on motor vehicle	400	
Interest on Investment	120	
Interest Expenses	(600)	
Profit on sale of Computer	80	
Profit on sale of motor vehicle	100	(700)
(c) Net profit before Taxation		5500
(-) Income Tax		1500
(d) Net profit after Taxation		4000

**Competency 14.0** : Supports Managerial decisions by analyzing the financial statements through accounting ratios.

**Competency Level 14.1** : Emphasises the importance of analysing and interpretation of financial statements

**Number of Periods** : 07

**Learning Outcomes** :

- Points out the importance of the analysis and interpretation of financial statements
- Elaborates how ratios can be used as a technique for analyzing and interpretation of financial statements.
- Categorises ratios according to the necessity of decision making
- Ratios are categorized according to the necessity of decision making.

**Guidance for Subject Matters :**

- The following objectives can be fulfilled by interpretation and analyzing of financial statements.
  - Identifies the contents of financial statements critically than just going through statement.
  - Able to estimate the financial position and profitability of business in the future
  - Able to evaluate the present condition of a business
  - Able to evaluate the business profitability, liquidity and long term insolvency, comparing the data of the current year, previous years and behaviors of competencies
- Ratio is used as one technique among the techniques used for interpretation analyzing of financial statements.
- Accounting Ratios can be divided to get meaningful information for decision making
  - Profitability Ratios
  - Liquidity Ratios
  - Financial Stability Ratios
- The cash flow ratios
  - Cash adequacy Ratio
  - Cash flow efficiency ratio

**Competency Level 14.2** : Calculates and interprets the profitability ratio

**Number of Period** : 07

**Learning outcome** :

- Classifies the profitability ratio
- Calculates the profitability ratio
- Takes decision using profitability ratio
- Uses various indices to take decisions
- Achieves success by comparing

**Learning – Teaching Process :**

**Engement :**

- To present following income statement according to the suitability of the class.

**Rantaru Public Limited Company (PLC)**

**Year Ended 31.03.2009**

**Income Statement**

<b>Year 31.03.2009 Rs:</b>		<b>Year 31.03.2008 Rs:</b>
400,000	Sales Income	00,000
(240,000)	Cost of Sales	(325,000)
160,000	Gross Profit	75,000
(80,000)	Operation Expenses	(85,000)
80,000	Tax before profit	90,000
32,000	Tax on profit	40,000
48,000	Profit after tax	50,000

- Conduct discussion pointing out the followings
- Get students ideas about sales and profits by comparing income statement.
- Discuss that the gross profit and net profit are compared with sales
- Compare profitability by calculating each year is gross profit ratio and net profit ratio
- Confirm that analytical review is more important than the outlook.

**Proposed Instruction for Learning :**

- Give following ratio (1) List and (2) for each group.

**Ratio List (1)**

**Ratio List (2)**

1. Gross Profit Ratio	(1) Return on total assets
2. Net Profit Ratio	(2) Return on equity

- To provide extract of income statement and balance sheet for each group

**Income Statement**

<b>Previous Year Rs:000</b>		<b>Current Year Rs:000</b>
8000	Sales income	10 000
(5600)	Cost of Sales	(6000)
2400	Gross Profit	4000
(1000)	Operation Expenses	(2000)
1400	Profit before tax	2000
(400)	Income tax	(800)
1000	Net Profit after tax	1200
(200)	Transfer to general Reserve	200
800	Dividable Profit	1000
(400)	Paid dividends to Preference shares	(400)
(500)	Ordinary shares 50,000	(500)
(100)	Balance of Profit & Loss	100

<b>Previous Year Rs:000</b>	<b>Balance Sheet Extract</b>	<b>Current Year Rs: 000</b>
28 000	Total Assets	25 000
10 000	Ordinary stated capital (Shares 50000)	10 000
5 000	General Reserve	3 000
4 000	10% Preference share capital	4 000
50%	Market Price Per share	40%

- Give instruction to prepare a brief introduction about given list of ratios for each groups.
- Give guidance to calculate ratios through extract of income statement and balance sheet
- Get calculate ratios given to each group by using reading materials.
- Get the pupils compare the calculated ratios with the given two years
- Give an opportunity for brief explanation about information from the comparison.
- Get them to name other measures / methods which are not at the comparison review ratios
- Give instructions to write the importance of each ratios seperately by each group
- Get the groups to present their findings to the class creatively

#### **Guidance for Subject Matters :**

<b>Ratios</b>	<b>Calculation</b>	<b>Explanation</b>
(1) Gross Profit Ratio	$\frac{\text{Gross Profit}}{\text{Sales Income}} \times 100$	<ul style="list-style-type: none"> <li>• This ratio shows the relationship between sales income and gross profit.</li> <li>• Sales price and quantity</li> <li>• Cost of goods</li> <li>• Sales Mix</li> <li>• Incorrect Estimation of stock</li> </ul>



<b>Ratios</b>	<b>Calculation</b>	<b>Explanation</b>
(2) Net Profit Ratio	$\frac{\text{After tax Net Profit}}{\text{Sales Income}} \times 100$	<ul style="list-style-type: none"> <li>• This ratio shows the relationship between sales income and Net profit</li> <li>• How to increase this ratio</li> <li>• Reduce operation expenses</li> <li>• To generate various income</li> <li>• To increase gross profit</li> <li>• To consider that the rest of proportion of shareholders' profit from sales value of one Rupee.</li> </ul>
(3) Total assets Earning Ratio	$\frac{\text{Profit after tax + Interest}}{\text{Total Assets}} \times 100$	<ul style="list-style-type: none"> <li>• It shows the proportion of net profit from total assets</li> <li>• When financing total assets as it represents debt capital.</li> <li>• The profit after tax should be added the interest earning of debt capital</li> <li>• Higher the value of this ratio is favourable</li> </ul>
(4) Equity Earning Ratio	$\frac{\text{Profit after tax Preference dividends}}{\text{Owners capital}} \times 100$	<ul style="list-style-type: none"> <li>• It shows the relationship between owners' capital and their profit.</li> <li>• Owners' capital includes ordinary stated capital and reserves.</li> <li>• The higher value of this ratio shows higher efficiency.</li> </ul>

- There are several methods to compare any ratio
  - Comparing Ratios with different sections of same business.
  - Can take decisions comparing Ratio with previous years ratios of same business.
  - Can achieve target comparing current ratios with forecast ratios.
  - Can identify the business situation comparing ratios with equal business.
  - Get pupils involve in a suitable exercise to emerge the above comparison

**Complex calculations are not expected here.**

**Competency Level 14.3** : Calculates and interprets the liquidity ratios

**Number of Periods** : 07

**Learning Outcomes** :

- Lists out liquidity ratios and explain
- Takes appropriate decisions using liquidity ratios
- Uses calculated ratios for comparison
- Identifies the trends after comparison
- Leads to take decisions based on information

**Learning – Teaching Process :**

**Engagement :**

- Present students the following statements made by a manager of a company.
  - “There is strength to settle liability of the company”
  - “There is a time delay in collecting money from the debtors”
  - “There is a rapid sale of our stock”
  - “No outdated stock”
- Conduct a discussion emphasizing the following matters.
- Liquidity ratios are used in measuring the financial ability of a business in their day to day activities
- According to the above statement of the manager following liquidity ratios can be calculated
  - Current Ratio
  - Debt collection period
  - Stock resident period
  - Stock turnover ratio
  - Operation turnover ratio
- In addition there is another ratio to measure financial ability

**Proposed Instructions for Learning :**

- Distribute the following information sheet to each group
  - Information regarding Deera company
  - Information regarding Weera company

- The information regarding the two limited public companies operating in the same field of business.

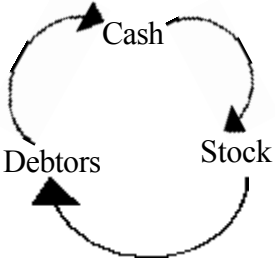
	<b>Deera Company Rs:</b>	<b>Weera Company Rs:</b>
Opening Stock	10 000	15 000
Closing Stock	20 000	25 000
Cost of Sales	60 000	50 000
General Expresses	40 000	45 000
Sales	100 000	110 000
Closing Current Assets	50 000	40 000
Closing Creditors	10 000	15 000

- Cash sales Deera Rs;40 000 , Weera Rs: 50 000, Rs: 30 000 worth of debtors are included in Current Assets in both companies.
- Instruct each group to identify information relevant to the companies
- Get students to calculate following ratios by using their respective company information. (Give student some reading material and prepared material regarding the way of calculation and explanation)
  - Current Ratio
  - Acid Test Ratio
  - Debtors Turnover Ratio
  - Debt Collection period
  - Stock Turnover Ratio
  - Stock Resident Period
  - Payments for creditor period
  - Operational circle
  - Cash cycle
- Get each group to exchange ratios calculated and evaluate two companies in comparison with ratios
- Get each group to present their findings to the class creatively

### Guidance for Subject Matters :

Ratio	Calculation	Explanation
(1) Current Ratio	$\frac{\text{Current Assets}}{\text{Current liability}}$	<ul style="list-style-type: none"> <li>• Uses to measure short term liquidity position.</li> <li>• Shows the ability to settle its current liability (Short term obligations) current Ratio is 2:1 is generally accepted.</li> <li>• Higher ratio is favourable to the company.</li> </ul>
(2) Acid Test Ratio or liquidity ratio quick assets ratio	$\frac{\text{Liquid Assets}}{\text{Current liabilities}}$ $\text{Liquid Assets} = \text{Current Assets} - \text{stock} + \text{paid payments}$	<ul style="list-style-type: none"> <li>• Shows how to settle current liabilities by using the assets which can be converted in to cash without financial losses.</li> <li>• This ratio is 1:1 is generally accepted.</li> </ul>
(3) Debtors Turnover Ratio	$\frac{\text{Credit Sales}}{\text{Average debtors}}$ $\text{Average debtors} = \frac{\text{Opening debtors} + \text{Closing debtors}}{2}$	<ul style="list-style-type: none"> <li>• Shows the number of times that the debtors of the business are converted into cash.</li> <li>• If this ratio is high it indicates that the debtors of the business are firstly converted into cash.</li> </ul>
(4) Debt collection period	$\frac{365 \text{ days}}{\text{Debtors turnover ratio}}$	<ul style="list-style-type: none"> <li>• Shows the no of days that debtors take to settle their out standings.</li> <li>• Reducing the days is very appropriate.</li> <li>• Reducing the time of debt collection means due to increase of turnover.</li> </ul>

Ratio	Calculation	Explanation
(5) Stock turnover Ratio	$\frac{\text{Cost of sales}}{\text{Average stock}}$ $\text{Average Stock} = \frac{\text{Opening Stock} + \text{Closing Stock}}{2}$	<ul style="list-style-type: none"> <li>Shows the number of times that stock of the enterprise is converted into sales.</li> <li>If this ratio is high, it means the stock of the business is traded quickly.</li> </ul>
(6) Stock Resident Period (stock marinating period)	$\frac{365 \text{ days}}{\text{Stock Turnover Ratio}}$	<ul style="list-style-type: none"> <li>Shows the average number of days that stock is held in the business.</li> <li>It is appropriate getting minimum days.</li> <li>Shows stock of the business is traded quickly.</li> </ul>
(7) The period of cash payment to creditors	$\frac{365 \text{ days}}{\text{Creditor turnover ratio}}$ $\text{Where as Creditor turnover ratio} = \frac{\text{Credit Purchase}}{\text{Average Creditors}}$	<ul style="list-style-type: none"> <li>Shows that the number of days taken for payment for creditors.</li> <li>If this ratio is high it means that the speed for payment to creditors is low.</li> </ul>
(8) Operating cycle	$\text{Stock resident Period} + \text{Debt Collection Period}$	<ul style="list-style-type: none"> <li>Credit sales take place in for many business.</li> <li>The period that the stock convert to cash is called as operational circle.</li> </ul>

Ratio	Calculation	Explanation
		 <ul style="list-style-type: none"> <li>• It is also called as gross operating cycle.</li> <li>• Reducing the number of operating cycles is appropriate for business</li> </ul>
(9) Cash circulation or net operating cycle	$\frac{\text{Stock Marinating Period} + \text{Debt Collecting Period}}{\text{Opening Cycle} - \text{Cash Payment to Creditors}}$	<ul style="list-style-type: none"> <li>• Net operating cycle is taken to the period stock convert to cash</li> <li>• The period of cash payment to creditors.</li> <li>• We can get the idea about operating capital.</li> <li>• A high ratio is favourable to the company.</li> </ul>

- We can calculate some ratios, using above Deera Company information.

$$\begin{array}{l}
 \text{(1) Current} \\
 \text{Ratio} \quad \left. \vphantom{\begin{array}{l} \text{(1) Current} \\ \text{Ratio} \end{array}} \right\} \frac{\text{Current Assets}}{\text{Current liabilities}} = \frac{50\,000}{10\,000} \\
 \\
 \frac{5}{\underline{\underline{\quad}}} \quad \text{or} \quad \frac{5:1}{\underline{\underline{\quad}}}
 \end{array}$$

$$(2) \text{ Quick Asst: } \left. \begin{array}{l} \text{Ratio} \end{array} \right\} \frac{\text{Current Assets}}{\text{Current liabilities}} = \frac{30\,000}{10\,000}$$

$$\underline{\underline{3}} \quad \text{or} \quad \underline{\underline{3:1}}$$

$$(3) \text{ Debtors Turn Over Ratio } \left. \begin{array}{l} \end{array} \right\} \frac{\text{Credit Sales}}{\text{Average Debtors}}$$

$$\frac{60\,000}{30\,000}$$

$$\underline{\underline{2 \text{ times}}}$$

$$(4) \text{ Debtors Collecting } \left. \begin{array}{l} \text{Period} \end{array} \right\} \frac{365 \text{ days}}{\text{Debtor turnover ratio}}$$

$$\frac{365}{2}$$

$$\underline{\underline{183 \text{ days}}}$$

$$(5) \text{ Stock Turn Over } \left. \begin{array}{l} \text{Ratio} \end{array} \right\} \frac{\text{Cost of Sales}}{\text{Average Stock}}$$

$$\frac{60\,000}{15\,000}$$

$$\underline{\underline{4 \text{ times}}}$$

$$(6) \text{ Stock Residence } \left. \begin{array}{l} \text{Period} \end{array} \right\} \frac{365 \text{ days}}{\text{Stock Turnover Ratio}}$$

$$\frac{365 \text{ days}}{4}$$

$$\underline{\underline{91 \text{ days}}}$$



$$(7) \left. \begin{array}{l} \text{The period of cash} \\ \text{payment to creditors} \end{array} \right\} = \frac{365 \text{ days}}{\text{Creditor Turnover Ratio}}$$

$$= \frac{365 \text{ days}}{\text{Credit Purchase}} \times \text{Average Creditor}$$

**Workings**

Cost of Sales	60000		365		
+ Closing Stock	2000		70 000		X 100 000
	80000				
- Openin Stock	(1000)		<u>52 days</u>		
Purchase	70000				

$$(8) \left. \begin{array}{l} \text{Operating Cycle} \end{array} \right\} = \text{Stock Holding Period} + \text{Debt Collecting Period}$$

$$= 9 \text{ days} + 183 \text{ days}$$

$$= \underline{\underline{274 \text{ days}}}$$

$$(9) \text{ Cash Cycle} = \left\{ \begin{array}{l} \text{Stock} \quad \text{Debt} \\ \text{Holding} + \text{Collecting} \\ \text{Period} \quad \text{Period} \end{array} \right\} - \text{The period of payment to creditors}$$

$$= \{91+183\} - 52$$

$$= 274 - 52$$

$$= \underline{\underline{222 \text{ days}}}$$

- Get student to calculate the ratios of Weera Company in the same manner
- Compare the ratios of two companies and explain which company is successful based on ratios.

**Competency level 14.4** : Defines and calculates the finance stability ratio.

**Number of Periods** : 07

**Learning Outcomes** :

- Studies the capital structure of the business.
- Analyses the method of money supply of the business.
- Evaluates comparing the financing structure of the business.

**Guidance for Subject Matters :**

- Measures long term finance stability of the company by using finance stability ratio.
- Identifies owners' capital and debt capital to study about the long term solvency.
- Measures the ability to pay interest on long term debts.
- Using finance stability ratio, we can study business assets how to contribute its operating process.
- Under the finance stability ratio following ratio are important.
  - Loan Ratio
  - Equity ratio
  - Loan Equity ratio
  - Interest cover ratio
  - Assets turnover ratio
- Debt Ratio
  - Applies to determine the percentage of total loan from total capital.
  - Debt capital includes fixed interest loans. Preference share capital is one item of debt capital.

$$\frac{\text{Debt Capital}}{\text{Total Capital}} \times 100$$

Debt Capital = Long Term Loans + Preference Share Capital

- Equity Ratio
  - It represents the percentage of Equity is total capital
  - Equity includes ordinary stated capital + Reserves

$$\frac{\text{Equity Capital}}{\text{Total Capital}} \times 100$$

- **Debt Equity Ratio**

- The relationship between debt equity and owners' capital
- When comparing debt equity and owners' equity. owners' capital is greater, it is called .... if debt Equity is less than owners' Equity, it is called .....

$$\begin{array}{c} \text{Debt Equity : Owners' Capital} \\ \text{or} \\ \frac{\text{Debt Equity}}{\text{Owners' capital}} \end{array}$$

- **Interest Coverage Ratio**

- Find out , whether earning is sufficient enough cover the interest on long term loans.
- If this ratio is less, there is a risk about the security of long term creditors.

$$\frac{\text{Net Profit Before Tax + Interest}}{\text{Interest on Loan}}$$

- **Total Assets Turnover Ratio**

- Analyses this ratio on how to maximize sales by using the contribution of total assets of the company.
- If ratio is high assets are utilized efficiently

$$\frac{\text{Turnover}}{\text{Total Assets}}$$

- Compare computed ratios
- Compare following to take successful decisions about the business.
  - With the data of industry
  - With the data of past years
  - With the data of budgeted figures
  - With the data of competitive businesses

**Example**

- Give following information regarding Pasan Public Limited Company – for years 2010 and 2009

	2010	2009
	(Rs:000)	(Rs:00)
Ordinary stated capital	6000	6000
10% Preference Share Capital	3000	4000
Reserve	4000	3000
10% Debentures	2000	2000
Sales	8000	9000

**Additional Information :**

- Total assets represent two times of Equity capital of each year.
- Profit before tax is 10% of Equity capital of each year.

**Using Above Information :**

- Calculate following ratios of each year
  - Loan Ratio
  - Equity Ratio
  - Debt Equity Ratio
  - Interest Recovery Ratio
  - Assets Turnover Ratio

**Answer :**

<b>Loan Ratio</b>	<b>2010</b>	<b>2009</b>
$\frac{\text{Debt Equity}}{\text{Debt Equity}} \times 100$	$\frac{5000}{15000} \times 100$	$\frac{6000}{15000} \times 100$
	$33 \frac{1}{3} \%$	$40 \%$

<b>Equity Ratio</b>	<b>2010</b>	<b>2009</b>
$\frac{\text{Equity Capital}}{\text{Total Capital}} \times 100$	$\frac{10000}{15000} \times 100$	$\frac{9000}{15000} \times 100$
	$66 \frac{2}{3} \%$	$60 \%$

### Debt Equity Ratio

Debt Equity : Equity Capital

**2010**

5000 : 10 000

1 : 2

**2009**

6000 : 9000

1 : 1.5

or

**2009**

0.5 : 1

**2010**

0.67 : 1

### Interest Recovery Ratios

	<b>2010</b>	<b>2009</b>
$\frac{\text{Net prof before tax + Interest}}{\text{Interest}}$	$\frac{1000+200}{200}$	$\frac{900+200}{200}$
	<u>6 Times</u>	<u>5.5 Times</u>

### Assets Turnover Ratio

	<b>2010</b>	<b>2009</b>
$\frac{\text{Turnover}}{\text{Total Assets}}$	$\frac{8000}{20000}$	$\frac{9000}{18000}$
	<u>0.4 Times</u>	<u>0.5 Times</u>

(2) Evaluate each year of business by comparing the years.

**Competency Level 14.5** : Calculates and interprets cash flow ratios

**Number of Period** : 07

**Learning Outcomes** :

- Explains and list out the cash flow ratios
- Calculates the ratios on cash materiality
- Calculates the cash flow efficiency ratios
- Interprets the financial statements from ratios

**Guidance for Subject Matters :**

- Apply some information included in cash flow statement to calculate ratios to take decisions
- Cash flow adequacy ratios

$$\frac{\text{Payment of long term debt} + \text{Payment for fixed assets} + \text{Dividend payments}}{\text{Net cash flow from operations}}$$

- In general, It should be 1:1 if it is greater than 1, it is more appropriate. It shows that how many times net cash flow from generating of operations are from long term debt, fixed assets and dividend payments.
- Debt Coverage Ratio

$$\frac{\text{Total debt}}{\text{Net cash flow from operation}}$$

- It shows whether the income is sufficient for the payment of debt
- Cash Re - Investment ratio

$$\frac{\text{The book value of property, plant and equipment}}{\text{Net cash flow from operations}}$$

- It shows the amount of investment in property, plant & equipment is from net cash of operation .

$$\frac{\text{Cash flow Efficiency Ratio}}{\text{Cash flow for income Index}}$$

$$\frac{\text{Net Cash flow from operation}}{\text{Gross income (Gross sales income)}}$$

- It shows the number of times of Gross income (Gross sales) of net cash of operation.
- Gross sales income is the income before deduction of turn over tax.

### Operations index

$$\frac{\text{Net Cash flow from operation}}{\text{Profit after tax (period profit)}}$$

- It shows that how many times of profit after tax of operation.
- Calculation of relevant Ratios of cash flow statement using example.
- Given below in the past two years balance sheet and cash flow statements of Jayasanka Public Limited Company.
- The cash flows of past two years of Jayasanka PLC

	<b>2010</b>	<b>2009</b>
	<b>Rs:</b>	<b>Rs:</b>
Bank loan payment	300 000	400 00
Loans	500 000	600 00
Purchase of property land & equipment	150 000	100 00
Net cash flows from operation	20 000	25 000
Gross sales income	100 00	130 000
Dividend payments	10 000	20 000
Operating expenses	40 000	50 000
Tax payment of the year	20 000	80 000

- Using the above information for 2009 and 2010 calculate
  - Cash materiality ratios
  - Recovery of loan
  - Re- Investment
  - Cash flow for income index
  - Operations index
- Present a study of comparison related to the calculated ratios of past two years of the company.

**Answer :**

**Year 2010**

- Materiality of cash flow

$$\frac{\text{Long term loan payment} + \text{Payment for fixed assets} + \text{Dividend payment}}{\text{Operation X Net cash flow}}$$

$$= \frac{300\,000 + 150\,000 + 10\,000}{20\,000}$$

$$= \frac{460\,000}{20\,000} = \underline{\underline{23 \text{ Times}}}$$

- Debt coverage

$$\frac{\text{Total Debt}}{\text{Net cash flow from operation}}$$

$$= \frac{500\,000}{20\,000} = \underline{\underline{25 \text{ Times}}}$$

- Re – investment Ratio

$$\frac{\text{The book value of property plant \& Equipment}}{\text{Net cash flow from operation}}$$

$$= \frac{150\,000}{20\,000} = \underline{\underline{7.5 \text{ Times}}}$$



- Income to cash flow index

$$\frac{\text{Net cash flow from operation}}{\text{Gross Income}}$$

$$\frac{20\,000}{10\,000} = \frac{1}{5} = \underline{\underline{0.2}}$$

- Operations index

$$\frac{\text{Net cash flow from operation}}{\text{Prof after tax}}$$

$$= \frac{20\,000}{40\,000} = \underline{\underline{0.5}}$$

$$\begin{aligned} \text{Profit after tax} &= 100\,000 - (40\,000 + 20\,000) \\ &= 100\,000 - 60\,000 \\ &= \underline{\underline{40\,000}} \end{aligned}$$

- Calculate the ratios for year 2009
- Compare ratios of two years.

**Competency 15.0** : Evaluates basic concept of cost and management accountancy

**Competency Level 15.1** : Communicates the cost and management Accounting for decision making.

**Number of Periods** : 10

**Learning Outcomes** :

- Presents the differences between cost accounting and management accounting.
- Communicates the importance of classifying cost and management accounting.
- Compares cost management with financial accounting.
- Compares with other classifications
- Classifies information according to the needs.

**Learning – Teaching Process :**

**Engement :**

- Nimesh who lives near the port at Hambantota, plans to start new restaurant to provide lunch. Following are the expenses to be incurred in order to provide lunch from 1 kilogram of rice.

	<b>Rs:</b>
Rice (1 kg)	60/-
3 types of vegetables	75/- (250g each)
250g of fish	120/-
Curry powder	15/-
Coconut	20/-
Wood/Gas/other	30/-
Total Cost	320/-

- He decides to prepare 8 plates of lunch from 1 kilogram of rice and also to contribute his labour for the business from the beginning
- Conduct the discussion by highlighting the following
  - In order to make decision about the business related costs should be considered.
  - Involvement of different departments can be seen and collection of data related to each department is needed.

- Can make decision based on departmental costs.
- Preparation of budgets, profit estimates are possible with the help of total cost of the business.
- Financial information is possible by recording transaction while carrying out their business activities
- Above information is useful to decide unit cost & selling price per unit

**Proposed Instruction for Learning :**

- Provide following topics among the group
  - Financial accounting
  - Cost accounting
  - Management accounting
- Guide the students to develop definitions for the given topic with reading provided materials.
- Guide each group to compare their topics under the following.
  - Similarities
  - Dissimilarities
- Present the collected information to class

**Guidance for Subject Matters :**

- Cost accounting means providing information in order to control and decide cost of a product, operation process or department.
- Management accounting means providing financial and non-financial information for all the managerial levels in order to prepare their plans, control and to make decisions.
- Decision making process
  - Managers, directly involved in management decision making process of an organization, require to consider the following aspects when taking decisions
  - Planning
  - Budget preparation and profit planning
  - Reporting accrual transactions.
  - Financial control
- Management accounting, cost and financial accounting provide relevant information for the above relationship between among them can be presented as follows.
- Cost accounting is a subsection of management accounting. Therefore management accounting information is needed for the development of cost accounting, Cost accounting provides information for management accounting.

Basis/Sources	Cost and Management Accounting	Financial Accounting
Time Period for reporting	Short term	On annual basis
Legal back ground	Nothing	Reports should prepare according to Companies Act, Standards, Concepts, Auditing and Accounting standard Act.
Presetting	Only for the internal management	Provide information for internal and external parties
Nature of Data	Uses estimates and standard data	Uses historical data
Frame work	Prepares cost management reports for different departments.	Prepares only one report for the whole organization.

- Similarities between cost accounting and management accounting
  - Both management and cost accounting provide information to make internal decision making
  - Both management and cost accounting do not use concepts, standards and accepted rules and regulations.
  - No specific period for preparation of reports.
  - Management accounting data is needed for cost accounting and cost accounting data is needed for management accounting .
  - Analyses efficiency in usage of resources

- Dissimilarities between cost accounting and management accounting.

<b>Cost Accounting</b>	<b>Management Accounting</b>
1. Information is used only for controlling and deciding of costs.	Information is used to make overall decision making process of the business
2. Cost accounting data acts as a basis for the valuation of stock in financial accounting	Provide information to carry out expected plans.
3. Preparation of accounts using double entry system.	Do not prepare accounts but prepares only reports for management.

- Classification of cost based on needs
  - For valuation of stock
  - For decision making purposes
  - For controlling purposes

### **Cost concepts**

#### **Cost**

Value of economic resources sacrificed in order to produce, repair a product or to provide services.

#### **Cost Unit/ Cost Object**

A quantitative measurement used to calculate cost of a product or a service.

#### **Cost Centers**

It is a place, person, activity or an equipment in relation to a cost unit to identify and management of cost – later can be a collection centre of costing data to distribute production overheads cost units.

**Competency Level 15.2** : Analyses basic concepts of cost and management accounting

**Number of Periods** : 10

**Learning Outcomes** :

- Explains cost units using examples
- Explains the basis for cost classification
- Analyses usefulness of cost classification
- Classifies information in order to help decision making
- Extracts relevant information through an information study

**Learning – Teaching Process :**

**Engagement:**

- Following are the costs incurred in relation to production and distribution of a product.
  - Raw material cost
  - Wastage of raw material
  - Wages of sales workers
  - Electricity usage for machinery
  - Manufacturing wages
  - Royalties based on production
  - Royalties based on sales
  - Salary of supervisors
  - Advance payments
  - Machinery depreciation
  - Fuel charge
  - Telephone charges
  - Packing expenses
  - Machinery Insurance
- Conduct a discussion among students by providing them the following questions which relates to above data.
  - If you are the manager, identify controllable costs from the above data.
  - Classify above costs as manufacturing and non manufacturing costs.
  - Classify the costs which can be directly identifiable and non identifiable with the product.

### **Proposed Instructions for Learning :**

- Provide following topics among the groups
  - Cost for stock valuation purposes
    - Period cost
    - Direct cost
    - Indirect cost
  - Cost for decision making purposes
    - Variable cost
    - Fixed cost
    - Relevant and irrelevant cost
    - Sunk cost
    - Opportunity cost
- Conduct a discussion to identify different types of costs induced in the above topics which would be given to each group

#### **Activity**

Kumara has decided to start a new restaurant instead of investing Rs: 100 000 at a 10% interest rate in a fixed deposit. Kitchen equipment would be purchased at a cost of Rs: 6000 useful economic life of the above equipment is 5 years. Estimated purchase cost of food items amounts to Rs: 30 000, and needed Rs:2000 worth of wood. Wastage of food items amounts Rs: 4000 Restaurant keeper advised to work 25 days for a month at a rate of Rs: 500 per a day as his wages. Plans to rent out a shop by paying Rs: 5000 monthly. Plans to sell lunch packets and also to employ the helpers with a conditional payment of Rs:10 per packet, Expected to sell 500 lunch packets for month. Expects Rs:2000 worth food items to remain.

- Guide the students to classify examples among identified types of costs.
- Present examples for controllable on uncontrollable cost
- Guide the students to identify other examples under each topic
- Present their findings creatively as a group

### **Guidance for Subject Matters :**

- Cost unit

#### **Example**

Bakery	- Bread
Electricity Supplier	- Kilowatt per hour
Barber	- Hair cutting cost/per head
Television Channel	- Air time per hour
Transport service	- Kilometer per usage
Hospital	- Patient per day/surgery/per bed
Cinema Hall	- Per show

- Cost classification
- Cost classification for stock valuation

Cost accounting provide information for financial accounting in order to value the stocks. Financial reporting uses cost classification as a basis. There by we can classify by considering valuation of stock as a basis.

- Period cost
- Product cost

Costs which will be debited to the profit and loss account against income of a particular period known by the name period cost. Period cost can be derived by removing value of unsold goods from manufacturing costs.

Here manufacturing cost means total costs incurred to produce goods and services. A cost which can be identifiable with a product, changes with the volume of production and also part of a prime cost known by the name direct cost. Expenses incurred in common, do not change with the volume of production known by the name indirect cost.



- Cost classification for decision making

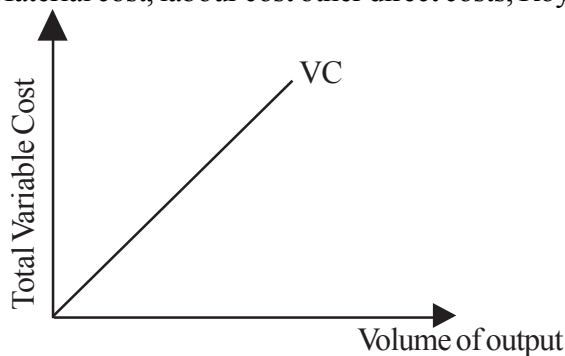
Behavior of a cost should be identified; in order to prepare budgets, profit planning, preparation and operating of plans and for financial control. Cost can be classified as follows

- Variable cost

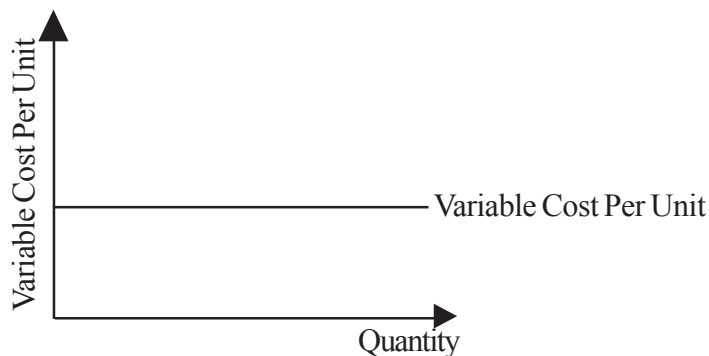
Any cost that changes directly in proportion to the volume of production, activity level or sales volume known by the name variable costs.

**Example**

Material cost, labour cost other direct costs, Royalties



- Cost changes in proportionate to the volume of production. But do not change in proportion to unit of product.



- Opportunity Cost

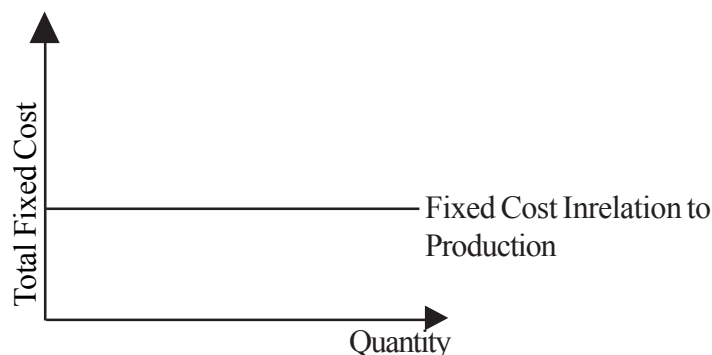
Next best return forgone when selecting best alternative from several alternatives.

Managers need to know opportunity cost for decision making.

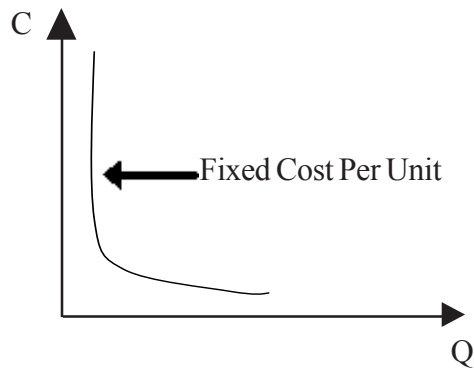
**Example:**

Excess working capital of Mihira Ltd is Rs: 30 000/- by investing that money in a fixed deposit or can collect annual return of Rs. 24 000 by investing in treasury bills.

- Company sacrificed Rs.24 000 they select investment of money in a fixed deposit.  
That is opportunity cost.
- Cost classification for controlling  
Classification of cost based on responsibility of managers to minimize or to control the cost. Costs can be 2 types.
  - Controllable costs  
Any costs which behaves within the responsibility of manager of an organization  
**Examples:** Overtime payment, Material wastage
  - Un-Controllable costs.  
Any costs which do not behaves within the responsibility of an organization.  
**Examples:** Machinery depreciation . Building rent. Building rent, usage of electricity for machines.
- Irrelevant costs  
If any cost do not change as result of a decision can be named as irrelevant cost.  
**Examples:** Revenue license cost: costs incurred in relation to wastage of tyres, service changes incurred in relation to a hired vehicle.
- Material costs incurred in order to increase, the present production capacity by using present employees, can be a relevant cost. But cost of labour is an irrelevant cost since it is not relevant for the decision.
- Sunk cost  
Irrelevant costs already incurred as result of a past decision made by the management.  
**Example:** Research and development cost, Material purchased for Rs: 20 000 but which has no resalable or usage value.
- Fixed costs  
Any costs which do not change with the activity level known by the name fixed costs.  
**Eg.** Machinery depreciation, Factory rent, Machinery insurance



- Fixed costs changes in relation to production unit.



- Relevant cost

If any cost changes as a result of a decision it can be treated as relevant cost for that decision.

***Example ;***

Fual charges, costs incurred in relation to wastage of tires of a motor vehicle in an organization .

**Competency level 15.3** : Uses of material costs

**Number of Periods** : 10

**Learning Outcomes** :

- Explains importance of material control by using examples
- Explains purchasing procedure
- Analyses material issue procedure
- Collects information by reading
- Uses controlling methods

**Learning – Teaching Process :**

**Engagement :**

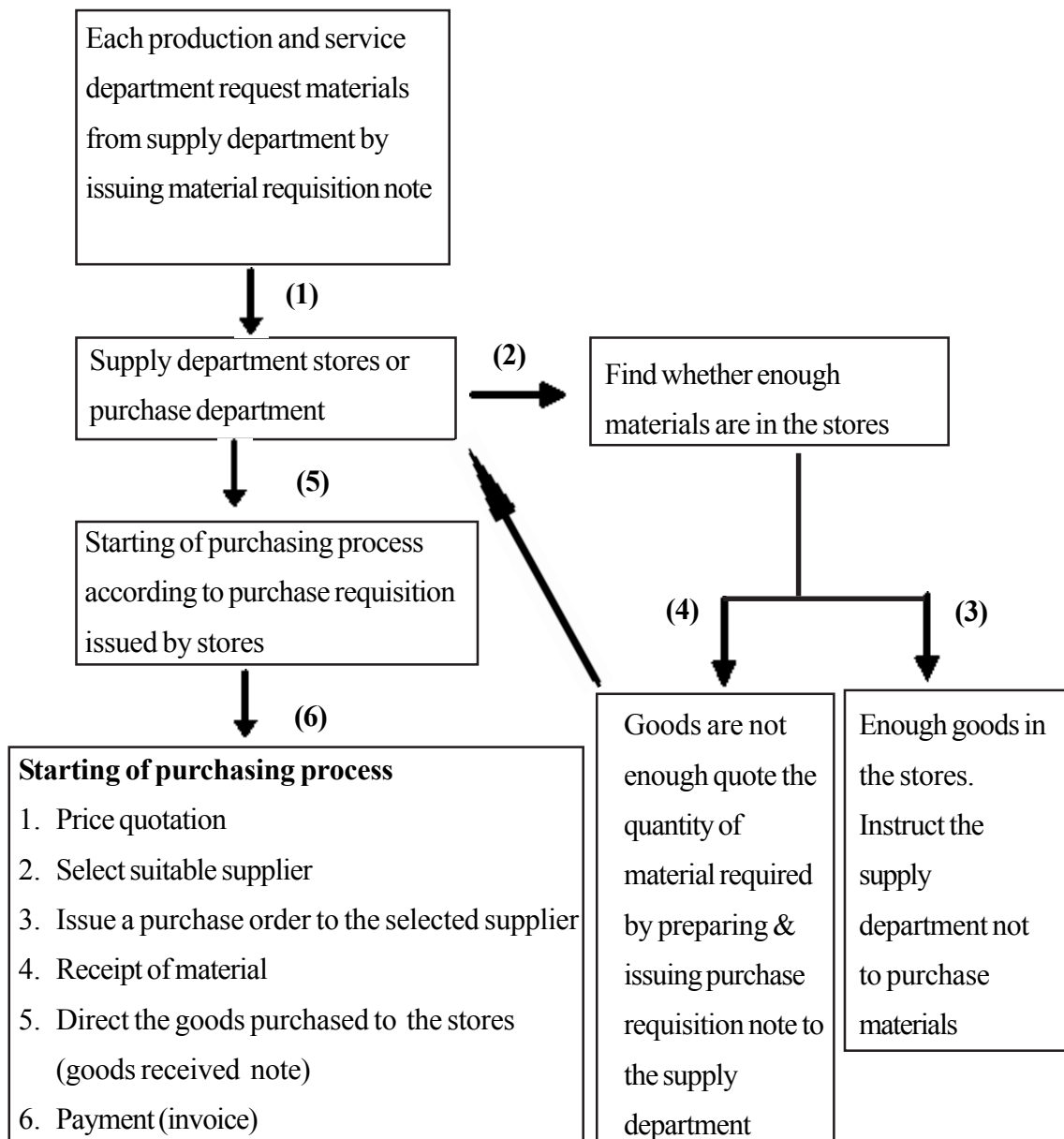
- Organize a discussion with the students regarding purchasing, storing and consuming of food items, like rice, sugar, milk powder highlighting following.
  - Purchasing of food items for a month or week and storing them in a methodical manner in a home
  - Store sugar, milk powder in a large bin and keep another small bin for day today usage.
  - Above techniques can also be experienced in an organization as well

**Proposed Instructions for Learning :**

- Provide following situations of material control process for each group and draw their attention
  - Control of material purchase
  - Control of material storage
  - Control of material issues
- Provide proposed learning resources for each group
- Give instructions to develop introduction for each situation of material control
- Guide them to explain importance of each situation of material control
- Guide them to name documents used in each situation of material control
- Guide them to present, controlling methods used by each material control situation
- Prepare each group to present their findings to class

**Guidance for Subject Matters :**

- Objectives/importance of material control
- Working capital is not unnecessarily tied up with stocks
- Minimize cost of purchase and cost of maintaining stocks
- Control of stock wastage
- Carry out the production activity without any obstruction.
- Can avoid emergency purchases
- Report stock details to the management
- Control of material purchase
  - Goods should be purchased at required time in required quantity and type.
  - Following chart shows purchasing procedure and documents used for materials.



- Bin Card

It shows the details of receipt and issue of materials and the balance stock at any time. It includes stock level name of the material code number. This includes only the quantity of materials. Details of prices are not included here.

- Stores Ledger

A statement which shows receipt of material and issue of material and value of the balance materials can obtain physical quantity and values of materials.

- Material – Stock/Issued Control

Purpose of storing stock is to issue stocks at required time in required quantity for the production. Issue of material is an important activity in material control process.

### **Material Reporting Methods :**

- Perpetual Inventory System

Accounting of stocks at the end of a particular period Double entry is

Stock account Debit      xx

Trading account                      xx

- According to this system purchase account will be maintained to calculate total purchase. After recording closing stock at the end of each period, purchases would be treated as an expense.

- Continuous stock taking method

According to continuous stock taking method stocks would be counted daily, weekly or monthly. According to this system stock value will be compared with bin card. It is not required to value the stocks at the end of the year. This system enables to identify stock losses, damages and spoiled, goods in a store. Can extract information easily for the preparation of monthly reports.

Under this system daily purchases would be recorded in stock account. Cost of selling goods would be recorded in cost of sales account.

- Pricing Methods

Is a pricing system available to calculate cost of goods issued from stores to the production. Need of pricing system arises, as they may purchase these goods at different prices.

- Manufacturing cost and cost of a closing stock will depend on pricing method. Therefore methods of pricing material is an important factor which should be considered.

- Pricing Methods used for material Issues
- Following are the 2 methods recommended by Sri Lanka Accounting Standard 05
  - First – In – First Out
  - Weighted Average Method
- First In First Out Method
 

Materials in the stores are issued by using prices of the firstly purchased materials after finishing first quantity batch prices of next purchased batch should be used.
- Advantages
  - Recommended by SLAS 05
  - Accepted method of Inland Revenue Department.
  - No profit or loss would be found as they are actual prices.
  - Can maintain proper storage process reason being material issued in a methodical order
- Disadvantages
  - Manufacturing/cost of sales differs from current values
  - This system shows high profits due to low cost of sales/production cost in a inflationary situation.
  - Careful attention needed until particular batch finishes.
  - Cost comparison is impossible because materials are issued at different prices.
  - Different prices can be seen between two issues.
- Weighted Average cost
 

Weighted average price can be calculated by dividing total value of material stores from quantity of material issues up to that date .. Materials are issued at different prices.
- Advantages
  - Recommended by SLAS 05
  - Price fluctuations are equally distributed.
  - No bad effects like FIFO can be seen
- Disadvantages
  - Issue prices are not matching with the current market prices
  - Difficult in calculating and understanding.
  - Purchase price cannot be seen

**Assessment :**

Following are the stock details of an item number 1240 of Sepalika Ltd for the month of January 2009

Date	Details	Quantity	Price per unit
1/1	Balance	100	81/-
1/2	Receipt	400	10/-
1/5	Issues	100	
1/10	Receipt	200	12/-
1/18	Issues	500	
1/25	Receipt	300	15/-
1/30	Issues	150	

- Required to  
Prepare stores ledger for each of the following methods
  - First in first out method
  - Weighted Average method

**Proposed Solution**

**Stores Ledger FIFO**

Receipts					Issues				Balance		
Date	Ref. No.	Quantity	Price/Unit	Value	Ref. No.	Quantity	Price/Unit	Value	Quantity	Price/Unit	Value
1/1									100	8	800
2/1		400	10	4000					500		4000
5/1						100	8	800			6400
10/1		200	2	2400			10	4000	400		1200
18/1						400	12	<u>1200</u>	600		5700
25/1		300	15	4500		100		<u>5200</u>			3750
							12	1200	100		
						100	15	750	400		
						50		<u>1950</u>	250		



### Stores Ledger W.A.C

Receipts					Issues				Balance		
Date	Ref. No.	Quantity	Price/Unit	Value	Ref. No.	Quantity	Price/Unit	Value	Quantity	Price/Unit	Value
1/1									100	8	800
2/1		400	10	4000					500	9.60	4800
5/1						100	9.60	9.60	400	9.60	3840
10/1		200	2	2400					600	10.40	6240
18/1						50	10.40	52.00	100	10.40	1040
25/1		300	15	4500					400	13.85	5540
30/1						150	13.85	2077.52	250	13.85	3462.50

- Techniques used in stock control

#### A.B.C. Analysis

A.B.C. analysis is a technique adopted by an organization that uses large number of items in a situation. Where they cannot or find it difficult to pay attention to each and every item. Stocks can be categorized into 3 categories based on their value. Can categories high value high value material as (A) medium value as (B) low value materials as (C)

- Economic order quantity

Quantity to be purchased at a time to minimize the total cost developed from purchasing and holding expenses.

- Assumptions used to decide economic order quantity.
  - Fixed and known purchasing costs can be identified.
  - Fixed and known holding costs can be identified.
  - Quantity of usage can be known .
  - Quantity ordered would be received.
  - Price per unit is fixed.

#### Example

A trader who directly purchases an item M. has an annual demand of 300 000 units. Ordering cost per order is Rs. 60 holding cost is 10% of material cost per unit is Rs: 40

- Required to calculate
  - Economic order quantity
  - Number of orders per year.

$$\begin{aligned}
 \text{Economic Order Quantity} &= \sqrt{\frac{2DCo}{ch}} \\
 &= \sqrt{\frac{2 \times 3000000 \times 60}{4}} \\
 &= \sqrt{9000,000} \\
 &= \underline{\underline{3000 \text{ units}}}
 \end{aligned}$$

### Workings

Holding cost

$$\begin{aligned}
 \text{Cost per unit} &= 40 \times \frac{10}{100} \\
 &= \underline{\underline{4}}
 \end{aligned}$$

$$\begin{aligned}
 \text{Number of orders} &= \frac{\text{Annual Usage/Demand}}{\text{Economic Order Quantity}} = \frac{D}{\text{EOQ}} \\
 \text{Per year} &= \frac{300\,000}{3\,000} \\
 &= \underline{\underline{100}}
 \end{aligned}$$

- Stock levels used in material control

- Re - Order

This is a level at which materials should be ordered.

$$\begin{aligned}
 \text{Re Order} &= \text{Maximum Usage} \times \text{Maximum Reorder} \\
 \text{Level} &\quad \quad \quad \text{Period}
 \end{aligned}$$

- Minimum stock level

Minimum stock level to be maintained in order to carry out production without any interruption.

$$\text{Minimum stock Level} = \text{Re Order Level} - \left\{ \text{Normal Consumption} \times \text{Normal re order period} \right\}$$

• **Maximum stock level**

This is the maximum stock level to be maintained at any given time. A level which will not allow any quantity to exceed can be known as maximum stock level.

$$\text{Maximum stock Level} = \text{Re - Order Level} - \left\{ \text{Minimum consumption} \times \text{Minimum Re Order Period} \right\} \times \text{Re order Quantity}$$

• **Average stock level**

Average quantity of material storage known as average stock level

$$\text{Average Stock Level} = \text{Minimum Level} + \frac{\text{Re Order Quantity}}{2}$$

or

$$= \frac{\text{Minimum Stock Level} + \text{Maximum stock Level}}{2}$$

**Example:**

Following are the stock detail of a factory

Minimum usage = 160 units per day

Re- Order quantity = 4800 units

Average usage = 200 units per day

Re – Order = Average of 20 days

- By using above calculate
  - Re – Order level
  - Maximum stock level
  - Minimum stock level
  - Average stock level

Proposed Solution

$$(i) \quad \text{Re - Order level} = \left\{ \begin{array}{l} \text{Maximum} \\ \text{Usage} \end{array} \times \begin{array}{l} \text{Maximum re order} \\ \text{Period} \end{array} \right\}$$

$$240 \times 25$$

$$\underline{\underline{6000 \text{ units}}}$$

(ii) Maximum stock level

$$\text{Re order level} - \left\{ \begin{array}{l} \text{Minimum} \\ \text{Usage} \end{array} \times \begin{array}{l} \text{Mimimum} \\ \text{Order Period} \end{array} \right\} + \text{Re order quantity}$$

$$6000 - (160 \times 15) + 4800$$

$$\underline{\underline{8400 \text{ Units}}}$$

(iii) Minimum stock level

$$\text{Re order level} - \left\{ \begin{array}{l} \text{Normal} \\ \text{Consumption} \end{array} \times \begin{array}{l} \text{Normal Re order} \\ \text{period} \end{array} \right\}$$

$$6000 - (200 \times 20)$$

$$\underline{\underline{2000 \text{ units}}}$$

(iv) (a) Average stock level

$$\frac{\text{Minimum stock level} + \text{Maximum stock level}}{2}$$

$$= \frac{2000 + 8400}{2}$$

$$= \underline{\underline{5200 \text{ unit}}}$$

(b) Average stock level

$$\text{Minimum stock level} + \frac{\text{Re - Order quantity}}{2}$$

$$2000 + \frac{4800}{2}$$

$$\underline{\underline{4400 \text{ units}}}$$

**Competency level 15.4** : Records the labour cost

**Number of Periods** : 10

**Learning outcomes** :

- Defines labour cost
- Explains importance of keeping special attention to labour cost than any other physical resource control
- Keeps records of labour cost

**Guidance for Subject Matters :**

- Expenses directly or indirectly incurred to pay wages of workers who sacrifices their labour to produce goods and services.
- Followings are related to labour cost
  - Wage paid for indirect labour
  - Wage paid for indirect labour
  - Bonus payment
  - Overtime payment
  - Other extra allowances
  - Contribution to Employee Provident Fund and Employee Trust Fund
- Importance of labour cost control can be presented as follows.
  - More attention is need for labour cost than other resources because labour is a human resource
  - Control of labour cost is important because large proportion of cost unit comprise of labour cost.
- Can minimize cost per unit by increasing production capacity through an improvement of labour productivity
- Recording of labour hour can be 2 types
  - Time keeping
  - Time booking
- Methods of Time keeping
  - Records arrival and departure time of workers for attendance purpose and for calculation of wages.

***Examples:***

- Attendance Register
- Time recording clocks
- Thumb print machine
- Card which has barcode
- Methods of time booking
  - Records time spent by workers on different jobs or processes for determining labour cost.
- Following reports are used to record time booking
  - Time sheet
  - Daily Time sheet
  - Weekly time sheet
  - Job Ticket
  - Job cost sheet
  - Piece work Ticket
  - Idle time card

- Time Sheet

A sheet completed by each worker by including the time spent on each job.

A Sheet which is used to record the time spent on each job during the day is known as daily time sheet. A sheet which records weekly time details known as weekly time sheet.

- Job Ticket

A card prepared for each job and is allotted to the worker who takes up that particular job

- Job Cost Sheet

This is a document which will be completed by several workers who perform a particular job, and transfer to the other worker after finishing each worker's job.

- Piece work Ticket

This is a document which will be used to record the time taken by each worker to produce goods in a situation where their wage is based on output level.

- Idle Time card

This is the time if any work not engaged in any other work due to machine break downs. lack of raw materials, or electricity break downs.

**Competency level 15.5** : Calculates of wages based on output time.

**Number of Periods** : 10

**Learning Outcomes** :

- It is appropriate to pay wages based on nature of work.
- Explains that extra allowance can obtained by engaging the worker in addition to the normal working hours.
- Calculate labour cost based on labour reports.

**Guidance for Subject Matters :**

- Can use 2 methods to calculate wages
  - Time basis
  - Output basis
- If workers are paid according to the time for which they work is known as time basis wage payment.
  - It can be calculated as follows

$$\text{Wage} = \text{No. of hours worked} \times \text{Rate per hour}$$

- If workers are paid according to the quantity of work done is known as output basis wage payment.

$$\text{Wage} = \text{No.of units produced} \times \text{Rate per unit}$$

- Payment made for the extra hours worked is known as overtime payment. Overtime wage rate is higher than the normal wage rate.
- Comparison between time basis and output basis

<b>Time basis</b>	<b>Piece/ output basis</b>
<ul style="list-style-type: none"><li>• Appropriate where out put cannot be measured in quantitative terms</li><li>• Favourable for the apprentices</li><li>• Workers are not motivated</li><li>• Extra supervision needed</li></ul>	<ul style="list-style-type: none"><li>• Can used in a situation where work can be measured</li><li>• Un favourable for the apprentices</li><li>• Workers are motivated</li><li>• Strict supervision is not necessary</li></ul>

**Competency level 15.6** : Prepares the pay sheet

**Number of Periods** : 10

**Learning outcomes** :

- Presents the detailed pay sheet by including remuneration of workers for a particular period
- Explains the need of various sources for the preparation of pay sheet
- Prepares and accounting of pay sheet by using appropriate format

**Guidance for Subject Matters :**

- Pay roll department is responsible for the calculation and paying of wages and maintenance of necessary records
- Following are the main sources of obtaining information

<b>Item</b>	<b>Source</b>
(1) Basic wage	(1) • Letter of appointment • Salary increment sheet • Time sheets • Piece work ticket
(2) Allowances	(2) • Circulars • Management decisions • Minutes of meetings
(3) Overtime payment	(3) • Overtime payment sheets
(4) Salary advance	(4) • Letter containing signature of the employee
(5) Employee insurance instalment	(5) • Letter given by the employee with his signature
(6) Employee Provident Fund & Employee Trust Fund	(6) • Statutory rules

- Importance of preparing wage analysis sheet
  - Can control and calculate total wage cost for a particular period
  - Helps to develop standard wages for the future
  - To observe any unpaid salary of a particular month
  - It helps to provide information to external parties

**Example :** EPF/ ETF



- Format of a pay sheet

..... Limited Company  
**Pay sheet for the month ..... Year .....**

Serial Number	Employee Number	Name	Earnings					Deductions				Net Salary (Rs.)	E.P.F. Contribution (Rs.)	E.T.F. Contribution (Rs.)	Signature of the employee	
			Basic Salary (Rs.)	Allowances (Rs.)	Consolidated Salary (Rs.)	Overtime payment (Rs.)	Gross Salary (Rs.)	E.P.F. Contribution (Rs.)	Salary Advance (Rs.)	Employee Loan (Rs.)	Total Deductions (Rs.)					
(1)		Siripala														
(2)		Nanayakkara														
(3)		Premathilake														
(4)		Pallearachchi														

- Accounting of data in a pay sheet

Pay sheet is the source document used to account for labour cost. Following are the double entires to account labour cost. For this we have to use salary control account.

(1) Total Gross Salary

Salaries and wages account debit	XX	
Salaries and wages control account		XX

(2) Total deductions from the salary

Salaries and wages control account debit	XX	
Relevant deduction account		XX

(3) E.P.F. Contribution (employer's contribution)

E.P.F. Expense account debit	XX	
E.P.F. Payable account		XX

(4) E.T.F. Contribution (employer's contribution)

E.T.F. Expense account debit	XX	
E.T.F. Payable account		XX

(5) Payment of net salary

Salaries and wages control account debit	XX	
Cash account		XX

- Required to;
  1. Prepare the pay sheet
  2. Account the details in pay sheet

Serial Number	Employee Number	Name	Earnings			Deductions							
			Basic Salary (Rs.)	Overtime payment (Rs.)	Gross Salary (Rs.)	E.P.F. Contribution (Rs.)	Welfare society contribution	Lease Installment (Rs.)	Total Deductions (Rs.)	Net Salary (Rs.)	E.P.F. Contribution (Rs.)	E.T.F. Contribution (Rs.)	Signature of the employee
(1)		Jayadewa	16000	-	16000	1600	100	8000	1700	14300	2400	480	
(2)		Bandara	15500	-	15500	1550	100		1650	13850	2325	465	
(3)		Palitha	16000	750	16750	1600	100	8000	9700	7050	2400	480	
(4)		Vimal	15000	-	15000	1500	100		1600	13400	2250	450	
					<b>63250</b>	<b>6250</b>	<b>400</b>		<b>14650</b>	<b>48600</b>	<b>9375</b>	<b>1875</b>	

**Salaries and Wages a/c**

S&W control	<u>63250</u>	Income stat:	<u>63250</u>
-------------	--------------	--------------	--------------

**E.P.F. expense a/c**

E.P.F. payable	<u>9375</u>	Income stat:	<u>9375</u>
----------------	-------------	--------------	-------------

**E.T.F. expense a/c**

E.T.F. payable	<u>1875</u>	Income stat:	<u>1875</u>
----------------	-------------	--------------	-------------

**Salaries and Wages a/c**

Payment		Salaries	
E.P.F.	6250	and	
Welfare	400	Wages	63250
Leasing	8000		
Cash	<u>48000</u>		
	<u>63250</u>		<u>63250</u>

- At the end of an accounting period balances in the salaries and wages account, E.P.F. expense account, E.T.F. expense account will be transferred to the income statement.

**Example;**

Following are the salary details of Udarata Ltd.

- Standard number of labour hours per month 160
- Rate per hour is Rs. 100/=
- Overtime payment is 150/= from the total salary
- Employee contribution towards E.P.F. 10%. Employer contribution is 15% and employer contribution towards E.T.F. is 3%
- Each employee should contribute Rs. 100 to the welfare society

Following are hours worked during the month of March 2008.

Employee	Hours Worked
Jayadewa	160
Bandara	155
Palitha	165
Vimal	150

- According to employee's permission letter Rs. 8000 should be deducted from Palitha as lease instalment. Salary is paid during the month and E.P.F. and E.T.F. are payable during the next month.

<b>E.P.F. Payable a/c</b>		<b>E.T.F. Payable a/c</b>	
Balane c/d	<u>15625</u>	Balane c/d	<u>1875</u>
	E.P.F. Expense 9375		E.T.F. Expense <u>1875</u>
	Sal & Wages 6250		
	<u>15625</u>		
	Bal b/d		
	<u>15625</u>		
<b>Employee Welfare</b>		<b>Lease Instalment</b>	
	Salaries and Wages 400		Salaries and Wages 8000

**Competency level 15.7** : Absorps of overhead cost

**Number of Periods** : 10

**Learning Outcomes** :

- Explains the meaning of production overheads by using examples
- Distributes production overheads among departments
- Absorbs production overheads to a unit of product
- Finds bases to distribute common costs
- Extracts relevant information from learning resources

**Learning-Teaching Process :**

**Approach :**

- Production overhead cost of Textile Ltd. Who produces shirts and trousers month amounts to Rs. 300,000/=. Company expects to produce 1000 units of shirts and 500 units of trousers. They have 2 production departments for shirts and trousers and also maintain a store. Accounts clerk has calculated their production overhead cost per unit as,

$$\frac{\text{Rs. 300000}}{1500 \text{ units}} \\ = \text{Production overhead cost per unit} = \text{Rs. 200/=}$$

- Organise a discussion to examine the correctness of the above calculation by highlighting following.
  - There are 2 production departments and one service department
  - Incure production overhead cost in different values among each cost centre.
- It is required to distribute production overheads of each cost centre among units by using fare bases

**Proposed Instruction for Learning :**

- Guide by providing following topics relevant to production overheads among different groups
  - Alloting production overheads
  - Absorption of overheads

- Provide learning resources
- Instruct them to develop introduction for each of the above topics
- Introduce concepts like identification of over head costs and allocation of overheads
- Guide them to calculate of each of the above topics by using examples
- Prepare them to present their findings creatively as a group

### **Guidance for Subject Matters :**

- Total common expenses incurred for large quantity of production which cannot be identified with a single product can be termed as overhead cost or in other words total of direct materials, labour and other expenses.

*Example:* Rent, Rates, Electricity, Glue, Polish

- Total overhead costs incurred from the time you receive the order till you finishe, work of that order is known as production overheads.

*Example :* Salary of store keeper

Salary of supervisors

Factory rent

Factory insurance

Machinery depreciation

- Other costs not taken into consideration when calculating total manufacturing cost named as non-manufacturing cost. These costs are covered through profits since it is not a manufacturing cost.

*Example :* Administration overheads - Office rent, stationary, telephone expenses, office salaries

Distribution overheads - Storage costs, motor vehicle depreciation, packaging costs

Selling overheads - Advertising expenses, sales comminssion, sales employee salary

- Distribution of overhead costs among cost centres by using relevant bases which cannot be identified for a particular cost centre, since items are not relevant for a one single cost centre known by the name distribution of overhead cost

(1) Collecting of overhead costs

Identifying and adding overhead costs to the total overhead cost by using source documents. Source documents are vouchers, invoices stores requisition note pay sheet

- (2) Allocation of overhead costs  
Distribute overhead costs among cost centres which can be identified easily for each cost centre
- (3) Apportionment/ allotment of overhead costs  
Distribute overhead costs among cost centres which cannot be identified easily for each cost centre

#### Bases for Apportionment

<b>Cost</b>	<b>Bases</b>
Rent, Rates, Maintenance of Building, Expenses of lighting	Floor area/ volume of department
Electricity expenses Water expenses Telephone charges	Units consumed
Indirect wages Expenses of medical centres, supervision, restaurant keeping expenses	Number of workers
Employee insurance	Number of workers/ employee wages
Depreciation of machine, insurance of machine, maintenance of machine	Value of machine/ book value
Cost of stores	Number of stores requisitions, consumption rate
Maintenance expenses	Number of hours spent for maintenance
Expenses of air conditioning	Ratio of value

- Basis of apportionment will be decided by the accountants
  - Two Types of Distribution
    - i. Primary Distribution  
Distribute overhead costs which cannot be directly or easily identified with a particular cost centre over the production and service departments known as primary distribution

ii. Secondary Distribution

Distribution overhead costs of service cost centres to the production departments by using relevant bases

**Example :**

Service Cost Centre	Bases
1. Store keeping department	Material requisitions
2. Maintenance department	No. of hours worked
3. Restaurant	No. of workers

- Overhead Absorption Rates

Charging or absorbing total overhead cost pertaining to a production department to a cost unit can be termed as absorption of overheads. Bases used for the above named as rates of absorption.

- Overhead absorption rates can be calculated by using 2 bases

- (a) Pre-determined / Budgeted basis                      (b) Based on actual values

(1) Direct Material Cost

(1) Direct material cost

$$\frac{\text{Estimated overhead costs}}{\text{Estimated direct material costs}} \times 100$$

$$\frac{\text{Actual overhead costs}}{\text{Actual direct material costs}} \times 100$$

(2) Direct labour cost

(2) Direct labour cost

$$\frac{\text{Estimated overhead costs}}{\text{Estimated direct labour costs}} \times 100$$

$$\frac{\text{Actual overhead costs}}{\text{Actual direct labour costs}} \times 100$$

(3) Prime cost basis

(3) Prime cost basis

$$\frac{\text{Estimated overhead costs}}{\text{Budgeted prime costs}} \times 100$$

$$\frac{\text{Actual overhead costs}}{\text{Actual prime costs}} \times 100$$

(4) Rate per unit of output

(4) Rate per unit of output

$$\frac{\text{Estimated overhead costs}}{\text{Estimated no. of units produced}} \times 100$$

$$\frac{\text{Actual overhead costs}}{\text{Actual no. of units produced}} \times 100$$

(5) Direct labour hour basis

$$\frac{\text{Estimated overhead costs}}{\text{Estimated direct labour hours}} \times 100$$

(5) Direct labour hour basis

$$\frac{\text{Actual overhead costs}}{\text{Actual direct labour hours}} \times 100$$

(6) Machine hour basis

$$\frac{\text{Estimated overhead costs}}{\text{Estimated machine hours}} \times 100$$

(6) Machine hour basis

$$\frac{\text{Actual overhead costs}}{\text{Actual machine hours}} \times 100$$

**Note;**

Over or under absorption arises only when company uses pre-determined/  
budget basis



**Competency level 15.8** : Calculate cost of a product

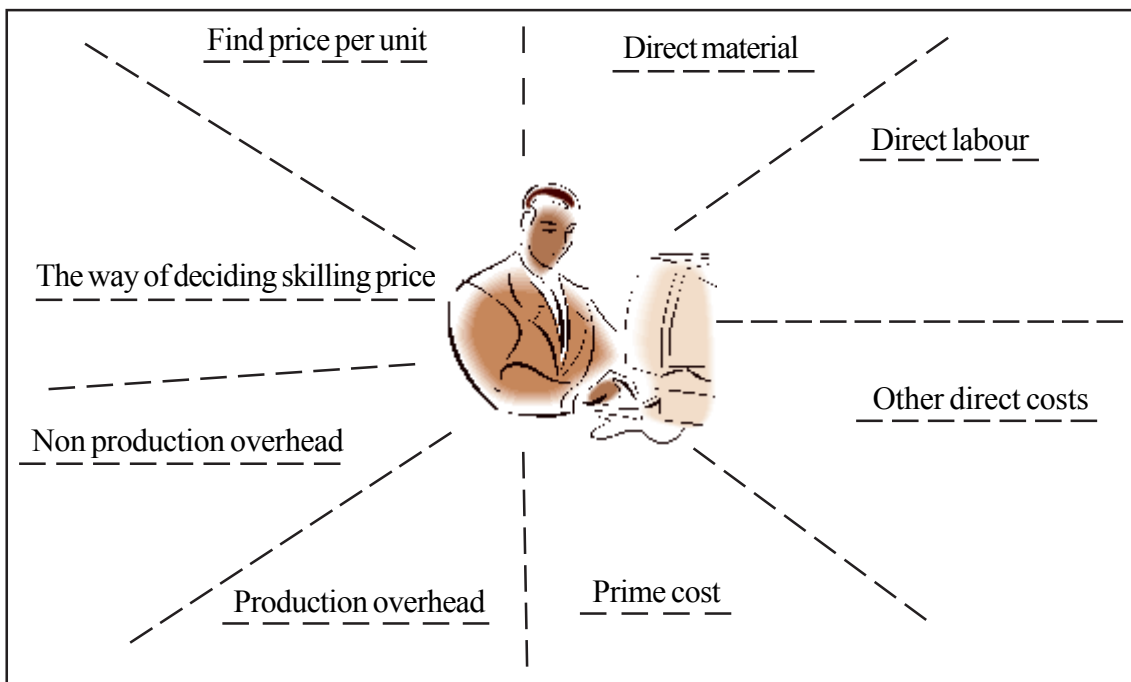
**Number of Periods** : 10

**Learning Outcomes** :

- Classifies check cost
- Calculates the prime cost
- Decides price of a product by considering costs
- Classifies information in order to identify them easily
- Decides value of a product in a fair manner

**Teaching - Learning Process :**

- Conduct a discussion to examine the exact cost for each of the following.



- Above information are important to decide cost of a product
- Instruct each group to classify relevant cost of the product
- Ask them to calculate prime cost
- Ask them to calculate production overhead cost
- Calculate total cost and decide price of the product
- Prepare each group to present their findings creatively

### Proposed Instructions for Learning:

- Guide each group to examine information under the following topics regarding manufacturing of small and medium size shirts.

Material	Small Size Shirts	Medium Size Shirts
		100 meters at Rs. 80/= per meter
Other expenses	Rs. 200/= for strings Rs. 500/= for buttons Rs. 200/= for wages	Rs. 250/= for strings Rs. 500/= for buttons Rs. 250/= for wages
Annual sewing expenses	Rs. 8000/= of monthly wage Rs. 10 per finished garment	Rs. 9000/= of monthly wage Rs. 15 per finished garment
Annual depreciation of sewing machine	Rs. 2400/=	Rs. 2400/=
Annual factory rent	Rs. 24000/= Rs. 12000/=	Rs. 24000/= Rs. 12000/=
Monthly electricity consumption for sewing machines	Rs. 5000/=	Rs. 7500/=
Manager's annual salary	Rs. 240000/=	Rs. 24000/=
Advertising expenses	Rs. 5000/=	Rs. 5000/=
Expected profit percentage	20%	20%
Material required per unit of output	1 metre	2 metre

### Guidance for Subject Matters:

- Guide them to classify product cost
- Guide them to calculate prime cost
- Guide them to calculate production overhead cost

**Competency 16** : Supports the managerial decision making by analyzing the cost behavior and cost volume profit analysis

**Competency level 16.1** : Analyses the behaviour of cost

**Number of Periods** : 10

**Learning Outcome** :

- Shows the difference between fixed cost and variable cost
- Classifies the behaviour of cost
- Review the behaviour of cost through a graph
- Train them to work systematically
- Makes decisions successfully in a short period

**Learning -Teaching Process :**

**Engagement :**

- The expected expenses of “Glitters club” for the celebration of the past pupils’ day are as follows.
  - Shield Rs: 250/=
  - Lunch arrangements Rs:150/=
  - Rent for hall Rs: 12000/=
  - Van expenses are decided as Rs: 500/= per day and Rs: 20/= for each kilometers (Rented)
  - Get the students opinions to highlight the following fact
  - The cost which varies according to the contributing amount is variable cost and the cost which does not vary is known as the fixed cost
  - Lunch arrangements and the expenses made on shield are the examples of variable cost
  - Explain that advertisement and rent (hall) are examples of fixed cost

**Proposed Instructions for Learning :**

- Guide each group one factor assigned to them, from the following.
  - Fixed cost
  - Variable cost

- Give instructions to make use of the reading texts proposed

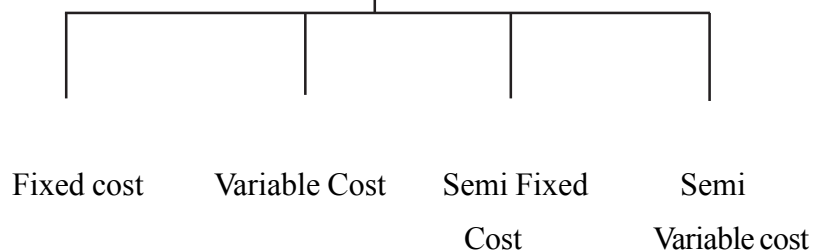
**Suggest the following facts for the groups :**

- Defines the theme
- Constructs of graph related to the total cost and unit cost
- Suggests opinion on the appearance of each cost
- Introduces examples for each cost
- Get the opinions from each group regarding the payment made on the fixed telephone bills
- Presents the investigations creatively to the class

**Guidance for Subject Matters :**

- It's essential to evaluate the cost behaviours in a short term decision making
- The changes of cost according to some of the quantitative differences (ending, time, unit and quantity) is known as "Cost behaviours"
- Cost behaviour classification could be shown as follows

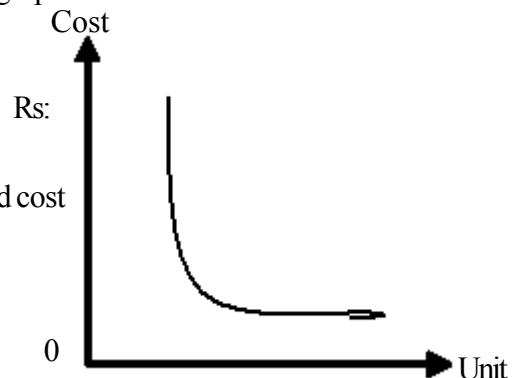
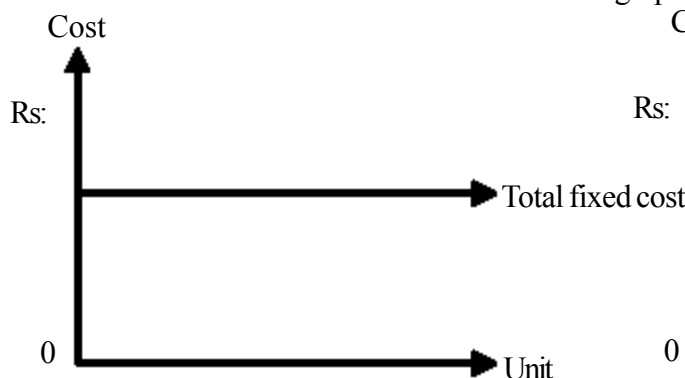
**Classification of cost under the cost behaviorus method :**



**• Fixed Cost**

A cost which tends to be unaffected by variation of output under manufacture /cost limitations of a business. It mainly depends on the defluxion of time and do not vary directly with volume.

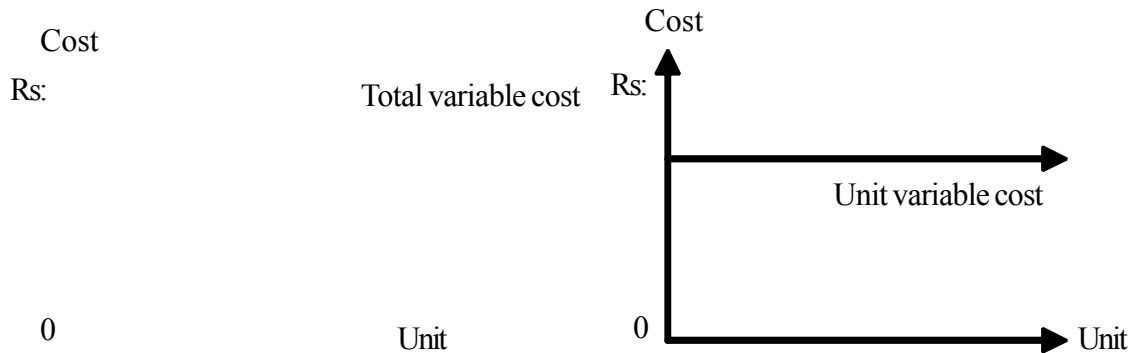
- Fixed cost could be shown as follows in a graph



- **Variable Cost**

The cost according to the business activity level which tends to vary directly with volume of output is variable cost.

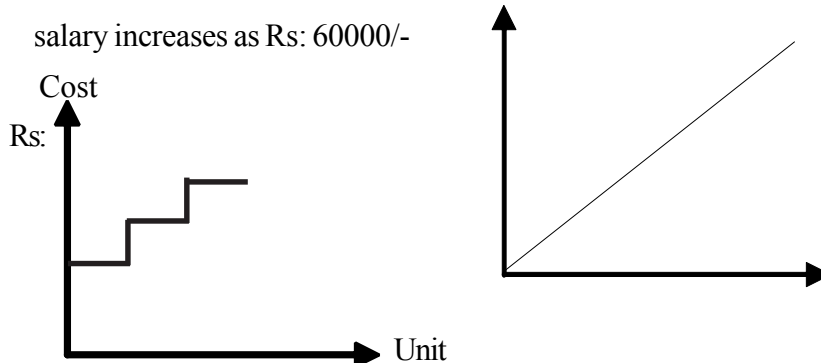
- Variable cost could be shown as follows:



- **Semi fixed cost**

The cost which varies part by part when activity level differs is identified as semi fixed cost.

- The salary of a ready made garment supervisor for 20 labourers is Rs: 30000/- completed units of his section are 100.
- To increase the completed units by 100 they need on additional supervisor hence the salary increases as Rs: 60000/-



- **Semi Variable Cost/Mixed Cost**

A cost which includes part variable cost and part fixed cost is identified as semi variable cost.

**Example :**

- Telephone charges of a firm (fixed telephone rental and variable charges according to the calls)
- Rs: 20/- wage per kilometer is charge for a vehicle which is to be purchased for Rs:50000/- per month under instalment basis.
- Only the fixed cost and variable cost is considered while classifying the marginal cost.

**Competency level 16.2 :** Supports the decision making using cost Volume profit Analysis

**Number of Periods :** 20

**Learning Outcome :**

- Calculates contribution
- Prepare the income statement based on the marginal cost
- Calculates the contribution sales ratio and break even point
- Explains the cost – profit through a graph
- Explains with a sensible classification

**Learning-Teaching Process :**

**Guidance for Subject Matters:**

- Propose guidance to clarify the subject content
- Only the variable cost is affiliated with the a unit contribution period
- Identifies marginal cost as change in total costs and the period concerned

• **Contribution**

Difference between the sales income and variable cost is Rs: 100/- unit variable price is Rs:60/ - and sales units are 1000, calculate.

- Unit contribution
- Total contribution
  - Unit contribution = Selling price - Variable cost  
Unit contribution = 100 – 60 = 40/-
  - Total contribution = Total selling price - total variable Cost  
= 100 x 1000 - 60 x 1000  
= Rs:100000 - Rs: 60 000  
= Rs: 40000

- Marginal cost based income statement is essential for a manager to make short time decisions to plan to calculate the cost and closing stock etc.
- Following is an income statement based on marginal cost method

Sales		xxx
(-) Variable cost (product)	xxx	
Variable cost (non products)	<u>xxx</u>	(xxx)
Contribution		xxx

(-) Fixed product general cost	xxx	
Non fixed product general cost	xxx	
Nonfixed product general cost	<u>xxx</u>	<u>xxx</u>
Operating profit		<u><u>xxx</u></u>

- **Contribution Sales ratio/Profit volume ratio**

It reflects the value of contribution in sales income

Sales income

$$\text{Contribution Sales ratio} = \frac{\text{Contribution}}{\text{Sales income}} \times 100$$

$$\text{Contribution Sales ratio} = \frac{\text{Unit Contribution}}{\text{Sales price of a unit}} \times 100$$

- **Break – Even – Point (BEP)**

The break – even –point is created whenever the total income and the total expenditure equally meet. It conveys BEP as unit basis or value basis. BEP shows neither the profit nor loss.

$$\text{Break even point (unit)} = \frac{\text{Fixed cost}}{\text{Unit contribution}}$$

Margin of safety (unit) = Real / Sales unit – Break even point

$$\text{Margin of Safety (Rs:)} = \frac{\text{Net profit}}{\text{Contribution Sales ratio}}$$

- Net profit volume can be classified as
  - Equation form
  - Graph form

Examples of equation form is given below

- **Assumptions of break even point**

- Total cost – classifies as fixed cost and variable cost
- No changes occur of fixed cost
- Variable cost charges according to operating levels
- No changes occur in technology, way of production and efficiency.
- Income and cost effect similarly and in favour over the operations.
- In an accepted environment income and cost are activated as a behaviour in straight line

*Example;* The following information is taken from “Sun Ltd” related to the manufacture process of good “A”

Selling price per unit	Rs: 80/-
Variables cost per unit	Rs: 20/-
Expected sales	3000 units
Fixed cost	Rs: 120,000

- Calculate the following
  - Unit contribution
  - Total contribution
  - Contribution sales ratio
  - Break even point (units and volume in Rs:)
  - Margin of safety (units and volume in Rs:)
  - Net profit
  - Income statement at the expected sales level
  - Expected units to earn Rs: 90000/- as profit

(1) Unit contribution = Selling price – Variable cost  
 = Rs: 80 – Rs: 20 = Rs: 60/-

(2) Total Contribution = Total sales income - Total Variable cost.  
 = Rs: 240 000 - Rs:60 000  
 = Rs: 180 000/=

(3) BEP (unit) =  $\frac{\text{Fixed cost}}{\text{Contribution per unit}}$   
 =  $\frac{120\ 000}{60} = 2000\ \text{units}$



$$\begin{aligned}
 (4) \quad \text{BEP} &= \frac{\text{Fixed cost}}{\text{Contribution sales ratio}} \\
 &= \frac{120\,000}{75\%} = 120\,000 \times 100 \\
 &= \text{Rs: } 160\,000/=
 \end{aligned}$$

$$\begin{aligned}
 (5) \quad \text{Margin of safety} &= \text{Expected sales unit} - \text{BEP} \\
 &= 3000 - 2000 \\
 &= 1000 \text{ units}
 \end{aligned}$$

$$\begin{aligned}
 \text{Margin of safety} &= \frac{\text{Net Profit}}{\text{Contribution sales rate}} \\
 &= \frac{60\,000}{75} \\
 &= \frac{60\,000}{75} \times 100
 \end{aligned}$$

Margin of safety in = Rs: 80 000

Volume

or

Volume of a margin of safety unit x sale price per unit

$$= 1000 \times 80$$

$$= 80\,000/-$$

$$\begin{aligned}
 (6) \quad \text{Net profit} &= \text{Margin of safety} \times \text{unit contribution} \\
 &= 1000 \times 60/- \\
 &= 60\,000/=
 \end{aligned}$$

or

$$\text{Total contribution} - \text{Fixed cost} = 60 \times 3000 = 180\,000$$

(120 000)

Net profit Rs: 60 000

(7) Income Statement at expected sales level

	Rs:	Rs:
Sales income 3000 x 80	240 000	
(-) Variable cost 3000 x 20	60 000	
Contribution		180 000
(-) Fixed cost		(120 000)
Net profit		<u>60 000</u>

(8) No. of units to be sold to achieve the expected

= Fixed cost + expected cost

Unit Contribution

= 120,000 + 90 000 = 210 000

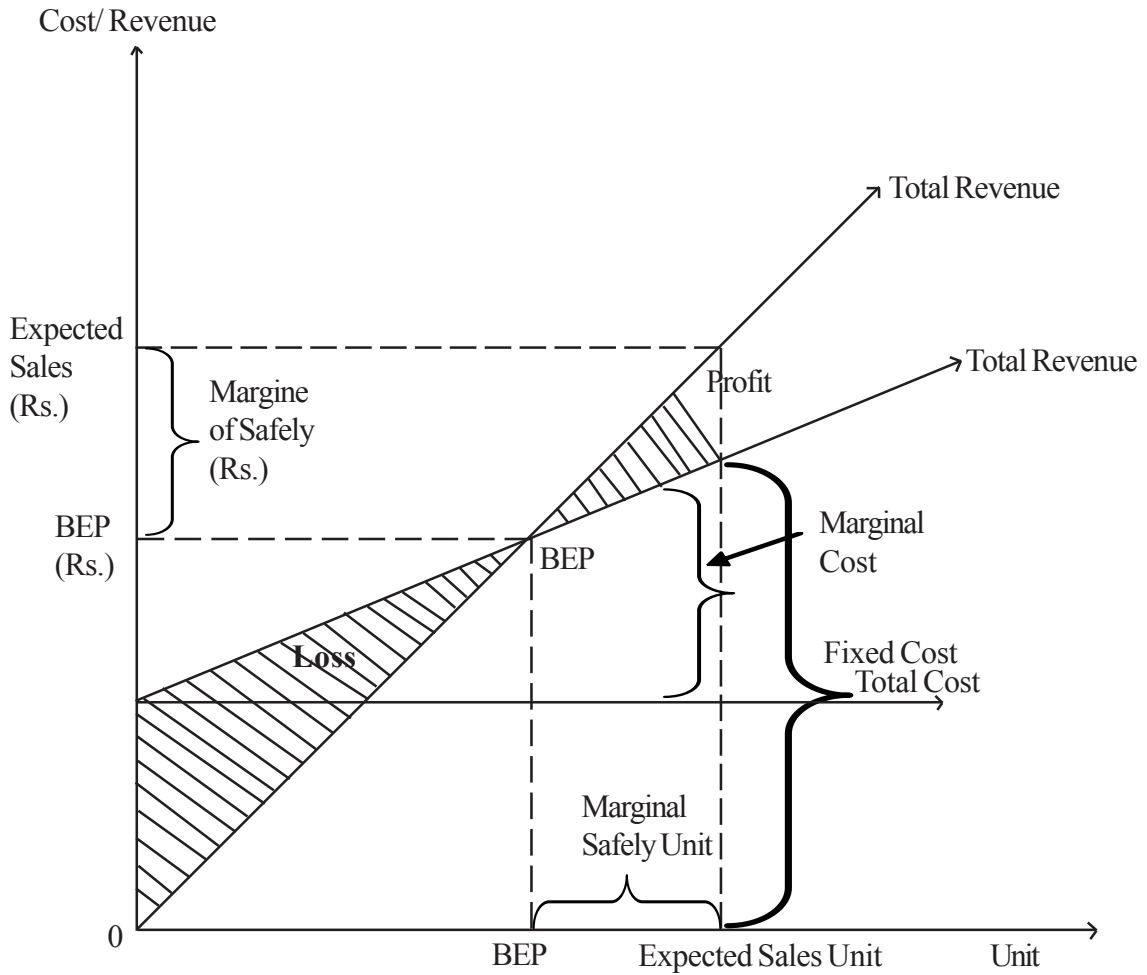
60

60

= 3500 Units

- Classification of BEP through the volume of cost, and profit ratios could be illustrated through a graph
- Consider the following while marking a graph
  - Axial line
  - Cost and income lines
- Casts cost, volume and profit through a graph
  - Traditional BEP graph
  - Contribution BEP graph
  - Profit volume chart
- Traditional Break – Even – point graph

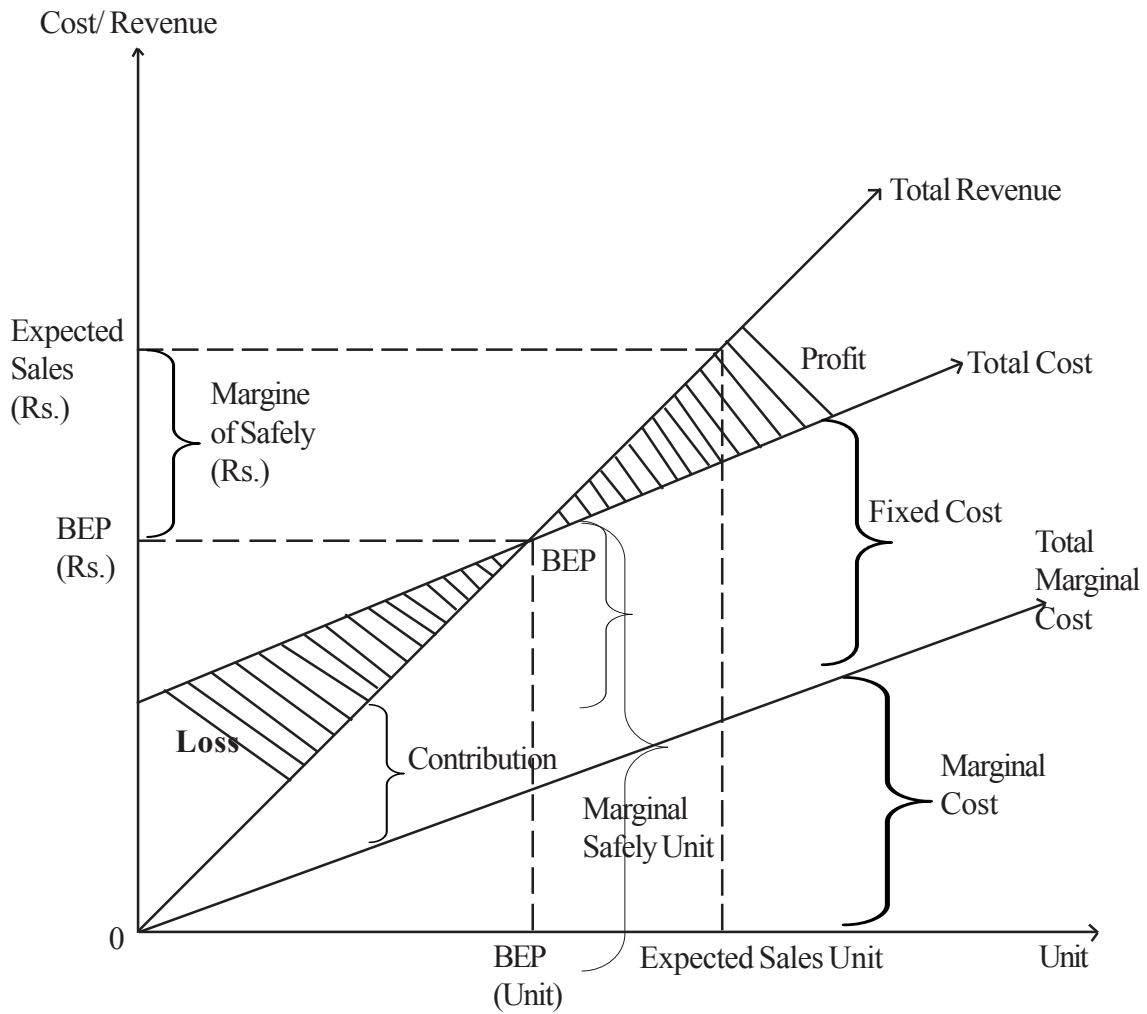
(1) Total income line, total cost line and fixed cost line are necessary in graph



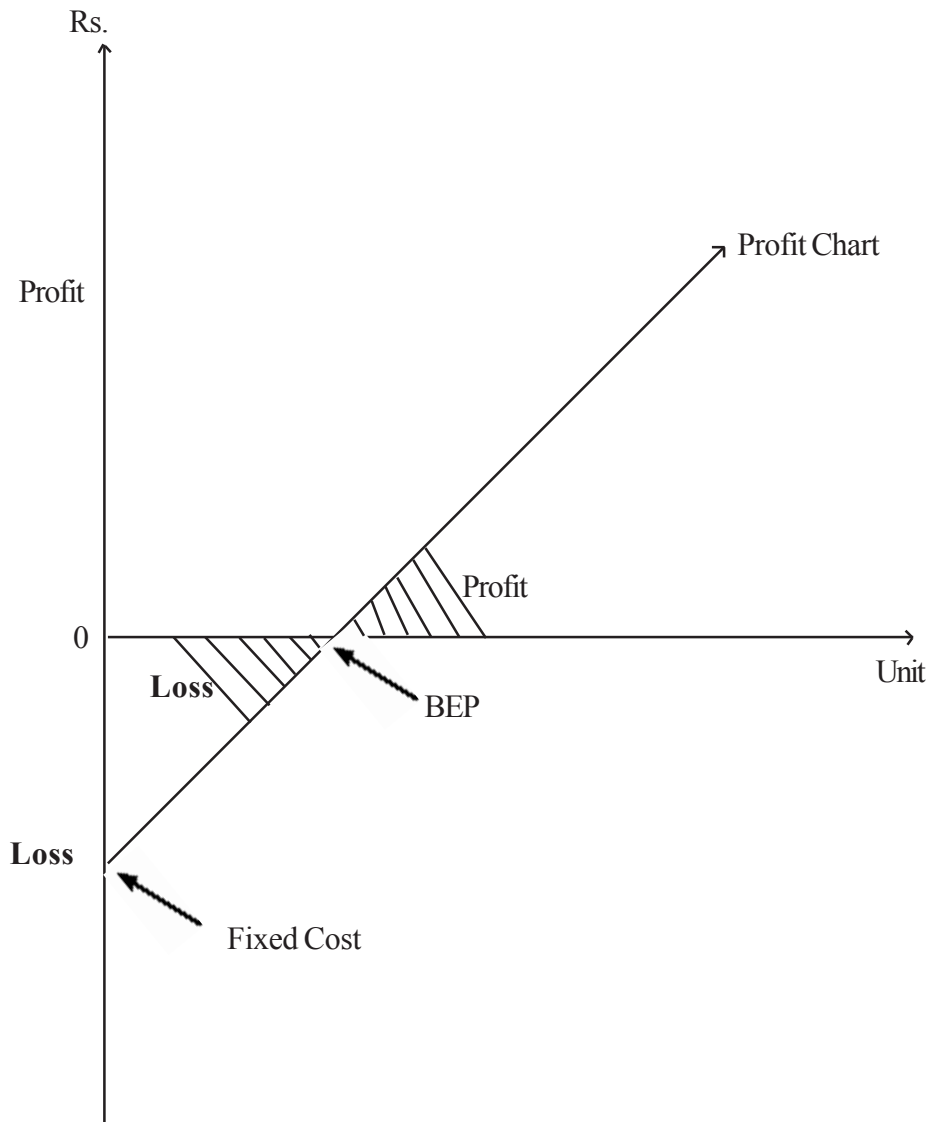
(1) Total income line, total cost line and fixed cost line are necessary in graph

(2) Contribution BEP graph

- Total income line
- Total cost line
- Total variable cost line,  
Are essential in the graph



(3) Profit-volume -chart



- Use the following example to sketch a graph

**Example ;** “Kumar Ltd. “ has got demand for a special variety of clothes . Expected sales units are 5000.

- Income is as follows,

Sales income	100 000
(-) Variable cost	(60 000)
Contribution	40 000
(-) Fixed cost	(16 000)
Profit	<u>24 000</u>

(1)Required

- Graph of traditional BEP
- Graph of contribution
- Chart of profit volume

(2)Mark the following in a graph of BEP

1. BEP
  2. Margin of safety
  3. Profit/ Loss portions
  4. Fixed cost, total cost volume
- Sensitivity Analysis
  - Analysis the changes of the different variables which effect over the profit in sensitivity analysis and here, the difference of a single variables is considered into account, and therefore the others pretend to be fixed the same.
  - Sales price differ
  - The following valuations are extracted from the books of “Sisira Ltd” regarding the special product known as
    - Selling price of a unit Rs:35/=
    - Direct cost of material per unit 8/= (2kg)
    - Direct wages cost Rs: 5/= - (per hour)
    - Other direct cost Rs: 2/=
    - Fixed cost per month Rs: 240 000/=
    - Monthly sales units 32 000/=

- **Required**

- Unit contribution
- BEP (unit)
- Marginal safety (unit)
- Net profit
- Marketing manager expects to increase the unit price up to 45/=
- Find out the following after the above alteration
  - Unit Contribution
  - BEP (unit)
  - Margin of safety
  - Net profit
  - Effect on profit after the new price

Selling price per unit as Rs: 35/=	Selling price per unit as Rs:45/=
1. Selling price per unit - variable Cost = Unit contribution $35 - 15 = \text{Rs: } 20$	I. $45 - 15$ $= \text{Rs: } 30$
2. $\text{BEP (unit)} = \frac{\text{Fixed cost}}{\text{Unit contribution}}$ $= \frac{240\,000}{20}$ $= 12\,000 \text{ units}$	II. $\frac{240\,000}{30}$ $= 8000 \text{ unit}$
3. Margin of safety = Current Sales Unit = BEP at Sales unit $= 32\,000 - 12\,000$ $= 20\,000 \text{ units}$	III. $= 32\,000 - 8000$ $= 24\,000 - \text{unit}$
4. Expected profit Margin of safety x Unit contribution	

- We can come to the conclusion that, if a selling price of a unit differs (by price increment)
  - BEP unit reduces
  - Margin of safety increases
  - Expected profit increases

- Variation of sales volume

**Example ;** Pathmasiri Company decreases its sales volume from 3200 units to 2500 units.

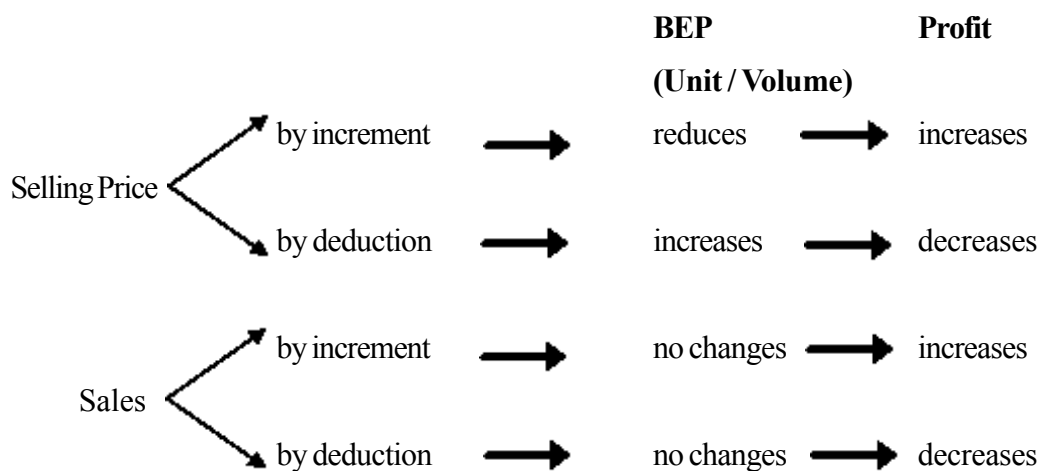
- New Margin safety = New sales units  
BEP sales units  
= 25000 – 12000  
= 13000 units

- New profit = New Merging Safety Units x Unit Contribution  
= 13000 x 20  
= Rs: 260 000

- Effect through the variation of sales volume  
Redaction of sales

- Decrease in Margin of safety
- Decrease in profit
- No changes in BEP

• Except the considered factor the other factors remains the same. (They are fixed) We can deliver the feature of the changes that occur of a considered factor as follows.





**Competency 17.0** : Helps to make capital investment decisions

**Competency Level 17.1** : Plans long term decision activities.

**Number of Periods** : 04

**Learning Outcome** :

- Defines long term decision with example
- Suggests the qualities and importance of long term decisions
- Usage of cash flow to make long term decisions
- Focuses on decision making in detail in situations
- Choose the suitable alternative and accepts the importance

**Learning-Teaching Process :**

- Some decisions are expected to make terms with the future of the business. Submit them in the class and collect opinions.
  - Increases the due credit allowed for the debtors
  - Decreases the level of the stock
  - Construct a factory
  - Purchase of a new machinery, by replacing the old
  - Makes alterations at the terminal of the firm
  - Establishment of a new tale communication
  - Increase the volume of sales
  - Activities sales inducement methods
- Lead discussion in order to reveal following facts
- Various decisions have to be made while conducting a business activity

**Long Term Decision**

- The decision of a company in long term agreement is called investment decision. Company expects economical results within few years through such a decision.

***Examples ;***

- Engages with a long term manufacture due to the decision of constructing a factory. Factory is used for long run and earns income. These are the results of a long term economy.

**Qualities of investment decision**

- Scale of investment is large
- Awareness is essential

- (Awareness is essential for the period is long/ environment effects or expired techniques)
- Decisions are unchangeable/un alterable (a wrong decision couldn't be able to change)
- Funds are necessary throughout the long period
- Investment decisions become an unavoidable through the above reasons.

### **Capital Investment Process**

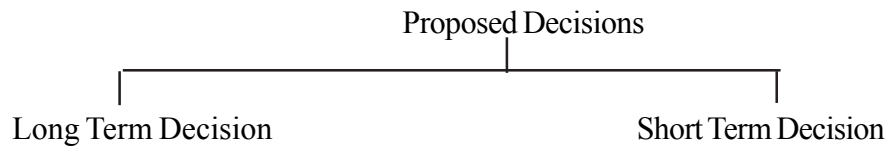
- Awareness is necessary for it is the decision which effects for a long term.
- Some steps are necessary while making decisions.
- It is classified as short term decision and long term decision
- In the above factors 3,4,5,6 are considered long term decisions and 1,2,7,8 are the short term decisions
- All the above decisions are necessary for a business
- While making long term decisions it is important to be aware of future results than the present results

### **Proposed Instruction for Learning :**

- Give the following two decisions among the groups and encourage to cost the informations gathered
- Purchase of a new machinery in terms with an old
- Construction of a new factory
- Conveys the gathered decision clearly
- Analyze how that decision is important for the business
- Instruct to gather another two more similar decisions before deciding
- Grant opportunity to name the results while making decisions
- Analyze the final decision with the two alternatives to decide the factors that lead to activate the suitable decision
- Give examples of cash influx and outflow by activating the decision made
- Presentation of the gathered information in class as group

### Guidance for Subject Matter :

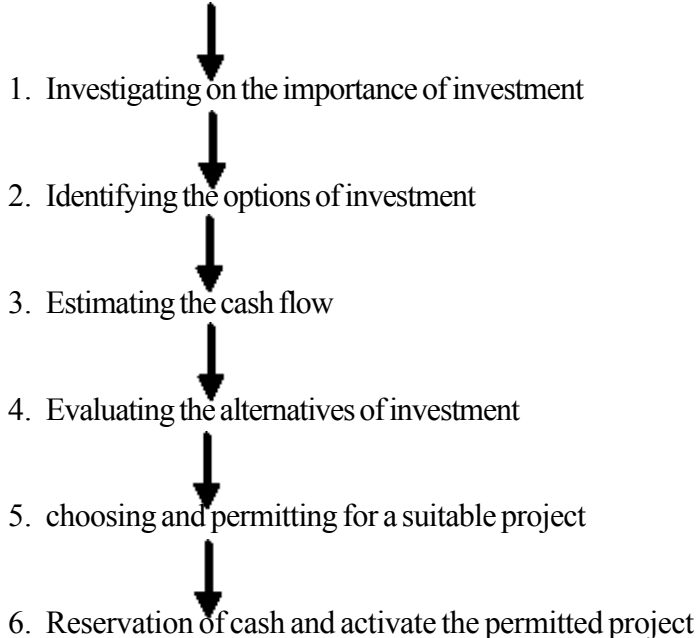
- Decision of a business can be considered as follows ,



#### **Examples;**

- |   |   |
|---|---|
| <ul style="list-style-type: none"><li>• Construction of factory</li><li>• Purchase of a fixed asset</li><li>• Replacing the old fixed assets by new fixed assets</li><li>• Construction of highway</li><li>• Makes alterations in the curriculum an efficient firm</li><li>• Creating long term advertisement project</li><li>• Establishment of new tele communication system to replace old one</li></ul> | <ul style="list-style-type: none"><li>• Increasing the sales price</li><li>• Changing the stock level</li><li>• Increasing the due period of the debtors</li><li>• Increasing the volume of Construction of parking sales</li></ul> |
|---|---|

#### **Steps to Capital Investment**



- Estimation of cash flow and evaluation of investment are considered as the most important steps to be made

### Estimate of cash flows

- In an expected investment the expected cash flow should be estimated. Then the cash flow should be taken to the technical evaluation. The expected cash flow should be estimated due to economical estimation.
- Cash flow is result of future cash invasions and cash out flow (expenses) . There are some mutual differences between cash flow and profit after taxation. Profit after taxation is usually create suitable profit based on cash.

### Examples of Cash flow

#### Cash inflows

- Income of project
- Funds and prizes of government
- Marketing opportunities of wastages
- Future tax receipts
- Reuse of working capital
- Cash receipt through transactions

#### Cash outflow

- Opening cost investment
- Additional Capital expenses
- Payments of raw materials and wages
- Tax payment (on profit)
- Tax payment based on the wastage
- Payment of operating capital

#### • Important sectors associated with cash flow estimation during various investments

- Initial investment expenses are made immediately (within a year)
- Every cash flow occurs at the end of the year
- Opening cash is the closing cash flow of the previous year
- Operating capital which is associated with the project is appropriated and at the end of the project it is charged partially or fully

$$\text{Working Capital} = (\text{Stock} + \text{debtors}) - \text{Creditors}$$

- Following are not included under cash flow during the project estimation
  - Accepted cost - (accepted currently)
  - Depreciation - (not a cash flow)
  - Book value of assets - (neglected cost)
  - Receipts of loans distribution of loans and profit share - (Considered while calculating investment cost)

**Examples;** Cash flow estimation

- The extracts from “Sheela Ltd” are follows
  - Sales of the year Rs: 200,000/= (Only the cash sales are made)
  - Payment of the expenses Rs: 85000/= excluding depreclation
  - The only depreciable was purchased four years ago. Net value of the asset is Rs:100000/=
  - 40% tax is paid for the current year (profit before tax)
- Calculate the net profit after tax
- Estimate the cash flow of the current year

<b>Solution :-</b>	<b>Profit after tax</b>
	<b>Rs:</b>
Sales	200000
(-) Other operating expenses	(85000)
	115000
(-) Depreciation expense	(2000)
Profit before tax	113000
(-) 40% income tax	(45200)
	67,800
	=====

**Cash flow**

	<b>Rs:</b>
Sale income	200000
Expenses	(85000)
Tax payment	(45200)
Net cash flow	47200
	=====

**Examples;**

- It “Kesha Ltd” introduces a new machinery inplace of an old one, operating expenses decrease from Rs:300000/- to Rs: 280000/-
- Deprecation increases to Rs: 120000/- from Rs:100000 and sales income remains the same. Rs: 750000/- is expected to be the cost of the machinery and Rs: 30000/ is expected to receive through disposal. Book value of the old machinery is Rs:175000/- Estimate the cash flow.

<b>Solution</b>	<b>Rs:</b>
Less expense (Cash inflexion)	20000
Purchase of Machinery	(750000)
Sales of a machinery	30000

Depreciation - not cash flow  
Sales income - no change  
Book Value - discounted cost

**Competency level 17.2 :** Supports to make decision by using various capital estimation methods

**Number of Periods :** 16

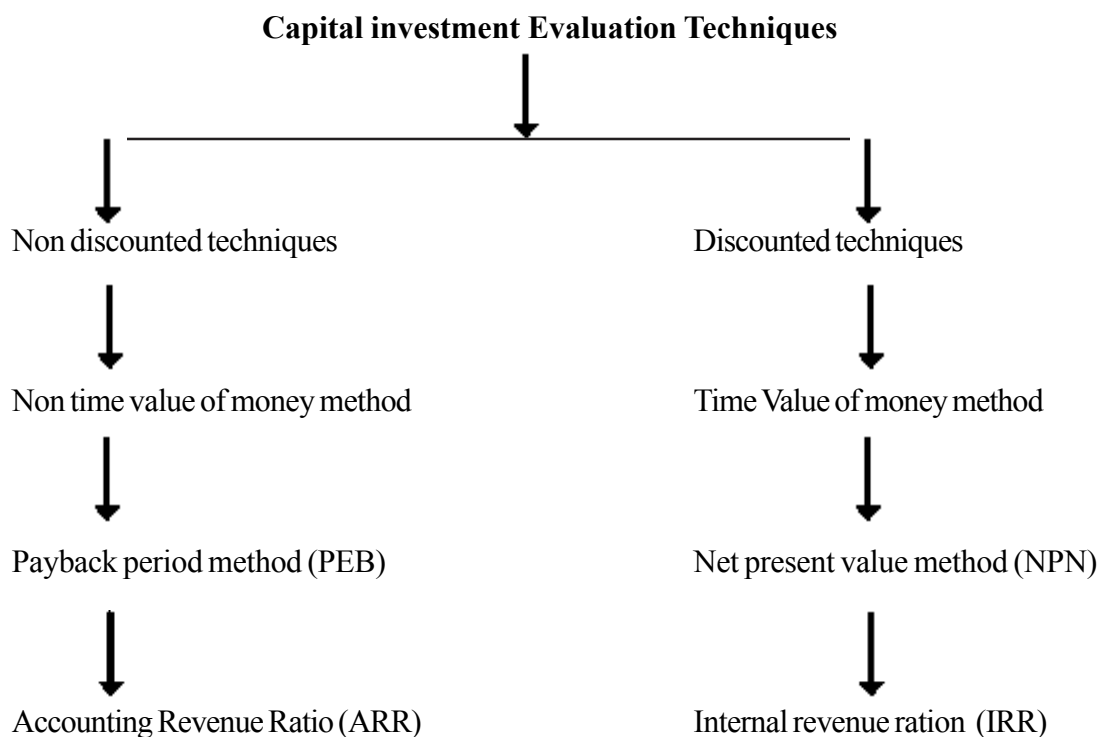
**Learning Outcome :**

- Names the advantages and disadvantages of various techniques implemented to measure the 2 investments
- Attempts to make most suitable decisions for the period
- Makes the decision by considering time value of money

**Learning-Teaching Process:**

**Guidance for Subject Matters :**

- Evaluation of investment through various capital investment methods



- Payback period methods (PBP)
  - The period which takes to payback the cash of cost which is affiliated with the project.

- If future net cash equals every year the payback period is calculated as,

$\text{Payback period} = \frac{\text{Opening net investment}}{\text{Annual net cash flow}}$
---

**Examples;** “Ruwan Ltd” expects to purchase a machinery which cost Rs:100000/=.  
Net cash flow of the machinery for the next 5 years is 15 given below.

Year	Net cash flow (Rs:)
1	25000/=
2	25000/=
3	25000/=
4	25000/=

$$\begin{aligned} \text{Pay back period} &= \frac{\text{Net value}}{\text{Annual cash flow}} \\ &= \frac{100000}{25000} \\ &= 4 \text{ years} \end{aligned}$$

- Calculation of payback period during an abnormal privilege of net cash flow

**Examples;** “Thilak Ltd” expects to bring another machinery as a replacement.

Cost of machinery	Rs: 200000/=
Cost of instalation	Rs: 25000/=
Opening investment	Rs: 35000/=

- The useful life time of the machinery is estimates 5 years

Year	Net cash flow
1	80 000/=
2	60 000/=
3	50 000/=
4	40 000/=
5	60 000/=



- At the end of the 5<sup>th</sup> year it is expected to use working capital efficiently .

**Solution**

Year	Net Cash flow (Rs)	Accumulated cash flow Rs:
0	(260 000)	(260 000)
1	80 000	(180 000)
2	60 000	(120 000)
3	50 000	(70 000)
4	40 000	(30 000)
5	60 000	30 000

$$\begin{aligned}
 \text{Pay back period} &= \text{Year 4} + \frac{30\,000}{60\,000/12} && \text{or } 30\,000 \times \frac{12}{60\,000} \\
 &= \text{Year 4} + \frac{30\,000}{5000} \\
 &= 4 \text{ years and 6 months}
 \end{aligned}$$

- **Decisions under payback period**

- If the above “Thilak Ltd” decides to use the machinery only for one purpose they should choose a machinery with less payback period. Therefore the first machinery is the most suitable for purchase.

- **Advantages and Disadvantages of payback period**

- **Advantages**

- Easy to calculate and understand
- Considers net cash flow directly which is gained instead of profit of accounting
- A quick result is gained through a short term project
- Reduces awareness occur at long-term due to technical requirements

- **Disadvantages:**

- Time value of cash is not taken into account
- Only the payback period of investment is taken into account
- Cashflow gained after the payback period is avoided from the account
- Return of the refused project is higher than the selected project

- **Investment Rate of Return IRR (Accounting Rate of Return)**

- **Average Rate of Return (ARR)**

- Investment Rate of Return indicated the rate of net profit after tax in opening investment
- This method varies from payback period as it considers not only the inflexion of the invest cash but it also takes the profit under consideration

$$\text{Investment Rate of Return} = \frac{\text{Average net profit after tax} \times 100}{\text{Average investment}}$$

**Example;** “Devika Ltd” decides to purchase a sewing machine for the company purpose. They suggest two different sewing machines.

Year	Net Profit After Tax	
	Rs: (A)	Rs: (B)
1	36 000	40 000
2	24 000	50 000
3	20 000	30 000
4	16 000	20 000

- **Additional information’s**

- A could be purchased for Rs:100 000/= No residual value stated
- B could be purchases for Rs:120 000/= residual value in Rs: 20 000/-

- **Solution:-**

	<b>Machine A</b>	<b>Machine B</b>
Average investment	100 000	$\frac{120\,000 + 20\,000}{2}$
	Rs:50000	Rs: 70 000
Average Net profit	$\frac{96\,000}{4}$	$\frac{140\,000}{4}$
	Rs: 24 000	Rs: 35 000

$$\begin{aligned}
 \text{Investment Rate of Ratio} &= \frac{\text{Net Profit after Tax}}{\text{Average investment}} \times 100 \\
 &= \frac{24\,000}{50\,000} \times 100 \quad \frac{35\,000}{70\,000} \times 100 \\
 &= \underline{\underline{40\%}} \quad \underline{\underline{50\%}}
 \end{aligned}$$

- **Decisions Under Investment Rate of Ratio**

Machine B is suitable to purchase for it show the higher percentage in comparison.

- **Advantages and Disadvantages of Investment Rate of Ratio**

- **Advantages**

- Simplifies the calculation
- The whole life of the project is taken into account
- It's an argumentative proposal
- It's a measure of comparison with other projects

- **Disadvantages**

- Time value of money is not taken into account
- Awareness of the project is not taken into account
- Cash flow is not considered
- Invested capital amount is not quoted specifically

- **Fundamentals of Capital Investment Decisions**

If the company aims to maximise the source /asset of the owner, they might choose an investment which affiliates only with the above objective. Sources would be maximized only if the investment cost. However choosing an investment which prevails higher rate ratio than investment opportunity cost.

- **Investment opportunity cost**

Cash which is invested on a particular sector (A) could have been invested on another too(B) . An opportunity on investing B has become frail by investing on A. So the rate which has to be earned through B is prevented by the investment on A. The income which has been failed by another alternative is meant as opportunity cost of an investment.

- Resigning an investment rate to earn another investment rate is cost of an investment in brief.

- Discount ratio, interest ratio and investment cost are verified as opportunity income affiliated with a chosen investment evaluation, a favorable investment shows higher rate than the opportunity cost in comparison.

- **Time Value of money**

If the present value of money costs higher than the future money value which is equal to is “Time value of money”

- (1) Investment opportunities/opportunity cost
- (2) Preference for consumption
- (3) Uncertainty

- **Net Present Value Method (NPV)**

Cash flow of future years are added up with present value

$$\text{Net Present Value} = \text{Present value of receipts} - \text{present value of payments}$$

**Example;** “Vidu Ltd” expects to replace a new computer. The following are the extracts of the expected rate,

	<b>Rs:</b>
Cost of purchase	500000
Instalation cost	100000
Soft ware cost	50 000
Useful lifetime	05 years
Residual value	150000

Expected Cash flow

<b>Year</b>	<b>Net cash flow</b>
	<b>(Rs)</b>
1    -	120000
2    -	160000
3    -	180000
4    -	200000
5    -	140000

Investment cost 10%

- (1) Present value of net cash flow
- (2) Net present value
- (3) Make suitable decision on investment

10% is the discounting factor

Year	1	2	3	4	5
Discounting factor	0.909	0.826	0.751	0.683	0.621

Solution

Year	Net cash flow	Discounting factor	Present value
0	(650,000)	1.000	(650000)
1	120000	0.9	109080
2	160000	.09	132160
3	180000	0.826	135180
4	200000	0.751	693
	140000	0.683	1100
	150000	0.621	

- (I) 124600180090
- (II) Net present value (NPU) Rs: 43110
- (III) If the net present value is positive it is suitable to purchase the computer network.

### **Making Decision through Net present value**

- (1) If the net present value show the positive effect, it's feasible to choose the project. In case if it shows a negative effect, it's not a feasible to choose
- (2) While comparing two positive net present values, it's favorable to choose the higher value project

### **Advantages of Net Present Value**

- Project is valued under total cash flow
- Choosing the suitable project
- Favorable to maximize the sources of the owners

### **Disadvantages**

- Difficult to compare arrange and understand
- Difficult to choose an equivalent investment for the opening investment

## **Introduction- School Based Assessment**

Learning –Teaching and Evaluation are three major components of the process of Education. It is a fact that teachers should know that evaluation is used to assess the progress of learning – teaching process. Moreover, teachers should know that these components influence mutually and develop each other .According to formative assessment (continuous assessment) fundamentals; it should be done while teaching or it is an ongoing process. Formative assessment can be done at the beginning, in the middle, at the end and at any instance of the learning teaching process. Teachers who expect to assess the progress of learning of the students should use an organized plan. School Based Assessment (SBA) process is not a mere examination method or a testing method. This programme is known as the method of intervening to develop learning in students and teaching of teachers. Furthermore, this process can be used to maximize the student’s capacities by identifying their strengths and weaknesses closely.

When implementing SBA programmes, students are directed to exploratory process through Learning Teaching activities and it is expected that teachers should be with the students facilitating, directing and observing the task they are engaged in.

At this juncture students should be assessed continuously and the teacher should confirm whether the skills of the students get developed up to expected level by assessing continuously. Learning teaching process should not only provide proper experiences to the students but also check whether the students have acquired them properly. For this, to happen proper guiding should be given.

Teachers who are engaged in evaluation (assessment) would be able to supply guidance in two ways. They are commonly known as feed-back and feed- forward. Teacher’s role should be providing Feedback to avoid learning difficulties when the students’ weaknesses and inabilities are revealed and provide feed-forward when the abilities and the strengths are identified, to develop such strong skills of the students.

Student should be able to identify what objectives have achieved to which level, leads to Success of the Learning Teaching process. Teachers are expected to judge the competency levels students have reached through evaluation and they should communicate information about student progress to parents and other relevant sectors. The best method that can be used to assess is the SBA that provides the opportunity to assess student continuously.

Teachers who have got the above objective in mind will use effective learning, Teaching, evaluation methods to make the Teaching process and learning process effective. Following are the types of evaluation tools student and, teachers can use. These types were introduced to teachers by the Department of Examination and National Institute of Education with the new reforms. Therefore, we expect that the teachers in the system know about them well

Types of assessment tools:

- |                              |                          |
|------------------------------|--------------------------|
| 01. Assignments              | 02. Projects             |
| 03. Survey                   | 04. Exploration          |
| 05. Observation              | 06. Exhibitions          |
| 07. Field trips              | 08. Short written        |
| 09. Structured essays        | 10. Open book test       |
| 11. Creative activities      | 12. Listening Tests      |
| 13. Practical work           | 14. Speech               |
| 15. Self creation            | 16. Group work           |
| 17. Concept maps             | 18. Double entry journal |
| 19. Wall papers              | 20. Quizzes              |
| 21. Question and answer book | 22. Debates              |
| 23. Panel discussions        | 24. Seminars             |
| 25. Impromptus speeches      | 26. Role-plays           |

Teachers are not expected to use above mentioned activities for all the units and for all the subjects. Teachers should be able to pick and choose the suitable type for the relevant units and for the relevant subjects to assess the progress of the students appropriately. The types of assessment tools are mentioned in Teacher's Instructional Manuals.

If the teachers try to avoid administering the relevant assessment tools in their classes there will be lapses in exhibiting the growth of academic abilities, affective factors and psycho- motor skills in the students



## Learning-teaching Assessment Plans

### Assessment Plan 9

- 01. Assessment period** : First term.
- 02. Covering Competency levels** : 12.1 to 12.7.
- 03. Subject Content** :
- Accounting and auditing standard  
Act No:15 of 1995
  - S.L.A.S. 03
  - S.L.A.S. 05
  - S.L.A.S. 09
  - S.L.A.S. 10
  - S.L.A.S. 12
  - S.L.A.S. 18
  - S.L.A.S. 19
  - S.L.A.S. 29
  - S.L.A.S. 26
  - S.L.A.S. 37
- 04. The nature of Assessment plan** : • Publishing a book.
- 05. Objectives of the Assessment plan** :
- Points out the objectives of the standards and defines the terms.
  - Presents the usage of standards with practical examples.
  - Points out the relevant disclosures using examples.
  - Collects relevant information exploring the relevant sources.
  - Gets the ability of prepare formal book .
- 06. Instructions for implementation** :
- Instructions to the teacher** :
- To aware the students about the preparation of the book when the activity 12.1 is started.
  - Inform the making criteria.
  - Make it as a group activity.

- Direct to use the library in exploring the information further more. Guide to make a collection of financial statements appeared in daily news papers. Similarly direct to use the subject based magazines and books.
- In group activities provide various topic to each group. ( at least including 3 instances )
- Guide prepare the book including the following elements.
  - Title and the cover page
  - Dedication and the acknowledgment.
  - Contents and foreword.
  - Separation of chapters.
  - Schedules.
  - Related refernces.
  - Exemple: Wijepala A.B.-Name of the book
  - Technical terms (Sinhala-English)
  - Allocate about two weeks time.
  - Supervise the group activities weekly.
  - Make necessary arrangements to publish the book at an appropriate assembly.

**Instructions to the students :**

- This is assigned as a group activity and separate the duties among each and every members of the group appropriately.
- Refer to the library to explore the information.
- Produce the book to the teacher on due date.
- Get ready to publish the book at an appropriate assembly.

**Marking criteria :**

- Providing definitions for the terms to identify the objectives accurately.
- Accounting practices.
- Presentations of recognized disclosures.
- Reference to various sources.
- Creativity.
  - Formation of the book.
  - Language usage.
  - Oder of information.

**Marking rangers :**

- Very good / Excellent            04
- Good                                    03
- Ordinary                                02
- Should be further developed    01

## Learning-teaching Assessment Plan

### Assessment plan 10

- 01. Assessment period** : First term
- 02. CoverringCompetancy levels** : 13.1, 13.2, 13.3, 13.4, 13.5 and 13.6
- 03. Subject matters** :
- Legal background of a public company.
  - Process of issuing shares.
  - Bonus share-issue and right issue.
  - Preparation of financial; statements for the internal use.
  - Preparation of financial statement to be published.
  - Income statement.
  - Balance sheet.
  - Statement of changes in equity.
  - Cash flow statements.
  - Accounting principles and notes.
- 04. The nature of Assessment plan** : • A comparative Evaluation.
- 05. Objectives of the assessment plan** :
- Recognizes the compan's Act, types of company incorporation of a company and the Memorandum of Association.
  - Points out the process of collecting the share capital with examples.
  - Prepares the financial statements of a company according to in the S.L.A.S. - 03.
- 06. Instructions for implementation** :
- Instructions to teacher** :
- Introduce the Assessment plan to the class at the begining of the First term in year 13.
  - Collect a set of papers inconnection with the company Account ing from the A/L question papers from 2002-2007 and prepare the students to make a comparative report with necessary reforms to those questions with appropriate answers according to the companies Act No: 07 of 2007 and the Accounting stan dards disposing the extra syllabus units.
  - Make it as a individual activity.
  - Direct the students to use the library to collect information when necessary at each and every activity.

- In identification of the changes in each question based on the companies Act No:07 of 2007 and Accounting standards the students to produce examples for them. Further pay attention to issuing shares forfeiture and reassigning, pre-allocation and making payment.
- Supervise on selected data in every week.
- Provide a period of 9 weeks and get the Assessment reports finalised and submitted on a selected day in the last week.

**Instructions to students :**

- Collect a set of question papers of 05 recent years under the guidance of your teacher.
- Collect the books and articles to the company Accounting referring to the library and knowledgeable personnel.
- Identify the changes in the questions based on company Accounting with an awareness of the companies Act no.07 of 2007.
- Rewrite the questions according to the identified changes and schedule the proposed answers.
- Present a comparative report regarding those identified changes with practical instances.
- Submit the report to the teacher on the due date at the end of the period of 09 weeks allocated.

**Marking criteria:**

- Analysis of the legal background in connection with the company Accounting.
- Accounting the transactions related to the collection of share capital.
- Preparation of financial statements.
- Identification of the changes and the examples

provided as proofs.

- Correct order of information.

## Learning-teaching Assessment Plan

### Assessment plan 11

- 01. Assessment period** : Second term.
- 02. Covering competency levels** : 14.1, 14.2, 14.3, 14.4
- 03. Subject content** :
  - Profitability ratios.
  - Liquidity ratios.
  - Financial stability ratios.
  - Cash sufficiency ratios.
  - Cash flow efficiency ratios.
- 03. The nature of Assessment plan** :
  - Impromptive speeches.
- 04. Objectives of Assessment plan** :
  - Names the Accounting ratios used as a tool of decision making.
  - The ratios point out that there is a tendency of each field of the company.
  - Presents the tendencies through accounting ratios.
  - Collects accurate information through comparison.
  - Makes decision using correct information.
- 05. Instructions to implement Instructions to the teacher.** :
  - Inform the students about this formative assessment at the beginning of the activity 14.1.
  - Inform the marking criteria.
  - Make it as a group activity.
  - Distribute the copies of an annual report of a company among the groups appropriately.
  - Provide the above report at the beginning of the activity 14.1 and get the above ratios calculated in the process of the activities 14.1, 14.2, 14.3, 14.4, 14.5.
  - Direct to use the field note book to collect information for impromptive speech.
  - Conclude about the group activity.
  - Make them ready to deliver the speech on a selected day under an Accounting ratio given in random.

**Instruction to students :**

- Use a field note book.
- Compute the relevant ratios at the end of every activity.
- Get ready to deliver the speech under the topic received at random with the contribution of all the members of the groups.
- Organize the speech under the followings.
  - Condition of previous year
  - Condition of current year
  - Comparison.
  - Expected condition.
  - Conclusions and suggestions.

**Marking criteria:**

- Naming and introducing the accounting ratios.
- Dividing the ratios related to each field.
- Computing the ratios and pointing out the tendencies.
- Systematic collection of information.
- Collective presentation.

## Learning-teaching Assessment plan

### Assessment plan 12

- 01. Assessment period** : **Second term:**
- 02. Covering Competancy levels:** : 15.3, 15.4, 15.5, 15.6.
- 03. Subject matters** :
  - Material based practices.
  - Sources for recording the labour period.
  - Computing salaries.
  - Preparation of pay sheet and accounting.
- 04. The nature of Assessment plan** :
  - “A little -magazine”.
- 05. Objectives of the Assessment plan** :
  - Introduction of the techniques of material control and labour control.
  - Reporting material cost and labour cost.
  - Accounting for material cost and labour cost.
  - Demonstration of various abilities and skills.
  - Revealing the whole through corporation.
- Instructions for implementation** :
- Instruction to the teacher** :
  - Inform the students about the motivation as assessment tool at the beginning of the activity 15.3
  - Direct to collect subject matters up to end of the activity 15.6
  - Implement as an individual activity.
  - Inform that the following items should be included in the littlei-magazine.
  - Column articles
  - Short stories.
  - Verses
  - Virindu.
  - Conversations.
  - Pictorial view.
  - Picture story
  - Puzzle
  - A set of probable questions.

- Latest information
  - A presentation of inter-net information.
  - An interview.
  - Something else.
- Determine a data to complete the little-magazine.
- Collect the individual (little) articles, make necessary corrections and award marks on criteria chosen.

**Instructions to students :**

- Derive the subject matters from activities 15.3 to 15.6 to make your creation on random received topic.
- Complete the received topic creatively.
- Submit the creation with one of your small size photograph and the relevant post you were bearing to the teacher.
- On the date determined by the teacher prepare a mini-magazine as a collection and propose a suitable name.
- Engage in the activity following the teacher's instructions.



## Learning-teaching Assessment Plan

### Assessment plan 13.

- 01. Assessment period** : Third term.
- 02. CoverringCompetancy levels** : 17.1, 17.2
- 03. Subject Content** :
- The process of long term decision making.
  - Evaluation of alternative capital investment using various techniques.
  - Selection of the most appropriate project from the alternatives.
- 04. The nature of assessment plan** : • A feasibility study report.
- 05. Objectives of the assessment plan** :
- Selecting the investment with optimal benefits.
  - Selecting the investments at minimum capital cost.
  - Selecting the capital investment fit for the prospective changes and future security of the establishment.

### Instructions for implementation :

#### Instructions to the teacher :

- Inform the students about the mortivative assessment plan and the marking criteria at the begining of the activity 17,1
- Implement as a individual activity.
- Provide necessary instructions to derive instances for capital investments from the students.
- Determine the value of basic investment and present to the students.
- Get the cash estimated that is needed ti implement the drive investments.
- Direct to calculate the pay back period of the basic investment.
- Inform the students about the time value of money and direct to calculate the present value of the expected cash flows under a given discount rate.
- Direct to compare the final result obtained by each student taking two minimum students.
- Guide to conclude the most appropriate investment out of those two students.

**Instructions to the students :**

- Name the project you would be able to do under the direction of your teacher.
- Estimate the expected cash flows based on the investment determined by the teacher.
- Determine the pay back period of the initial investment.
- Evaluate the project on the net present value of the cash flows.
- Determine the most appropriate investment comparing your result of some one else.

**Marking criteria :**

- Identification of investments.
- Estimating the cash flows accurately.
- Calculate the pay back period.
- Calculate the net present value.
- Conclusion based on the comparison.