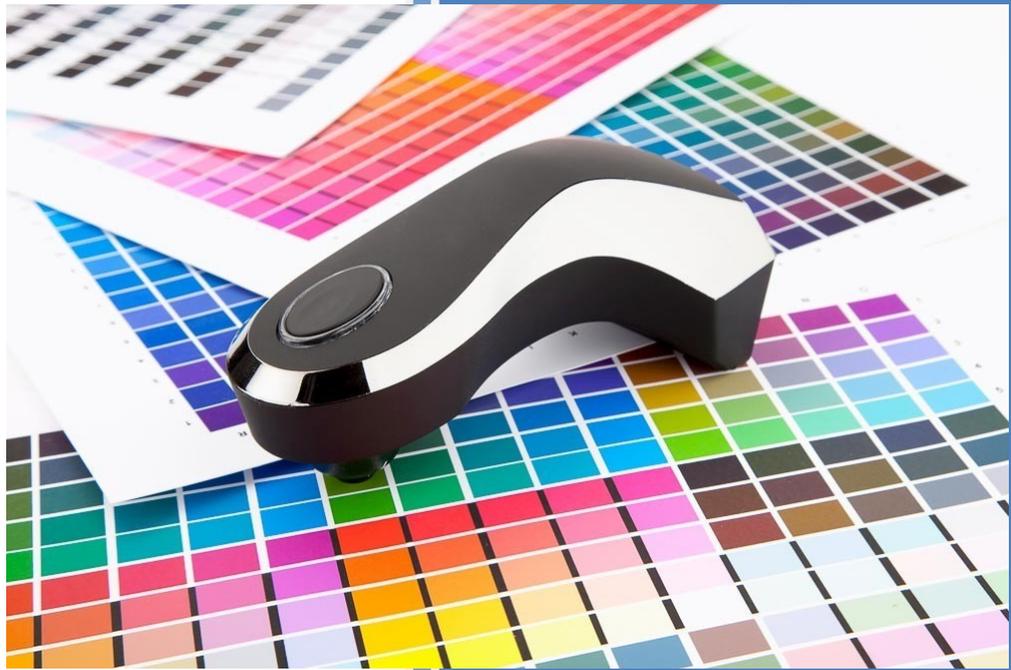


# Printing Press Management

## ‘M’ Scheme Syllabus



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**PRINTING PRESS  
MANAGEMENT**

## PREFACE

This book of Printing Press Management covers all the topics in a clear and organized format for the Third year Diploma in Printing Technology students as prescribed by the Directorate of Technical Education, Chennai, Tamilnadu. It is confidently believed that this book furnishes the students the necessary study material. The topics covered were neatly illustrated for better understanding of the students.

The book is prepared step-by-step lessons in large, eye pleasing calligraphy make it suitable for both direct one-to-one tutoring and regular classroom use. The highlight of this book is its simple English with clear and easy explanation of each topic.

All the topics are explained with supporting diagram for diploma level students to understand effectively.

This book majorly deals with Principles of Management, Estimating and Costing, Planning for Print Production, Accounting and Budgeting and Human Resource Management etc.

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## PRINTING PRESS MANAGEMENT

### DETAILED SYLLABUS

Unit	Name of the Topic	Hours
I	<p><b>Principles of Management</b></p> <p>1.1 - Principles of management – Scientific management, Taylorism, Maslow’s hierarchy needs, Leadership management, Management grid, Organizational development, and Business process management.</p> <p>1.2 - Management principles and functions – Managing men, Machines, Materials, Money and Morale – Principle of Management, Definition of Management, Functions of Management and Elements of Management.</p> <p>1.3 - Management Structure – Structure of organization, Formal and Informal organization, Market research, Sales promotion and Purpose of business management.</p> <p>1.4 - Business communication and coordination – Business communication, Channels of communication, Methods of business communication, Management information system, Benefits of MIS and Application of MIS.</p>	13 Hrs.
II	<p><b>Estimating and Costing</b></p> <p>2.1 - Estimating for various printed products – Definition of costing and estimating, Components of cost, Advantages of costing, Difference between costing and estimating.</p> <p>2.2 - Costing for printing materials and Production – Qualification of an Estimator, Estimating form, Estimating for Paper, Calculating the number of sheets required for a job and Cost of Paper for job.</p> <p>2.3 - Overhead Expenses and Classification of Overhead Expenses and Importance of Overhead Expenses.</p> <p>2.4 - Preparation of Competitive Estimate and Costing – Economical consideration for preparing competitive estimates, Fixed and variable cost in printing – Graphical representation of fixed and variable cost.</p>	13 Hrs.
III	<p><b>Planning for Print Production</b></p> <p>3.1 - Production system administration, Planning for various printed Products – Production control systems – Works initiation Procedures - Estimate, Purchase order, Raw material purchase, job card, changes in the specification of the Job, Proof, Material release authorization and final print order.</p> <p>3.2 - Planning consideration - Material purchasing and inventory control suitable material selection – Material management, Principles of purchasing, Production planning and control – Production scheduling, Production control, Quality control and Press layouts.</p> <p>3.3 - Value system in the industry - Developing Interpersonal management skills and Communication skills. Decision making and stages of decision making.</p> <p>3.4 - Role of supervisor and manager in effective management workflow – managerial roles, Management influences and process integration, Ergonomics – Physical requirements of employees – Working environment - Lighting, Glare and Contrast, Climate, Safety and Noise.</p>	13 Hrs.

Unit	Name of the Topic	Hours
IV	<p><b>Accounting and Budgeting</b></p> <p>4.1 - Accounting principles – Meaning of accounting principles, Classification or sub-fields of accounting – Financial accounting, Cost accounting, Management accounting and Tax accounting.</p> <p>4.2 - Definition of book keeping and Book keeping methods – Double entry book keeping and Advantages of Double Entry System.</p> <p>4.3 - Definition of Budgeting and Importance of Budgeting – Annual Budget : Meaning of Budget, Purpose of Budget, Types of Budgets – Sales Budget, Production Budget, Marketing Budget, Sales and Turnover, Channel distribution and Sales Forecasting.</p> <p>4.4 - Type of Companies - Private and Public Limited – Characteristics of Private and Public Limited Companies, Meaning of Stock Register - Maintenance of Stock Registers and Advantages of Stock Registers.</p>	13 Hrs.
V	<p><b>Human Resource Management</b></p> <p>5.1 - Employee Recruitment, Training and Retention – Human Resource Management, Meaning of Recruitment, Objective of the Recruitment Process, Training and Development, Out sourcing, E-Recruitment, Employee Retention.</p> <p>5.2 - Employee Motivation and Welfare – How to Motivate Employees, Employee Benefits, Work Study and Method Study – Time Management and Productivity Tools and Reduce or Minimizing the Wastages.</p> <p>5.3 - Professional Ethics - Honesty, Integrity, Transparency and accountability. Media Ethics and law, Copyright - Obtaining and enforcing copyright and MSME Registration.</p> <p>5.4 - Safety, Health and Environmental Regulations in Graphic Arts Industry – Safety of Machinery in Printing Industry, Safety aspects in machines and House keeping.</p>	13 Hrs.

## **UNIT - I – PRINCIPLES OF MANAGEMENT**

### **1.1 – PRINCIPLES OF MANAGEMENT**

Management is one or the other form existed with the economic life of mankind through the ages. But its pattern has been undergoing changes due to varying social and technological factors. It has grown along with and in line with the growth of the social, political, economic and scientific institutions.

#### ***Scientific Management***

Scientific management, also called Taylorism, was a theory of management the analyzed and synthesized workflows. Its main objective was improving economic efficiency, especially labor productivity. It was one of the earliest attempts to apply science to the engineering of processes and to management.

#### ***Taylorism***

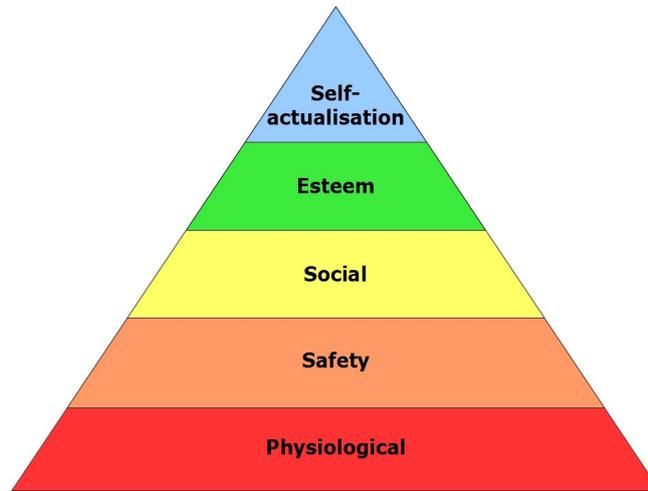
Production efficiency methodology that breaks every action, job, or task into small and simple segments which can be easily analyzed and taught. Introduced in the early 20th century, Taylorism (1) aims to achieve maximum job fragmentation to minimize skill requirements and job learning time, (2) separates execution of work from work-planning, (3) separates direct labor from indirect labor (4) replaces rule of thumb productivity estimates with precise measurements, (5) introduces time and motion study for optimum job performance, cost accounting, tool and work station design, and (6) makes possible payment-by-result method of wage determination.

Named after the US industrial engineer Frederick Winslow Taylor (1856-1915) who in his 1911 book 'Principles of Scientific Management' laid down the fundamental principles of large scale manufacturing through assembly-line factories. He emphasized gaining maximum efficiency from both machine and worker, and maximization of profit for the benefit of both workers and management. Although rightly criticized for alienating workers by (indirectly but substantially) treating them as mindless, emotionless, and easily replicable factors of production, Taylorism was a critical factor in the unprecedented scale of US factory output that led to Allied victory in Second World War, and the subsequent US dominance of the industrial world.

#### ***Maslows Hierarchy Needs***

Maslow wanted to understand what motivates people. He believed that individuals possess a set of motivation systems unrelated to rewards or unconscious desires. Maslow (1943) stated that people are motivated to achieve certain needs. When one need is fulfilled a person seeks to fulfill the next one, and so on.

The earliest and most widespread version of Maslow's (1943, 1954) *hierarchy of needs* includes five motivational needs, often depicted as hierarchical levels within a pyramid.



### *Maslow's Hierarchy Needs*

This five stage model can be divided into basic (or deficiency) needs (e.g. physiological, safety, love, and esteem) and growth needs (self-actualization).

One must satisfy lower level basic needs before progressing on to meet higher level growth needs. Once these needs have been reasonably satisfied, one may be able to reach the highest level called self-actualization.

Every person is capable and has the desire to move up the hierarchy toward a level of self-actualization. Unfortunately, progress is often disrupted by failure to meet lower level needs. Life experiences including divorce and loss of job may cause an individual to fluctuate between levels of the hierarchy.

Maslow noted only one in a hundred people become fully self-actualized because our society rewards motivation primarily based on esteem, love and other social needs.

### ***Leadership Management***

Leadership has been described as "a process of social influence in which one person can enlist the aid and support of others in the accomplishment of a common task", although there are alternative definitions of leadership. For example, some understand a leader simply as somebody whom people follow, or as somebody who guides or directs others, while others define leadership as "organizing a group of people to achieve a common goal"

### ***Management Grid***

The managerial grid model (1964) is a situational leadership model developed by Robert R. Blake and Jane Mouton. This model originally identified five different leadership styles based on the concern for people and the concern for production. The optimal leadership style in this model is based on Theory Y.

The model is represented as a grid with concern for production as the x-axis and concern for people as the y-axis; each axis ranges from 1 (Low) to 9 (High). The resulting leadership styles are as follows:

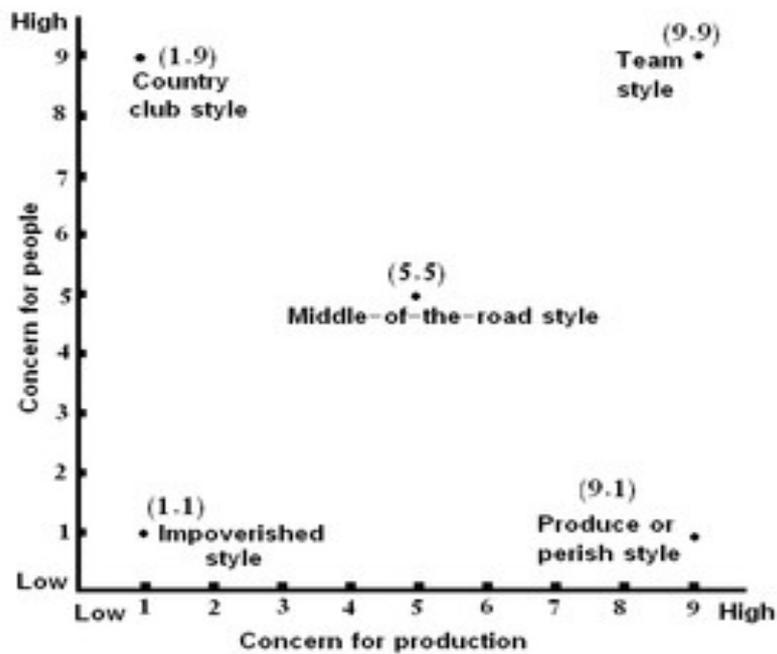
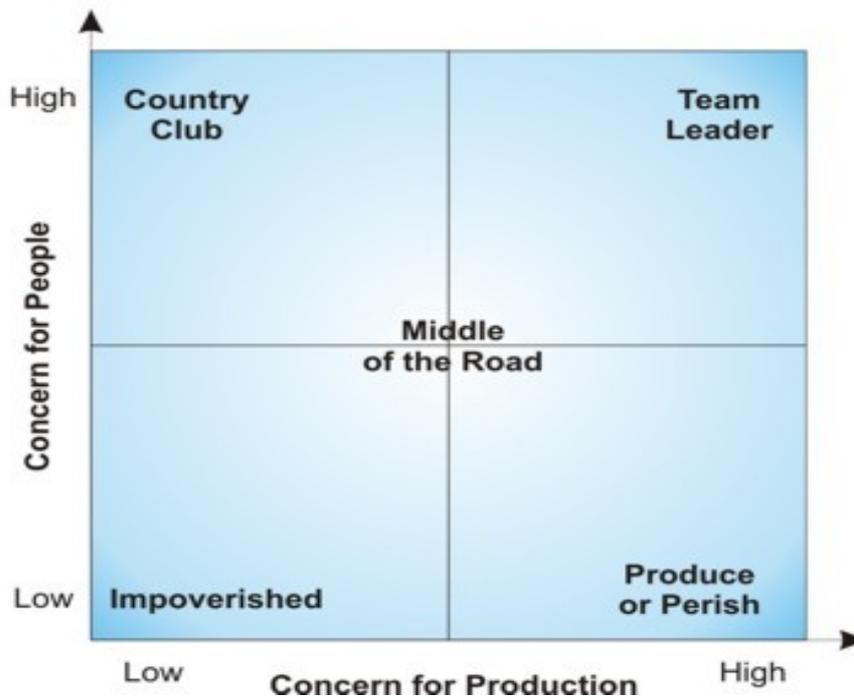


Figure 1: The Blake Mouton Grid



- The indifferent (previously called impoverished) style (1,1): evade and elude. In this style, managers have low concern for both people and production.

Managers use this style to preserve job and job seniority, protecting themselves by avoiding getting into trouble. The main concern for the manager is not to be held responsible for any mistakes, which results in less innovative decisions.

- The accommodating (previously, country club) style (1,9): yield and comply. This style has a high concern for people and a low concern for production. Managers using this style pay much attention to the security and comfort of the employees, in hopes that this will increase performance. The resulting atmosphere is usually friendly, but not necessarily very productive.
- The dictatorial (previously, produce or perish) style (9,1): control and dominate. With a high concern for production, and a low concern for people, managers using this style find employee needs unimportant; they provide their employees with money and expect performance in return. Managers using this style also pressure their employees through rules and punishments to achieve the company goals. This dictatorial style is based on Theory X of Douglas McGregor, and is commonly applied by companies on the edge of real or perceived failure. This style is often used in cases of crisis management.
- The status quo (previously, middle-of-the-road) style (5,5): balance and compromise. Managers using this style try to balance between company goals and workers' needs. By giving some concern to both people and production, managers who use this style hope to achieve suitable performance but doing so gives away a bit of each concern so that neither production nor people needs are met.
- The sound (previously, team style) (9,9): contribute and commit. In this style, high concern is paid both to people and production. As suggested by the propositions of Theory Y, managers choosing to use this style encourage teamwork and commitment among employees. This method relies heavily on making employees feel themselves to be constructive parts of the company.
- The opportunistic style: exploit and manipulate. Individuals using this style, which was added to the grid theory before 1999, do not have a fixed location on the grid. They adopt whichever behaviour offers the greatest personal benefit.
- The paternalistic style: prescribe and guide. This style was added to the grid theory before 1999. In *The Power to Change*, it was redefined to alternate between the (1,9) and (9,1) locations on the grid. Managers using this style praise and support, but discourage challenges to their thinking.

### ***Organisational Development***

Organization development is an ongoing, systematic process of implementing effective organizational change. OD is known as both a field of science focused on understanding and managing organizational change and as a field of scientific study and inquiry. It is interdisciplinary in nature and draws on sociology, psychology, and theories of motivation, learning, and personality. Although behavioral science has provided the basic foundation for the study and practice of OD, new and emerging fields of study have made their presence felt. Experts in systems thinking and organizational learning, structure of intuition in decision making, and coaching (to name a few) whose perspective is not steeped in just the behavioral sciences, but a much more multi-disciplinary and inter-disciplinary approach, have emerged as OD catalysts or tools.

The objective of Organizational Development is:

1. To increase the level of inter-personal trust among employees.
2. To increase employees' level of satisfaction and commitment.
3. To confront problems instead of neglecting them.
4. To effectively manage conflict.
5. To increase cooperation among the employees.
6. To increase the organization's problem solving.
7. To put in place processes that will help improve the ongoing operation of the organization on a continuous basis.

### **Business Process Management**

Business process management (BPM) has been referred to as a "[holistic management](#)" approach to aligning an organization's [business processes](#) with the wants and needs of clients. BPM uses a systematic approach in an attempt to continuously improve business [effectiveness](#) and [efficiency](#) while striving for [innovation](#), flexibility, and integration with technology. It can therefore be described as a "[process optimization](#)" process.



## 1.2 – MANAGEMENT PRINCIPLES AND FUNCTIONS

The 14 Management Principles are:

1. **Division of Work:** Specialization allows the individual to build up experience, and to continuously improve his skills. There by he can be more productive.
2. **Authority:** The right to issue commands, along with which must go the balanced responsibility for its function.
3. **Discipline:** Employees must obey, but this is two-sided: employees will only obey orders if management play their part by providing good leadership.
4. **Unity of Command:** Each worker should have only one boss with no other conflicting lines of command.
5. **Unity of Direction:** People engaged in the same kind of activities must have the same objectives in a single plan. This is essential to ensure unity and coordination in the enterprise. Unity of command does not exist without unity of direction but does not necessarily flows from it.
6. **Subordination of individual interest:** (to the general interest) Management must see that the goals of the firms are always paramount.
7. **Remuneration:** Payment is an important motivator although by analyzing a number of possibilities, Fayol points out that there is no such thing as a perfect system.
8. **Centralization:** (or Decentralization). This is a matter of degree depending on the condition of the business and the quality of its personnel.
9. **Scalar chain:** (Line of Authority). A hierarchy is necessary for unity of direction. But lateral communication is also fundamental, as long as superiors know that such communication is taking place. Scalar chain refers to the number of levels in the hierarchy from the ultimate authority to the lowest level in the organization. It should not be over-stretched and consist of too-many levels.
10. **Order:** Both material order and social order are necessary. The former minimizes lost time and useless handling of materials. The latter is achieved through organization and selection.
11. **Equity:** In running a business a '**combination of kindness and justice**' is needed. Treating employees well is important to achieve equity.
12. **Stability of Tenure of Personnel:** Employees work better if job security and career progress are assured to them. An insecure tenure and a high rate of employee turnover will affect the organization adversely.
13. **Initiative:** Allowing all personnel to show their initiative in some way is a source of strength for the organization. Even though it may well involve a sacrifice of 'personal vanity' on the part of many managers.

14. **Esprit de Corps:** Management must foster the morale of its employees. He further suggests that: "real talent is needed to coordinate effort, encourage keenness, use each person's abilities, and reward each one's merit without arousing possible jealousies and disturbing harmonious relations."

### ***What is Management? Five elements***

Fayol's definition of management roles and actions distinguishes between **Five Elements**:

1. **Prevoyance.** (Forecast & Plan). Examining the future and drawing up a plan of action. The elements of strategy.
2. **To organize.** Build up the structure, both material and human, of the undertaking.
3. **To command.** Maintain the activity among the personnel.
4. **To coordinate.** Binding together, unifying and harmonizing all activity and effort.
5. **To control.** Seeing that everything occurs in conformity with established rule and expressed command.

### ***Principles of Management:***

1. Formation of definite rules and regulations, Procedures, methods and systems to carry out the work successfully.
2. Establishing and developing suitable standards to all functions to serve as a means for measuring efficiency and economy of performance.
3. Establishing and developing a system of supervision and inspection to ensure desired achievement and find out all leakage wastage, Spoilage of work.
4. Maintaining a system of prompt accurate and serviceable records and instituting methods of securing reliable analytical data and internal reporting for each activity.
5. Introducing new ideas, new equipment, new methods, new designs.
6. Developing marketing and publicity methods.
7. Developing and maintaining co-operative spirit between all personnel so as to ensure their faithful and willing attachment to duty.
8. Establishing most desirable and comfortable working conditions ant reeking for internal peace discipline and harmony.
9. Maintaining a well-balanced and fair-minded attitude to al19

## **1.3 - MANAGEMENT STRUCTURE:**

### ***Structure of Organization***

The organization Structure is the basic frame work within which the executive's decisions-making behavior occurs. The quality and nature of the decisions made are influenced by the nature of the structure.

Organization can be divided into two parts namely

1. Formal Organization
2. Informal organization

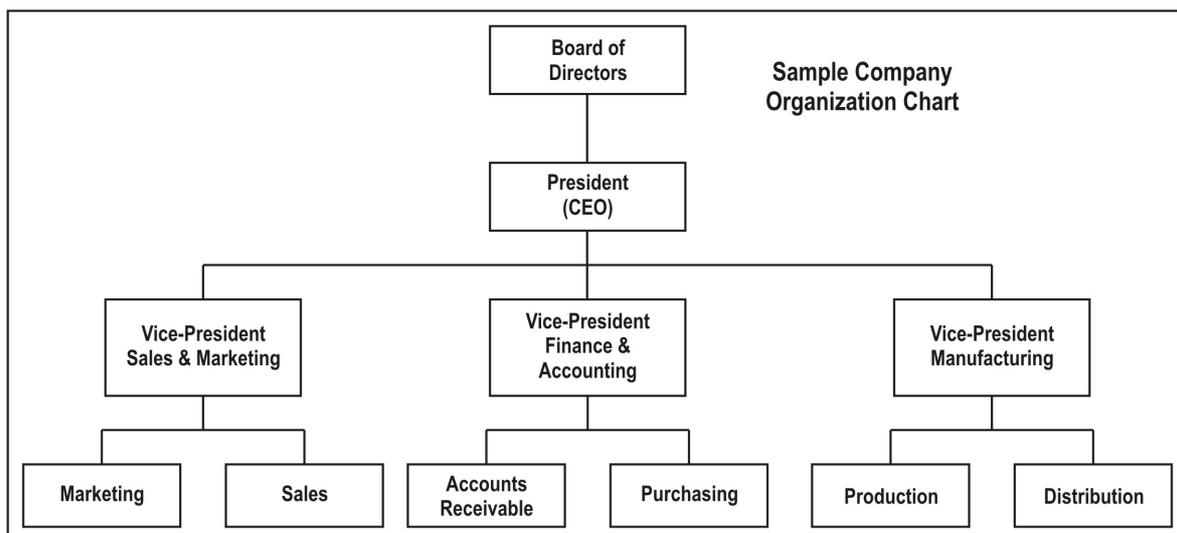
### ***i. Formal Organization***

It is the official channel through which information passes. Formal group exist in all Organizations. To carry out some specific work or to meet some goals of the organization formal groups are created.

A formal group is a legitimate subunit of the organization which is duly established committees, project teams, small department are example of a formal group. It has prescribed organization positions with defined duties and responsibilities, communication and the established desired relationship among all position holders. It is based on delegation of authority. It need not be based on the personality of an individual. Formal organization has written constitution and conventions. It has official leadership.

### ***ii. Informal Organization***

Informal group develop apart from officially prescribed plan of the organization. They arise spontaneously on the basis of friendship or some common interest which may or may not be work related. It is not designed by the management. It is developed by the employees themselves. It represents a number of small social groups to meet the needs of aspirations of members particularly the needs of satisfaction. Physical location, common time schedule, common interest and common backgrounds are the causes of informal or social organization bringing people together. It is a social structure to meet personal needs. Formal organization has its own leaders own goals and own, standards.



### ***Market Research***

The Printer has to find out what or who are his customers, who are likely to become customers. He has to examine the area which covered the maximum profit, the relative rates of return of capital produced by each category of job. The printer may decide to Vincent rate on printing for certain specific industries for example. Pharmaceutical industry, or some printers may decide to concentrate on motor industries and big engineering factories and securing periodical printing. Before entering into the specific field he has to estimate the future business through market research.

The market Research will help him in the formulation and solution of business problems and to discover the profitability of the work that is being done. Many printers feel that it is better for them to take on work that only yields a small profit in order to keep men working and machines running and overheads covered. Due to thin many printers accept orders below cost.

The first stage in the market research is to clarify all work done and to estimate the hours put in by the machines the amount of time spent by each department and the amount of return. Then to find out which range more profitable and so let the job which will be suitable for the company.

The second stage is the sales executive must try to discover the demand for printing, and try to reduce the number of competitors A Printer is engaged in competitions he can win only if he provides a better service or by reorganizing his production line, providing a cheaper service.

The market research however is a continuous process. The new customers or potential customers may alter the existing pattern competitors by amalgamator and present much more opposition. New equipment and material may appear. Changes in the Government Policy may affect the attractive of certain printing services. Change in design and changes in colour are two important elements. Hence a continuous market research is necessary to get better orders for every printer. Market research is expensive for the small printer.

### ***Sales promotion***

To impound its market or to enter new markets or creating a bigger demand for its products is known as sales promotion. The demand for printing in gradually increasing the growth in education the market for publishing increases. The increase in leisure time increases the demand for books and magazines. New markets in the meta1, on foil, on plastics etc. have not reduced the demand for conventional printing. So the demand for printing is increasing day by day. At the same there is much competitive in the printing industry. Hence sales promotion is inevitable one.

### ***Purpose of business management***

A business, also known as an enterprise or a firm, is an [organization](#) involved in the [trade](#) of [goods](#), [services](#), or both to [consumers](#).<sup>[1]</sup> Businesses are prevalent in [capitalist economies](#), where most of them are [privately owned](#) and provide goods and services to [customers](#) for profit.

The purpose of management is to serve customers. Yet if one looks through most management books, or even a dictionary, for a definition of management, ninety-nine point nine percent of the time the word customer will not be mentioned. This is astonishing because serving customers in order to obtain a profit is the crux of every business organization. Equally as remiss is the fact that most definitions neatly filter out service in their descriptions of management. Instead, when it comes to explaining what management is about, words and terms such as leading, controlling, planning, organizing, and setting goals and objectives are used. Let's face it, aseptic words and terms are great for dictionaries and academic tomes, but they fall terribly short when it comes to explaining, warts and all, the full scope of what management entails. So how can the art and science of management be summed up in a few succinct words? Well, the truth be told, it can't because management is about more than leading, controlling, planning, organizing, and setting goals and objectives.

#### **1.4 BUSINESS COMMUNICATION & COORDINATION**

Communication used to promote a product, service, or organization; relay information within the business; or deal with legal and similar issues. It is also a means of relying between a supply chain, for example the consumer and manufacturer.

Business Communication is known simply as "Communications." It encompasses a variety of topics, including Marketing, Branding, Customer relations, Consumer behavior, Advertising, Public relations, Corporate communication, Community engagement, Research & Measurement, Reputation management, Interpersonal communication, Employee engagement, Online communication, and Event management. It is closely related to the fields of professional communication and technical communication.

In business, the term communications encompasses various channels of communication, including the Internet, Print (Publications), Radio, Television, Ambient media, Outdoor, and Word of mouth.

Business Communication can also refer to internal communication. A communications director will typically manage internal communication and craft messages sent to employees. It is vital that internal communications are managed properly because a poorly crafted or managed message could foster distrust or hostility from employees.

#### **Methods of Business Communication**

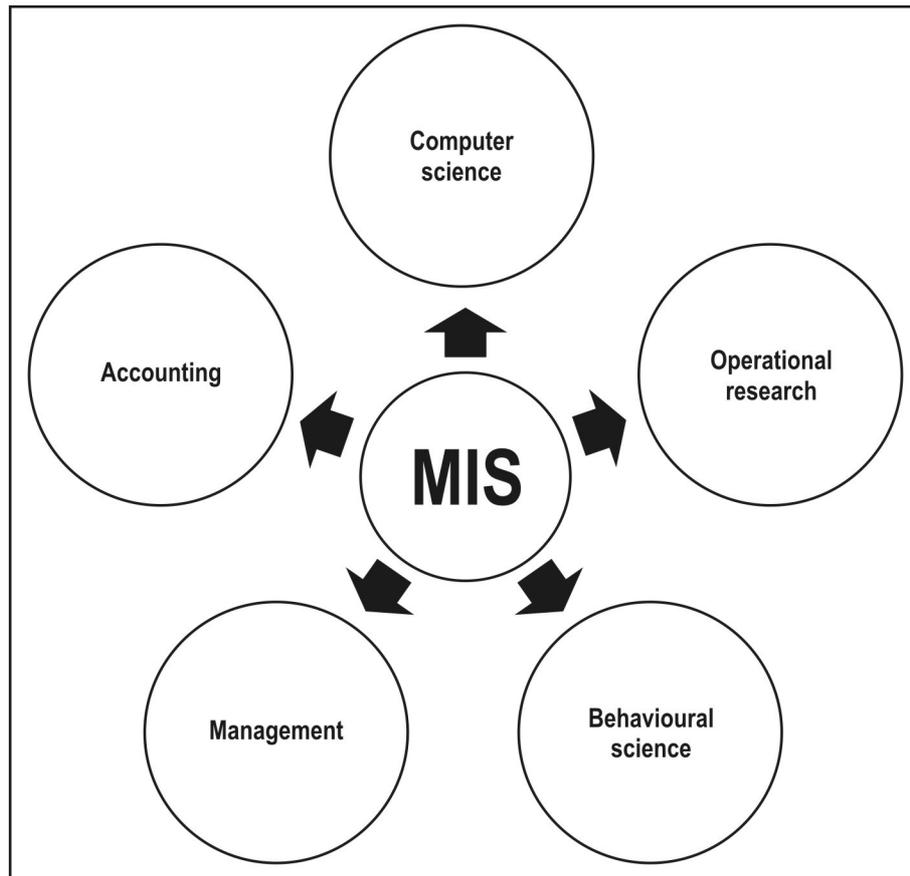
There are several methods of business communication, including:

- Web-based communication - for better and improved communication, anytime anywhere
- e-mails, which provide an instantaneous medium of written communication worldwide;

- Reports - important in documenting the activities of any department;
- Presentations - very popular method of communication in all types of organizations, usually involving audiovisual material, like copies of reports, or material prepared in Microsoft PowerPoint or Adobe Flash;
- telephoned meetings, which allow for long distance speech;
- forum boards, which allow people to instantly post information at a centralized location; and
- Face to face meetings, which are personal and should be succeeded by a written followup.

### **Management Information System (MIS)**

**Management Information Systems (MIS)** is the term given to the discipline focused on the integration of computer systems with the aims and objectives on an organization. The development and management of information technology tools assists executives and the general workforce in performing any tasks related to the processing of information. MIS and business systems are especially useful in the collation of business data and the production of reports to be used as tools for decision making.



### Applications of MIS

MIS systems can be used to transform data into information useful for decision making. Computers can provide financial statements and performance reports to assist in the planning, monitoring and implementation of strategy.

MIS systems provide a valuable function in that they can collate into coherent reports unmanageable volumes of data that would otherwise be broadly useless to decision makers. By studying these reports decision-makers can identify patterns and trends that would have remained unseen if the raw data were consulted manually.

MIS systems can also use these raw data to run simulations – hypothetical scenarios that answer a range of ‘what if’ questions regarding alterations in strategy. For instance, MIS systems can provide predictions about the effect on sales that an alteration in price would have on a product. These Decision Support Systems (DSS) enable more informed decision making within an enterprise than would be possible without MIS systems.

### Data Processing

Not only do MIS systems allow for the collation of vast amounts of business data, but they also provide a valuable time saving benefit to the workforce. Where in the past business

information had to be manually processed for filing and analysis it can now be entered quickly and easily onto a computer by a data processor, allowing for faster decision making and quicker reflexes for the enterprise as a whole.

### **Benefits of MIS**

The field of MIS can deliver a great many benefits to enterprises in every industry. Expert organisations such as the Institute of MIS along with peer reviewed journals such as MIS Quarterly continue to find and report new ways to use MIS to achieve business objectives.

### **Core Competencies**

Every market leading enterprise will have at least one core competency – that is, a function they perform better than their competition. By building an exceptional management information system into the enterprise it is possible to push out ahead of the competition. MIS systems provide the tools necessary to gain a better understanding of the market as well as a better understanding of the enterprise itself.

### **Enhance Supply Chain Management**

Improved reporting of business processes leads inevitably to a more streamlined production process. With better information on the production process comes the ability to improve the management of the supply chain, including everything from the sourcing of materials to the manufacturing and distribution of the finished product.

### **Quick Reflexes**

As a corollary to improved supply chain management comes an improved ability to react to changes in the market. Better MIS systems enable an enterprise to react more quickly to their environment, enabling them to push out ahead of the competition and produce a better service and a larger piece of the pie.

**UNIT - I – PRINCIPLES OF MANAGEMENT****PART - A - 2 Marks Questions****1. What is Maslow's hierarchy needs?**

Maslow (1943) stated that people are motivated to achieve certain needs. When one need is fulfilled a person seeks to fulfil the next one, and so on.

**2. Name the five stages model of Maslow's?**

This five stage model can be divided into basic (or deficiency) needs (e.g. physiological, safety, love, and esteem) and growth needs (self-actualization).

**3. Name the five different leadership styles in the management grid?**

- Team leader
- Procedure or perish
- Impoverished
- Country club
- Middle of the road

**4. Name the five element of management?**

- Prevoyance
- To organize
- To command
- To coordinate
- To control

**5. What is informal organization?**

Informal group develop apart from officially prescribed plan of the organization.

**6. What is market research?**

The market research will help him in the formulation and solution of business problems and to discover the profitability of the work that is being done.

**7. What is sales promotion?**

To impound its market or to enter new markets or creating a bigger demand for its products is known as sales promotion.

**8. What is purpose of business management?**

A business also known as an enterprise or a firm, is an organization involved in the trade of goods, services, or both to consumers.

**9. Name the various channels of communication?**

Internet, print (publication), Radio, Television, Ambient media, Outdoor, and word of mouth.

**10. What is management information system?**

Management Information System (MIS) is the term given to the discipline focused on the integration of computer system with the aims and objectives on an organization.

**PART - B - 3 Marks Questions****11. What is scientific management?**

Scientific management, also called Taylorism, was a theory of management that analysed and synthesized workflows. Its main objective was improving economic efficiency, especially labour productivity. It was one of the earliest attempts to apply science to the engineering of processes and to management.

**12. What is business process management?**

Business process management (BPM) has been referred to as a “holistic management” approach to aligning an organization’s business process with the wants and needs of client.

**13. What is business communication?**

Business communication is known simply as “communication”. It encompasses a variety of topics, including Marketing, Branding, Customer relations, Consumer behaviour, Advertising, Public relations, corporate communication, Community engagement, Research & Measurement, Reputations management, Interpersonal communication, Employee engagement, online communication, and Event management.

**14. What is a formal organization?**

It is the official channel through which information passes. Formal groups exist in all organizations. To carry out some specific work or to meet some goals of the organizations formal groups are created.

**15. What is leadership management?**

Leadership has been described as “a process of social influence in which one person can enlist the aid support of others in the accomplishment of a common task”.

**PART - C - 10 Marks Questions**

1. Explain Maslow's Hierarchy Needs with diagram.
2. Explain Management Grid with diagram.
3. Explain 14 principles of management.
4. Draw the flow chart of management structure and explain in detail.
5. What is Business communication and coordination and explain the methods of business communication.
6. What is Management Information system; explain its Application and benefits.

## **UNIT - II – ESTIMATING AND COSTING**

### **2.1 ESTIMATING FOR VARIOUS PRINTED PRODUCTS**

Costing and estimating are the two important departments of a printing press. The role of the estimating department is to prepare quotations for the printing jobs, which the press wishes to undertake. It is supposed to be the key department in a printing press. The costing department on the other hand works out the actual cost of production of the jobs executed by the press in order to find out the extent of overall profit or loss to the organization. The costing department helps the management to exercise control over costs of the future jobs by avoiding the waste of time and material spent in doing a job. It is, in fact, the costing department of a press which supplies the requisite data and information to the estimating department for preparing a correct and accurate estimate of any printing job.

#### ***Definition of Costing and Estimating***

Costing is the technique of finding out the actual cost of production of a job or a service scientifically. In other words, it is a method of finding out the actual cost of production in accordance with some scientific principles of costing. In order to organize and run a business, a reasonable profit over and above the actual cost must be recovered. It is, therefore, essential to know the actual cost of production of a job and hence the role of costing.

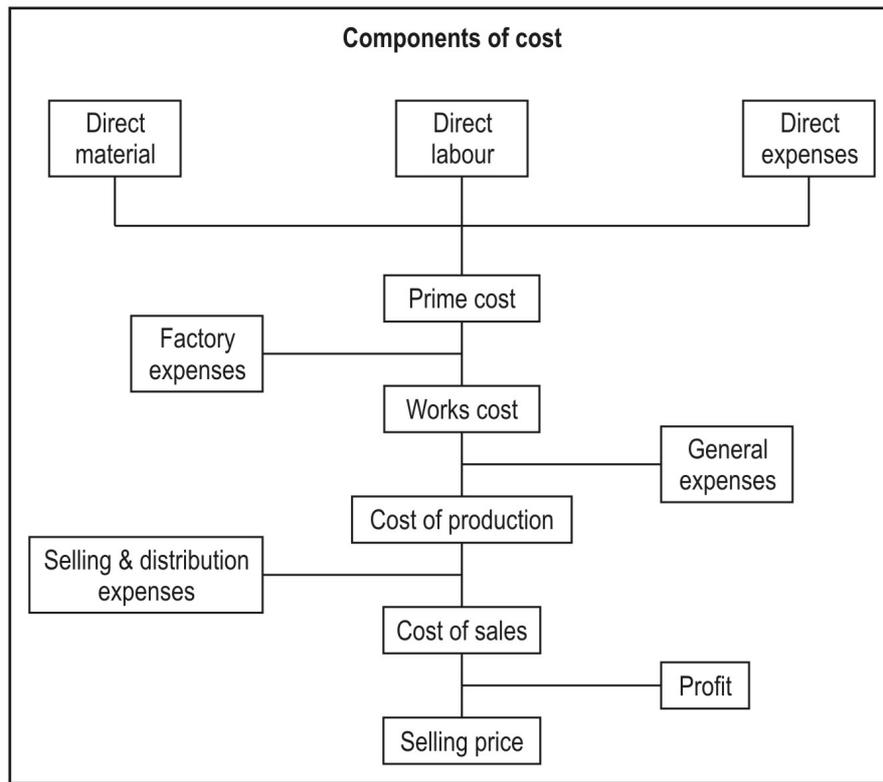
#### ***What is Estimating?***

It is the technique of assessing the sale price of a job or a service scientifically. In other words, it is a forecast of the sale price before the execution of a job. Being a forecast, it is only a probability or hypothesis and not anything, actual or factual. In similitude with costing, estimating is also primarily concerned with the manufacturing processes involving a large number of items of expenditure. Sale price in these circumstances cannot be worked out without making complicated calculations based on scientific principles.

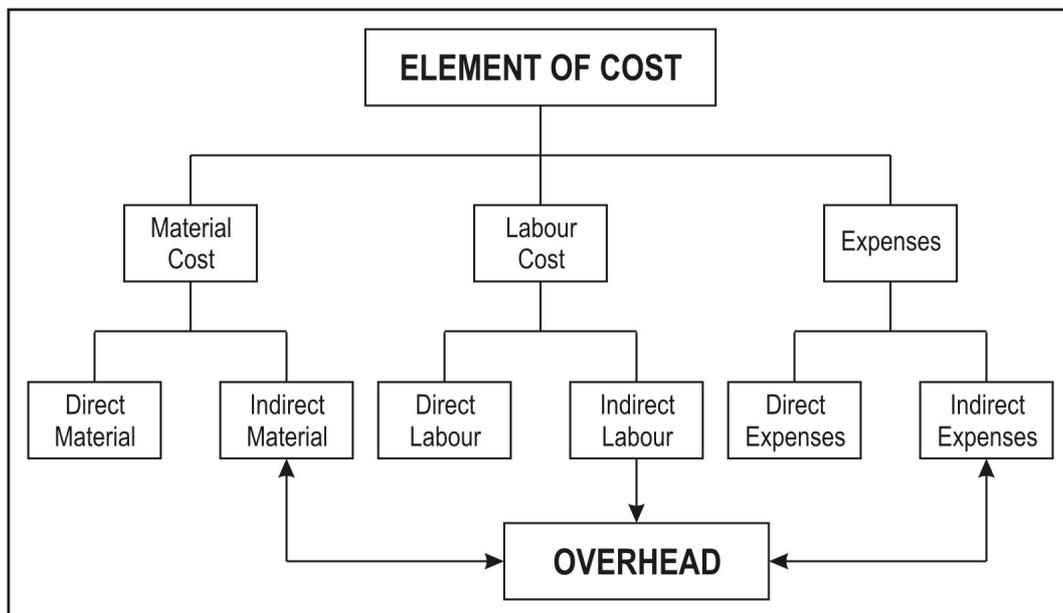
Estimating is also termed as advance costing or standard costing. Advance costing means, costing done before the job has been undertaken, while standard costing means assessing a standard or an average cost on the basis of certain norms. Technically, estimating is an assessment of a forecast of operational times in relation to production.

In an ordinary re-sale business, actual cost can be found out easily because the items of expenditure are a few in numbers and also the calculations are easy. For example a bookseller can easily find out his cost of a particular book by adding the price paid by him to the publisher and his shop expenses. On the other hand, in a manufacturing business, the items of expenditure are very large. The actual cost cannot be found out easily. Nevertheless, the actual cost of production has to be found out in order to run the business successfully. This is done by applying certain scientific principles known as "Principles of Costing". For these reasons, scientific methods of costing have practically no role in an ordinary re-sale business. However, for all types of manufacturing business, scientific costing is indispensable.

**Components of Cost**



The four main components of costs are: (a) Prime Cost, (b) Works Cost, (c) Production Cost (d) Total Cost.



**Prime Cost**

It consists of costs of direct material, direct labour and direct expense specifically attributable to the job. This is also known as flat, direct or basic cost.

### **Works Cost**

It comprises of prime cost and factory overheads, (cost of indirect material, indirect labour and indirect expenses related to factory works). This cost is also known as factory cost, production or manufacturing cost.

### **Cost of Production (Office Cost)**

It is the sum total of works cost and office and administrative overheads (Cost of indirect material, indirect labour and indirect expenses related to office works). This cost is known as office cost.

$$\text{Cost of Production} = \text{Works Cost} + \text{Office and Administrative}$$

### **Advantages of Costing**

- i. It helps to determine the cost of each and every productive operation carried out by a press,
- ii. It makes it possible for the press to submit estimates of various printing jobs based on the actual production costs,
- iii. It provides data for the comparison of actual costs of a particular job with its originally estimated costs,
- iv. It helps the management to ascertain the profit or loss made by a press on a particular job,

It provides information necessary for eliminating waste and inefficiency, if any, prevailing in the press.

### **Difference between Costing and Estimating**

The following points clearly indicate that how costing differs from estimating:

- i. Estimating is a forecast of something to happen in future which may or may not come true when the job is actually undertaken in the press. It is simply an advance calculation based on guess work.

Costing on the other hand is actual and factual by nature, that is, it cannot be changed. For this reason, tolerance or guesswork is least possible in costing and is relatively higher in estimating.

- ii. Estimating is a plan, while costing is analysis of the working of the plan. At the time of estimating for a job, the estimator works out a strategy according to which he proposes to undertake the job in his press. In costing, the execution of the plan is analysed.

- iii. Costing is done after the job has been completed and delivered to the customer while estimating is done before the job is undertaken. For this reason, estimating can be compared to diagnosis while costing can be compared with post mortem.
- iv. Costing educates the printers while estimating not only helps the printer in getting a job but also educates the customer.  
Costing enables the printer to plan his future jobs intelligently while estimating enables the customer to get a knowhow of the job, to select a particular process of printing, to select the press, to select the quality of paper, etc.
- v. Costing is primarily concerned with the determination of hourly rates for various machines, operations and operatives.  
Estimating on the other hand is primarily concerned with the determination of sale price of a job or a service.
- vi. Costing helps in maintaining budgetary control, elimination of waste and inefficiency and in achieving higher productivity.  
Estimating on the other hand is of great help to the printer in competition. The estimator knowing his cost correctly can easily modify his estimate depending upon the competition prevailing in the market.

## **2.2 COSTING FOR PRINTING MATERIALS AND PRODUCTION**

It is the technique of assessing the sale price of a job or a service scientifically. In other words, it is a forecast of the sale price before the execution of a job. Being a forecast, it is only a probability or hypothesis and not anything, actual or factual. In similitude with costing, estimating is also primarily concerned with the manufacturing processes involving a large number of items of expenditure. Sale price in these circumstances cannot be worked out without making complicated calculations based on scientific principles.

Estimating is also termed as advance costing or standard costing. Advance costing means, costing done before the job has been undertaken, while standard costing means assessing a standard or an average cost on the basis of certain norms. Technically, estimating is an assessment of a forecast of operational times in relation to production.

### ***Qualifications of an Estimator***

Technical qualification that is a Diploma or Degree in Printing is the chief requirement of a printer's estimator. He must be a mature person with sound health, good expression, rational thinking and a convincing personality. He should be tactful in dealing with customers and senior personnels in the press. He should be thoroughly conversant with all the techniques and processes involved in the production of every type of job. He must also have a deep understanding of human performance, weaknesses and limitations. Nevertheless, he should be a person having good salesmanship qualities.

An estimator should be quite comfortable with mathematics. He should have a good understanding of simple mathematical calculations so that he can prepare error-free estimates.

In addition to this, the printer's estimator should thoroughly know the following:

- 1) **Printing Processes:** The estimator should have a good knowledge of all the printing processes, their characteristics, capabilities and limitations to enable him to choose the right process of printing for a particular job. If the situation demands, he should act as an advisor to his customer in this regard.

(He should know that what kind of jobs are best suited for each process of printing and by which process a job can be most economically produced should also know that which printing process would need minimum time from the receipt of manuscript to the supply of printed copies.

- 2) **Production Sequence:** The estimator should know the sequence of operations involved in doing each job. He should also know the work performed in each operation and the time taken to perform each operation. He should be able to recognize the conditions which might necessitate an alteration in the normal sequence of operations of doing a job. This sometimes is necessary to enforce cost control in the press.

- 3) **Printing Machines & Equipments:** A good estimator should have a complete list of all the printing machines and other equipments installed in various departments of the press. He should know the detailed specifications of each machine in terms of its capacity to accept the maximum and minimum size of paper for printing and processing. For example, he should know that what is the maximum enlargement and reduction that can be done on a camera installed in the press. The estimator should be thoroughly conversant with the working of each equipment.

- 4) **Production Datas:** An estimator should have a complete record of production datas of the press. He must know the average output speed of each and every machine, operatives and operations. He should understand the derivation of standard production datas used for estimating. He should have full knowledge of actual working conditions in the press.

In addition to the operational times of each and every operations, operatives and machines, the estimator must know their hourly rates to enable him to prepare accurate estimates. These datas are normally compiled by the estimator from the facts and figures supplied by the costing section.

- 5) **Production Costs:** An estimator must keep record of production costs of various jobs done by the press in the past in order to correct and up-date his production datas. He should know the fixed and variable costs and their effect on the unit cost. He should compare the actual cost of production of each and every job with its estimated cost. This will enable him to get an idea of his professional competencies.

- 6) **Material Costs:** An estimator should be thoroughly conversant with the cost of each and every material lying in the stores of the press along with their stock positions. He should know about the fluctuations in the prices of important materials like paper, ink, photographic films, different varieties of offset plates, etc. Approximate per kg rates of different kinds & qualities of papers like white

printing, map lithe, sunlit offset, Indian and imported art paper, cards and cover papers should always be on his tips. He should have an idea of the difference in rates of different brands of printing inks and their qualities like ordinary, special and process inks.

An estimator who has up-to-date knowledge of material costs and is able to judge the fluctuations in the material costs can very comfortably and quickly prepare accurate estimate) without depending upon anybody else.

- 7) **Outwork Information:** Every press may not be equipped with all the facilities under one roof. Often a printer has to depend upon certain specialists and trade professionals due to various reasons. Many small and medium size offset printers get the planning and colour separation work done through the scanning houses who are specialists in their work and have invested crores of rupees. Now-a-days, hardly there is any printer who is making his own blocks even if he is equipped with some letterpress printing machines. He has to get the blocks made from a blockmaker doing this job. Similarly, often printers get the binding work done from the private contractors.

All the jobs/works which are got executed by anointer from the outside agencies are called, "**Outworks**". The printer's estimator should know the names and addresses of all the reputed agencies specializing in works, the facilities of which are not available in his own premises. The estimator should also be well informed about the reliability of each agency along with the rates charged for different types of work and the discount offered

- 8) **Availability of Materials:** An estimator must- have full knowledge of thug, sources of availability of various raw materials in the market. Up-to-date knowledge of the rates of materials and the reliability of the suppliers is equally important for the estimator. An estimator must quote according to the rate existing in the market to ensure against losses. He must maintain a complete list of paper suppliers and dealers 0 printing materials like chemicals, photographic films, offset plates, printing inks, binding materials, etc.
- 9) **Use of Computers:** An estimator should modernize his working procedures. Now-a-days computers are being used in every walk of life. Therefore, he should know how to use computers to assist him in estimating. With the use of computers, an estimator can avoid lot of filing work. He can store all sort of information in floppies and retrieve the information as and when required.

**Computer Aided Estimating (CAE)** is talk of the day. An estimator should know the application of computers to the estimating functions. The use of computers will have a great impact on his job and his clients.

- 10) **Management Policy:** An estimator must understand the policy of the management in regard to the competition existing in the market, the clientage, that is; types of customers to be entertained and the rates of profit to be charged. He must quote rate for different printing jobs on the basis of

predetermined policy of the management. He must also be well conversant with the sale and purchase policies of the management.

### ***Estimating Form***

The estimating form used by printing presses to prepare the print estimation for jobs in a more accurate way, as the estimator will include all parameters in print estimation.

AGPC

**PRINTING SERVICES ESTIMATE FORM** (6/09)

Which do you need: Estimate Quote

Date and time requested \_\_\_\_\_ | \_\_\_\_\_ Date and time needed \_\_\_\_\_ | \_\_\_\_\_ Requested by \_\_\_\_\_

New Job Rerun Reset File Prep Art Furnished Variable Data CD Duplication  
 One Side \_\_\_\_\_ CD files are: MAC PC | Jewel Case: Paper Thick Thin  
 Both Sides \_\_\_\_\_ File Location: \_\_\_\_\_

No. Pages \_\_\_\_\_  
 No. Sheets \_\_\_\_\_  
 No. Finished Copies \_\_\_\_\_  
 Finished Size \_\_\_\_\_  
 Flat Size \_\_\_\_\_  
 Customer Furnished Stock \_\_\_\_\_  
 Paper Type and Weight \_\_\_\_\_  
 Paper Color \_\_\_\_\_  
 Ink Color \_\_\_\_\_

Offset Printing Digital Printing Copy Center Wide Format Printing Other: \_\_\_\_\_

<b>Electronic File Information</b> File(s) sent FTP and placed in: Design Copy Center Mailing File(s) sent by email to: printingservices@purdue.edu other _____ No. Disk(s) provided: _____ File Names: _____ _____ _____ Numbering Store File for Reprints	<b>Mailing</b> Yes No If yes, please fill out the Mailing Form and attach to this form. Mailing will be done on another order: _____ <b>Finishing</b> Collate _____ Staple _____ Drill _____ Cut _____ Docubind _____	Fold _____ 1/3 1/2 1/4 Head In Head Out Right Angle Pad _____ Score _____ Perf _____ Insert _____ Saddlestitch _____ Perfect Bind _____ Plastic Bind _____ Coil Bind _____ Velo Bind _____	Thesis Bind _____ Channel Bind _____ Hard Cover Soft Cover Laminate _____ 10 mil 3 mil 1.5 mil (BROWN) Flush trim Border trim Plastic Wrap _____ Die Cut _____ Foil Stamp _____ Emboss _____ Case Bind _____ Handwork _____
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Special Instructions:  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Check which type(s) of Proofs you would like to see.

Fax PDF Black & White Laser Digital Color Copy Center Imposition Contract Color Bindery Press Other \_\_\_\_\_  
 Proof To: Main Contact Second Contact Other Ship To: Main Contact Second Contact Other Pick Up

<b>Main Contact</b> ship Qty _____	<b>Second Contact</b> ship Qty _____	<b>Other</b> ship Qty _____
Department _____	Department _____	Department _____
Name _____	Name _____	Name _____
Building _____ Rm. _____	Building _____ Rm. _____	Building _____ Rm. _____
Phone _____ Fax _____	Phone _____ Fax _____	Phone _____ Fax _____
E-Mail _____	E-Mail _____	E-Mail _____

Title of this order \_\_\_\_\_ Previous Job # \_\_\_\_\_

Date Ordered \_\_\_\_\_ Finished Date Requested \_\_\_\_\_ Time Requested \_\_\_\_\_ a.m. p.m. Event Date \_\_\_\_\_ Estimate/Quote # \_\_\_\_\_

CUSTOMER I.D. # / ACCOUNT NUMBER							AMOUNT
BA (name use)	FUND	COST CENTER	ORDER	GL ACCOUNT	WBS ELEMENT	B/REC (job, number, currency)	



Choose a Location:

Helpline: (765) 494-2006  
 www.purdue.edu/printingservices

### **Estimating for Paper**

The word 'Paper' refers to varieties of stocks used for printing, packing, wrapping and processing. The substance of paper is expressed in gram per square meter, GSM or gamy. The substances have been rounded off to the nearest 5 g/m<sup>2</sup>. The papers of more than 210 GSM are generally known as cards. The cards of different weight and colour are used for making covers of books, magazines journals, registers etc. The heavy weight cards are often used for making visiting cards and invitation cards.

The papers used in the trade have been divided into the following three main categories:

- a. Writing Papers
- b. Printing Papers, and
- c. Wrapping / Packing Papers.

The writing papers include papers like Bond Paper, Bank Paper and Drawing Papers. The printing papers include papers like Newsprint, White Printing (MF), Map Litho (wood-free), Poster Paper, Art Paper, Imitation Art Paper, Chromo and Cover Paper. The papers used for wrapping and packing are Craft Paper, Manila, Mechanical Glazed, Tissue Paper, Vegetable Parchment, Glass Proof and Glassine.

The White Printing Paper, Map Litho, Antique and Offset Paper are most commonly used for book work whereas a paper of less than 50 GSM called Manifold Paper and Bible paper is usually meant for the dictionaries and directories.

The paper is available in the market in conventional as well as metric sizes. The papers in conventional sizes have dimensions in inches whereas the metric size papers have dimensions in millimeters. Some of the conventional sizes of papers and their names by which they are designated are given below:

<b>Name of the Paper</b>	<b>Size on Inches</b>	<b>Approx. Size in mm</b>
Small Foolscap	13 ¼" x 16 ½"	336 x 419
Foolscap	13 ½" x 17"	342 x 431
Post	15 ½" x 19"	393 x 482
Crown	15" x 20"	381 x 508
Large Post	16 ½" x 21"	419 x 533
Demy	17 ½" x 22 ½"	444 x 571
Medium	18" x 23"	457 x 584
Small Royal	19" x 24"	482 x 609
Royal	20" x 25"	508 x 635
Royal Elephant	20" x 27"	508 x 685
Imperial	22" x 30"	568 x 762

### Selection of Paper

Paper usually constitutes the major part of the total cost of production of a printing job. The selection of the kind, quality and substance of paper is mostly done by the customer himself in consultation with the printer. The points to be considered for this are the nature of the job, the screen rulings used for the halftone reproduction, the type face and the process of printing. The choice for the size of paper to be used is made by the estimator or the printer taking into account factors like the format of the job, the size of the printing machine, the scheme of imposition, bleed and style of binding.

### Calculating the number of sheets required for the job

The total weight of paper in a pile is equal to the product of the paper substance, area of one sheet in square meters and the number of sheets contained in a pile. Therefore,

$$W_{\text{IN}} = \frac{\text{GSM} \times A \times N}{1,000}$$

Where,

$W_{\text{IN}}$  = Weight of "N" number of sheets in kilograms,

GSM = Substance of paper in grams per square meter, and

N = Number of sheets in the pile.

A printer's ream normally consists of 500 sheets. If weight of one ream of paper  $W_{\text{t500}}$  consisting of 500 sheets is to be calculated, then the above formula can be further simplified by substituting  $N = 500$ . Therefore,

$$W_{\text{t500}} = \frac{\text{GSM} \times A \times 500}{1,000}$$

$$W_{\text{t500}} = \frac{\text{GSM}}{2} \times A$$

Example . Find out the weight of one ream of paper of 80 GSM in double medium size.

*Solution:*

$$\begin{aligned} W_{\text{t500}} &= ? \quad \text{GSM} = 80 \quad A = 23'' \times 36'' \\ &= 584 \text{ mm} \times 914 \text{ mm} \\ &= 0.584 \times 0.914 \text{m}^2 \end{aligned}$$

$$\begin{aligned} W_{\text{t500}} &= \frac{\text{GSM}}{2} \times A \\ W_{\text{t500}} &= \frac{80}{2} \times 0.584 \times 0.914 \\ &= \mathbf{21.35 \text{ kg}} \end{aligned}$$

**Equivalent Weight of Paper**

If the weight of paper in a particular size is given and its equivalent weight in any other size in the same substance is to be determined then the following formula may be used:

$$W_D = \frac{W_G \times A_D}{A_G}$$

Where,

- $W_D$  = Weight of paper to be determined
- $A_D$  = Area of paper of which weight is to be determined
- $W_G$  = Weight of the given paper, and
- $A_G$  = Area of the given paper

NOTE: The unit of weight and measurement in both the cases should be the same.

**Example:** A ream of paper in 61 x 88 cm size weighs 21.5 kg. Find out the weight of the same paper in quad crown size.

$$W_D = ? \quad W_G = 21.5 \text{ kg} \quad A_G = 61 \times 88 \text{ cm}$$

$$A_D = 30'' \times 40''$$

$$= 72.2 \times 101.6 \text{ cm}$$

$$W_D = \frac{W_G \times A_D}{A_G}$$


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$$W_{t500} = \frac{21.5 \text{ kg} \times 72.2 \times 101.6 \text{ cm}}{61 \times 88 \text{ cm}} = 29 \text{ kg.}$$

**Ink Consumption Formula**

One of the leading manufacturers of printing inks have given the following formula for calculating the consumption of their inks after taking into account all the above mentioned factors. However, this formula may be used even for other branch of inks with a slight modification in the constant (355) used in the formula:

$$\text{Ink consumption} = \frac{S \times P \times A \times N \times K \times SG}{355} \text{ Kg.}$$

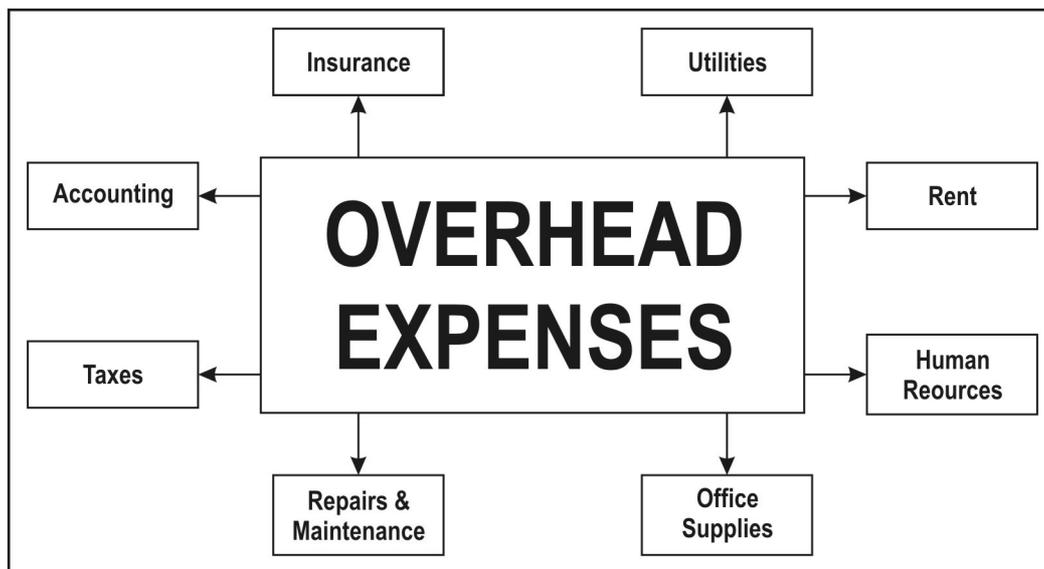
Where,

- S = Kind of paper stock,
- P = Process of printing,
- A = Print area in square meters,
- N = Number of copies to be printed,

- K = Kind of forme, and  
 SG = Specific Gravity of the ink used.

### **2.3 OVER HEAD EXPENSES:**

The indirect costs or fixed expenses of operating a business (that is, the costs not directly related to the manufacture of a product or delivery of a service) that range from rent to administrative costs to marketing costs.



### ***Classification of Overhead Expenses and Importance of over head Expenses***

These expenses are either fixed or variable:

**Fixed expenses.** No matter what your sales volume is, fixed costs must be met every month. Fixed expenses include rent or mortgage payments, depreciation on fixed assets (such as cars and office equipment), salaries and associated payroll costs, liability and other insurance, utilities, membership dues and subscriptions (which can sometimes be affected by sales volume), and legal and accounting costs. These expenses don't change, regardless of whether a company's revenue goes up or down.

**Variable expenses.** Most so-called variable expenses are really semi variable expenses that fluctuate from month to month in relation to sales and other factors, such as promotional efforts, change of season, and variations in the prices of supplies and services. Fitting into this category are expenses for telephone, office supplies (the more business, the greater the use of these items), printing, packaging, mailing, advertising, and promotion. When estimating variable expenses, use an average figure based on an estimate of the yearly total.

### ***Importance of overhead expenses***

Overhead costs are generally fixed, monthly expenses. You will have these costs whether or not you make or sell anything. Your rent, insurance premiums, telephone bills and utilities still have to be paid whether you are away at craft shows or working all night to finish an order. This is a much neglected area in most home businesses, and if you fail to take overhead into consideration, it can eat up your profits.

Keeping track of these expenses and assigning them to the work you produce can be complicated, but it's necessary if you are to make a profit from your business; that is, take in more money than you spend. If you have been in business at least a year, it will be fairly easy for you to pull all these overhead figures together to arrive at an average monthly cost. But if you are just starting, you will have to do some fancy guessing and estimating.

Following are some of the easily identifiable costs of doing business that contribute to your overhead:

- **Rent.** Overhead involves the cost of a place to work, including percentage of mortgage interest/or rent and utilities. If you are using your own home, you still should add in a cost for rent because you are actually using a certain percentage of your living space for your business and should therefore take a percentage of the cost as overhead.(Up to a maximum of 25%).
- **Utilities.** Heat, light, gas, water, trash removal, etc—figure the same percentage as you took for the rent unless you can figure these costs exactly.
- **Telephone.** If you don't have a separate business phone line, estimate the percent of calls you make, in and out, that pertain to business, and multiply by the monthly bill.
- **Equipment Purchase.** The tools and equipment you use in the manufacture of your goods will not last forever. They represent an investment. A portion of these capital goods costs should be included in your overhead each year as a very real cost of manufacture. You may depreciate or take a certain percentage of the costs of these each year over the useful life of the machine or equipment. You may also have tools which must be replaced at certain intervals.
- **Equipment Repair.** Maintenance and repair of any equipment or computers is an expense needed to keep production going.
- **Office Supplies.** You will certainly need office supplies to carry on your business—envelopes, letterhead stationery, business cards, packing slips, pens, pencils, computer paper, printer cartridges, software, disks, and any other consumable supplies and tools. Also any cleaning supplies to keep your office and work area clean All of these are overhead.

- **Shipping and Packaging Materials.** You must also consider all your shipping and packaging materials such as boxes, tape, labels, tissue, bags, etc.
- **Travel Expenses.** If you are away from home overnight or longer for sales, education, promotion, or for a conference, include your food and housing expenses and admission fees.
- **Dues and Publications.** Membership in organizations for either educational or promotional purposes, and subscriptions to related magazines, or books you add to your library.
- **Professional Fees.** Payment for the services of an accountant or lawyer, tax preparation fees, and any other consultants.
- **Bank Charges and Interest.** The monthly charges the bank makes to maintain your account and any overdraft charges. If you have borrowed money to set up your business and to buy the initial equipment or upgrade equipment, then the interest cost is another overhead expense. The principal of the loan is not considered an expense, since you've already spent the money and the payment comes out of your profit.
- **Automobile Expenses.** If you use your car or van to deliver merchandise, pick up supplies, and/or going to and from craft shows then the cost of your gas and mileage is also an overhead expense.
- **Insurance Premiums.** Cost of any special business coverage such as: property and inventory coverage, business interruption, legal liability, etc.
- **Nonproductive Service Time.** One essential overhead is the cost of your labor in doing all the non-productive work involved in running a business. You must seek sources of supplies, place orders, pay bills, keep track of your paperwork, time spent in talking to customers or potential buyers, and locating and applying for craft shows. If you find yourself spending a long time with such chores, they could add significantly to the price of your products.

## **2.4 PREPARATION OF COMPETITIVE ESTIMATES AND COSTING**

The estimating of a printing job involves the following steps:

- 1) The first step is to ascertain the directly chargeable operations which will have to be carried out in the execution of the job.
- 2) The second step is to assess the time which is likely to be spent in the carrying out of each and every operation.
- 3) In the third step, the hours likely to be spent in each and every operation are multiplied with the hourly rates of the respective operations, thereby, furnishing the labour cost of doing the job.

- 4) The fourth step under estimating is to add the cost of directly chargeable materials and outwork like paper, binding and covering materials, etc. to the labour cost of the job.
- 5) The fifth step is to add expenses incurred on the directly chargeable materials and outwork including a percentage (As service charges) on the actual cost of the directly chargeable materials and outwork.
- 6) The last step in estimating is to add profit as per the policy laid down by the management.

***Economical consideration for preparing competitive estimates:***

Work out how many copies you will want printed -- whether it's a leaflet, book, booklet, magazine, brochure or newsletter. If you are planning to sell copies of the item you want printed, err on the side of caution and have more copies printed than you think you'll need. If you print only a handful more of anything that has been pre-ordered, then you may either have to pay for another print run when more orders come in -- which can turn out to be expensive for just a few dozen copies -- or return orders, which probably will lose your future orders, as a customer may feel that their time has been wasted.

Estimate the size of what you want print. A bigger format will turn out to be cheaper, regarding printing costs, because you'll be able to use less paper overall for your material to be printed on. But for a bigger format, you will have to consider packaging issues if sending material out by mail. The larger the publication is in terms of height and width, the more expensive the envelope will be. So you will need to balance the cost of printing and the cost of packaging and postage. Also, work out, unless having leaflets printed, how many pages you require for your publication, and don't leave too many blank pages.

Decide whether you want to have something printed in a basic, no frills black and white layout, or have a glossy, color publication, with lots of photographs, which will need to be screened. If you are thinking of a print run of 100, then the latter option will work out to be expensive. If you are thinking of having glossy color leaflets printed, then you are probably better off by designing and printing everything on your own computer, if you are not worried about the time element.

***Fixed Cost & Variable Cost in Printing***

The cost of any publication is the total of all expenses incurred in its production including the expenditure on activities performed by the specialists. In some of the printing jobs, some activities may not be got executed through the specialists in order to reduce the overall cost of production. The printing of text books generally involves the following technical activities:

- i. Editing Manuscript and Preparation of the Press Copy,
- ii. Designing of Text and Cover including Preparation of Artwork,
- iii. Typesetting
- iv. Processing and Colour Separation,

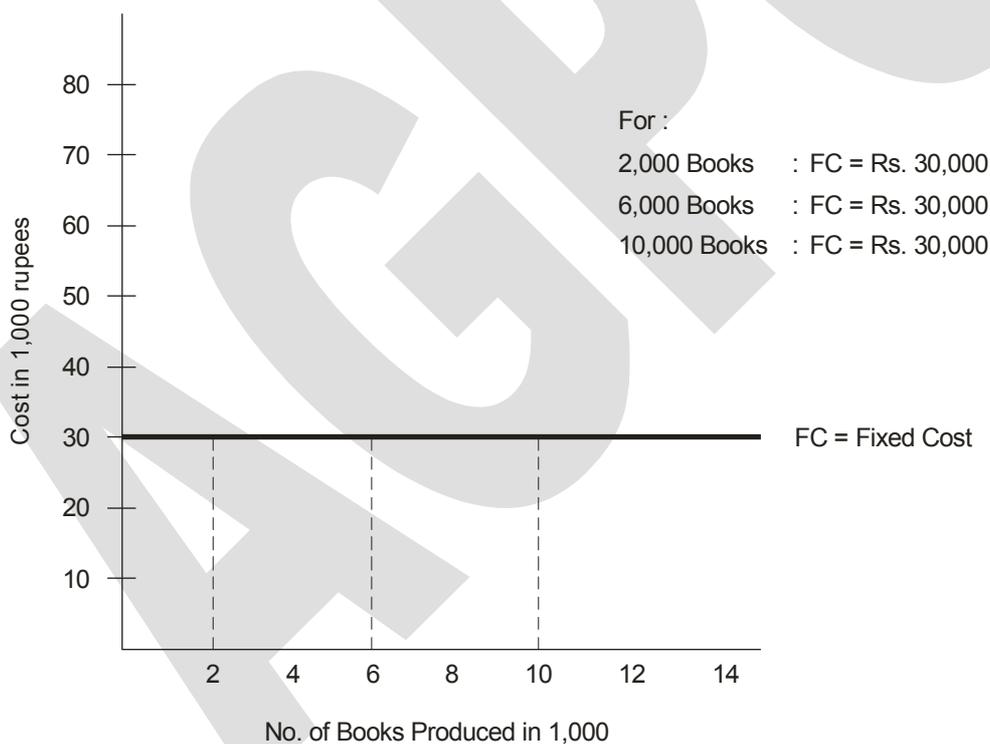
- v. Surface Preparation,
- vi. Printing by a particular Process (Machining)
- vii. Binding and Finishing, and
- viii. Cost of Paper.

The expenditure on all the above activities can be classification into following two categories:

1. Fixed Cost, and
2. Variable Cost.

### **Fixed Cost (FC)**

It is a cost which has no direct relationship with the number of copies of the publication produced. It remains constant irrespective of the quantum of output. Fixed costs would be incurred even if no copies were printed finally. For example, expenditure has to be incurred on activities (i) to (v) even for providing rough proofs of the job. The following figure shows the behaviour of fixed cost graphically.

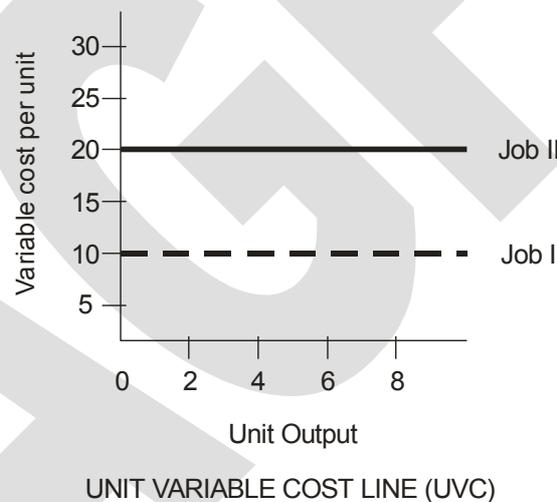
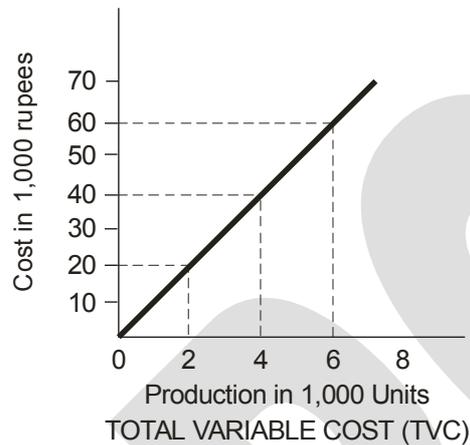


It is observed from above that for aft the print runs say 0 to 14,000, the fixed cost is Rs. 30,000 which is constant. But the unit fixed cost decreases with every increase in output because in that case, it is divided among the number of copies printed. Accordingly, the unit fixed cost increases with every decrease in output. The behaviour of the unit fixed cost is shown below graphically.

### **Variable Cost (VC)**

The variable costs vary in direct proportion to output. They generally increase or decrease in the same proportion in which the output increases or decreases. For example, the expenditure on items Evil to (viii) given on first page of the chapter will change only if there is any change in the print run. Variable costs are also referred to as product costs and these remain constant per unit of output.

The graphical presentation of the variable cost once unit variable cost is given below:



The unit variable cost curve is in the form of a straight line parallel to X-axis and, thereby, indicates that the variable cost for every unit of book produced is the same. Some people do not agree with this because they claim that when a large quantity of any product is produced the materials comprising variable costs are purchased in bulk quantity. The purchase of bulk quantity is invariably cheaper than the smaller quantity which ultimately reduces the unit variable cost to a certain extent. Similarly, it has been observed that while getting books and Periodicals printed in larger quantities, the printers generally quote lower rates for the variable items like printing and binding. This reduction is usually negligible and has a very little impact on the total cost and hence is ignored.

The unit cost of the book has been calculated by using the following formula:

$$\text{Unit Cost} = \frac{\text{TFC} + \text{TVC}}{\text{No. of Copies Produced}}$$

Where,

TFC = Total Fixed Cost, and

TVC = Total Variable Cost

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**UNIT - II – ESTIMATING AND COSTING****PART - A - 2 Marks Questions****1. What is costing?**

Costing is the technique of finding out the actual cost of production of a-job or a service scientifically.

**2. What is estimating?**

It is the technique of assessing the sale price of a job or a service scientifically.

**3. Name the component of cost?**

- Direct material
- Direct labour
- Direct expenses

**4. What is prime cost?**

It consists of costs of direct material, direct labour and direct expenses specifically attributable to the job. This is also known as flat, direct or basic cost.

**5. Name the main four component of cost?**

- a. Prime cost
- b. Works cost
- c. Production cost
- d. Total cost

**6. State the ink consumption formula?**

$$\frac{\text{Ink consumption}}{\text{consumption}} = \frac{S \times P \times A \times N \times K \times SG}{355}$$

Where,

S = Kind of paper stock,

P = Process of printing,

A = Print area in square meters,

N = Number of copies to be printed

K = Kind of forme, and

SG = Specific gravity of the ink used.

**7. Name some of the overhead cost?**

Rent, equipment repair, travel expenses, professional fees etc.,

**8. How do calculate the unit cost of the book?**

The unit cost of the book has been calculated by using the following formula:

$$\text{Unit cost} = \frac{\text{TFC} + \text{TVC}}{\text{No. Of copies produced}}$$

Where,

TFC = Total fixed cost, and

TVC = Total variable cost

**PART - B - 3 Marks Questions****9. What is work cost?**

It comprises of prime cost and factory overheads, (cost of indirect material, indirect labour and indirect expenses related to factory works). This cost is also known as factory cost, production or manufacturing cost.

**10. What is cost of production?**

It is the sum total of works cost and office and administrative overhead (cost of indirect material, indirect labour, and indirect expenses related to office works). This cost is known as office cost.

Cost of production = works cost + office and administrative.

**11. What is meant by overhead expenses?**

The incorrect cost or fixed expenses of operating a business (that is, the costs not directly related to the manufacture of a product or delivery of a service) that range from rent to administrative cost of marketing costs.

**12. State the reasons for outsourcing?**

- i. Cost saving
- ii. Access to expertise
- iii. Focus on core processes
- iv. Capacity management
- v. Technology known – how
- vi. Saving of valuable time
- vii. Transfer of risk

**13. State formula for calculating number of sheet require for job?**

$$W_{tN} = \frac{\text{GSM} \times A \times N}{1,000}$$

Where,

$W_{tN}$  = Weight of "N" number of sheets in kilograms,

GSM = Substance of paper in grams per square meter, and

N = Number of sheets in the pile.

**14. What is estimating form?**

The estimating form used by printing presses to prepare the print estimation for jobs in a more accurate way, as the estimator will include all parameters in print estimation.

**PART - C - 10 Marks Questions**

1. Define estimating and costing. Explain the components of cost with flow chart.
2. State the difference between Costing and Estimating.
3. Explain on the qualification of an Estimator.
4. What is an estimating form? State the advantages and sketch the form and explain.
5. Explain the classification of overhead expenses and importance of overhead expenses.
6. State the steps for preparation of competitive estimate and state the economical considerations.
7. Explain fixed cost and variable cost with a graph.

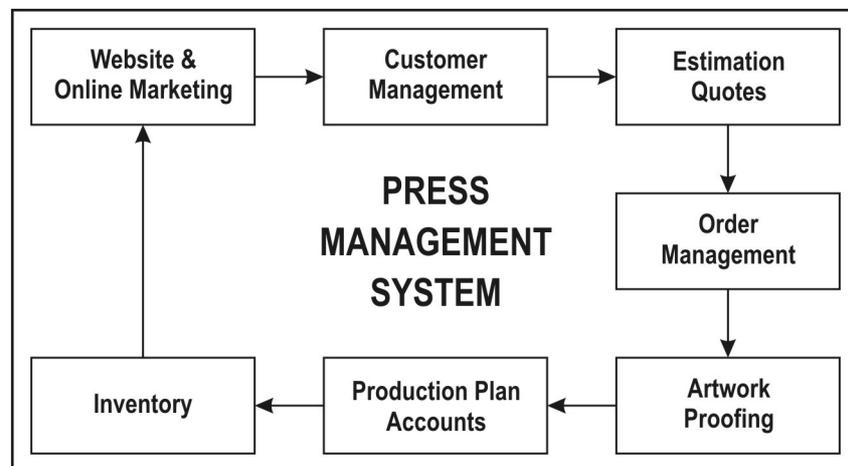
## **UNIT - III – PLANNING FOR PRINT PRODUCTION**

### **3.1 PRODUCTION SYSTEM ADMINISTRATION**

A print production planner controls, organizes and monitors the flow of printed materials in a printing company. They check schedules, confirm product specifications, arrange adjustments, oversee the work of staff in the department and monitor the quality of the product, ensuring deadlines are met.

Print production planners liaise with other production departments and customer account managers at local, national and international levels according to the scale of the work in hand.

Responsibilities and job titles will vary from employer to employer; a print production planner may also be referred to as a print manager, print supervisor, production press operations manager or production planning co-coordinator/administrator.



#### ***Production control systems***

Activities involved in handling materials, parts, assemblies, and subassemblies, from their raw or initial stage to the finished product stage in an organized and efficient manner. It may also include activities such as planning, scheduling, routing, dispatching, storage, etc.

#### ***Work initiation procedures***

The key to orderly administration of the production effort is a set of operating procedures that are strictly followed for all jobs. Chaos can result if sales representatives or others bring job changes or new orders directly into the plant without first going through the production administration system.

Several preliminary steps are usually followed before a job is official. All production control steps are usually recorded on a series of forms which could be printed or electronic in nature. The initial forms are;

##### ***1. Request for estimate:***

The sales representative fills out this form on the request of the customer. The request, which is submitted to the estimator, contains details of the job in question: quantity, size, number of pages, number of colors, substrate specifications, typefaces and typesetting

specifications, number of color separations required, and all other details relevant to the product in question.

## **2. Estimate:**

The estimator calculates the cost of producing the proposed job in the most efficient manner available to the plant. Computer assisted estimating approaches are routinely used at this stage. The estimate printout is forwarded to the estimator's supervisor for review and for calculating the quoted price.

## **3. Price Quotation:**

Management adds the required profit to the cost estimate to compute the price quotation which is, in turn, submitted to the customer. The sales representative often delivers the quotation to the customer.

## **4. Customer's Purchase Order:**

If the quotation was acceptable, the formal order together with the artwork, disks, text copy, samples, and other job-related elements are submitted to the production administration department via the sales representative. The order may authorize costs over and above the quotation if there are changes in the specifications that were originally submitted to estimating.

The documents that initiate work on the job are prepared and issued by the administrative staff. The actual person who authorizes the release of the work orders will vary from company to company. It could be the administrative or office manager, the production manager, the owner or CEO, or other individual whose job description includes such authority. The work initiation forms are:

## **5. Raw materials:**

If the raw material required for the job is not in the firm's inventory, they will have to be ordered. The printer may request several bids from different suppliers if it is a large order, but the usual procedure is to submit an order after consulting the price lists of the firm's routine suppliers. Naturally, material availability will be determined before the order is submitted. The order will specify size, quantity, product number, delivery date, price and other requirements. This document, like many of the other production control documents, will be dated and signed or initialed by the person with authority to initiate the action in question.

## **6. Trade services purchase order:**

A firm may use several outside service suppliers such as typographers, color separators, forme or die cutters, or even printers. If outside purchases are fairly common, specialized purchase orders for each may be developed in order to simplify the recording of diverse specifications.

## **7. Job ticket or Instruction ticket:**

This is the key document that accompanies the layouts and other job related material through the plant. It is the main source information to production workers about job requirements. The job ticket can actually be printed on the outside of a large envelope that is

used to contain all the job elements. A firm may use several kinds of job tickets, as those best suited to typesetting or color separation would not be particularly useful for printing or finishing. This form records detailed job specifications and customer information.

#### **8. Changes in specifications form:**

Such changes, sometimes known as “author’s alterations” may be made as either a modification to the original specifications submitted to the estimator, or changes introduced while the job is in production. The form details the nature of the requested alternations, states the extra costs that will be involved and is signed by the customer.

#### **9. Proofs:**

Proofs of the job serve two purposes from the production control viewpoint: they indicate required changes, that is either corrections or alterations: and they authorize further action, that is, make another proof or to proceed to the next manufacturing step proofs signed and dated by the customer are known as “contrast proofs”, and should be secured for all jobs prior to proceeding with further production. Sales representatives should ensure that color proofs are evaluated under the correct lighting conditions, i.e. usually the industry standard lighting.

#### **10. Material release authorization:**

Material, in this sense, usually means paper or some other substrate. The authorization instructs warehouse personnel deliver a certain size, quantity, and grade or material to a particular production department. The press room would be the recipient of most of the material from the warehouse. Grain direction and cutting instructions are further specifications that would usually be included on a material release form.

#### **11. Departmental load program:**

This is the document that actually authorizes a department to work on particular jobs. The form contains a list of jobs in order of priority and the due times or dates. In some cases, the time budgeted for the job may also be recorded on the form. The time period covered by the load program could range from one day to one week. In the case of periods longer than one day, provisions for updates are usually provided.

### **3.2 PLANNING CONSIDERATION**

Planning involves working out the best way to produce a given job. In this sense it comes close to the area of estimating, but there are some important distinctions. The estimate is prepared up to several weeks in advance of the job arriving at the plant. The estimate is often prepared under the assumption that all the plant’s equipment is potentially available to do the job in question. By the time the job arrives at the plant, the “ideal” equipment figured by the estimator may be in use for another job; therefore, the production planner will replan the job based on what is actually available.

#### ***Materials purchasing and inventory control:***

One task of materials purchasing personnel is to order special materials required for a particular job in sufficient time to ensure availability for production. The need for such

orders must be conveyed as soon as possible from production planning to the purchasing department.

For many materials, however the firm will maintain a supply that is ready for use on common jobs. The key is to separate the exotic or unusual materials from the common or standard materials. The former are not stocked; the latter are.

Inventory controllers adopt a purchasing strategy that balances the cost of placing orders with the cost of storing materials. The question of price breaks or quantity discounts are also considered with the objective of minimizing, for a given quality grade, the total cost related to the ordering, value and storage of the materials.

Maintenance of stock records, issuing materials, checking and evaluating incoming shipments, and the documentation of materials storage locations are examples of the tasks required for ongoing inventory control. The storage and maintenance of finished goods inventories are also required where work is produced by standing order, i.e. some packaging and book printing.

### **Material Management**

"Every time we handle a product, we only add to its cost and not to its value". Hence though comparatively of recent origin, material management techniques have wide applicability in cost reduction in presses where systems approach is essential.

Material management should ensure supply of proper quality and quantity of material and when required, cutting cycle times for production at minimum total cost.

Principles of purchasing are right quality according to specifications, right quantity availing quantity discount, at right time purchasing in season, at favorable price depending competition, and from right sources like manufacturer or wholesale agent.

Five rights in purchasing are: Right quality, right quantity, right time right price and from right source. Material management includes material planning, development of better alternate materials for cost reduction, samples for trial, forecasting material requirement, scrutiny a consolidation of requisitions in coordination with production planning, standardization of stores purchase and sub-contracting, carrying procurement plans-short and long term of equipment, inventory control, store keeping, transportation and handling of incoming and outgoing material, purchase price analysis, value analysis and value engineering scrap like waste paper and surplus disposal and wastage control.

### **Production Scheduling:**

Scheduling is concerned with when a particular job will be processed through the appropriate machines or departments in order to meet the required delivery date. The scheduler must also consider the delivery requirements of all other jobs in the plant and optimize the total schedule.

Often the scheduler is forced to utilize less effective (from the cost viewpoint) methods in order to meet all delivery requirements. Over time, split production runs, and

even “buyouts” where jobs may be sent to outside sources are examples of some of the choices available to the production scheduler.

At slack times, the scheduler tries to fill gaps in the schedule with standing order jobs that can be used for equipment maintenance, employee training, or for evaluation and testing of new materials or processes. The scheduler works closely with the production or plant manager and the departmental supervisors when developing a scheduler that contains these non-production but essential activities.

### **Production Control:**

Production control is the process of initiating and monitoring the job flow within the plant. The initiation process generally consists of a series of forms with specific job, machine and completion information. Some examples are instruction form, machine or department load chart, materials requisition form and outside purchase order.

The monitoring process consists of feedback from the plant to the production controller concerning job progress. Much of the feedback is obtained in production meetings or other personal contact between the production controller and department supervisors. Some of the forms and reports concerned with the monitoring process are daily materials return, daily production return, and goods receipt and shipping documents. Some feedback may also be provided by computer-based job tracking programs. Overall manufacturing performance is monitored through cost accounting reports and reports of customer satisfaction.

The feedback from the control process is used to modify the production plan and schedule as needed. It can be seen that the processes of production planning, scheduling and control are often highly integrated activities; indeed, in smaller companies the same person often performs all these tasks.

### **Quality Control:**

The process of ensuring that the product shipped to the customer meets the quality expectations is called quality assurance. Statistical sampling schemes together with appropriate measurement and recording of quality attributes and variables are used to document the quality of the shipped product, and also to develop a current profile of the quality performance of the company.

The documentation of processes and events related to the quality goals of the company is also a critical function of quality control. Detailed records of the reasons for remakes and spoilage together with equipment preventive maintenance records, training records, and raw materials quality records, all provide the basis for future improvement of quality.

The preparation of charts for analysis of process performance, and the administration and documentation of subsequent efforts and results are also an important element of the quality control process. The active involvement with the sales staff in helping to define the quality goals of the customer and to express such goals in quantifiable terms is another key task for quality control.

**Press Layouts****Prepress:**

The prepress area should not have any window that would interfere with photosensitive materials, cause unwanted glare, or distort color judgments. The area should be kept quiet and clean. A good ventilation or air extraction system must be installed to remove dangerous fumes. Good access to both the office area and the pressroom is important. Walls and ceilings should be painted with not-glare light paint. The floors should also be a near neutral color.

Films or magnetic media or completed jobs and raw materials and supplies used in the prepress departments, are often stored in the prepress area rather than in a general storage area elsewhere in the plant. Hazardous chemicals and expensive materials are generally kept in a secure cabinet or room.

**Press:**

A key requirement in a pressroom is a adequate space around a press for materials transport and handling. A work in process storage area must be considered for printed sheets to dry before subsequent processing operations are commenced. Apart from press space provisions, aisles, and work in process storage, adequate inspection areas, supplies storage, and plate storage should also be planned.

**Finishing:**

The space requirements for equipment, aisles and work in process storage account for most of the space requirements in finishing. Folded signatures accumulate in work in process areas until sufficient stock of the final signature is available to allow the commencement of the stitching process. Wrapping and inspection areas should also be considered. The finishing department is located adjacent to both the press room and the shipping area.

**Warehouse:**

The warehouse primarily stores paper. It should be laid out in such a manner to allow easy access to all of the materials in stock. The warehouse should be located near both printing and finishing departments, and should be in that part of the building with the best access to road transport services. The space should be maintained at the temperature and humidity that is compatible with pressroom conditions; alternatively, extra space for conditioning prior to printing should be provided in the pressroom.

**Minimum distance:**

Keep the travel times for materials and people to an absolute minimum by ensuring that the most frequent transit routes are kept to as short a distance as possible.

**Efficient material flow:**

Keep material flow along a logical path (no backtracking through departments) and avoid crossing work lanes or transport lanes. Efficient materials flow patterns include the U-shape and L-shape type.

**Safety:**

Ensure that adequate space is planned for equipment access and operation. Keep traffic lanes clear and well marked. Keep the plant well ventilated with fresh air, provide ample and well-marked fire exits and strategically located fire extinguishers and first aid stations. Safety planning should conform to the applicable government safety regulations.

**Flexibility:**

Make sure that electricity, telephone, gas, water, drainage and heating-cooling ducts are installed in such a manner that it is relatively easy to reconfigure such services when future changes occur in the plant or equipment.

**Vertical usage:**

If the ceiling of a plant has to be unusually high to accommodate particular equipment, use the vertical space in the most efficient manner. Mezzanine floors for job documentation storage or offices can be quite efficient.

**Minimize discomfort:**

Optimize the internal environment by maintaining comfortable temperature and humidity, and good lighting keep noise, vibration, drafts, excessive sunlight and odors to an absolute minimum. Ensure conformance with appropriate government safety and health regulations.

**Security:**

Safeguards against fire, moisture, earthquake and crime should be considered.

**Materials handling:**

Consider automated materials handling systems for repetitive process plant layouts. Conveyor systems and automated guided vehicles (AGVs) have been successfully used in the type of plant.

**Communication:**

Employee bulletin boards, specifications posters, public address systems, telephone and computer terminals and other public displays or means of communication should be provided. Ample space for employees to gather in work groups or problem solving teams should be allowed, as should the opportunity for individuals to add appropriate personal touches to the workplace.

**Work optimization:**

The field of industrial and manufacturing engineering (sometimes called production engineering) is also concerned with optimizing the work done within the plant as well as optimizing the design and layout of the plant. The optimization of work procedures is called efficiency study or work study and uses two techniques: method study and work measurement. The field of ergonomics (human factors engineering) is also important to work optimization. Such techniques are commonly used in quality management programs to help improve efficiency and quality. The overall objective of work study is to improve the efficiency of the work being done in a given plant or office.

### **3.3 VALUE SYSTEM IN THE INDUSTRY**

#### ***Value system:***

The societal changes of the last 20 or 30 years have come about largely because of the decline or rejection of certain values that had guided or restrained human behavior. When such restraints or guidelines are loosened, we have breakdowns in civil society, unethical business practice, governmental corruption, workplace harassment, amoral behavior, exploitation and other undesirable outcomes. Attempts to combat these problems with legal and regulatory authority leads to the development of large policing networks that are expensive to maintain and more to the point, enervates individuals and leads them to concede more and more of their sovereignty to the state.

Some of the virtues are all included here:

- **Self Discipline:** The control of temper, appetite, and the tendency towards laziness.
- **Compassion:** Standing by others at a time of distress; moral awareness.
- **Responsibility:** To be accountable for one's actions. A sign of maturity in people who have taken charge of themselves and their conduct.
- **Friendship:** Taking others seriously for their own sakes; frankness, self revelation, loyalty and assistance to the point of self sacrifice.
- **Work:** The opposite of idleness. Applied effort that is done well with cheerfulness and pride.
- **Courage:** Doing brave acts in threatening situations. Standing our ground against terrible things.
- **Perseverance:** Avoiding hesitation, faltering, wavering and vacillating; being able to stick with a correct course of action.
- **Honesty:** To be real, genuine, authentic and bona fide. An expression of respect for self and others. It imbues lives with openness, reliability and candor. Honesty is of pervasive human importance.
- **Loyalty:** A constancy or steadfastness in attachments to those persons, groups, institutions or ideals with which we have decided to associate ourselves.
- **Faith:** Religious belief that provides a source of discipline, power and meaning. Faith contributes to the form and content of the ideals we hold and shapes the way we regard and behave with respect to others.

#### **Developing interpersonal management skills and communication skills**

##### ***1. Developing Self Awareness:***

Determining cognitive style, level of values development and interpersonal orientation. Becoming aware of personal strengths and weaknesses. Understanding the impact of your interpersonal style on others.

**2. Managing Stress:**

Developing effective time management techniques. Identifying major stressors in daily life. Developing effective coping mechanisms for stress.

**3. Solving Problems Creatively:**

Developing competence in rational problem solving. Overcoming conceptual blocks. Creating flexibility in thinking.

**4. Communicating Supportively:**

Becoming adept at active listening. Developing the ability to be empathetic. Using the appropriate response formats.

**5. Gaining Power and Influence:**

Establishing a strong power base. Converting power into influence. Avoiding abuses of power.

**6. Motivating Others:**

Distinguishing between problems of ability and motivation. Providing highly valued incentives. Making rewards contingent on performance. Timing rewards for maximum impact.

**7. Managing Conflict:**

Balancing assertiveness and sensitivity. Handling personal criticisms. Registering complaints effectively. Mediating conflicts between subordinates.

**8. Empowering and Delegating:**

Developing competence in assigning tasks to others. Fostering successful task completion in others. Determining when to involve others in making decisions.

**9. Building Effective Teams:**

Diagnosing the necessity for team building. Developing teams and teaching teamwork. Conducting effective team meetings.

**Decision making and stages of decision making**

Management make decisions in a number of complex situations that involve people with differing personalities, a set of economic incentives and a wide variety of organizational factors and tasks. Whenever possible, managers should take steps to structure the situation to simplify and aid the decision making process.

There are four stages to decision thinking.

1. **The Question:** Formulating the question in the clearest possible way and collecting the data and information that is relevant to answering the question.
2. **The Alternatives:** Creating an effective range of alternative answers to the questions.

3. **The Consequences:** Evaluating the alternatives by thinking through the implications of each and predicting both the likely and the unlikely outcomes.
4. **The Decision:** Weighting the probabilities of succeeding with each alternative relative to the risks and benefits and exercising judgment to decide on the preferred course of action.

### **3.4 ROLE OF SUPERVISOR AND MANAGER IN EFFECTIVE MANAGEMENT WORKFLOW**

#### ***What are the roles and responsibilities of a managerial position?***

1. Supervise and manage the overall performance of staff in his department.
2. Analyzing, reporting, giving recommendations and developing strategies on how to improve quality and quantity.
3. Achieve business and organization goals, visions and objectives.
4. Involved in employee selection, career development, succession planning and periodic training.
5. Working out compensations and rewards.
6. Responsible for the growth and increase in the organizations' finances and earnings.
7. Identifying problems, creating choices and providing alternatives courses of actions.

#### **Managerial Roles**

##### **1. Interpersonal relationship skill.**

If you want cooperation from your team or employees, pay attention. Practice empathy and respect the personal values, opinions and ideas with the people you interact with. Listen and respond and offer praises and encouragements when they make progress. By doing that you will enhance their self esteem build trust.

As the boss, your ability to develop trust and confidence, resolve problems and issues will result in a productive, goal oriented work group. You should encourage your team to ask for help, get involved and participate.

##### **2. Communication skill.**

A manager is the middle person in between the top management level and the team that reports to him. He has to ensure that communication is smooth and conveyed clearly to avoid misinterpretations and dissatisfaction. It's useful to develop your negotiation and customer service skills, especially if you deal with clients.

#### ***A good planner***

In order for you to achieve long term goals and commit to strategies for substantial earnings, you have to communicate the vision of the company to your subordinates. You break down and clarify the goals that each team or individual have to perform and assign work schedules and strategies.

It also involves thinking and planning out strategies on how to improve quality and also being cost conscious and effective. Having goals and planning out the directions allow for effective time management and saves cost and resources.

### **Decision Maker.**

The daily routine of making decisions include determining how to approach an employee who is not performing or lacking progress and how to bring about change to the organization and its team. It is essential that your day to day decision is based on what's important, what's right and not who's right.

### **Leadership skill.**

Your position entails you to guide and give direction so that the team can perform effectively. You offer on the job coaching, training and support. In order for individuals to meet the needs and objectives, they may need extra input, information or skills.

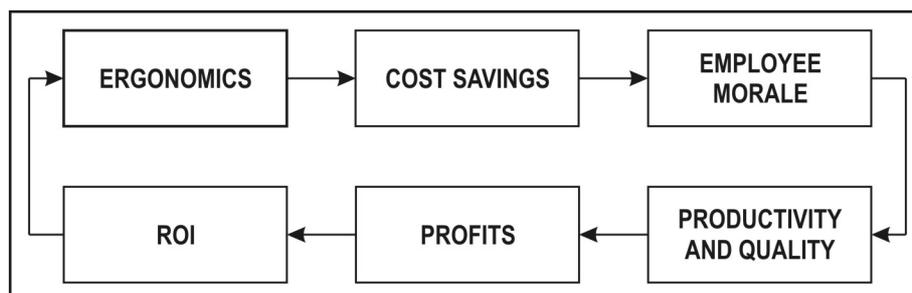
The performance of your team depends on your abilities to empower them. How well a person performs depends on his motivation. Your task as the boss is to encourage and coach others to improve themselves and the quality of their work. You need to instill in them the desire to excel and accept responsibility and self management.

### **Appraiser.**

You need to have the capacity to evaluate and examine a process or procedure and decide on the best choice to produce an outcome. You look at the importance, quality and values and then taking the best approach.

You are also expected to track the progress of each individual's activities and effectiveness, review them and offer feedback and counseling.

### **Ergonomics**



The physical needs of workers should be considered not only for the welfare of the individual, but also for the welfare of the company. If work conditions are uncomfortable, injuries may increase, work may slow down, errors may occur, and employee turnover may increase. The physical requirements of employees can be met by:

- Provide seats when possible, workers should sit rather than stand.
- Ensure that working area is at comfortable height.
- Use mechanical devices to hold work when appropriate.

- Provide arm supports
- Provide footrests
- Ensure adequate working space
- Aim for a natural working position that allows some flexibility

The working environment should be designed for optimal employed performance. The key considerations are;

### **1. Lighting**

Full spectrum or natural fluorescent lighting, incandescent light or natural light all provides healthy illumination. The light intensity should produce a high level of visual efficiency.

### **2. Glare and Contrast**

Light sources and reflective surfaces should be positioned or shielded in such a manner to protect the worker from direct or indirect glare. Greater illumination in the work area in comparison to the general area can provide a pleasant contrast walls and ceiling should be painted in light, non-glare colors.

### **3. Climate**

The temperature should be about 70°F and the humidity should be between 35-55 percent in order to be optimal. To some degree, the amount of movement required by the task will determine such requirements as temperature and the degree of movement. Chemical fumes of all sorts can be dangerous to the health of the employee, therefore, they should be initially minimized and then extracted from the work area in question.

### **4. Safety**

Shields on equipment, non-slip floors, proper lifting techniques, and respect for electrical dangers, eye protectors breathing masks, gloves and other protective clothing and care when handling raw materials will all help to minimize safety problems.

### **5. Noise**

Noise can cause fatigue and annoyance, and it may reduce efficiency by masking communications and inducing stress. Unwanted sound should ideally be eliminated or baffled: but if this is not possible, employees should be issued ear protectors.

The relevant occupational health and safety regulations should be consulted at the plant design and layout planning stage. Particular attention must be paid to ensuring that the plant meets or exceeds all applicable safety and health, environmental and building code regulations. The assistance of industrial health and safety specialists and environmental engineers should be sought early in the planning process.

### **Management Influences and Processes- An Integration**

Management make decisions in a number of complex situations that involve people with differing personalities, a set of economic incentives and a wide variety of organizational

factors and tasks. Whenever possible, managers should take steps to structure the situation to simplify and aid the decision making process.

The organization should be structured efficiently with attention paid to such principles as unity of control, span of control, chain of command and division of work that were addressed in chapter two (i.e. the work of weber and Fayol).

Sufficient attention should be paid to the financial rewards of work and consideration should be given to allowing employees to gain a share of the quality in the firm. If possible, employees with conflicting personalities should be kept in separate work teams. Insights into personality differences can be gleaned through direct observation or through a study of psychology. The works of Carl Jung, who wrote much on personality theory, are especially recommended. Jung drew from many sources in developing his widely-accepted theory of personality types.

Managers should have a set of strong moral values and a code of ethics to provide guidance in decision making. Managers and other professionals in the public eye are expected to set an example for society by showing principled leadership.

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**UNIT - III – PLANNING FOR PRINT PRODUCTION****PART - A - 2 Marks Questions****1. State the role of print production planners.**

Controlling, organizing and monitoring of flow of printed materials in a printing company.

**2. What is meant by print production planning?**

Planning involves working out the best way to produce a given job.

**3. What is inventory control?**

Purchasing strategy that balances the cost of placing orders with the cost of storing materials.

**4. What is production scheduling?**

Processing jobs in appropriate machines in order to meet the delivery schedules.

**5. What is production Control?**

Production control is the process of initiating and monitoring the job flow within the plant.

**6. State the 4 stages of decision making process.**

The question, The Alternative, The consequences and finally The Decision.

**7. State the key considerations for Ergonomics.**

Lighting, Glare and Contrast, Climate, Safety and Noise.

**PART - B - 3 Marks Questions****8. What is material management?**

Ensuring supply of proper quality and quantity of materials and cutting cycle time for production at minimum cost.

**9. What is quality control in Printing?**

The process of ensuring that the product shipped to the customer meets the quality expectations is called quality assurance.

**10. What is Ergonomics?**

Ergonomics is the scientific discipline concerned with the understanding of interactions among humans and other elements of a system, and the profession that applies

theory, principles, data and methods to design in order to optimize human well-being and overall system performance.

**PART - C - 10 Marks Questions**

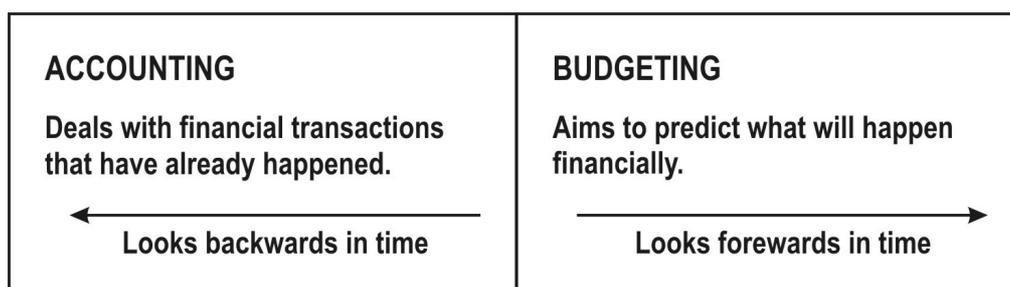
1. Explain the work initiation procedure in detail.
2. Explain Planning considerations in detail.
3. Explain Layouts for Prepress, Press and Post Press and their considerations.
4. What is meant by Value system? Explain the virtues of value system.
5. Explain on Interpersonal management and communication skills.
6. State the role of supervisor and manager in effective leadership and explain the managerial roles.
7. What is Ergonomics and explain its key considerations in detail.

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## **UNIT - IV – ACCOUNTING AND BUDGETING**

### **4.1 ACCOUNTING PRINCIPLES**

The rules and guidelines that companies must follow when reporting financial data. The common set of accounting principles is the generally accepted accounting principles (GAAP). The term 'Principle' refers to fundamental belief or a general truth which once established does not change. It is incorrect to apply the term with respect to accounting which is merely an art involving adaption for the attainment of some useful results by its applications.



### ***Classification or sub-fields of accounting***

Accounting can be classified into the following categories:

- i. **Financial Accounting:** the main purpose of this type of accounting is to record business transactions in the books of accounts in such a way that operating results for a particular period and financial position on a particular date can be known for the information of the various groups of persons.
- ii. **Cost Accounting:** it relates to the collection, classification, ascertainment of cost and its accounting and cost control relating to the various elements of cost i.e. materials, labors and overheads.
- iii. **Management Accounting:** it relates to the use of accounting data collected with the help of financial accounting and cost accounting for the purpose of policy formulation, planning, control and decision-making by the management.
- iv. **Tax Accounting:** different types of taxes have to be paid by an enterprise on behalf of itself or on behalf of others, such as, employees, shareholders etc. tax accounting is helpful in complying with the provisions of complex tax laws governing income-tax, sales tax, excise duties, custom duties and estate duties.

### **4.2 DEFINITION OF BOOK KEEPING**

Book keeping is the science and art of correctly recording in books of accounts all those business transactions that result in the transfer of money's worth. Book-keeping is recording of the financial transactions of a business in a methodical manner so that information on any point in relation to them may be quickly obtained. A book-keeper may be

responsible for keeping all the financial records of a business or only a minor segment such as maintenance of the customer's accounts in a department store. Much of the work of a book-keeper is clerical in nature and can be accomplished through the use of mechanical and electronic equipment. Thus, book-keeping is more of a routine work.

### **Methods of Book keeping**

There are two types of Book Keeping, Single entry and Double entry system

#### **Double Entry System:**

We have seen earlier that every business transaction has two aspects. i.e. when we receive something, we give something else in return. For example, when we purchase goods for cash, we receive goods and give cash in return; similarly in a credit sale of goods, goods are given to the customer and the customer becomes debtor for the amount of goods sold to him. This method of writing every transaction in two accounts is known as Double Entry System of Accounting. Of the two accounts, one account is given credit with an equal amount. Thus, on any date, the total of all debits must be equal to the total of all credits because every debit has a corresponding credit.

#### **Rules of the Double Entry System:**

There are separate rules of the double entry system in respect of personal, real and nominal accounts which are discussed below:

1. **Personal Accounts:** these accounts record a business's dealings with persons or firms. The person receiving something is given debit and the person giving something is given credit. For example, if Vijay sells goods to Viney on credit, viney's Account will be given debit (in Vijay's books) on he is the receiver of goods a Vijay's Account will be credited (in Viney's books) as he is the giver of goods. When viney makes the payment for these goods, Vijay's account will be debited in Viney's books as he is the receiver of cash and Viney's Account will be given credit in Vijay's books as he is the giver of cash. So, the rule is: debit the receiver and credit the giver.
2. **Real Accounts:** these are the accounts of assets. Asset entering the business is given debit and asset leaving the business is given credit. For example, when goods are sold for cash, cash Account will be given debit as cash comes in and Sales Account will be credited as good go out. So, the rule is: debit what comes in and credit what goes out.
3. **Nominal Accounts:** These accounts deal with expenses, incomes, profits and loses. Accounts of expense and losses are debited and accounts of incomes and gains are credited. For example, when rent is paid to the landlord, Rent Account will be debited as it is an expense and Cash Account (real account) will be credited as it goes out. Similarly when commission is received, Cash Account will be debited as cash is received and Commission Account will be credited as it is an income. Thus, the rule is: debit all expenses and losses and credit all incomes and gains.

The rules of double entry system are shown in the following chart:

#### **Advantages of Double Entry System:**

The following are the main advantages which can be derived from the use of this system:

1. It provides a complete record of every transaction whether it relates to the personal or impersonal accounts.
2. It provides an arithmetical check on the records as the total of debit entries must be equal to the total of all credit entries.
3. The amount owing to outsiders and the amount due to the business can be ascertained with the help of personal accounts.
4. The profit and loss account can be prepared with the help of nominal accounts which is helpful to the businessman to ascertain the operating results of the business.
5. It helps to prepare the balance sheet of the business which is helpful to ascertain the financial position of the business on a particular day.
6. It helps to reduce the occurrence of the errors and frauds and when occurred can be detected easily. It can work well with the help of internal check system.

#### **4.3 DEFINITION OF BUDGETING AND IMPORTANCE OF BUDGETING**

A **budget** (from French *bougette*, purse) is generally a list of all planned expenses and revenues. It is a plan for saving and spending. A budget is an important concept in microeconomics, which uses a budget line to illustrate the trade-offs between two or more goods. In other terms, a budget is an organizational plan stated in monetary terms.

In summary, the importance of budgeting are

1. Provide a forecast of revenues and expenditures i.e. construct a model of how our business might perform financially speaking if certain strategies, events and plans are carried out.
2. Enable the actual financial operation of the business to be measured against the forecast.

#### ***Budget types***

**Sales budget:** The sales budget is an estimate of future sales, often broken down into both units and dollars. It is used to create company sales goals.

**Production budget:** Product oriented companies create a production budget which estimates the number of units that must be manufactured to meet the sales goals. The production budget also estimates the various costs involved with manufacturing those units, including labor and material.

**Cash Flow/Cash budget:** The cash flow budget is a prediction of future cash receipts and expenditures for a particular time period. It usually covers a period in the short term future. The cash flow budget helps the business determine when income will be sufficient to cover expenses and when the company will need to seek outside financing.

**Marketing budget:** The marketing budget is an estimate of the funds needed for promotion, advertising, and public relations in order to market the product or service.

**Project budget:** The project budget is a prediction of the costs associated with a particular company project. These costs include labor, materials, and other related expenses. The project budget is often broken down into specific tasks, with task budgets assigned to each.

**Revenue budget:** The Revenue Budget consists of revenue receipts of government and the expenditure met from these revenues. Tax revenues are made up of taxes and other duties that the government levies.

**Expenditure budget:** A budget type which include of spending data items.

### **Sales Turnover**

The total amount sold within a specified time period, usually a year. Sales turnover is often expressed in monetary terms but can also be expressed in terms of the total amount of stock or products sold.

### **How to Calculate Turnover?**

Turnover will be calculated on sales generally turnover is calculated on gross sales because net sales include taxes if we deduct tax we get actual sales actual sale can be treated as gross sale & it can also be treated as turn over sometimes it is calculated on net sales.

Unless sales manager possesses knowledge gained by experience over a number of years in and handling of men choosing there is every chance that inefficient persons find their way into sales team.

**Channels of distribution:** Concentrating on large scale production manufactures cannot look into retail distribution of their products. Hence distribution of goods is arranged through dealers. Wholesaler stocks products and sells them to retailers. Sole selling agent takes the entire production of a manufacturer sells them to the public within the company's price structure. Stockiest keep stock of articles made by certain companies and sell them for a commission Distributors arrange to distribute goods throughout their territories on commission, consignee also holds company's goods for distribution.

Field of Operation is to be divided into separate territories or zones and every territory should be placed under an area manager, work again divided into selling and improving sales by proper administration. Selling should however be first and foremost preoccupation with area manager. He will be responsible be Control and discipline of sales force, besides dealing with larger buyers himself.

Status of sales manager varies from firm to firm. In larger concerns sales may Se looked after by a director or general manager while in smaller concerns tanager himself looks after both sales and production. Qualifications of a males manager may be good general education, knowledge of fundamentals of selling and business organization, open mindedness, good health, stamina and desire to work hard, possess definite purpose, ambition, honesty, enthusiasm, Courage and determination to overcome resistance. Sales manager should compile all necessary information and statistics with regard to each territory. On basis of these statistical figures should allocate sales quota for each salesman. Success or otherwise of sales against is an useful tool in the hands of a sales manager in promoting

his outside staff, used both as a censure to lazy and as a reward to hard-working salesmen. A company, building up a good name should be fair and even generous to their salesmen, for satisfied salesmen are asset to an organization.

It is advisable to summon periodical sales conference where sales staff can get opportunity to discuss difficult problems jointly with sales manager for solution. Management should aim to convince sales representatives of new plan of action and to overcome difficulty faced by them in their territories.

**Sales forecasting:** Forecast is an evaluation of what is expected to happen under various known factors and depends on action of people beyond control of a company budget-which it is planned shall happen. Sales forecast is starting point for budgeting, planning and control. In forecasting sales with its' consequent effect on production policy one must take into account of the past and current trends, competitor's activities, new ideas and make shrewd gues as to the future. Sales budget is a device to determine expected utilisation of resources and a means by which financial needs, profit expectation and detailed monetary control can be evaluated.

#### **4.4 Types of Companies**

There are broadly two types of Companies namely:-

##### ***Private Limited Company***

A private company is a company which has the following characteristics:

- shareholders' right to transfer shares is restricted;
- the number of shareholders is limited to fifty; and
- an invitation to the public to subscribe to any shares or debentures is prohibited.

A Private Limited Company is the most popular form of business entity used for Foreign Investors in India, including USA investors in India. It takes some time to incorporate in India as there are various steps required in forming a private limited company in India. There are various steps required to establish a business in India, before and after incorporation, as mentioned hereinafter.

- a) Private Company: - Private Company means a company which has a minimum paid up capital of Rupees One lac or such higher paid up Capital as may be prescribed and by its Articles, which
  - i) restricts the right of transfer of shares
  - ii) limits the number of members to fifty.
  - iii) prohibits any invitation or acceptance to public to subscribe for any shares and debentures of the company.
  - iv) prohibits any invitation or acceptance of deposits from the person other than its members, directors or their relatives.

##### ***Public Limited Company***

A public company is defined as a company which is not a private company. The following conditions apply only to a public company:

- It must have at least seven shareholders.
  - A public company is not authorized to start business upon the grant of the certificate of incorporation. In order to be eligible to commence business as a corporation, it must obtain another document called "trading certificate".
  - It must publish a prospectus or file a statement in lieu of a prospectus before it can start transacting business.
  - A public company is required to have at least three directors.
  - It must hold statutory meetings and obtain government approval for the appointment of the management.
- b) Public Company: - A company is a public company which is not private company and has a minimum paid up capital of Rupees five lacs or such higher paid up capital as may be prescribed. A private company which is a subsidiary of a company which is not a private company is also a public company.

### **Stock Register**

Stock Register is a register maintained by the Stores in charge to record all the receipts and issues of the stock items. The given format is typical stock register format giving all the details of inward and outward of the materials for given period of the register. This is a summarized report of all the stock items to help the stores in charge to keep better control on the movement of the materials. Maintenance of Stock Register ensures the effective inventory control.

### **Maintenance of Stock Register and Advantages**

All stock registers are maintained in the Stores Section well bound and machine numbered. The first few pages of the register are devoted to table of contents showing the name of the articles and pages in which the same have been entered for easy location during inspection and audit. A certificate of numbering of pages in a register is recorded on the first page of each register duly attested. The register always remains under lock. All brought forward entries from one page of the register to the and from the old register to new are attested by the dealing assistant and counter signed.

All entries in the register are made neatly and in legible writing without any marks of eraser or over writing. Corrections, if any are invariably attested.

It is the responsibility of the concerned Under Secretary to ensure that the registers are maintained regularly and are upto date and are required to put their signatures in the registers in token of having checked them.

The stock register maintained in the Stores Section is preserved permanently and bills/expenditure and other registers are preserved for a period of 5 years. The period is reckoned from the year of closing of the register. If any audit objection is pending in any register, that register is kept till such objection is cleared by the audit.

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**UNIT - IV – ACCOUNTING AND BUDGETING****PART - A - 2 Marks Questions****1. Name the classification or sub fields of accounting.**

Financial accounting, Cost Accounting, Management accounting and Tax accounting

**2. Name the methods of book keeping.**

Single entry and Double entry system

**3. Name the types of accounts.**

Personal Accounts, Real Accounts, and Nominal Accounts.

**4. What is the rule for personal account?**

Debit the receiver and credit the giver.

**5. State the rule for real account.**

Debit what comes in and credit what goes out.

**6. State the rule for nominal account.**

Debit all expenses and losses and credit all incomes and gains.

**7. What is a budget?**

A budget is generally a list of all planned expenses and revenues.

**8. Name the types of budgets.**

Sales budget, Production budget, Cash Flow/Cash budget, Marketing budget, Project budget

**9. What is sales budget?**

The sales budget is an estimate of future sales, often broken down into both units and dollars. It is used to create company sales goals.

**10. What is production budget?**

The production budget estimates the various costs involved with manufacturing those units, including labor and material.

**11. What is cash flow/cash budget?**

The cash flow budget is a prediction of future cash receipts and expenditures for a particular time period.

**12. What is project budget?**

The project budget is a prediction of the costs associated with a particular company project. These costs include labor, materials, and other related expenses.

**13. What is expenditure budget?**

A budget type which include of spending data items.

**14. What is sales turnover?**

The total amount sold within a specified time period, usually a year. Sales turnover is often expressed in monetary terms but can also be expressed in terms of the total amount of stock or products sold.

**15. Name the types of companies.**

Private Limited and Public Limited Companies.

**PART - B - 3 Marks Questions****16. What is management accounting?**

It relates to the use of accounting data collected with the help of financial accounting and cost accounting for the purpose of policy formulation, planning, control and decision-making by the management.

**17. What is double entry system?**

The method of writing every transaction in two accounts is known as Double Entry System of Accounting. Of the two accounts, one account is given credit with an equal amount. Thus, on any date, the total of all debits must be equal to the total of all credits because every debit has a corresponding credit.

**18. What is a stock register?**

Stock Register is a register maintained by the Stores in charge to record all the receipts and issues of the stock items. The given format is typical stock register format giving all the details of inward and outward of the materials for given period of the register.

**19. What is revenue budget?**

The Revenue Budget consists of revenue receipts of government and the expenditure met from these revenues. Tax revenues are made up of taxes and other duties that the government levies

**20. What is tax accounting?**

Tax accounting is helpful in complying with the provisions of complex tax laws governing income-tax, sales tax, excise duties, custom duties and estate duties.

**21. Define Book keeping.**

Book-keeping is recording of the financial transactions of a business in a methodical manner so that information on any point in relation to them may be quickly obtained.

**22. What is financial accounting?**

To record business transactions in the books of accounts in such a way that operating results for a particular period and financial position on a particular date.

**23. What is marketing budget?**

The marketing budget is an estimate of the funds needed for promotion, advertising, and public relations in order to market the product or service.

**24. What is sales forecast?**

Forecast is an evaluation of what is expected to happen under various known factors and depends on action of people beyond control of a company budget-which it is planned, shall happen

**PART - C - 10 Marks Questions**

1. What is accounting principle and explain on the classification or subfields of accounting?
2. What is book keeping? Explain double entry system with its rules and advantages.
3. Define budgeting; explain its types and state importance of budgeting.
4. Explain sales promotion and channels of distribution.
5. Explain the types of companies and about stock register maintenance.

## UNIT - V – HUMAN RESOURCE MANAGEMENT

### 5.1 EMPLOYEE RECRUITMENT



**Recruitment** is an important part of an organization's human resource planning and their competitive strength. Competent human resources at the right positions in the organization are a vital resource and can be a core competency or a strategic advantage for it.

The **objective of the recruitment process** is to obtain the number and quality of employees that can be selected in order to help the organization to achieve its goals and objectives. With the same objective, recruitment helps to create a pool of prospective employees for the organization so that the management can select the right candidate for the right job from this pool.

Recruitment acts as a link between the employers and the job seekers and ensures the placement of right candidate at the right place at the right time. Using and following the right recruitment processes can facilitate the selection of the best candidates for the organization.

#### ***Training and Retention***

It is a learning process that involves the acquisition of knowledge, sharpening of skills, concepts, rules, or changing of attitudes and behaviors to enhance the **performance of employees**.

**Training** is about knowing where you stand (no matter how good or bad the current situation looks) at present, and where you will be after some point of time. Training is about the acquisition of knowledge, skills, and abilities (KSA) through professional development.

**Employee Retention**

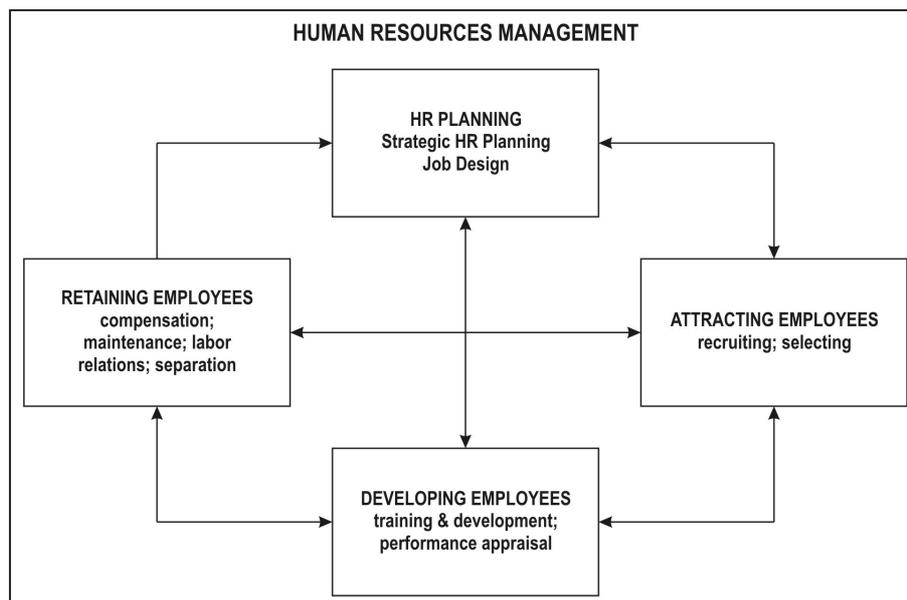
Employee Retention involves taking measures to encourage employees to remain in the organization for the maximum period of time. Corporate is facing a lot of problems in employee retention these days. Hiring knowledgeable people for the job is essential for an employer. But retention is even more important than hiring. There is no dearth of opportunities for a talented person. There are many organizations which are looking for such employees. If a person is not satisfied by the job he’s doing, he may switch over to some other more suitable job. In today’s environment it becomes very important for organizations to retain their employees.

The top organizations are on the top because they value their employees and they know how to keep them glued to the organization. Employees stay and leave organizations for some reasons.

The reason may be personal or professional. These reasons should be understood by the employer and should be taken care of. The organizations are becoming aware of these reasons and adopting many strategies for employee retention.

**Human Resource Management (HRM)** is the function within an organization that focuses on recruitment of, management of, and providing direction for the people who work in the organization. Human Resource Management can also be performed by line managers.

Human Resource Management is the organizational function that deals with issues related to people such as compensation, hiring, performance management, organization development, safety, wellness, benefits, employee motivation, communication, administration, and training.



### ***Training and Development***

**Training and Development** is a subsystem of an organization. It ensures that randomness is reduced and learning or behavioral change takes place in structured format.

Traditional Approach – Most of the organizations before never used to believe in **training**. They were holding the traditional view that managers are born and not made. There were also some views that training is a very costly affair and not worth. Organizations used to believe more in executive pinching. But now the scenario seems to be changing.

The modern approach of training and development is that Indian Organizations have realized the importance of corporate training. Training is now considered as more of retention tool than a cost. The training system in Indian Industry has been changed to create a smarter workforce and yield the best results.

### ***Training and Development Objectives***

The principal objective of training and development division is to make sure the availability of a skilled and willing workforce to an **organization**. In addition to that, there are four other objectives: Individual, Organizational, Functional, and Societal.

**Individual Objectives** – help employees in achieving their personal goals, which in turn, enhances the individual contribution to an organization.

**Organizational Objectives** – assist the organization with its primary objective by bringing individual effectiveness.

**Functional Objectives** – maintain the department's contribution at a level suitable to the organization's needs.

**Societal Objectives** – ensure that an organization is ethically and socially responsible to the needs and challenges of the society.

### ***Importance of Training and Development***

- **Optimum Utilization of Human Resources** – Training and Development helps in optimizing the utilization of human resource that further helps the employee to achieve the organizational goals as well as their individual goals.
- **Development of Human Resources** – Training and Development helps to provide an opportunity and broad structure for the development of human resources' technical and behavioral skills in an organization. It also helps the employees in attaining personal growth.
- **Development of skills of employees** – Training and Development helps in increasing the job knowledge and skills of employees at each level. It helps to expand the horizons of human intellect and an overall personality of the employees.
- **Productivity** – Training and Development helps in increasing the productivity of the employees that helps the **organization** further to achieve its long-term goal.

- **Team spirit** – Training and Development helps in inculcating the sense of team work, team spirit, and inter-team collaborations. It helps in inculcating the zeal to learn within the employees.
- **Organization Culture** – Training and Development helps to develop and improve the organizational health culture and effectiveness. It helps in creating the learning culture within the organization.
- **Organization Climate** – Training and Development helps building the positive perception and feeling about the organization. The employees get these feelings from leaders, subordinates, and peers.
- **Quality** – Training and Development helps in improving upon the quality of work and work-life.
- **Healthy work environment – Training and Development** helps in creating the healthy working environment. It helps to build good employee, relationship so that individual goals aligns with organizational goal.
- **Health and Safety** – Training and Development helps in improving the health and safety of the organization thus preventing obsolescence.
- **Morale** – Training and Development helps in improving the morale of the work force.
- **Image** – Training and Development helps in creating a better corporate image.
- **Profitability** – Training and Development leads to improved profitability and more positive attitudes towards profit orientation.

### **Outsourcing**

In India, the HR processes are being outsourced from more than a decade now. A company may draw required personnel from outsourcing firms. The outsourcing firms help the organisation by the initial screening of the candidates according to the needs of the organisation and creating a suitable pool of talent for the final selection by the organisation. Outsourcing firms develop their human resource pool by employing people for them and make available personnel to various companies as per their needs. In turn, the outsourcing firms or the intermediaries charge the organisations for their services.

Advantages of outsourcing are:

1. Company need not plan for human resources much in advance.
2. Value creation, operational flexibility and competitive advantage
3. turning the management's focus to strategic level processes of HRM
4. Company is free from salary negotiations, weeding the unsuitable resumes/candidates.

5. Company can save a lot of its resources and time.

### **E-Recruitment**

Many big organizations use Internet as a source of recruitment. **E-recruitment** is the use of technology to assist the recruitment process. They advertise job vacancies through worldwide web. The job seekers send their applications or curriculum vitae i.e. CV through e mail using the Internet. Alternatively job seekers place their CV's in worldwide web, which can be drawn by prospective employees depending upon their requirements.

#### **Advantages of E-Recruitment are:**

- Low cost.
- No intermediaries
- Reduction in time for recruitment.
- Recruitment of right type of people.
- Efficiency of recruitment process.

## **5.2 EMPLOYEE MOTIVATION AND WELFARE**

Employee welfare is a term including various services, benefits and facilities offered to employees by the employers. The welfare measures need not be monetary but in any kind/forms. This includes items such as allowances, housing, transportation, medical insurance and food. Employee welfare also includes monitoring of working conditions, creation of industrial harmony through infrastructure for health, industrial relations and insurance against disease, accident and unemployment for the workers and their families. Through such generous benefits the employer makes life worth living for employees.

### **How to motivate the employees?**

Make sure you're setting a good example of productivity and cheerfulness.

Develop your listening skills. This means using active listening to its fullest potential, not just pretending interest.

Be clear about the purpose of the job, and the big picture of the company's mission and goals. Foster pride in working at that company, whether it is designed to make the world's best sandwich or build the world's best bridge. Make sure everyone knows the big picture and where their department and individual jobs fit in.

Don't let your personal likes and dislikes blind you to who is actually productive on the job. Be fair.

**Don't sweat the small stuff.** If you have a good worker who is frequently 10 minutes late, let them know that you expect them to be on time, but don't belabor the point if their work is otherwise above average. Employees are human beings with strengths and weaknesses, not worker robots.

**Set goals and reward the staff when the goals are achieved.** The reward can be as simple as a star on the calendar and a bigger reward at the end of the month if there are

enough stars for each day. At the end of year, rewards in the form of certificates can be given.

Be open, friendly, and professional with the staff, they're your hard workers and deserve to be treated with respect.

Make it an atmosphere where doing a good job is recognized and appreciated.

**Encourage communication among people who have to work together.** People may feel blocked in and unable to relate to coworkers when they're hidden in a cubicle. Ask the staff how they would like to see the workspace organized and set up opportunities for people to work collaboratively.

**If you have a problem employee, do not avoid the problem.** Talk to that person and make sure they know what they're doing wrong, as well as what they're doing right. Make a plan and a time chart to correct problem behaviors.

**WORK STUDY:** Consists of Two parts:

**Method Study:** To find the best method of operation, making full use of all resources available.

**Work Measurement:** To find the time required to carry out the operation at a defined level of activity.

**Work Study Measurement:**

A brief description of the various techniques used in work measurement is given in the following paragraphs /pages. They may be used separately or in combination depending on the nature of the work. The Work Study Engineer must assess which technique or combination of techniques should be used in a given situation.

The application of techniques designed to establish the time for a qualified worker to carry out a specified job at a defined level of performance. (BS 3138: 1979).

**Direct (Time Study) Measurement**

Time Study is a technique for recording the times and rates of working for the elements of a specified job carried out under specified conditions, and for analysing the data so as to obtain the time necessary for carrying out the job at a defined level of performance.

**Time Management and Productivity Tools**

Your time is your life, so, you want to spend your time on the goals and tasks that enable and enrich your life. Time management will increase your productivity and give you more time for life's more important moments. Time management and productivity tools boost your self-image because you accomplish more and feel better about your achievements. Spend your time where it counts most for you.

**1. Getting Things Done: Stress-Free Productivity**

My favorite, current book about productivity and time management provides a decision making model that helps you manage work flow. This useful book also covers project planning, organizing and processing work, and developing a functional productivity

and time management system. If you know a lot about increasing productivity, you'll still get new tips in David Allen's excellent book.

## **2. Handhelds and PDAs**

I'm a list maker. If you are, too, why are you still using a paper calendar/planner? My favorite feature of my Palm is its ability to move incomplete items forward to the date of my choice without my having to re-enter the item. When I use my Palm as is intended, my paper-less time management increases my productivity. My attention to goals, plans, and progress keeps me on track professionally.

## **3. Palm Portable Keyboard**

I learned how to write the graffiti alphabet within a half-hour of opening my Palm. But, I don't like to use either it or the stylus when I have a lot of writing to input. The Palm Keyboard makes typing goals, appointments, meeting minutes, addresses, and other entries easy. It often allows me to leave my laptop in the office because it's so easy to take to meetings in my briefcase.

## **4. First Things First: To Live, to Love, to Learn, to Leave a Legacy**

I'm not a raving Stephen Covey "Seven Habits" fan, although I do believe in "begin with the end in mind." This book asks you to approach the time of your life knowing that the important actions you invest time in are usually not urgent. Thus, they're harder to devote time to. Time invested in preparation, prevention, planning, and relationships comes first when you plan the time of your life.

## **5. Time Management from the Inside Out: The Foolproof System ...**

Julie Morgenstern applies her "analyze, strategize, attack" philosophy to the management of time. If you are a person who juggles competing interests and events, her approach to creating a personal time map is helpful. I also like her emphasis on the fact that each of us will have a time management system that is different and uniquely ours. Your custom-designed system will work best for you.

## **6. Life Balance**

Life Balance is award-winning software that will help you create a "To Do" list that is driven by your important goals, your desired allocation of time and effort, and feedback from what you accomplish every day. A personal coach that works in your Palm OS system, a Windows version will soon be available; Life Balance Desktop Edition for Macintosh is available now.

## **7. Planning Boards**

The perfect tool for teams of people who work together and need a visual, on-wall, depiction of their schedules, is an erasable planning board. Use this tool to schedule all of the tasks and events that have to happen for you to complete your projects on time. Visually

schedule vacations and paid time off so people can plan around each other's schedules. A simple, but effective, tool.

### **8. Tickler File System**

My all-time favorite productivity tip is to make a hanging file for each week. Into files within these hanging files, I place all of the documentation relating to a meeting, a training event and any correspondence due that week. My desk is clear because all of the paper is in this file. I don't forget dates and supporting information as they are filed by date needed at my fingertips.

### **Reduce or Minimize the Hazardous wastes**



Recycling and pollution prevention measures can significantly reduce your regulatory burden and may save your business considerable money. This section presents information on hazardous wastes typically generated by various printing processes and provides suggestions for how to recycle them or implement pollution prevention measures.

#### **Process**

Using ink in lithography, letterpress, screen printing, flexography, and gravure.

#### **Wastes Generated**

Waste ink with chromium, barium, and lead content; and waste ink contaminated with cleaning solvents, such as trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, 1,1,2-trichloroethane, 1,2,3-trifluoroethane, chlorobenzene, xylene, acetone, methanol, methyl ethyl ketone (MEK), toluene, carbon disulfide, or benzene.

#### **Potential Recycling, Treatment, and Disposal Methods**

- Recycle inks to make black ink. Reformulated black ink is comparable to lower quality new black inks such as newspaper ink.
- Dispose of inks by sending them to a fuel blending service that combines these and other wastes for burning at industrial boilers or kilns.
- Ship waste using a registered hazardous waste transporter to a hazardous waste TSDF.

#### **Potential Pollution Prevention Methods**

- Dedicate presses to specific colors or special inks to decrease the number of cleanings required for each press.
- Clean ink fountains only when changing colors or when there is a risk of ink drying.
- Run similar jobs simultaneously to reduce waste volume.
- Isolate inks contaminated with hazardous cleanup solvents from noncontaminated inks.
- Use organic solvent alternatives wherever possible, such as detergent or soap, nonhazardous blanket washes, and less toxic acetic acid solvents.

### **Process**

Cleaning printing equipment.

### **Wastes Generated**

Spent organic solvents might include trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, 1,1,2-trichloroethane, 1,2,3-trifluoroethane, chlorobenzene, xylene, acetone, methanol, MEK, toluene, carbon disulfide, or benzene.

### **Potential Recycling, Treatment, and Disposal Methods**

- Find a legitimate reuse for spent solvents on site. If reused, the solvents are not considered to be wastes and, therefore, are not regulated. Examples include reusing solvents in a parts-cleaning unit that is used to clean dirty press parts.
- Dispose of solvents by sending them to a fuel blending service, which combines these and other wastes for burning at industrial boilers or kilns.
- Recycle spent solvents in an onsite solvent still.
- Contract with a solvent recycler or supplier to take the spent solvent away and replace it with fresh solvent.
- Ship waste using a registered hazardous waste transporter to a hazardous waste TSDF.
- Most solvents will be recycled or incinerated.

### **Potential Pollution Prevention Methods**

- Print lighter colors first.
- Squeegee or wipe surfaces clean before washing with solvent.
- Dedicate presses to specific colors or special inks to decrease the number of cleanings required for each press.
- Run similar jobs simultaneously to reduce cleanup waste volume.

- Use organic solvent alternatives wherever possible, such as detergent or soap, nonhazardous blanket washes, and less toxic acetic acid solvents.

**Process**

Plate Processing.

**Wastes Generated**

Acid plate etching chemicals for metallic lithographic plates, and flexographic photopolymer plates.

**Potential Recycling, Treatment, and Disposal Methods**

- Neutralize waste acid on site in an exempt elementary neutralization unit.
- Ship waste using a registered hazardous waste transporter to a hazardous waste TSDf for treatment and disposal.

**Potential Pollution Prevention Methods**

- Replace metal etching process with nonhazardous alternative.
- Check with your state about the use of alternative plate solvents that may or may not be considered hazardous.

**Process**

Printing processes.

**Wastes Generated**

Unused inks, solvents, and other chemicals used in printing industry.

**Potential Recycling, Treatment, and Disposal Methods**

- Neutralize corrosive wastes on site in an exempt elementary neutralization unit.
- Find a legitimate reuse for unused chemicals on site. If legitimately reused, the chemicals are not considered to be waste. Examples include using solvents to clean dirty press parts.
- Dispose of organics with high fuel value by sending them to a fuel blending service, which combines these and other wastes for burning at industrial boilers or kilns.
- Ship waste using a registered hazardous waste transporter to a hazardous waste TSDf. Most organics will be incinerated.

**Potential Pollution Prevention Methods**

- Instigate inventory controls to avoid overstocking on inks, solvents, and other printing chemicals.

### **5.3 PROFESSIONAL ETHICS**

**Professional ethics** encompass the personal, organizational and corporate standards of behavior expected of professionals.

Professionals, and those working in acknowledged professions, exercise specialist knowledge and skill. How the use of this knowledge should be governed when providing a service to the public can be considered a moral issue and is termed professional ethics.

#### ***Honesty***

**Honesty** refers to a facet of moral character and connotes positive and virtuous attributes such as integrity, truthfulness, and straightforwardness, including straightforwardness of conduct, along with the absence of lying, cheating, theft, etc. Furthermore, honesty means being trustworthy, loyal, fair, and sincere.

#### ***Integrity***

**Integrity** is a concept of consistency of actions, values, methods, measures, principles, expectations, and outcomes.

#### ***Transparency***

**Transparency**, as used in science, engineering, business, the humanities and in a social context more generally, implies openness, communication, and accountability.

#### ***Accountability***

**Accountability** is answerability, blameworthiness, liability, and the expectation of account-giving. As an aspect of governance, it has been central to discussions related to problems in the public sector, nonprofit and private (corporate) worlds.

#### ***Media Ethics and Law***

**Media ethics** is the subdivision of applied ethics dealing with the specific ethical principles and standards of media, including broadcast media, film, theatre, the arts, print media and the internet.

#### ***Copyright – Obtaining and enforcing copyright***

**Copyright** is a legal concept, enacted by most governments, that grants the creator of an original work exclusive rights to its use and distribution, usually for a limited time, with the intention of enabling the creator of intellectual wealth (e.g. the photographer of a photograph or the author of a book) to receive compensation for their work and be able to financially support themselves.

Copyright law recognises the right of an author based on whether the work actually is an original creation, rather than based on whether it is unique; two authors may own copyright on two substantially identical works, if it is determined that the duplication was coincidental, and neither was copied from the other.

#### ***Enforcement of copyright***

Copyright can be enforced through a court action. The remedies include damages or an injunction to prevent an act that is infringing or would infringe copyright.

### **Copyright Registration**

#### **Benefits of Copyright Registration**

Below are some of the benefits of registering your copyright works:-

- Registering your copyright protected work provides evidence that you are the owner of your work.
- Copyright Registration is generally required before you can pursue an infringement action against someone who used your work without authorization.
- Copyright owner can take legal action against any person who infringes the copyrighted work. The copyright owner is entitled to remedies by way of injunctions, damages and accounts.
- Registration helps preempt the defense of “innocent infringement” for infringers who claim they didn’t know the work was copyright protected.

#### ***Press Declaration Act and Authentication of declaration***

The **Press Council of India** is a statutory body in India that governs the conduct of the print media. It is one of the most important bodies that sustain democracy, as it has supreme power in regards to the media to ensure that freedom of speech is maintained.

#### **MSME:**

The Ministry of Micro, Small and Medium Enterprises, a branch of the Government of India, is the apex body for the formulation and administration of rules, regulations and laws relating to micro, small and medium enterprises in India.

#### **MSME Registration**

MSME enterprises are the backbone of any economy and are an engine of economic growth, promoting equitable development for all. MSME Enterprises are typically more labour intensive than large corporates and provide tremendous employment potential at a very low capital cost. MSME also share a major portion of industrial production and exports in India and play a pivotal role in the development of industrial economy.

Therefore, to promote and develop MSMEs; the MSMED Act of India facilitates promotion and development of enterprises through many incentives, schemes and subsidies. To obtain the benefits under MSMED Act, MSME Registration is a must and proprietorship firms, partnership firms, LLPs, Private Limited Company’s and Public Limited Companies can register.

### **5.4 – SAFETY, HEALTH AND ENVIRONMENT REGULATIONS IN GRAPHIC ARTS INDUSTRY**

The printing industry is considered a “high hazard” industry for amputations, meaning the high rate inspections of printing facilities will continue.

Sustainability is the ability to operate in a way that meets present needs while providing for the needs of the future and future generations. Sustainable manufacturing has emerged to define a socially, environmentally, and resource-responsible approach to manufacturing. Sustainability encompasses more than just using recycled paper and ink or the other input materials used to produce a given printed product.

Sustainability is not a simple list of discrete actions. It is a continuous improvement process that requires a holistic approach to the entire manufacturing operation. In order to capitalize on the movement and turn it into a competitive advantage, printers need to have an approach that is both systematic and systemic.

Sustainable manufacturing for the printing industry embodies three principal concepts:

- Product - This includes the design, the input materials used to make it, and the ultimate fate of the finished goods.
- Process - This includes the actual manufacturing process involving prepress, press, and postpress.
- Envelope - This includes all of the support activities that occur at a printing operation such as the building, grounds, maintenance, transportation, employees, etc.

### ***Safety of Machinery in Printing Industry***

Most printing machinery accidents occur at presses during an unsafe intervention. Activities include freeing blockages, cleaning down; making ready; webbing up and maintenance.

Common causes of accidents include:

- Being drawn into in-running nips of rollers
- Contact with dangerous moving parts
- Entanglement with rotating parts.

The most common injuries are lacerations, cuts and bruises, fractures/ dislocation and crushing injuries to the fingers or hand. Fatal accidents have occurred recently on platens.

### ***What you need to do***

The following basic steps can be taken to reduce the risk of machinery accidents:

- Choose the right machine for the job
- Check machinery is adequately guarded
- carry out a risk assessment and compare to current standards

- provide effective guards in accordance with the type of machine controls
- provide safe systems of work
- Provide information, instruction and training to operators and supervisors
- Check and test machine safeguards and safe systems of work

## **SOLUTIONS FOR THE PRINTING INDUSTRY**

### **HIGH RISK MACHINERY**

#### **1. What is the problem?**

High-risk machinery in the Printing Industry is often insufficiently guarded to prevent access to moving parts whilst it is being operated, maintained or cleaned. For example:

- i. Removable guards on a printing press are not interlocked to prevent the machine from only running in inch-to-run, hold-to-run or jog mode when the guard is not in place. Fingers, hands and arms can become trapped between two rollers or the roller and the plate of a printing press.
- ii. Lack of pressure sensing mats or light curtains permits access to the moving head of a die cutter. A person can become entrapped in the machine.
- iii. No guard on the belt drive of a compressor can lead to entanglement of fingers or hands.
- iv. Lack of a two-handed operation on a guillotine, to prevent hands and fingers being in the vicinity of the operating blade, can lead to amputation of fingers.

#### **2. What are the risks?**

Machinery commonly used by the Printing Industry, including presses, binders, stitchers, folders, die cutters and guillotines have many moving parts and are considered high-risk due to the injuries a person can sustain if they come into contact with these moving parts.

Unguarded or inadequately guarded high-risk machinery can cause serious injury and even death. For example, parts of the body, clothing and cleaning rags can become entangled in rotating and in-running parts such as inking and damping rollers or transmission machinery and other moving parts can cause crush, shear, cut or abrasion injuries.

Other high-risk plant commonly found in the Printing Industry includes boilers, air receivers and forklift trucks.

#### **What can you do to manage the risks in your workplace?**

Things such as:

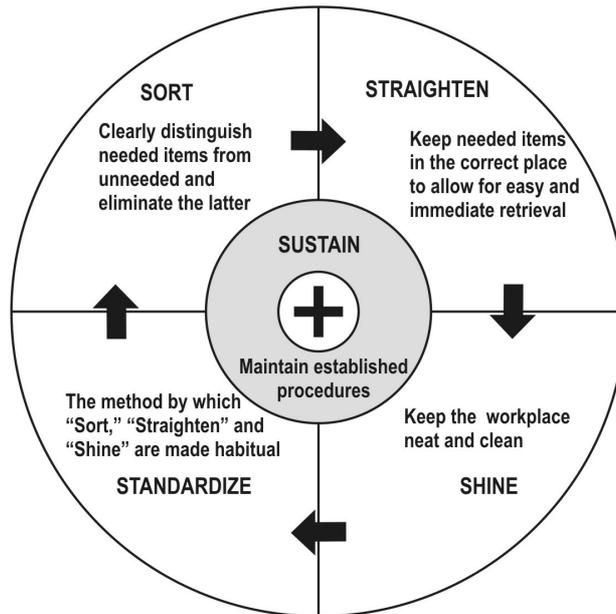
- prevent access to all moving parts of a machine such as in-running rollers, rotating shafts, wheels and cogs, chain and sprocket, blades, conveyor belts by: installing fixed or permanent guards when access to an area is not required (eg sides and rear of a guillotine selector switch to choose 'stop', 'run' and 'set-up/cleaning mode')

- ensure guard interlocks fail to safe, to prevent machinery operating should interlocks fail due to rough treatment or as a result of age and frequency of use
- pressure sensing mats around die cutting machines to stop the machine should anyone approach while it is operating
- operators of forklift trucks should hold a high risk work certificate or be registered with a training organization and be adequately supervised
- forklift trucks should be serviced and maintained (eg brakes, hydraulic system on a regular basis and records kept)
- ensure workers' hair and clothing are not loose
- provide suitable lighting and a clean work area
- reduce the number of times that cleaning is necessary to be done to maintain the quality of the work
- use automatic wash-up systems, inking rollers and blanket wash-up systems
- apply cleaning solvents to a suitable folding cloth to form a pad to eliminate loose edges that might get caught in nip points (only clean while machine is in inch mode)
- display operating instructions and safety information near machinery and equipment switch off, and isolate (or unplug) machinery when cleaning or maintenance work is being performed (lock out/tag out procedure) including lubrication
- instruct and train workers in how to use the equipment safely and how to use the guards and safety devices provided
- warning alarm when machines are about to start to alert operators
- emergency stop buttons must be accessible by operators
- position sight glasses and gauges to enable checking from outside any guards
- Have a start up check that all guards are fitted and interlocks working on the machine. This should be documented

### House Keeping

How 5S Kaizen Principles

Help You Improve Your Performance



**SEIRI - Sort, Clear Out**

Can't find what you're looking **for - drowning in stuff?**

Commit yourself to Seiri and declutter. Let go of all you no longer need, want or love. Make room, create space.

Turn your unwanted valuables into cash by selling them online or at a yard sale. Less valuable stuff may still have value to others so why not donate what you can't sell to a local charity and keep it out of the landfill for a while longer.

You can also think of Seiri, as clearing out and **decluttering your mind**.

Emptying your mind, centering and meditation are a great daily practice that cultivates inner calm and renewal.

Once you've decluttered your space and your mind, you'll be able to see, move and breathe more easily.

**SEITON - Set Things in Order**

Get organized. Put your space and life in order. A place for everything and everything in its place. You'll know everything you own, its purpose and its location.

Imagine - no time lost in searching for things!

Seiton can be done in stages. Your organization will be shaped by what you want to do so don't organize everything til you're clear on your direction and plan of action. Put the basics in place first.

**SEISO - Clean and Shine**

Seiso builds spirit, pride and connection to your space and yourself.

Consider your look and feel - your style.

***How's it working for you - are you getting the results you want?***

Practicing Seiso helps increase yourself awareness and awareness of your impact on others.

Play with your style until you get the results you want.

***SIEKETSU - Standardize***

The Sieketsu step sets standards for cleanliness or tidiness both on the environmental and personal fronts.

Standardizing expectations makes them automatic and empowers all involved to monitor and make gentle adjustments, to maintain performance benchmarks. You can adjust the process based on the results you receive.

***SHITSUKU - Self Discipline***

Shitsuku once achieved, results in behaviour change and achievement motivation. Self discipline and holding yourself personally accountable to practicing the **5Ss kaizen principles** is what Shitsukuis all about.

Take some time and allow yourself to think about all you've achieved. Give it time to sink in.

**UNIT - V – HUMAN RESOURCE MANAGEMENT****PART - A - 2 Marks Questions****1. State the objective of recruitment process.**

The objective of the recruitment process is to obtain the number and quality of employees that can be selected in order to help the organization to achieve its goals and objectives

**2. What is training and retention?**

The objective of the recruitment process is to obtain the number and quality of employees that can be selected in order to help the organization to achieve its goals and objectives

**3. What is Human Resource Management?**

Human Resource Management (HRM) is the function within an organization that focuses on recruitment of, management of, and providing direction for the people who work in the organization.

**4. What is meant by work study?**

Method Study: To find the best method of operation, making full use of all resources available.

Work Measure Work Measurement: To find the time required to carry out the operation at a defined level of activity.

**5. What is professional ethics?**

Professional ethics encompass the personal, organizational and corporate standards of behavior expected of professionals

**6. What is media ethics?**

Media ethics is the subdivision of applied ethics dealing with the specific ethical principles and standards of media, including broadcast media, film, theatre, the arts, print media and the internet.

**7. Expand PCI.**

Press Council of India

**8. What is Press council of India? (Press Council of India)**

The Press Council of India is a statutory body in India that governs the conduct of the print media. It is one of the most important bodies that sustain democracy, as it has supreme power in regards to the media to ensure that freedom of speech is maintained.

**9. What is 5S principle?**

SEIRI - Sort, Clear Out, SEITON - Set Things in Order, SEISO - Clean and Shine,  
SIEKETSU – Standardize, SHITSUKU - Self Discipline

**PART - B - 3 Marks Questions****1. State the objective of training and development.**

The principal objective of training and development division is to make sure the availability of a skilled and willing workforce to an organization. In addition to that, there are four other objectives: Individual, Organizational, Functional, and Societal.

**2. What is meant by copy right?**

Copyright is a legal concept, enacted by most governments, that grants the creator of an original work exclusive rights to its use and distribution, usually for a limited time, with the intention of enabling the creator of intellectual wealth (e.g. the photographer of a photograph or the author of a book) to receive compensation for their work and be able to financially support themselves.

**3. What is housekeeping?**

It refers to the process of ensuring that the workplace is kept clean and tidy. Industrial housekeeping forms part of the general responsibility of managers. It includes the provision of adequate workspace, adequate storage arrangements, both around the workstation and within the unit.

**4. What is E- Recruitment?**

E-recruitment is the use of technology to assist the recruitment process. They advertise job vacancies through worldwide web. The job seekers send their applications or curriculum vitae i.e. CV through e mail using the Internet. Alternatively job seekers place their CV's in worldwide web, which can be drawn by prospective employees depending upon their requirements.

**5. What is employee recruitment?**

Recruitment is an important part of an organization's human resource planning and their competitive strength. Competent human resources at the right positions in the organization are a vital resource and can be a core competency or a strategic advantage for it.

**6. What is meant by Time study?**

Time Study is a technique for recording the times and rates of working for the elements of a specified job carried out under specified conditions, and for analysing the data so as to obtain the time necessary for carrying out the job at a defined level of performance.

**PART - C - 10 Marks Questions**

1. Explain on employee recruitment, training and retention.
2. Explain on Importance of training and development.
3. Explain on E- Recruitment
4. Explain on employee motivation and welfare.
5. How to reduce and minimize hazardous wastes generated in a Printing press.
6. What is professional ethics, explain on Copyright and its Registration.
7. Explain on Health, Safety and Environment regulation and safety if Machinery in Printing Industry.
8. How to ensure safety and manage the risk in your work place. Explain.
9. Explain in detail on House Keeping.