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APPAREL MADE-UPS HOME FURNISHING
SECTOR SKILL COUNCIL

Participant Handbook

Sector
**Apparel, Made-ups and
Home Furnishing**

Sub-Sector
Apparel

Occupation
Embroiderer

Reference ID: **AMH/Q1001, Version 1.0**
NSQF Level 4

Hand Embroiderer

> Skilling is building a better India. If we have to move India towards development then Skill Development should be our mission.

Shri Narendra Modi
Prime Minister of India

Certificate

COMPLIANCE TO
QUALIFICATION PACK – NATIONAL OCCUPATIONAL
STANDARDS

is hereby issued by the

Apparel / Made-Up's / Home Furnishing

for

SKILLING CONTENT : PARTICIPANT HANDBOOK

Complying to National Occupational Standards of

Job Role/ Qualification Pack: **"Hand Embroiderer"**   QP No. **"AMH/Q1001, NSQF Level 4"**

Date of Issuance:
Valid up to*: April 10th, 2018
*Valid up to the next review date of the Qualification Pack or the
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Authorised Signatory
(Apparel / Made-Up's / Home Furnishing)

Acknowledgements

About this book

This Participant Handbook is designed to enable training for the specific qualification Pack(QP). Each National Occupational (NOS) is covered across Unit/s.

Key Learning Objectives for the specific NOS mark the beginning of the Unit/s for that NOS.

- Carry out different types of embroidery stitches – Flat, Loop & Knotted stitches
- Embroider decorative designs using a combination of stitches & work styles
- Contribute to achieve quality in embroidery work
- Maintaining work premises & tools
- Maintain health, safety and security at workplace
- The trainee are able to maintain a clean and healthy working environment.

The symbols used in this book are described below:

Symbols Used

Key Learning Outcomes   Steps   Time   Tips   Notes   Unit Objectives   Exercise

Skills Practical   OJT

Table of Content

Table of Content

1. Introduction and Orientation

Unit 1.1 - Introduction to Hand Embroidery and Apparel Sector

Unit 1.2 - Roles and Responsibilities of Hand Embroiderer

APPAREL MADE-UPS HOME FURNISHING
SECTOR SKILL COUNCIL

Key Learning Outcomes 💡

At the end of this module, you will be able to:

1. Familiarise with Apparel industry
2. Identify and Understand the roles and responsibilities of a Hand Embroiderer

UNIT 1.1: Introduction to Hand Embroidery and Apparel Sector

Unit Objectives ⌖

At the end of this unit, you will be able to:

1. Familiarise with Embroidery and Hand Embroidery in India
2. Familiarise with Apparel Industry

1.1.1 Introduction to Embroidery and Hand Embroidery

Embroidery is the art of decorating a fabric's surface making stitches in a pattern with the help of needle and thread. It can be described as a kind of a painting with needle and thread. One of the major advantages of using embroidery design is the style it adds to a garment, enhancing its beauty. Embroidery enhances the look of a wide range of garments and cloth material like caps, hats, gloves and other clothing goods, as well as bed sheets and blankets etc.

Embroidery is a form of handicraft which involves decorating fabric or other materials with a needle and thread, or yarn. Embroidery, integrates other things like metal strips, sequins, quills, beads, pearls, etc. Basic techniques of stitching as done in some of the earliest thread work like chain stitch, buttonhole or blanket stitch, runningstitch, satin stitch and cross stitch etc. remain the fundamental techniques of hand embroidery even today. Embroidery is most often seen on Sarees, dress materials which are used to make salwar- kameez, dresses, frocks, caps, hats, stockings, coats, blankets, dress shirts, and denim.

Machine embroidery mimics hand embroidery, especially while making chain stitches. The "satin stitch" and hemming stitches of machine require numerous filaments, threads and resemble hand work in their look, though not in their structure.

Hand Embroidery in India is an age old cultural heritage. India is very rich in Hand Embroidery and different regions have their own distinct design and technique. Major embroidery techniques employed in the different states of India are described below. There are various types of hand embroidery that are used depending on the design or fabric. Few common types of hand embroidery are:

*   Crewel embroidery of Kashmir Crewel/Aari embroidery is produced by passing the thread through the Aari or a hooked needle held under the fabric. The hook is used to pull a series of loops, each emerging from within the previous, to the surface of the fabric. The Figs or motifs are worked in striking colours; the background is in a single colour, made up of a series of coin sized concentric circles.

Fig 1.1.1: Crewel embroidery

Fig 1.1.2: Sozni embroidery

- **Sozni embroidery of Kashmir Sozni, Sozni,** also known as 'Sozankar' is a form of very fine and subtle needlework done mainly on stoles, shawls and scalfs. These are mainly pashmina and high quality raffal. Only a single strand of thread is used in finished sozni, the motif seems on both the sides of the fabric, each side having a dissimilar colour arrangement and no trace of the stitch. Motifs, are abstract designs like flowers, worked in one or two, and infrequently three subdued colours. The stitch employed is not like a stem stitch.

- **Chamba Rumal of Himachal Pradesh** The embroidery of the Chamba Rumal originated in the 18th and 19th centuries in the hilly states of Chamba, Kangra and Basohli, now parts of Himachal Pradesh and J&K. The subject of the embroidery is based on religious themes comprising Hindu deities, floral motifs, birds and animals. Rasa-mandala and Krishna are common themes used in the Chamba Rumal embroidery. The embroidery is done using a double satin stitch carried forward and backward, alternatively, done simultaneously on both the sides of the cloth making a similar design appear on both sides. This technique is known as Dorukha. Untwisted threads dyed mainly golden yellow or orange are used in this type of embroidery.

Fig 1.1.3: Chamba Rumal

Fig 1.1.4: Phulkari

- **Phulkari of Punjab** Phulkari is the conventional embroidery work done on an odhni/ dupatta which is like a daed drape or a stole used by women in Punjab. Symmetrical patterns are compactly embroidered with unravelled silk floss to generate various shades with the same dyed floss. It is most commonly done on a base of rough and hand-spun woven cotton (khaddar). Women work on the opposite side of the fabric by counting threads and using patch-up stitch. Designs and regularities are made by embroidering from the back face of the cloth.

- **Zardozi of Uttar Pradesh** Zardozi is the most famous and elaborate technique of embroidering using zari, or a thin metallic thread. It was originally done with pure silver and gold threads, in the regions of Lucknow, Agra, Bareilly, Bengal and Varanasi. The tools used in this process include curved hooks called Aari, needles, salmaa pieces (gold wires), sitaras (metal stars), round-sequins, glass and plastic beads, dabka (thread) and kasab (thread). Zari work is popularly done on fabrics like silk, satin, velvet, etc. on an Adda frame.

Fig 1.1.5: Zardozi

Fig 1.1.6: Chikankari

- **Chikankari of Lucknow** The term 'Chikan' is derived from a Persian word 'Chikin' or 'Chikeen' which means a kind of embellished fabric. Chikankari is a very old form of white flowery embroidery. It is knottily worked with needle and raw thread. It is placed mostly in Lucknow. Chikan is chiefly white embroidery on white fabric, with floral designs executed on fine white cotton with untwisted threads of white cotton.

- **Kantha embroidery of West Bengal** The word Kantha means patched clothes. Kantha originated in Bengal. Earlier two or three fabrics were sewn together to make a warm and also decorative fabric. Kantha embroidery now is done on a single cloth in the Dorukha or double faced style in which the stitches are so skilfully made that the details of each design appear identical on either side. Simple cotton threads are used in kantha stitches. Five and six threads are put into the needle to cover the entire surface in the style of rusnning stitches.

Fig 1.1.7: Kantha

Fig 1.1.8: Sujani

- **Sujani Embroidery of Bihar** Sujani is a term used for straight running stitch embroidery on layered cotton. This style of embroidery has its rich originality from the state of Bihar in the 18th Century. It was originally practiced only by Rajput women and the articles made were used for home or personal use. Patches of diverse coloured cloth are used to be stitched together and then covered in designs to make a small quilt for newly-born babies. The designs are based on dissimilar themes from the daily life like it can be used for the new-born since the fabric is very soft.

- **Pipli of Orissa** Pipli is an appliqué craft where a piece of cloth is stitched over another cloth to create designs and patters. Pipli is mainly practiced in a village in the district of Puri, Orissa, situated on the Jagannath trunk road nearly 20 kms from Bhubaneswar and 40 kms from the Puri town. In ancient times Pipli had a royal patronage and was used in temples. Various colourful utilitarian as well as ceremonious products for the temple are made with this technique.

Fig 1.1.9: Pipli

1.1.2 Apparel Sector – Industry Overview

Indian Textile and Clothing (Apparel) industry is the second largest manufacturer in the world. The Indian textiles and clothing sector is expected to grow at 10.01 percent in the next 10 years from the current value of INR3.92 lakh crores in 2012–13 to INR10.54 lakh crores in 2021–22. Of these, the garments sector is estimated to grow at an average rate of 15.44 percent over the years, thereby accounting for about 70 percent of the total production The demand for domestic consumption for home textiles and garments is expected to increase rapidly . In fact, the garments sub-sector alone is estimated to increase by seven times from INR 51400 crores in 2012–13 to INR3.70 lakh crores in 2021–22

The Indian textile sub-sector has traditionally been contributing significantly to the economy and manpower as well as to the structural changes in the manufacturing sector. As of 2012, the sector contributed 4 percent of the GDP, 32 percent of the manufacturing sector and 9 percent of total exports The sector's output is expected to grow at an annual average rate of 10 percent in the next 10 years, thereby increasing its worth to INR 10.5 lakh crores in 2022. Several factors that would contribute to the growth would include:

- Rising income levels are expected to increase the demand for home textiles and garments from domestic consumers is expected to increase.

- Free trade agreements provide India a comparative advantage in the export segment as compared to its competitors – China, Bangladesh and Pakistan – as they create opportunities for manufacturers.

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- Rising income levels are expected to increase the demand for home textiles and garments from domestic consumers is expected to increase.

- Free trade agreements provide India a comparative advantage in the export segment as compared to its competitors – China, Bangladesh and Pakistan – as they create opportunities for manufacturers to supply to potential markets in East Asia.

- Low production cost continues to be an advantage for the sector and, consequently, demand from existing foreign markets continues to increase.

- Structural changes in the sector, with a shift from vertically disintegrated to integrated large firms, with automated machines for yarn and fabric production.

- Increased spending on research and development to enter the specialized fabrics and technical textiles sector.

- Favourable policy environment to support domestic and foreign investments and the implementation of schemes to enhance the production capacity and improve technology.

Ready Made Garments

The ready-made garments section has grown rapidly in the last few years. Both exports and domestic demands shall drive sector growth in future.

The ready-made garments segment comprises men's, women's and kid's clothing, which may be used for either private (home/office wear) or commercial (uniforms for school, waiters and flight crew) purposes.

• Men's wear is the biggest segment in the ready-made garment segment, comprising about 43 percent of its share in the total revenue generated. This is followed by women's wear, with a share of 38 percent; 10 percent share of boys wear and 9 percent for girls wear in the total revenue generated by the ready-made garment segment.

• Changing lifestyles and consumption patterns are expected to drive the sector's supply of causal wear with an 11 percent growth, which would drive demand for workforce with specialised skills in western formals design, blended fabrics and increased application work on clothes.

Actual and Projected size of Indian Textile Industry

In 2011 global trade in textiles and apparel was around US$ 705 billion. This was approximately 4% of the total global trade of all commodities estimated at ~ US$ 15 trillion. During the period 2000 to 2010 the textile and
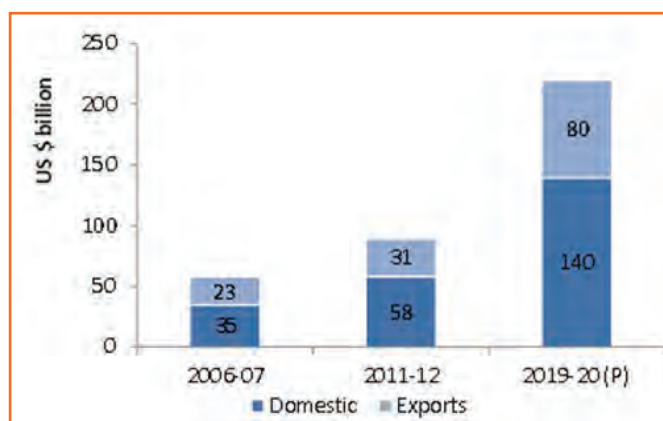
Fig 1.1.10: Major Textile Exporters to the World (% share)
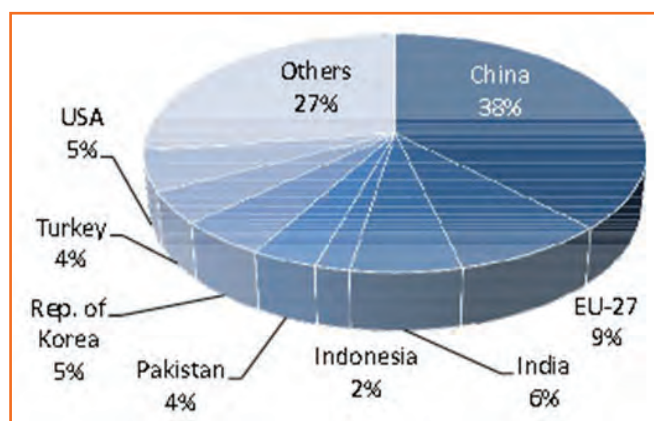
Fig 1.1.11: Major Textiles and Clothing Regions in India

Source: Office of Textile Commissioner and IMaCS Analysis

apparel trade has grown at a modest CAGR of 6.4% per annum. Further, the Global Textile and Apparel, or T&A, trade is expected to grow to USD 1 trillion by 2020.

• **Gujarat and Maharashtra:** Most large companies across all sectors of the value chain, including spinning, weaving, home textiles and garments, are located here. Key players include Aravind Mills, Raymond, Welspun, Bombay Dyeing, Alok, Century Textiles.

• **Karnataka and Kerala:** Bangalore and Mysore have a few garment firms. Some major garment exporters include Gokaldas Exports and Shahi Exports.

• **Tamil Nadu:** Major cities that serve as textile hubs are Tirupur, Coimbatore, Madurai and Karur; known for apparels, spinning mills, silk and home textile units, respectively. Key players include Loyal Textiles, KG Denim, Asian Fabric. Tamil Nadu accounts for the largest textiles and clothing production of INR 761820 crores, which also employs the largest number of workers (2.63 million) in textile factories. This state is followed by Gujarat, which has an annual textile production valued at INR 49165 crores.

• **There are more than 70 textiles and clothing clusters in India** accounting for about 80 percent of the total production. There are 39 power loom clusters and 13 ready-made garment clusters in India.

- **Bhiwandi and Malegaon** are the two largest power loom clusters. Major ready-made garments clusters are located in Delhi, Mumbai, Gurgaon, Nagpur, Madurai and Salem, with annual turnover of more than INR 1000 crores since 2003. The state of Maharashtra has 10 textile clusters. Other major states in terms of the number clusters are Tamil Nadu, Andhra Pradesh, Karnataka, Kerala and Uttar Pradesh (seven clusters each).

Employment Scenario in the Sector

It also provides employment to approximately 35 million persons directly & approximately 55 million persons indirectly. India is one of the few countries which has a prominence across the entire supply chain, from natural as well as synthetic fibres right up to finished goods industrial.

It has presence in organised mill sector as well as dispersed sectors like handloom, silk, power loom, etc. Currently, 15.24 million people are labouring in the textile sub-sector across yarn and fabric, home textiles, technical textiles and readymade garments. Fifty-one percent of the total workforce is involved in the manufacturing of readymade garments, followed by yarn and fabrics with 26 per cent. Human resource prerequisite in the sector is expected to reach.

21.54 million by 2022 translating into 6.31 million additional employment opportunities during the period 2013-22.

Sub Sector	Employment in Millions	
	2017	**2022**
Spinning Weaving and Finishing of Textiles	3.14	3.18
Manufacture of Other Textiles	10.64	13.78
Manufacture of Wearing Apparel	4.28	4.58
Overall	18.06	21.54

Fig 1.1.12: Sub Sectors in Apperal Industry

Exercise

1. Which of the followings are the types of hand embroidery:
   a) Chamba Rumal
   b) Kantha
   c) Pipli
   d) All the above

2. When was sewing machine invented?
   a) 20th century
   b) 19th century
   c) 18th century
   d) 17th century

UNIT 1.2: Roles and Responsibilities of Hand Embroiderer

Unit Objectives

At the end of this unit, you will be able to:

1. Know who is a Hand Embroiderer
2. Understand Roles and Responsibilities of a Hand Embroiderer

1.2.1 Hand Embroiderer – Job Description and Attributes

A Hand Embroiderer embroiders decorative designs on fabric and other materials using needle and thread. The hand embroiderer uses various techniques to create variety of embroidery stitches and effects such as Bullion knot stitch, Cross stitch, English Hand Embroidercking, French knot stitch, Applique work, Shade work etc. The hand embroiderer should have the skills to stitch a variety of Loop stitches, Flat stitches and Knotted stitches.

The Key Attributes of a Hand Embroiderer are:

• Good eyesight

• Hand-eye coordination

• Motor skills

• Vision which includes distance and near vision, colour vision, depth perceptions, peripheral vision, and the capability to change focus.

1.2.2 Role and Responsibilities of a Hand Embroiderer

The key roles and duties of a Hand Embroiderer are:

• Comprehensiveness and aptitude to use various methods of embroidery to create needlework stitches and impacts.

• Understanding of numerous fabrics and cloth materials on which embroidery is to be finished.

• Confirming that all resources required for the task are as per the specification.

• Analysing & construing the given design which needs to be embroidered and the type of embroidery that is essential.

• Tracing design of fabric or other material to be embroidered.

• Understanding to choose appropriate needles and threads for the chore at hand.

- Carrying out flat, loop and knotted stitches, as required (like Back stitch, stem stitch, cross stitch, chain stitch, button hole stitch, bullion knot stitch, French knot etc.)

- Combining various embroidery techniques to create decorative designs like Tapestry stitch, Shadow work, Mirror Work, English Hand Embroiderercking etc.

- Ensuring that embroidered fabric/other material meets quality standards specified

- Ensuring minimum wastage of raw material

- Reporting faults in jobs and tools to supervisor

- Understanding of various types of defects

- Maintaining documentation for tasks allocated and tasks completed

- Understanding of safe working practices and procedures

- Understanding of Health and Safety policies of the work place

- Maintaining tools and equipment

Exercise

1. Which of the followings are the key attributes ofa hand embroider:

    a) Motor Skills

    b) Good eyesight

    c) Vision

    d) All the above

2. What are the roles and responsibilities of a Hand Embroider?

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2. Carry out Different Types of Embroidery Stitches – Flat, Loop and Knotted Stitches

AMH/N1001

Key Learning Outcomes

At the end of this module, you will be able to:

1. Recognise various embroidery tools and equipment (needles, threads etc.)

2. Attain knowledge of various fabrics and accessories used in Hand Embroidery

3. Know techniques and carry out and application of basic stitches

4. Analyse material for quality

5. Understand design instructions and specifications and trace design on fabric/material, if required

6. Carry out various flat stitches like back stitch, stem stitch, Kashmiri stitch etc

7. Carry out various loop stitches like chain stitch, button hole stitch, fishbone stitch etc.

8. Carry out various knotted stitches like French knot, double knot, bullion knot stitch etc.

UNIT 2.1: Preparation for Embroidery

Unit Objectives 🎯

At the end of this unit, you will be able to:

1. Recognise various embroidery tools and equipment (needles, threads etc.)

2. Attain knowledge of various fabrics and accessories used in Hand Embroidery

3. Know techniques and carry out and application of basic stitches

4. Analyse material for quality

5. Understand design instructions and specifications and trace design on fabric/material, if required

2.1.1 Tools and Equipment in Hand Embroidery

Hand Embroidery requires a number of tools and equipment to carry out the stitching/embroidering work. It is essential to recognise the tools and use the correct tool for a given task.

The key tools and equipment used in Hand Embroidery are:

Needles

Needle is the most basic and no doubt an eminent tool involved in hand embroidery. Though any kind of needle can pull a piece of thread through fabric, but some specific types of needles do specific jobs better. Using the right needle for the job not only makes embroidery seamless but also ensures that quality of the work is superior than othervise

The most commonly used embroidery needles are detailed below:

1. Crewel or Embroidery Needle: This type of needle is the most basic type of Embroidery needle. It is a sharp tilted needle with a medium to long eye (larger than shaft of the needle). The medium to large eye of the needle helps to accommodate embroidery threads, while the sharp tip enables it to pierce through tightly woven fabrics with ease. These are ideal for nearly all surface embroidery and Hand Embroidercking. These needles come ins sizes from 3-10.

Fig 2.1.1 : Crewel or Embroidery Needle

Fig 2.1.2 : Tapestry Needle

2. Tapestry Needle: This type of needle has shorter shaft compared to the Crewel needle, but with a longer eye and blunt tip. This needle is used forneedlepoint, hardanger, blackwork or cross stitch on evenweave fabrics. The long eye of the needle is used to take thick or multiple stands of floss or wool for embroidering. Tapestry needles come in sizes 18-28.

3. Chenille Needle: This type of needle has long eye related to that of the Tapestry needle, but has a sharp point. This needle is thicker and sturdier Compared to the other needles and is ideal for thick fibres and abrasive fabrics. Chenille needles come is sizes 18-24.

Fig 2.1.3 : Chenille Needle

Fig 2.1.4 : Milliner Needle

4. Milliner Needle: Milliner needle is also called the straw needle. It has a smaller and rounded eye and a very long tube with sharp tip. The eye and shaft of the needle are of identical size in this type of needle, making Milliner needle most appropriate for working on any wrapped stitches like bullion.

5. Ballpoint Needle: Ballpoint needles are used for lace work. There isn't any sharp tip in this needle type. The biro tips slips-up effortlessly across the pattern deprived of piercing it, and also does not pierce the threads making up the lace stitches. They have a round point, and are of average length in sizes 3-9.
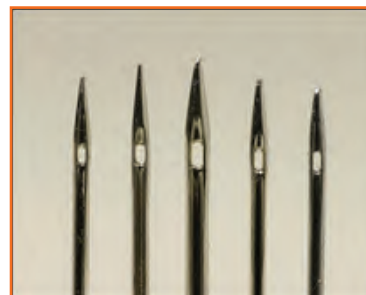
Fig 2.1.5 :Ballpoint Needle
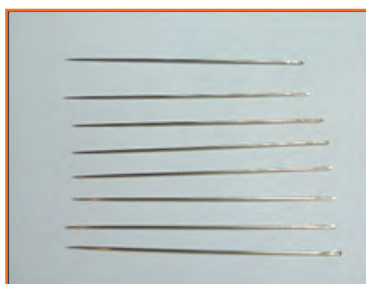
Fig 2.1.6 : Beading Needle

6. Beading Needle: Beading needles are very long and thin. These have long eye and sharp point. These needles are good enough to pass through the hole in a seed bead and elongated efor many beads to be threaded onto them. Size 10-15 is in which they come.

7. Quilting Needles: These are also called betweens. These are round eyed and have sharp points along with being short compared to others. They are used by quilters for quick and even stitching. They come in sizes 3-10.
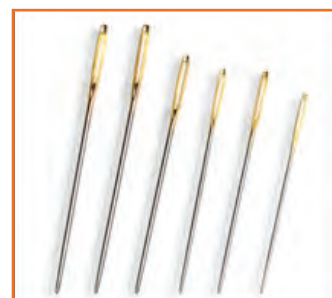
*Fig 2.1.7 :*Quilting Needles

Fig 2.1.8 : Easy Thread Needle

8. Easy Thread Needle: These needles come with a special eye that is a slot. The thread is pulled into the slot and these are used for overall purpose work.

Needle Characteristics				
Size	Point	Width	Length	Eye
• Needles are generally sized as in, the larger numbers being kept for the thinner needles. • As an example a size 24 tapestry needle is thicker than a size 26, which is used for 28 or 32 count even-weave draperies. The thicker size 18 would be best suited for canvas work.	• The more closer the woven fabric, he pointer the needle to pierce. • For even-weave fabrics, such as Aida cloth, linen or canvas, one would use a blunt. There are even ballpointed needles for use on knitted fabrics for example, jersey or sweatshirt material.	• The widt h or diameter of the shaft can be the same throughout the length of the needle or it can widen at various points.	• Different needle-work techniques need a dissimilar length. A longer one is essemtial if you want to wrap the thread, but for speed, such as when quilting, a short is suitable.	• The shape of the eye is another point of difference in the needles. These can be round, long, elongated or even Self-threading. A round eyed needle is stronger any any other type.

Fig 2.1.9 : Needle Characteristics

Embroidery Threads

Commonly used Embroidery Threads are:

1. Embroidery Floss: Embroidery floss is one of the most multipurpose threads for embroidery. It comprises of 6 easily separated strands, allowing you to adjust to the thickness of your sewing by using a different number of strands.

Fig 2.1.10 : Embroidery Floss

2. Pearl Cotton: A finely twisted undivided thread with a silky shine is pearl cotton. If you want to give the texture a lustrous finish this is it. It is available in sizes 3, 5, 8 and 12, with larger the number, the finer the thread.

Fig 2.1.11: Pearl Cotton

3. Silk Thread:These are synthetic threads that are shiny in dispositions. These threads are usually packaged as a floss that can be separated or single-ply threads such as braids, narrow ribbon or halographic ribbon.

Fig 2.1.12 : Silk Thread

Fig 2.1.13: Metallic Thread

4. Metallic Thread: These threads are a blend of rayon with hair-thin metal strands, giving them a glossy and textured look. Metallic threads are also available in floss, single ply or pearl cotton varieties.

5. Satin and Rayon Threads: Satin and rayon threads are synthetic threads that are shiny like satin. These threads are usually packaged as a floss that can be separated or single-ply threads such as braids, narrow ribbon or halographic ribbon

Fig 2.1.14 : Satin and Rayon Threads

Fig 2.1.15: Wool Thread

6. Wool Thread: Wool threads come in a variety of weights, including very fine crewel wool, divisible Persian wool, and tapestry wool (most commonly used in needlepoint)

7. Novelty Thread: These threads include a wide range of styles, qualities, materials and supplies. They can be fuzzy, metallic, textured, leather, plastic and more. These are mostly used for adding special properties to the embroidered design.

Fig 2.1.16 : Novelty Thread

Fig 2.1.17: Wired Threads

8. Wired Threads: Wired threads are not used for stitching. Instead they are stitched to the surface of a finished design to add texture, dimension and detail to the embroidered design. These threads can be bent, warped and curled and hold their shape due to the hidden interior wire.

9. **Zari Thread:** A gold/silver thread, is usually used to give the embroidery a rich texture.

Fig 2.1.18: Zari Thread

2.1.2 Basic List of Material and Tools Required for Stitching

Scissors: Scissors are utilized for cutting the fabric and has a handle which is aligned with the blade which helps in cutting.

Fig 2.1.19: Scissors

Fig 2.1.20: Rotary cutter

Rotary cutter: The rotary cutter has a blade to cut easily and Hand Embroidererothly through fabric. It's used in different kinds of projects, especially for quilting.

Measuring tape: Measuring tape is used for sewing/embroidery to make it softer than that used for construction projects so that it can be used to fit clothing to the body.

Fig 2.1.21: Measuring tape

Fig 2.1.22: Sewing Needles

Sewing Needles: A sewing machine requires different needles than those used for hand-sewing. Machine needles usually have a bigger as well as blunter tip.

Pins: Pins are used to hold fabric together where it's supposed to be sewn and to be adjusted as per the required fitting during alterations.

Pincushion: Pincushions are very useful in keeping the pins in order and in place, it is usually in apple's pumpkin's or tomato's shape.

Fig 2.1.23: Pins and Pincushion

Fig 2.1.24: Iron and Ironing Board

Iron and Ironing Board: An iron is used to press fabric, seams open and make darts. Your everyday iron is fine.

Seam ripper: The name says it all: It's used to rip seams. Especially comes in handy when you're a beginning sewer.

Fig 2.1.25: Seam ripper

Fig 2.1.26: Pinking Shears

Pinking Shears: cuts a zigzag edge and is used for finishing hem edges, seams, etc. It should not be used for cutting out a garment b'coz it will not give an accurate cut line of the fabric.

Cutting Table: a flat board placed on a table where the fabric is laid out and cut. The fabric can be pinned securely to the cutting board/table to prevent it from slipping.

Figure 2.1.27: Cutting Table

Figure 2.1.28: Sewing Gauge

Sewing Gauge: a 6 inch gauge with a movable indicator convenient for measuring short lengths.

Hem Gauge: a measuring device marked with various depths and hemline folds. It is practical when hemming straight on grain edges.
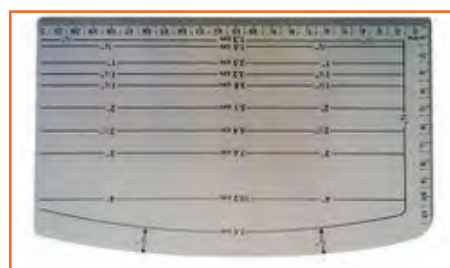
Figure 2.1.29: Hem Gauge

Yardstick/Meterstick: is use to measure fabric and to check grain line. It can be used in marking a long straight lines and in measuring hem lengths.

Figure 2.1.30: Yardstick/Meterstick

Tailor's Chalk: A thin piece of hard chalk used in tailoring for making temporary alteration marks on clothing.

Figure 2.1.31: Tailor's Chalk

Figure 2.1.32: Novelty Yarns

Novelty Yarns: Novelty yarns include a wide variety of yarns made with unusual features, structure or fiber composition such as slubs, inclusions, metallic or synthetic fibers, laddering and varying thickness introduced during production.

Masking tape: Also known as sticky tape, is a type of pressure-sensitive tape made of a thin and easy-to-tear paper, and an easily released pressure-sensitive adhesive. It is available in a variety of widths. It is used mainly in painting, to mask off areas that should not be painted.

Figure 2.1.33: Masking Tape

Figure 2.1.34: Hand Needle

Hand Needle: Hand sewing needles are available in varying sizes with varying points. They guide the thread through fabric when you are hand sewing.

Punch Needle: A Punch needle is an easy to use tool that opens up a delightful world of dimensional needle art. It quickly and easily produces one-level or exciting three dimensional designs.

Figure 2.1.35: Punch Needle

Frame, round: Used for creating designs through hand stitch.

Figure 2.1.36: Frame, Round

Pattern making paper: Used for practising cutting and creating patterns.

Figure 2.1.37: Pattern making paper

Figure 2.1.38: Tracing paper

Tracing paper: Tracing paper is paper made to have low opacity used for creating designs.

Hand held thread trimmer: Used for thread trimming.

Figure 2.1.39: Hand held thread trimmer

Figure 2.1.40: Bent neck, metallic Tweezer

Bent neck, metallic Tweezer: Tweezers are small tools used for picking up objects too small to be easily handled with the human hands

Pencils (HB, 2B, 4B): The graphite grading scales used to measure the hardness of a pencil's graphite core. The higher the number the harder the writing core and the lighter the mark left on the paper.

Figure 2.1.41: Pencils (HB, 2B, 4B)

Figure 2.1.42: Pick glass

Pick glass: Handy Reed Pick glass helps in checking the reed pick of the fabric. It also helps in checking the weaving, dyeing & printing defects in the fabric if any is made.

Needle threader: A needle threader is a device for helping to put thread through the eye of a needle. Many kinds exist, though a common type combines a short length of fine wire bent into a diamond shape, with one corner held by a piece of tinplate or plastic.

Figure 2.1.43: Needle threader

Figure 2.1.44: Nonwoven Non-fusible Backing Paper

Nonwoven Non-fusible Backing Paper: It is made of man-made fibers bonded together to form a paper-like sheet. Stable nonwovens (no stretch) are best for medium- to heavyweight fabrics with a slight to very crisp hand. Nonwovens with a crosswise or all-direction stretch can be used for soft to moderate shaping. Fusibles today are fast, secure and easy to use.

Fabric Glue: It provide temporary or permanent ways to attach fabric without sewing.

Figure 2.1.45: Fabric Glue

Surface ornamentation material (Beads, Sequins): Decorative material used for decoration of clothes.

Figure 2.1.46 (a): Beads

Figure 2.1.46 (b): Sequins

Buttons: are attached to garment by hand stitching or machine stitching

Fig 2.1.47: Buttons

Fig 2.1.48: Hooks

Hooks: are attached to garment with the help of needle and thread

Adda Frame: Raised wooden frame on which fabric that is to be hand embroidered is stretched across.

Fig 2.1.49: Adda Frame

Fig 2.1.50: Lace

Lace: A fine open fabric of cotton or silk, made by looping, twisting, or knitting thread in patterns and used especially for trimming garments.

Fig 2.1.51: Tracing Powder or Pounce

Tracing Powder or Pounce: Pounce is simply powdered charcoal ordry neel powder

Fig 2.1.52: Sewing Mannequin

Sewing Mannequin: it is a type of a doll used by Hand Embroiderer or tailors to display or fit clothing or embroidered designs

Fig 2.1.53: Greyscale

Greyscale: It is used for maching colors in the sewed garment against the specifications.

Thimble: It is a small hard cup warn for protection on the finger that pushes the needle in sewing

Fig 2.1.54: Thimble

2.1.3 Embroidery Fabrics and their Selection

Fabrics used for embroidery are available in cotton, blends and linen. They are also available in different thread counts. The selection of a fabric for embroidery is dependent on what you are planning to make as well as the embroidery technique that will be used.

Commonly used fabrics in embroidery are detailed below:

1. **Evenweave Fabrics:** The best fabric for surface embroidery is the tightly woven, even-weave fabrics. While loosely woven fabrics are ideal for counted thread, pulled thread and drawn thread techniques. The fiber content for evenweave fabric can be cotton, linen, rayon and polyester blends - or even hemp or bamboo.

Fig 2.1.55: Evenweave Fabrics

Fig 2.1.56: Aida cloth

2. **Aida Cloth:** Aida cloth is generally famous with cross stitches. This is because it is easy to count the square and also for counting thread. Surface embroidery and/or Assissi embroidery techniques. This cloth is woven with grouped fibers forming easy-to-follow squares in the fabric.
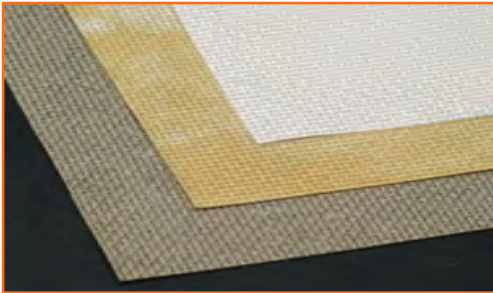
3. **Hardanger Fabric:** Hardanger fabric is a 100% cotton. It is a 22-count evenweave fabric. It is woven with a double thread. Each double-thread group is counted as one. Hardanger can be used for hardanger embroidery technique, blackwork, cutwork, and counted thread techniques.
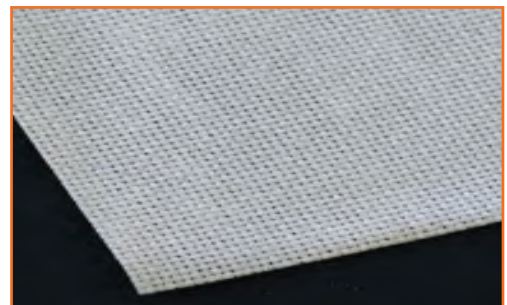
Fig 2.1.57: Hardanger Fabric

Fig 2.1.58: Lenin Fabric

4. **Lenin Fabric:** Linen fabric is a single thread fabric woven from flax. It is the most durable fabric. It is mostly used in cross stitches, pulled work.

Selecting Fabric for Embroidery Work

Fabric	Counts	Use
Aida	11-22	Cross stitch, Blackwork
Hardanger	22	Cross stitch, Blackwork, Hardanger
Linen	25-36	Cross stitch, Blackwork, Hardanger, Pulled work, Bargello, Petit Point
Evenweaves	18-32	Cross stitch, Blackwork, Hardanger, Pulled Work, Bargello, Petit Point

Fig 2.1.59: Fabric

2.1.4 Analyzing Design

Once the supervisor gives the design that is to be embroidered, it has to be analysed and interpreted in order to ensure that the design is perfectly replicated on the fabric. The process of analysing design is illustrated below:
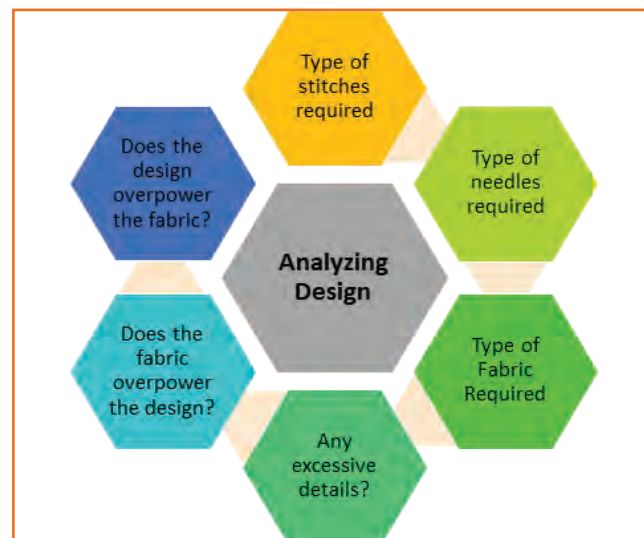
Fig 2.1.60: Analyzing Design

Analysing the design is an important role of Hand Embroiderer, as only after careful analysis a fault free design can be embroidered on the desired fabric.

2.1.5 Tracing Design on Fabric/Material

There are several different ways of marking/tracing an embroidery design on fabric. The techniques often depend on the weight or type or colour of fabric being used. Detailed below are few commonly used tracing methods:

Tracing with Heat:

Heat transfer pencils or pens are used for marking an embroidery design on fabric, and works on light weight as well as heavier fabrics. The ink of transfer pencil or pen is heat activated. These pencils are permanent therefore the traced lines should be covered completely with embroidery so they are not visible.

STEPs of using Heat Transfer Pencil

STEP 1: Trace the design in reverse on a lightweight sheet of paper. To do this one has to print the pattern then turn it over and finally trace the design on the rear side of the paper with the help of heat transfer pencil.

STEP 2: Ensure that a very sharp pencil is used while tracing. The pattern lines transferred to the fabric should be as thin as possible so that they are not visible out from under your beautiful embroidery.

STEP 3: For transferring the design on fabric, first place the paper against the fabric and then press using a hot iron and finally move to the next location.

Fig 2.1.61: Heat pencil

Tip: Ensure that you do not iron by moving the iron back-and-forth along the paper, as this distorts the image.

Tracing with Light:

If fabric is fairly thin, the transfer/tracing of the designs can be done directly on the fabric with help of a light source like a window or light box. The outline is then marked using marking pencil.

STEPs of Using Light to Trace Design

STEP 1: Identify a light source such as a window or light box

STEP 2: Tape the pattern to the glass, then cover the pattern with the fabric. The design should be visible through the fabric

STEP 3: Trace the lines with your marking pencil or pen

Fig 2.1.62: Tracing with light

Tracing with Tracing Paper

Designs can be traced/transferred to thicker fabrics using transfer paper(carbon- or wax-based). This paper is also known as dressmakers' carbon paper. The lightweight tracing paper is coated with a powdery, colored ink on one side.

STEPs of using Tracing Paper

STEP 1: Lay the fabric face-up on a hard surface.

STEP 2: Centre the transfer paper over the fabric with waxy ink towards the fabric, and then keep the pattern over the transfer paper.

STEP 3: Transfer the design to the fabric using a stylus or empty ball-point marking pen. Ensure that the stylus is pressed hard to transfer the design to the fabric.

Fig 2.1.63: Tracing Paper

Tracing with Pouncing

Pouncing is one of the earliest methods of tracing designs on the fabric, and is rarely used these days. In this method, a paper pattern is pierced with a pin. The pattern is then attached to the fabric and tracing powder is used on the holes using a soft fabric pad.

Fig 2.1.64: Tracing using Pouncing

2.1.6 Selecting Appropriate Needle and Thread

While selecting the appropriate thread and needle for the task at hand, following point should be kept in mind:

Selecting Needles and Threads

- The needle must be able to pull the thread through the fabric easily, without allowing too much scratch on the thread. The shaft of the needle should be as thick as the embroidery thread. The only situations where

this really works are in counted techniques, needlepoint, stitching on open weaves, and any other time there's already enough space between the fabric threads for the needle to pass through easily. For surface embroidery, one has to consider not only the thickness of the thread, but also the thickness of the thread at the eye where the thread is folded, and the texture of the fabric. A tighter, close weave requires a needle that can make the right-sized hole for the thread and the needle to pass through it.

- There should be no real fight in the fabric when pulling the eye of the needle. If there's resistance – if the fabric is pulling and denting, and you really have to fight to get the needle through – that's a sign you should be using a larger needle.

- The hole the needle makes should be large enough for the thread to pass through, but not any larger. The needle should not leave a visible hole around the thread.

Selecting Thread

- Choosing the right thread hinge on on the type of design that is to be embroidered, the needle selected for the job and the type stitches that are required

- Cotton threads are primarily used for freestyle embroidery, canvas work and other forms of embroidery

- Pearl Cotton is mostly used for hard anger, cross stitch or freestyle embroidery

- Wool is used for canvas work to cover the canvas consistently and crewel wool can be used a surface thread for crewel work and Jacobean embroider

- Silk and other special threads like metallic and wire threads are used for techniques like gold-work.

2.1.7 Checking Materials for Defects

It is important to go through and inspect every material required for embroidery. Any material or accessory be it fabric, thread or needle, should be checked to ensure that the material about to be used is fault-free. Any faulty material found, should be reported to the responsible authority immediately, it should be sent for replacement. While using the material the commonly seen faults are in: faulty needle, unusual thread, wrong design pattern however fabric defect over shadows all as it the most important of all in first place hence should be checked very clearly and thoroughly before making it in use.

A simple check-list may be followed to ensure minimum defects in the material being used for embroidery:

Parameter Check
Buyer Approved Sample or Artwork Wise Bulk Sample Print & Embroidery Design Check.
Durability of Needle
Size Wise Approved Pattern Placement Check.
As per Sample Wise Print Design, Colour & Quality Check.
Bundle & Size Wise Print/Embroidery Check.
Fabric Top Side in Side Check.
Print / Embroidery Pattern Placement Check.
As Per Sample Wise Print/Embroidery Design, Thread Colour Quality Check.
Thread strength and texture Check
Durability of accessories like frame/hoop Check
Size of accessory (frame, hoop) as per design

Fig 2.1.65: Quality parameters

2.1.8 Elements of Design

A design is created with elements – point, line, shape, colour and texture – that are put together using principles – unity, variety, emphasis, balance and scale. The elements of design are the pieces, the components, the building blocks of design. The elements of design include line, shape, colour, value and texture. Put together skilfully, they create effective visual communication. The elements are components or parts which can be isolated and defined in any visual design or work of art. They are the structure of the work, and can carry a wide variety of messages.
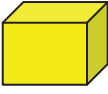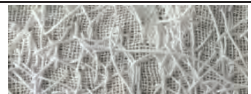
Line	An element of art defined by a point moving in space. Line maybe two-or three-dimensional, descriptive, implied, or abstract.	
Shape	An element of art that is two-dimensional, flat, or limited to height and width.	
Form	An element of art that is three-dimensional and encloses volume; includes height, width AND depth (as in a cube, a sphere, a pyramid, or a cylinder). Form may also be free flowing.	
Colour	An element of art made up of three properties: hue, value, and intensity. Hue refers to the name of a colour Value refers to a hue's lightness and darkness (a colour's value changes when white or black is added) Intensity refers to the quality of brightness and purity (high intensity= colour is strong and bright; low intensity=colour is faint and dull)	
Texture	An element of art that refers to the way things feel, or look as if they might feel if touched	

Fig 2.1.66: Elements of Design

Point

Point is the simplest element of design. It is the smallest object that turns a homogeneous space to a heterogeneous one. When it is used in isolation it bestows a potent contrast between negative and positive space. Contrary to this when they are used in consortium it gives a perception of a connected positive space. A point depicts a precise and limited location. For example, circular shape of dot is adopted as an inspiration for designing electric bulbs. It is also used in Indian culture in the form of traditional auspicious symbol known as bindior bindu. It creates a strong contrast with the background, which implies a strong identity and approach. The points used in a regular repetition form a pattern or design which is extensity used in apparel and lifestyle accessories.

Fig 2.1.67: Point in Apparels

Line

Line is an element of design characterized as a mark with length and direction, created by joining points across a surface. Multiple lines also create contours and shapes. Lines can be seen in almost everything around us including leaves, roots, branches, water waves, fish, birds, animals and manmade objects. Line depending on its use may recall, inform, describe and signify subjective forces and arouse deep lying associations. Lines as pictograph or ideograph (lines as writing), signify things, actions, concepts, qualities and conditions across a spectrum of civilizations).

Fig 2.1.68: Lines in Home Furnishing

Shape

When a line crosses itself or intersects with other lines forming an enclosed space, a shape is formed. This is an element of design, which is defined by its closed contours. Shape is an area or form with a definite outline and a visible appearance and structure. It is also the way in which something is constituted in a framework. In a composition the filled or solid portion is called positive space while space around the positive space is called negative space. Both positive space & negative spaces are essential to see shapes. Shapes can be divided in three categories based on their structures:

Organic Shapes: Free flowing, informal and irregular shapes are termed as organic shapes. Some examples of organic shapes in nature are flowers, seashells and tree branches. Being basic and simple, organic shapes are extensively used in lifestyle products.

Geometric Shapes: Geometric shapes are rigid, regular and precise in nature. Some examples of geometric shapes are beehive, spider web and water drops.

Fig 2.1.69: Geometric Shapes in Apparels

Fig 2.1.70: Abstract Shapes in Carpets

Abstract Shapes: Whenever an original shape is modified to change its character, the new changed shape is called an abstract shape.

Exercise

1. Which of the followings are the most commonly used embroidery needles:
    a) Chenille
    b) Ballpoint
    c) Milliner
    d) All the above

2. Needles are usually sized with the larger numbers being reserved for the thinner needles.
    a) True
    b) False

3. Pouncing is one of the earliest methods of tracing designs on the fabric.
    a) True
    b) False

4. What are the elements of design?

    ....
    ....
    ....
    ....

5. What are the embroidery threads?

    ....
    ....
    ....
    ....

UNIT 2.2: Carrying out Different types of Stitches   - Flat Stitches

Unit Objectives ◎

At the end of this unit, you will be able to:

1. Recognise Flat Stitches

2. Carry out different flat stitches like Running stitch, stem stitch, Kashmiri Stitch, cross stitch etc.

2.2.1 Flat Stitches

Flat stitches are simple embroidery stitches in which individual stitches are made without crossing or looping the thread. These stitches are used to form broken or unbroken lines or starbursts, fill shapes and create geometric designs.

Commonly used types of Flat Stitches and their techniques are given below:

• Running Stitch

• Back Stitch

• Stem Stitch

• Satin Stitch

• Kashmiri Stitch

• Couching Stitch

• Cross Stitch

• Herringbone Stitch

2.2.2 STEPs of Carrying out Running Stitch

This stitch can be worked in straight or curved lines, or for assembly when finishing an embroidery project. The stitch is worked by taking the needle in and out of the fabric. These stitches are of varying length, but more thread is visible on the top than below.

• **STEP 1:** Work from right to left of the fabric and insert your needle through the back side of the fabric at your starting point

• **STEP 2:** Bring thread up at 1 then down at 2, up at 3 and down at 4 and continue

• **STEP 3:** The spaces between the stitches can be the same length as the stitches or shorter for a different look.
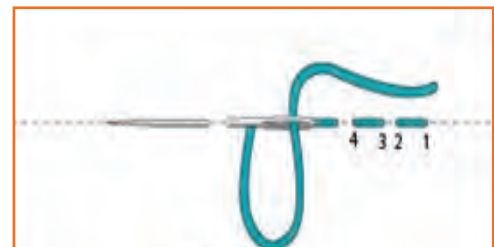
Fig 2.2.1: STEPs of Running Stitch

2.2.3 STEPs of Carrying out Back Stitch

The back stitch is a basic embroidery and sewing stitch used to produce a thin line of stitching, to outline shapes that will be filled with satin stitch, or to stitch fabric pieces together.
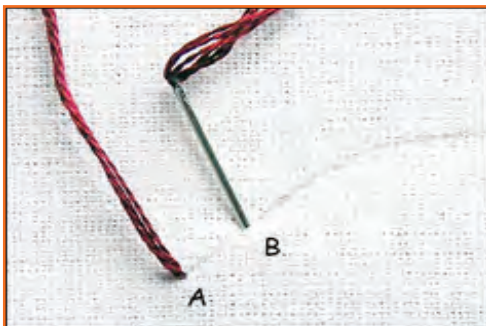
STEP 1: Bring the thread through A and take it in through B. This creates one stitch
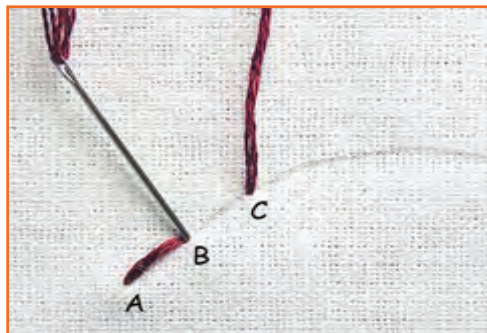
STEP 2: Bring the thread through C and take it in through B. This way, we are creating a stitch by taking the thread backward
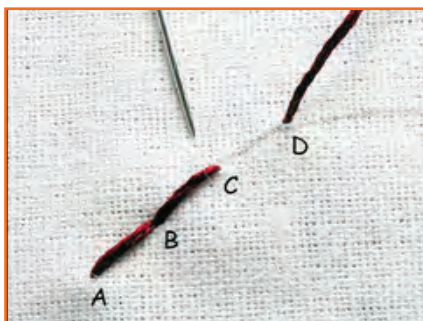
STEP 3: Bring the thread through D and take it in through C. Continue this pattern to finish the design

2.2.4 STEPs of Carrying out Stem Stitch

Stem stitch, and its variations, are worked as a thin line and can be used to outline embroidered shapes, stitch lines and curves, embroider letters. This stitch creates a rope like appearance
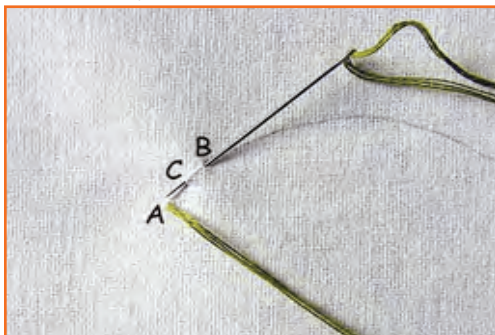
STEP 1: Bring out the thread through A and take it in through B. Take the needle backwards and bring the thread out through C. Make sure the point C lies over the stitch A-B
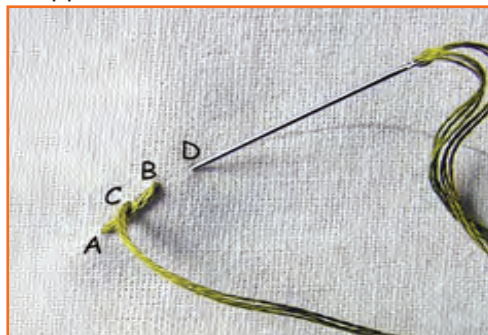
STEP 2: Note that the point C lies about half way through A and B. Also note that C lies on top of the stitch A-B. So, all the subsequent stitch points will lie on top their previous stitch.
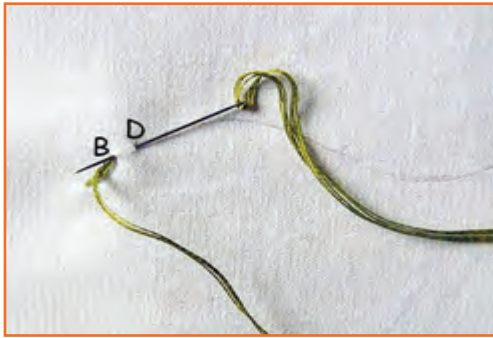
STEP 3: Take the needle in through D. Try to mark D in such a way that the point B will lie half way through C-D. Bring the needle out through B

STEP 4: The pattern of two stitches of the stem stitch will be as shown in figure

STEP 5: Continue this pattern of stitching with the needle coming out through the top of the previous stitch always

2.2.5 STEPs of Carrying out Satin Stitch

This stitch is primarily used for Solid filling for shapes and monogram. Often, a satin stitch is outlined using one of the straight stitches like, the split stitch, the outline stitch, back stitch, chain stitch, or any other similar stitches. This helps in containing the satin stitch within the parameters of the pattern/design easily.
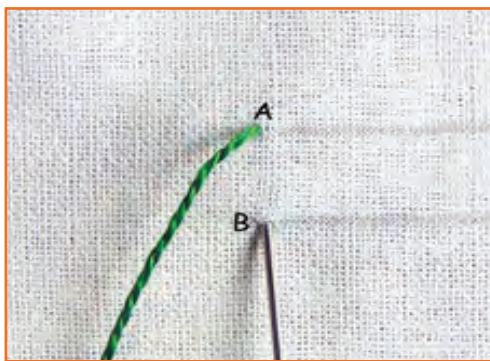
STEP 1: Bring the needle out through A and put it in through B. So, that makes a stitch which covers a small area between the stitch lines
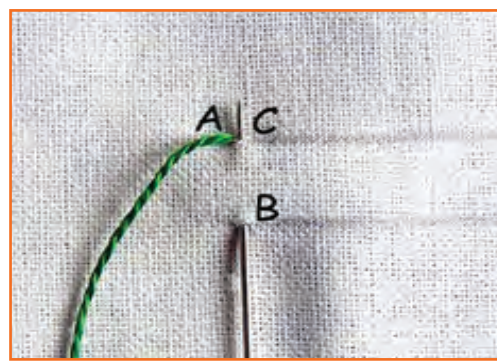
STEP 2: Bring the needle back through C, a point very close to A. Continue this action over the two stitch lines

STEP 3: Once finished, the area is filled as in figure. Almost same amount of thread will be spent on the reverse side as on the actual side of the fabric

2.2.6 STEPs of Carrying out Couching Stitch

This stitch is usually used to make outlines, or layers of this stitch can be made to fill in patterns. This stitch involves two threads: a thicker foundation thread, (also called the laid thread) and a thinner thread (called the couching thread).

STEP 1: Start by bringing out a thread (brown in the figure) for laying from one end of the stitch line. Keep it open. Now, bring another thread (red in the figure) out, a little outside the stitch line, and away from the other thread.

STEP 2: Keep the laid thread over the stitch line. Use the other thread to fasten the laid thread down using a small stitch.

STEP 3: After fastening, the stitch will look like as in the figure.

STEP 4: Bring the fastening thread out as a short distance from the earlier stitch. Lay the open thread over the stitch line, and again fasten it down with a small stitch.

STEP 5: Continue with this method for the entire stitch line. To finish up, pass the laid thread through the fabric and knot it. Make sure the fastening thread is brought out at regular intervals to make it look elegant.

STEP 6: A finished couched line will look like this.

2.2.7 STEPs of Carrying out Cross Stitch

This stitch is used for borders and filling if worked in adjacent rows.
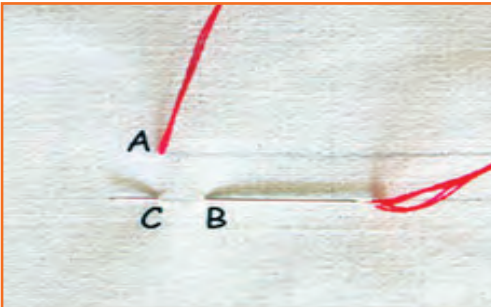
STEP 1: Bring the needle out through A and take it diagonally across to B. Bring it back again through C, which lies vertically below A
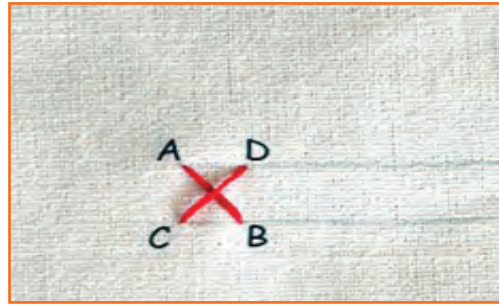
STEP 2: Now put the needle in through D, which lies vertically above B. You have made a single cross

STEP 3: Continue by putting the needle in through E and bring it out through the previous point D
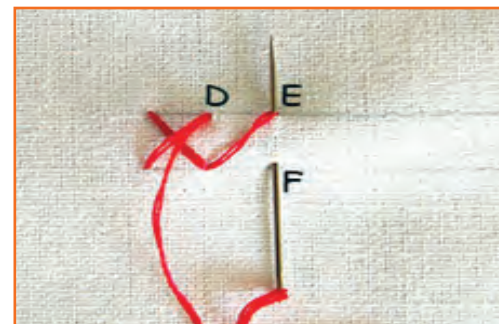
STEP 4: Put the needle in through F to complete the second cross. Now, bring the needle out through the previous point E to begin for the third cross. Continue this process

STEP 5: A row of cross stitch would appear like this.
The same technique is followed for a vertical row

2.2.8 STEPs of Carrying out Herringbone Stitch

This type of stitch is used to create border, edging, can be stitched over a ribbon or braid to hold it down. It is ked along parallel lines on an evenweave fabric
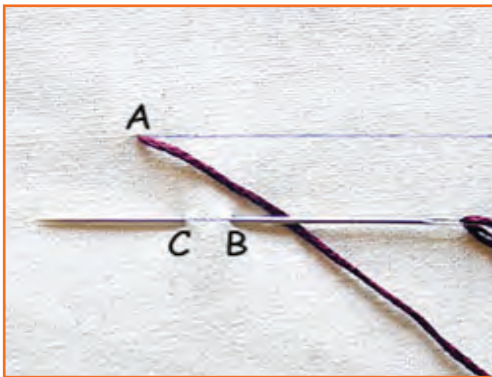
STEP 1: Bring the needle out through the first stitch line at A. Now, take the needle in throughB, which lies diagonally across A on the second stitch line. Then, take the needle backwards out through C, which lies near B.
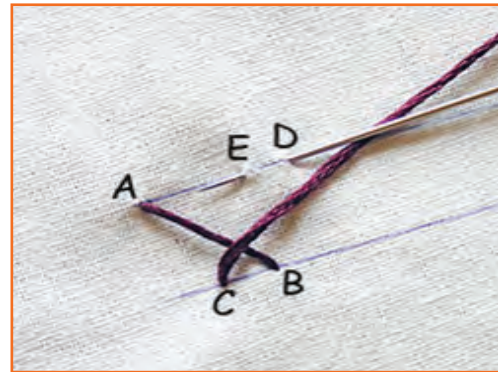
STEP 2: Now, the same procedure will be worked on first stitch line. Take the needle diagonally across to D and bring the needle backwards out through E

STEP 3: Continue to make such crosses on both stitch lines alternately. Make sure the diagonal stitches are parallel to each other to bring out the best look

STEP 4: A finished sequence of herringbone stitch would look like this

Industry Visit

The purpose of visiting an apparel manufacturing unit is to get hands on knowledge about various processes involved in the work of a Hand Embroiderer. During the visit you have to interact with Hand Embroiderer and supervisors to understand how work is done in industry. Make sure that you keep a notebook handy and note down any important points that come up during your interaction at the apparel manufacturing unit. When you go to an apparel manufacturing unit, you should:

• Analyze how a Hand Embroiderer does flat stitches.

• Understand the different types of flat stitches such as; running stitch, back stitch, stem stitch, satin stitch, kashmiri stitch, couching stitch, cross stitch, herringbone stitch and which type of stitch suits to different fabrics.

• Ask questions to Hand Embroiderers/supervisors if you have any query.

Exercise

1. Which of the followings are the commonly used types of flat stitching:

    a) Satin

    b) Cross

    c) Stem

    d) All the above

2. Stem stitch, and its variations, are worked as a thin line and can be used to outline embroidered shapes, stitch lines and curves, embroider letters.

    a) True

    b) False

3. What are the steps of carrying out back stitch?

    ....

    ....

    ....

    ....

UNIT 2.3: Carrying out Different Types of Stitches - Loop Stitches

Unit Objectives

At the end of this unit, you will be able to:

1. Recognise Loop Stitches
2. Carry out different loop stitches like chain stitch, button-hole stitch, blanket Stitch, fishbone stitch etc.

2.3.1 Loop Stitches

Loop stitch gets its name from the long loops it leaves behind

Commonly used types of Loop Stitches and their techniques are given below:

- Chain stitch
- Button-hole stitch
- Blanket Stitch
- Fishbone stitch
- Feather stitch
- Fly Stitch

2.3.2 STEPs of Carrying out Chain Stitch

The chain stitch is a circled stitch which can be worked along a straight or curved line. Variations of this stitch are the single or detached chain, lazy daisy, feathered chain, square chain, cable chain, heavy chain, zigzag Chain etc. This stitch is usually used for outlining, straight and curved lines, filling if rows are stitched closely together.
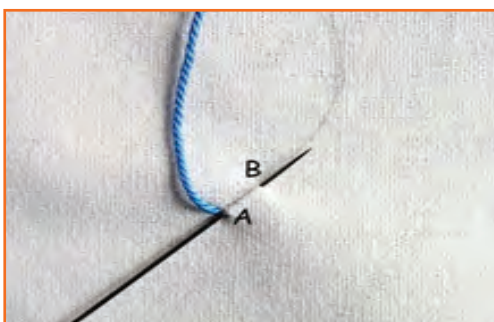
STEP 1: Bring the thread out through A. Put the needle back in A and bring it out through the point B, but don't pull the needle out completely.
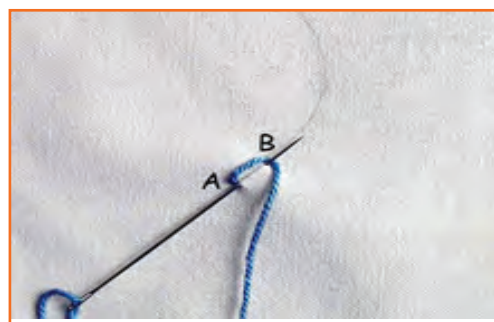
STEP 2: Take the thread around the needle from left to right to form a loop
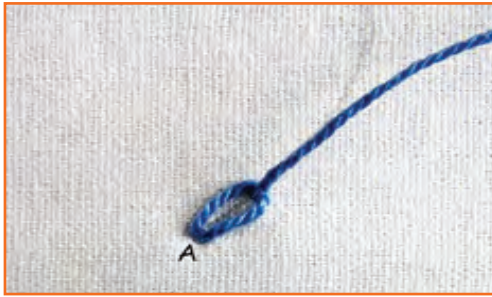
STEP 3: Pull out the needle now to tighten the loop and you will get the first part of the chain.
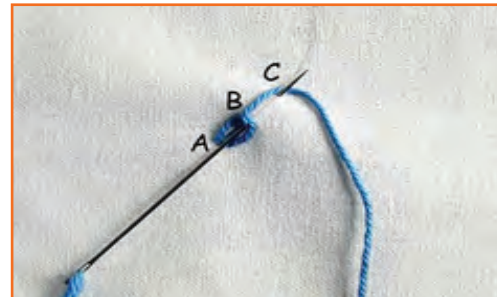
STEP 4: Put the needle in through B (now inside the loop) and bring it out on C (outside of the loop).

STEP 5: Continue the action by taking the thread around the back of the needle from left to right to form a loop and pull out the needle to get the next loop of the chain. Keep on with this procedure to finish the design.

2.3.3 STEPs of Carrying out Button Hole Stitch

This stitch is used to secure the edges of buttonholes as it gives a much sturdier stitch due to the knots it makes.
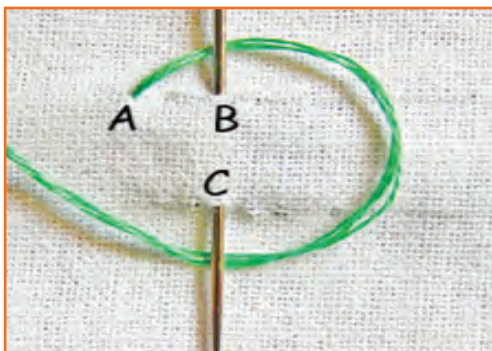
STEP 1: Bring the needle out through A. Now, loop the thread around from left to right. Take the needle in through B and bring it out from C. Keep the thread below the needle always
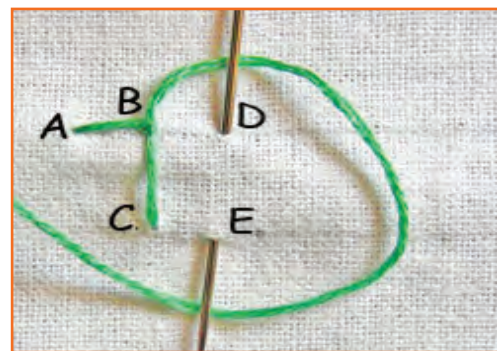
STEP 2: Pull out the needle towards the top. This creates a small knot near the point B. Do not pull the needle downwards as it will not give the desired results

STEP 3: A finished portion of the buttonhole stitch would look like as in figure

2.3.4 STEPs of Carrying out Blanket Hole Stitch

This stitch is called blanket stitch as traditionally it is used to stitch the edges of blankets. It is used to create straight and gently curved lines, borders and finishing edges
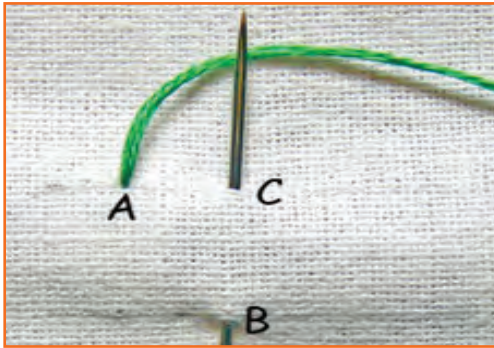
STEP 1: Bring the needle out through A. Take the needle in through B. Take it out through C, a point in the same stitch line as A. Loop the thread under the needle
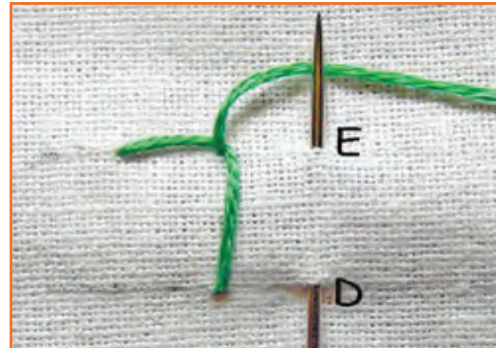
STEP 2: Pull out the needle. Continue with this process till the end of the line

STEP 3: A portion of the finished blanket stitch would look like as in the figure

2.3.5 STEPs of Carrying out Fishbone Stitch

This stitch is a type of filling stitch and is used for making leaves and feathers
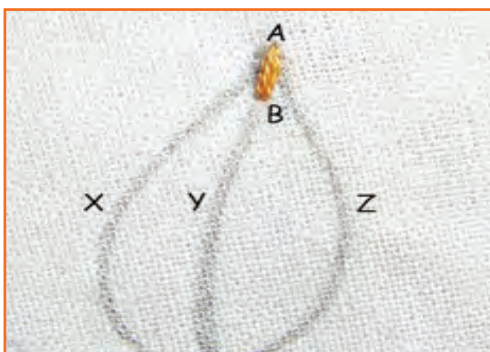
STEP 1: To begin with, bring the needle out through point A, which is the top tip of line Y. Put it in through B, to make a single straight stitch.
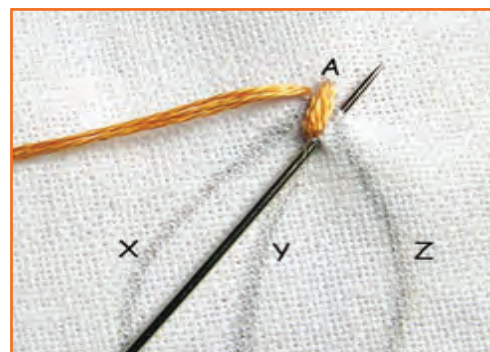
STEP 2: Now, bring the needle out from a point very close to A on the line X. Put it in through a point very close to B on line Y. Again pull out the needle through a point very close to A on line Z.

STEP 3: This procedure of putting in the needle through X and Z alternatively will follow. Each time you will be connecting X-Y and Y-Z.

STEP 4: Make sure all the stitch points lie close to each other to avoid any visible spaces.

STEP 5 - Half way through, the leaf design would look like as in the image.

2.3.6 STEPs of Carrying out Feather Stitch

Feather stitch is a decorative stitch, usually, used to accompany it with embellishments or other forms of stitches like the French knot. It can be used to make borders, horizontal or vertical fillings, or designs with curves. It looks like a series of interconnected 'V's.

STEP 1: Bring the needle from B. Now, put the needle in through D and bring it out from C. Note that the points on B and D falls on a straight line, and C lies diagonally to both B and D. Pull the needle out with the thread under it, as shown. We would form our first 'V'

STEP 2: Continue to put the needle in through A and bring it out through B. Pull the needle out with the thread under it as shown, to make the next 'V'

STEP 3: Continue the procedure by putting the needle in through the outer stitch line and brining it out from the inner stitch line. Keep alternating between left and right side to make the 'V's- putting in the needle through A and bringing it out from B; putting the needle in through D and bringing it out from C.

STEP 4: Once a small portion of feather stitch is done, the stitch will look like as in the figure

2.3.7 STEPs of Carrying out Fly Stitch

This stitch is done in rows for edging or singly for accents, plants and foliage, decorative lines, interesting filling
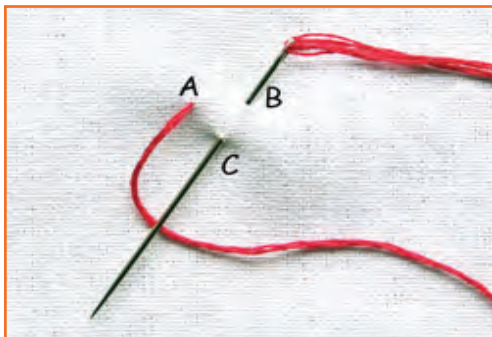
STEP 1: Bring the needle out from A and put it in through B. Then, bring it out through C, which lies between and below A and B. Pull the needle out from over the working thread, as shown in the picture. this creates a 'V' shape.
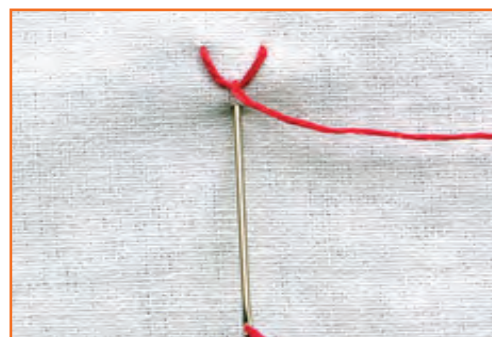
STEP 2: To create the 'Y' shape, we need to make a tail. Put in the needle a little space right below C.

STEP 3: The stand alone fly stitch would look like as in the image

Industry Visit

The purpose of visiting an apparel manufacturing unit is to get hands on knowledge about various processes involved in the work of a Hand Embroiderer. During the visit you have to interact with Hand Embroiderer and supervisors to understand how work is done in industry. Make sure that you keep a notebook handy and note down any important points that come up during your interaction at the apparel manufacturing unit. When you go to an apparel manufacturing unit, you should:

• Analyze how a Hand Embroiderer does loop stitches.

• Understand the different types of flat stitches such as; chain stitch, button-hole stitch, blanket stitch, fishbone stitch, feather stitch, fly stitch and which type of stitch suits to different fabrics.

• Ask questions to Hand Embroiderers/supervisors if you have any query.

Exercise

1. _____ Stitch is used to secure the edges of buttonholes as it gives a much sturdier stitch due to the knots it makes.

   a) Chain

   b) Button Hole

   c) Fish bone

   d) Feather

2. _____ stitch is a type of filling stitch and is used for making leaves and feathers.

   a) Feather

   b) Fish bone

   c) Chain

   d) Button Hole

3. What are the steps of carrying out fly stitch?

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UNIT 2.4: Carrying out Different types of Stitches - Knotted Stitches

Unit Objectives 🎯

At the end of this unit, you will be able to:

1. Recognise Knotted Stitches
2. Carry out different knotted stitches like French Knot, Double Knot, Bullion knot etc.

2.4.1 Knotted Stitches

A knotted stitch is any embroidery technique in which the yarn or thread is knotted around itself.

Knotted edgings are used as a decorative trims, and can also be used to fill open spaces in cutwork and in needle-lace

Commonly used types of Loop Stitches and their techniques are given below:

• French Knot

• Double Knot

• Bullion Knot

2.4.2 STEPs of Carrying out French Knot

A bullion knot is very similar to the French Knot, but here the loop is eased around the needle more times, producing a worm of a knot that is implanted a slight distance from the needle's original entry point. Bullion knot is used to produce decorative dots, leaves, plants etc.
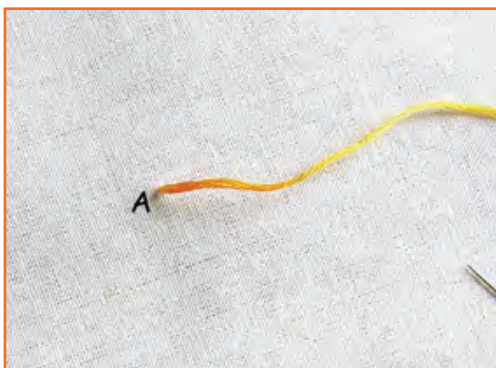
STEP 1: Bring the needle out through A.
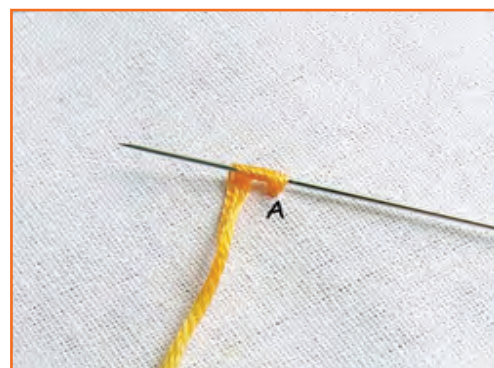
STEP 2: Place the needle close to the fabric. Wrap the thread around it twice.

STEP 3: Keep the longer end of the thread pulled with your fingers while putting the needle back in a point just close to A or even through A.

STEP 4: Pull down the needle through the fabric. You will see your first French knot formed.

2.4.3 STEPs of Carrying out Double Knot

It is also known as Palestrina knot stitch. This stitch is usually used for outlining or bordering purposes.
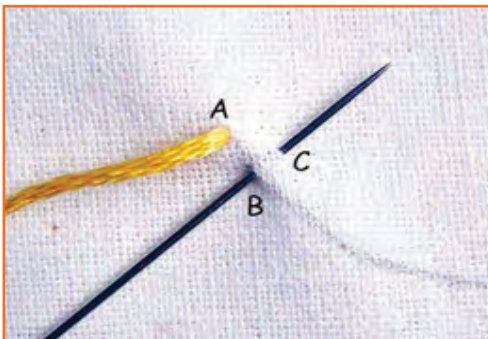
STEP 1: Bring the needle out through the point A, which lies on the stitch line. Then, take the needle in through B, which lies on the stitch line too. Bring out the needle through C, a point straight above and not too far from B.
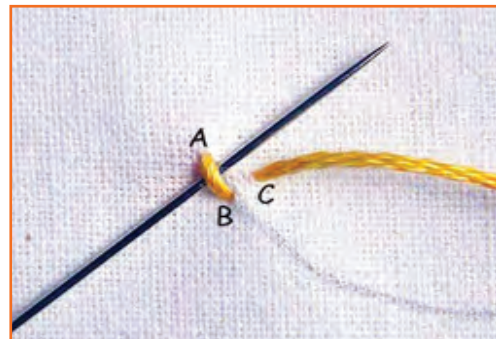
STEP 2: Take the needle below the stitch A-B, without plucking the fabric underneath. The needle will be angled above or towards the left of the point C.
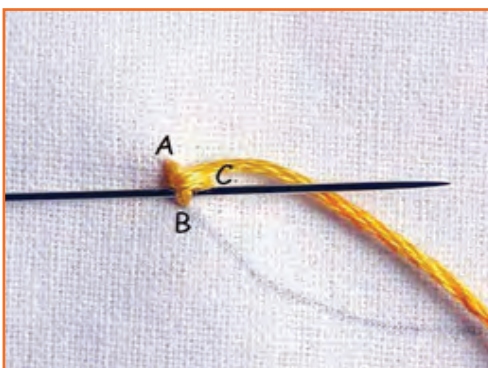
STEP 3: Take the needle under the stitch A-B. Only, this time, the needle is angled below or towards the right side of the point C. Then, loop the thread around the needle
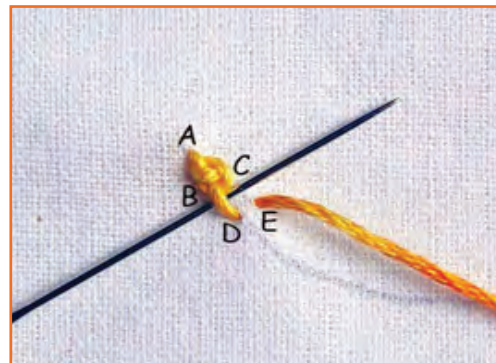
STEP 4: When we pull out the needle, the first double knot is formed. For the nest knot by putting in the needle through D on the stitch line and bringing it out from E, just above the point D. Continue with the procedure as we did for the first knot.

STEP 5: The finished portion of double knot would look like as in figure.

2.4.4 STEPs of Carrying out Bullion Knot

This knot is very similar to the French Knot, but here the loop is threaded around the needle more times, producing a worm of a knot that is inserted a slight distance from the needle's original entry point. Bullion knot is used to create decorative dots, leaves, plants etc.
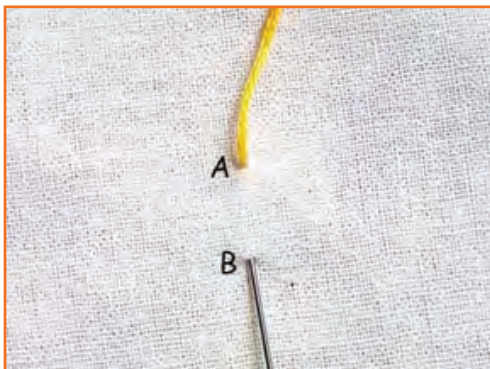
STEP 1: Bring the needle out through A and put the needle through B at a desired length.
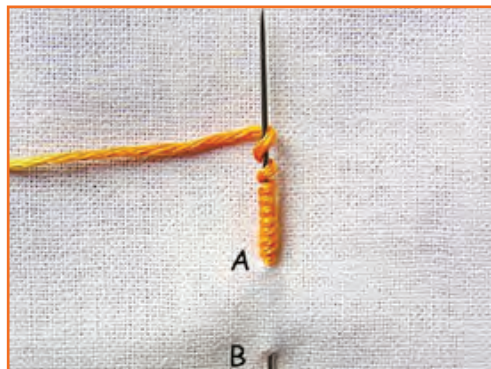
STEP 2: Bring the needle out through A again. Then, wind the thread around the needle as shown. The distance of wound thread should measure the same as the distance between A and B. Too many or too less wraps will spoil the stitch.
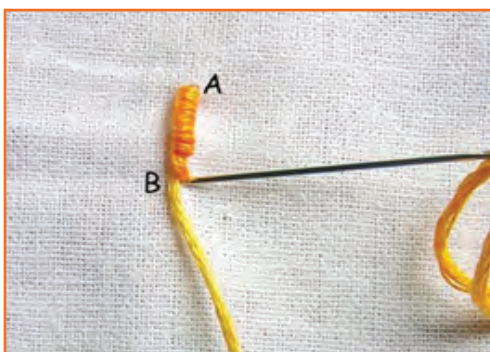
STEP 3: Hold the wrapped thread with your fingers and pull the needle out with the other finger. Keep pulling the needle completely in an upward direction till the wraps lay on the fabric. Adjust and straighten the wraps if required and put in the needle back through B.

STEP 4: The finished bullion stitch would look like as in the figure

Industry Visit

The purpose of visiting an apparel manufacturing unit is to get hands on knowledge about various processes involved in the work of a Hand Embroiderer. During the visit you have to interact with Hand Embroiderer and supervisors to understand how work is done in industry. Make sure that you keep a notebook handy and note down any important points that come up during your interaction at the apparel manufacturing unit. When you go to an apparel manufacturing unit, you should:

• Analyze how a Hand Embroiderer does knotted stitches.

• Understand the different types of flat stitches such as; french knot, double knot, bullion knot and which type of stitch suits to different fabrics.

• Ask questions to Hand Embroiderers/supervisors if you have any query.

Exercise

1. Which of the followings are the types of loop stitch:
    a) Double Knot
    b) Bullion Knot
    c) French Knot
    d) All the above

2. _____ is also known as Palestrina knot stitch.
    a) Bullion Knot
    b) Double Knot
    c) French Knot
    d) None of the above

3. What are the steps of carrying out French knot?

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UNIT 2.5: Introduction to Waste Minimization

Unit Objectives

At the end of this unit, you will be able to:

1. Understand waste management.
2. Ensure minimisation of waste.

2.5.1 Waste Management

- Waste is substance and material that is not wanted and possesses no use to anyone or anything.
- It is known to us in various names and forms like, rubbish, trash, garbage, or junk which depends the type of rubbish and the location of it.

During the manufacturing process of garments in apparel industry, there is a lot of waste which is produced in the form of incorrectly embroidered fabric pieces, broken needles or shredded threads. It is the duty of the worker to confirm that waste/wastage is diminished to the extent possible.

The various sources of waste in apparel/garment industry are:

- **Fabric Store:** Fabric storehouse is the definite area where the fabric for production is received or dispatched for processing. Beside storage the fabric store section is also in charge of the inspection of the goods received by it. The fabric which is sourced from outside into the fabric store should be reviewed for the defects.
- **Wastes in the Cutting Room:** Wastes in the cutting room can come from several bases like the marker utilization, cutting waste and roll remnants.
- **Bundling Room:** The review is not 100%, some faulty pieces go unnoticed and reach the stage of production.
- **Production Floor:** The loaders load the lines with the bundles which pass on the line according to the process. The operator may find the piece defective at any stage and dispose it off there and then only.
- **Dyeing and Washing:** The wastes happen when either the pieces are lost or inappropriate during
- **Printing/Embroidery:** The printing on the garment does not match the standard while in the case of embroidery, it may not be on the correct place on the garment or the number of threads used is less and desired effect is not obtained.
- Finishing: This may include measurement/fit defect, trims defect or pressing

The main causes of waste in the industry are:

- Motion
- Conveyance (moving thing around)
- Correction
- Over processing

- Inventory
- Overproduction
- Knowledge disconnection and underutilization of resources

Few key points/techniques to ensure waste management are given in the table below:

S No	Waste Source	Waste Management
1	Incorrectly Embroidered Pieces	The worker has to ensure that he or she understands the design before embroidering it on the fabric. In case of any doubt, one has to check with the supervisor or in-charge.
2	Embroidery does not meet product/design specification	In case the embroidered design does not meet the design specification, instead of directly labelling it as waste, corrective action can be taken. Corrective action may include finding out if the embroidery can be altered to meet the specification. The items should be disposed as waste only if no re-work is possible
3	Damaged material/tool	In case the material to be used is damaged, it should be properly labelled and disposed accordingly (like biodegradable waste, recyclable waste etc.)
4	Damaged material/tool	In case tools/material are found to be damaged, the entire lot should be checked to ensure that the other items are also not damaged. If other items are also damaged, it should be reported to the supervisor immediately

Fig 2.5.1: Waste Management

Industry Visit

The purpose of visiting an apparel manufacturing unit is to get hands on knowledge about various processes involved in the work of a Hand Embroiderer. During the visit you have to interact with Hand Embroiderer and supervisors to understand how work is done in industry. Make sure that you keep a notebook handy and note down any important points that come up during your interaction at the apparel manufacturing unit. When you go to an apparel manufacturing unit, you should:

- Analyze how a Hand Embroiderer manage the waste.
- Know the various sources of waste in apparel/garment industry.
- Understand how the different types of waste are managed.
- Ask questions to Hand Embroiderers/supervisors if you have any query.

Exercise ✏️

1. Waste is also referred to as rubbish

   a) True

   b) False

2. Which of the followings are the main causes of waste in the industry:

   a) Inventory

   b) Overproduction

   c) Correction

   d) All the above

3. What is waste management?

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3. Embroider Decorative Designs using a Combination of Stitches & Work Styles

Unit 3.1 - Preparation for Embroidery Related Operations

Unit 3.2 - Use Different Types of Hand Embroidery Techniques

Unit 3.3 - Make Different Types of Edges, Applique Work & Cut Work

Unit 3.4 - Common Embroidery Techniques in India

AMH/N1002

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Skill Development
Corporation
Transforming the skill landscape

Key Learning Outcomes

At the end of this module, you will be able to:

1. Ensure work area is free from hazards

2. Make different types of edges like hem stitch, scallops, lace & rolled hem

3. Use and combine different hand embroidery techniques to creative decorative designs such cross stitch, tapestry stitch, shadow work, mirror work, English Hand Embroiderercking

4. Inspect embroidered products against specifications

5. Identify and understand common factors and problems affecting embroidery

UNIT 3.1: Preparation for Embroidery Related Operations

Unit Objectives

At the end of this unit, you will be able to:

1. Ensuring hazard free and ready work area

3.1.1 Hazard Free Work Area

Keeping a check on your work area is very important. Chaotic areas can create unhealthy and unhygienic work environment leading to faulty work, accidents and tragedies. Hence, it is always recommended to ensure that the equipment/tools you are going to work on, are safe and ready to use. While working as a Hand Embroiderer or in such environment you might come across many equipment's, tools and machineries hence here are tips you should always keep in mind before starting the work:

- Always look for your safety guards like eye guard or figure guard to avoid needle injury etc. and make sure to have them if your job requires

- Always examine the work area and its surroundings. Never use machines or electrical tools (irons) when they have water on them or if they are exposed to wet conditions like water spillage (even accidently).

- While using electrical appliances like iron etc. always carry-out a visual check before plugging-in.

- Make sure that the equipment's plugs or connectors are not damaged or are not having any broken/ loose wires.

- Always consult health and safety department if there are any stains or spark marks present on the equipment to make double assured that it's safe to use.

- Before beginning your work make sure to look around the area to make sure that there is no hazardous material, in order to have healthy working.

- Equipment which was not frequently used in the past should not be used immediately without any inspection, make sure to get it inspected and oiled / greased if needed.

- Always check for the damaged parts before using any product, and any part that appears damaged should be cautiously inspected and send it for repair. Any part that is damaged should be properly renovated or replaced by a qualified technician only

- Make a basic checklist of your workstation and go through before starting to use the machine for e.g. look for any dull, rusty or bent needles and first replace them before using them

- Make sure the equipment is set up in readiness for use i.e. it should be properly greased if needed and all parts and functioning efficiently.

- Before using equipment make sure to look for a label which denotes the trademark for 'safety' and you should be well aware about when was the last time a quality check was conducted on equipment. This allows the operator to understand machine's capability and its readiness for use.

Exercise ✏️

1. You should always look for your safety guards like eye guard or figure guard to avoid needle injury etc. and make sure to have them if your job requires

    a) True

    b) False

2. While using electrical appliances like iron etc. always carry-out a visual check before plugging-in.

    a) True

    b) False

3. Before beginning your work make sure to look around the area to make sure that there is no hazardous material, in order to have healthy working.

    a) True

    b) False

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UNIT 3.2: Use Different Types of Hand Embroidery Techniques

Unit Objectives 🎯

At the end of this unit, you will be able to:

1. Use and combine different hand embroidery techniques to creative decorative designs such cross stitch, tapestry stitch, shadow work, mirror work, English Hand Embroidercking

2. Inspect embroidered products against specifications

3. Identify and understand common factors and problems affecting embroidery

3.2.1 Cross Stitch Technique

Cross Stitch is one of the most basic embroidery methods. It starts with an X shaped stitch that is embroidered using floss on an evenweave fabric. The cross stitch is recurrent a number of times for creating a design. This technique uses 6 basic stitches to complete the embroidery work:

- **Cross Stitch:** A Cross Stitch is an x-shaped embroidery stitch

- **Half Stitch:** The Half Stitch is a slanting stitch covering one corner to the opposite corner.

- **Quarter Stitch:** A quarter stitch resembles a half stitch but is half its length and only extends into the centre of the stitching square. Quarter stitches are often used to create details or to complete a three quarter stitch that has been stitched in a different colour.

- **Three Quarter Stitch:** Three Quarter stitches are used to generate curved design lines. This fractional stitch makes it possible to add detail to the otherwise "blocky" look of traditional cross stitch.

- **Back Stitch:** A backstitch is a straight stitch used for outlining. These stitches form lines and are generally used to outline shapes or to add fine detail to your design.

Fig 3.2.1: Cross Stitching

- **French Knot:** The French Knot is a popular embellished stitch used in cross stitch to add detail. French knots look great clustered together to create texture, or exclusively to serve as a centre of a flower, or eyes to an animal on the design.
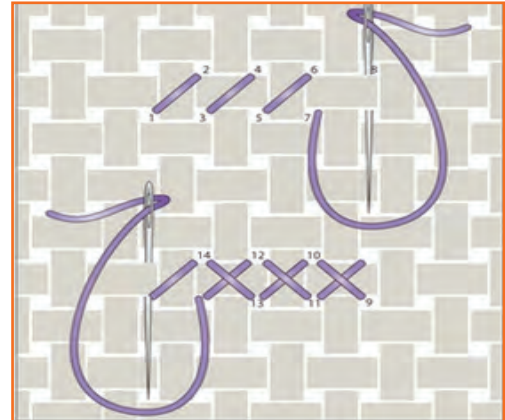
The method of Cross Stitching is explained in Section '2.2.7. STEPs of Carrying out Cross Stitch'

3.2.2. Tapestry Stitch Technique

This is also called Canvas Work It is used to produce items like wall-hangings. With conventional tapestry, the whole of the tapestry canvas is covered in stitching (unlike Cross Stitch where areas of fabric are not s stitched). Commonly used stitches to perform tapestry technique are:

Half Cross Stitch

Half Cross Stitch is easy to learn and mainly used for pictures. Half Cross Stitch is the most usual stitch used for tapestry work and is mainly used for pictures, but can also be used for cushion designs. It is tranquil to master and comprises of small compact stitches to cover the fabric or canvas. The stitches are diagonal on the front of the canvas and vertical on the back of the canvas.
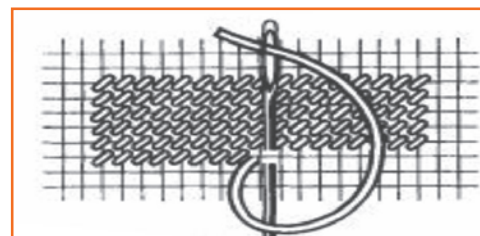
Fig 3.2.2: Half Cross Stitch

Tent Stitch

This stich is used when harder wearing formation is needed, such as chair seat covers and other furnishing items. Tent Stitch is similar to Half Cross Stitch and looks identical on the front of the canvas showing small diagonal stitches. But the back of the canvas is much larger with longer diagonal 'stitches' on the back of the canvas
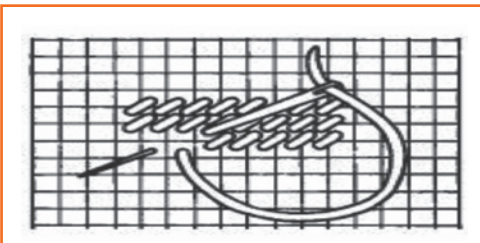
Fig 3.2.3: Tent Stitch

Basketweave Stitch

It is also known as Diagonal Tent Stitch and look similar to half cross and tent stitch. It is used to fill larger areas, for example the background of a piece, but is not suitable for fine detail.
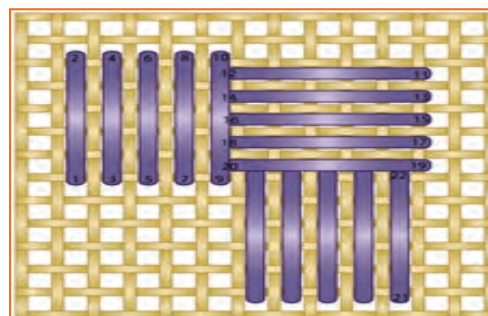
Fig 3.2.4: Basketweave Stitch

3.2.3. Shadow Work Technique

Shadow Work is a type of embroidery worked on semi-sheer or sheer fabric, with middle of the embroidery on the back of the design so that the colour of the thread – or a shadow of the colour – shows through on the front of the fabric between two solid-coloured outlines

The stitch used in shadow work embroidery is mostly backstitch (explained in Section 3.2,1), but it is functioned between two lines, sporadic back and forth between the two lines with each stitch.

Fig 3.2.5: Shadow Technique

On the back of the fabric, the resulting closely worked herringbone stitch (Section 2.2.8) forms a layer of criss-crossing threads that shows through on the front of the fabric with just a hint of colour between the backstitch outlines. Shadow work is mostly done of linen fabrics, as through the fabric the shadows shows through vibrantly.

3.2.4. Mirror Work Technique

This technique is also known as shisha (Hindi for mirror) or abla embroidery. As the name suggests, it uses small mirrors to decorate the embroidery design.

3.2.4.1. STEPs of Mirror Work
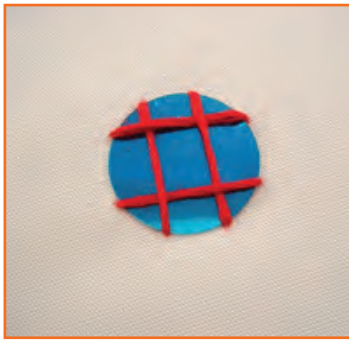
STEP 1: In this technique, the small mirror is placed on the fabric and is secured with a crossing of foundation stitches
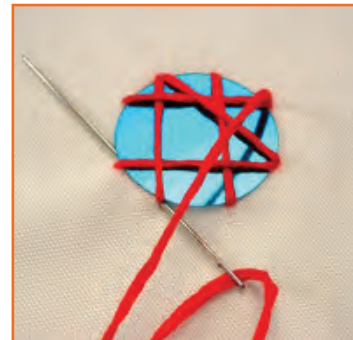
STEP 2: Duplicate the foundation stitches, but turned 45 degrees
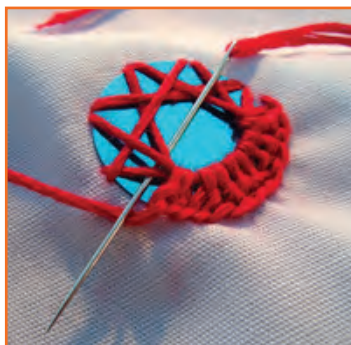
STEP 3: Duplicate the foundation stitches, but turned 45 degrees

3.2.5. English Hand Embroider King Technique

Hand Embroiderer king is a technique employed to fold fabric in such a way that it can stretch. It is used mainly as decorative purposes but can also be used cuffs, bodices, and necklines in garments where buttons are undesirable. It usually requires light weight fabric like cotton or silk. Crewel Embroidery needle is primarily used.

Hand Embroiderer king commonly employs following stitches:

- **Cable stitch:** a tight stitch of double rows that joins alternating columns.

- **Stem stitch:** a tight stitch with least elasticity that joins two columns of gathers at a time in single overlapping rows with a descending slope.

- **Outline stitch:** similar to the stem stitch but with an upward slope.

- **Cable flowerette:** a set of gathers worked in three rows of stitches across four columns of gathers. Often organized in diagonally arranged sets of flowerettes for loose Hand Embroiderercking

- **Wave stitch:** a medium density pattern that alternately employs tight horizontal stitches and loose diagonal stitches

- **Honeycomb stitch:** a medium density variant on the cable stitch that double stitches each set of gathers and provides more spacing between them, with an intervening diagonal stitch concealed on the reverse side of the fabric.

- **Surface honeycomb stitch:** a tight variant on the honeycomb stitch and the wave stitch with the diagonal stitch visible, but spanning only one gather instead of a gather and a space

- **Trellis stitch:** a medium density pattern that uses stem stitches and outine stitches to form diamond-shaped patterns.

- **Vandyke stitch:** a tight variant on the surface honeycomb stitch that wraps diagonal stitches in the opposite direction.

- **Bullion stitch:** a knotted stitch that joins various gathers in a single stitch.
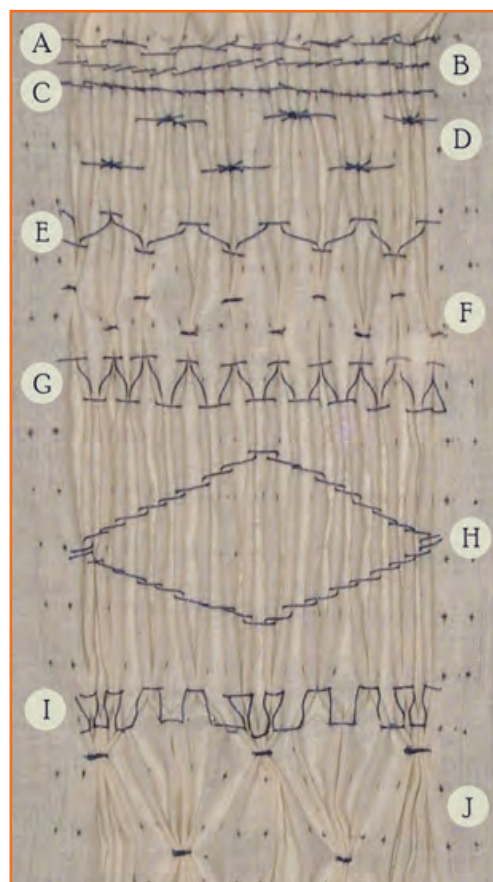
Fig 3.2.6: Shadow Technique

3.2.6. Inspecting Product Against Specification

One of the most crucial role of a hand embroiderer is to inspect the product that has been embroidered against the design specification. This is crucial to maintain timelines and also to ensure minimum wastage occurs.

Inspection is the verification of product quality to pre-identified quality or design specifications. The key benefits of inspecting a product before marking it as complete or sending it the next department (like packing/loading) are:

- Strengthen and protect the brand image and reputation.

- Improve performance of suppliers and product quality to minimize product loss, rejects, charge backs and recalls.

- Drive continued improvement of quality systems and performance to benefit both the buyer and producer

The key points involved in inspecting embroidered product against the specification are:

- Are the colour used in embroidery fabrics according to the design sheet/specification?

- Are correct threads/thread used for creating the embroidered product

- Are the stitches used according to design instruction/specification?

- Is the embroidery pattern aligned and positioned properly on the sewn product?

- If embroidering names, are the spellings correct (according to the design specification)

3.2.7. Common Factors Affecting Embroidery

A number of factors affect embroidery and these have to be kept in mind to ensure that these factors do not become problems or quality issues.

Few common factors/problems affecting embroidery are:

S No	Factor/Problem	Description and Remedy
1	Needle	Something as small as a needle can adversely affect embroidery quality if not selected correclty. For the most accurate stitch placement, use the finest, sharpest embroidery needle that can carry the thread through the fabric without damage to either.
2	Thread	The type of thread used in the embroidery is another crucial factor. Threads should not be selected randomly or without thought as the visual and touch appeal of the embroidery depends on the thread being used. The thread specified in the design specifications should always be used
3	Fabric Selection	Fabric is also a very important factor in embroidery. The fabric chosen for the embroidery should be as specified in the design specifications. If there is no fabric specified then, the fabric should be chosen considering the type of output needed and the stitches that will be used. Like, for cross stitch or pulled work hardanger fabric should be chosen
4	Scaling Designs	Whenever the embroiderer alters a design by sizing it up or down, skewing it, and even rotating it so that it sews on the bias, he/she has changed it from the way it was originally specified, resulting in unsatisfactory output. This should be avoided and should be done only after approval of the supervisor

Fig 3.2.7: Common Factors Affecting Embroidery

Industry Visit

The purpose of visiting an apparel manufacturing unit is to get hands on knowledge about various processes involved in the work of a Hand Embroiderer. During the visit you have to interact with Hand Embroiderer and supervisors to understand how work is done in industry. Make sure that you keep a notebook handy and note down any important points that come up during your interaction at the apparel manufacturing unit. When you go to an apparel manufacturing unit, you should:

- Understand different hand embroidery techniques like; cross stitch, tapestry stitch, shadow work, mirror work, English Hand Embroiderercking to creative decorative designs such cross stitch, tapestry stitch, shadow work, mirror work, English Hand Embroiderercking.
- Inspect embroidered products against specifications.
- Identify and understand common factors and problems affecting embroidery.
- Ask questions to Hand Embroiderers/supervisors if you have any query.

Exercise ✏️

1. Tapestry Stitch starts with an X shaped stitch that is embroidered using floss on an even weave fabric.

   a) True

   b) False

2. _____ stitch is also known as Canvas Work and is commonly used to produce items like wall-hangings.

   a) Cross

   b) Tapestry

   c) Both a and b

   d) None of the above

3. Mirror work technique is also known as shisha (Hindi for mirror) or abla embroidery.

   a) True

   b) False

4. What is shadow work technique?

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5. What are the factors which affects the Embroidery?

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UNIT 3.3: Make Different Types of Edges, Applique Work & Cut Work

Unit Objectives 🎯

At the end of this unit, you will be able to:

- Make different types of edges like:
  » Hem stitch,
  » Scallops,
  » Lace & rolled hem
- Carry out applique work
- Carry out cut work

3.3.1 Introduction to Edge Stitching

Hand-embroidering edge stitching around a design or pattern adds texture and provides a mix of colour to make the hand embroidery stand out and bring out the design element in the embroidered product.

3.3.2 Scallop Stitch and Its STEPs

The scallop stitch makes it easy to add patterns at the edge of the embroidery stitches. A single stitch looks like a smiling face

The steps to make a scallop stitch are:

STEP 1: Come up at point 1, then go down at point 2, leaving the thread loose.

STEP 2: Come up at point 3, catching the loop of thread

STEP 3: Go down at point 4, but not the same hole
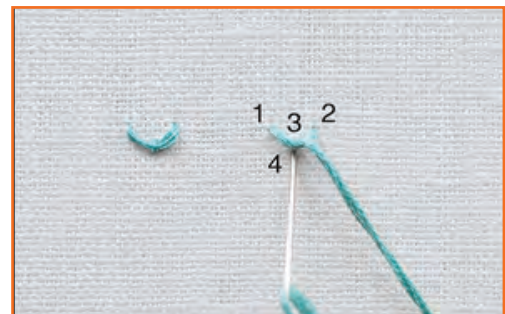
Fig. 3.3.1 Scallop Stitch

3.3.3 Hem Stitch and Its STEPs

Hemstitch is used in drawn thread work. It adds a decorative edge to a drawn thread area and also bunches together the remaining threads.

The steps for hemstitching are:

STEP 1: Bring the needle up in the fabric two threads down below the last empty line next to your satin stitch band or your re-woven edge.

STEP 2: Take the needle behind the two threads and out again to the front and pull the needle through.
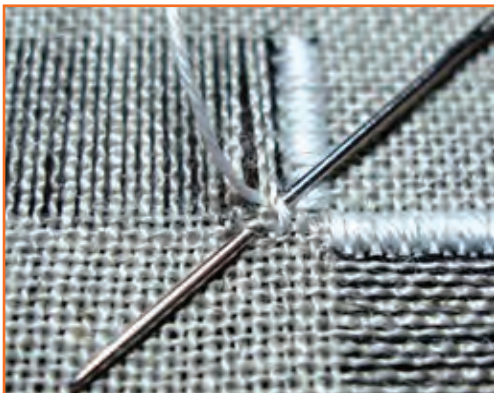
STEP 3: Take the needle back behind the same two threads (so that the working thread wraps around the two threads), angle the needle down, and bring it up into the fabric two threads down from the edge, positioning the needle for the next stitch
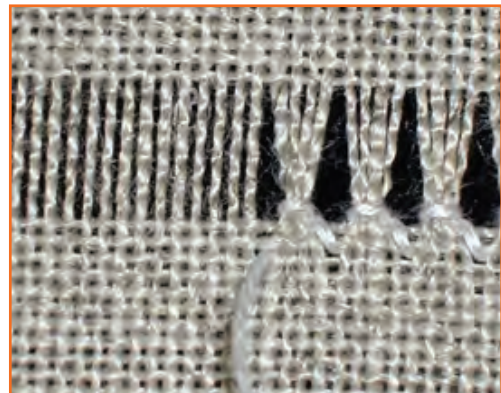
STEP 4: Pull the needle through, and tighten the stitch around the bunch of fabric threads

STEP 5: Continue working the hemstitch towards the end of the band, then run the needle and thread under the satin stitching at the end of the band to secure it.

3.3.4. Rolled Hem and Its STEPs

The Rolled Hem is also known as Orlo a Prillo stitch. A rolled hem is commonly used to makes edges for napkins and tablecloths and other utility items.

The steps of making a rolled hem are:

STEP 1: Take the edge of the fabric between the index finger and thread. Squeeze and roll a little
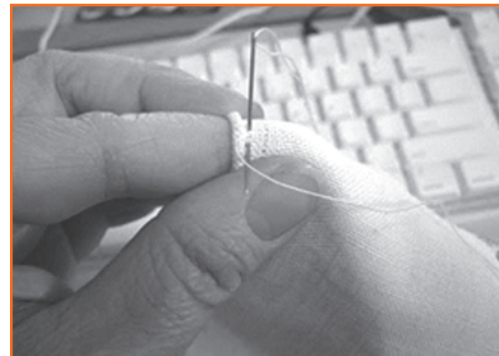
STEP 2: Enter the needle and let a couple of inches of the tail of the thread lay in the part that would be rolled up and take out with the needle about two ground threads into the roll. Working from bottom to top direction, enter the needle into the withdrawn thread channel four ground threads up from where the exit in the roll and skipping four ground threads

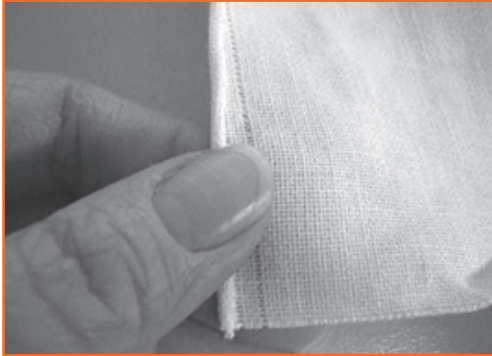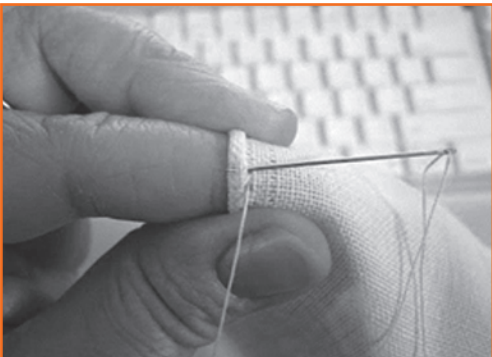**STEP 3:** The original exit position should be level with the exit position in withdrawn channel. Now enter the needle into the roll, keeping the same distance as before (about two ground threads), the needle goes between the roll and the fabric, meaning it never comes out on the front side when entering into the roll.

STEP 4: Do not pierce the ground fabric so that the stitch will be visible from the front.

3.3.5 Applique Work and Its STEPs

Applique work is the method or process of applying another device (piece of fabric) over the fabric surface. It states to needlework procedure in which patterns or mimetic scenes are shaped by the accessory of smaller pieces of fabric to a larger piece of complementary colour or texture. Before beginning the applique work, some preparatory work is required. The preparatory work comprises of:

• Chose a background fabric, and fabrics for your appliqué pieces,

• Create patterns for each shape for appliquéing. The patterns should be traced from the templates as exactly potential.

The steps of applique work are explained below. Mostly blanket stitching is used in applique work, and the steps involve using blanket stitch for applique work.

STEP 1: Prepare the piece you need to applique. Cut the piece to the size and shape you want. Leave the edges raw if the fabric doesn't fray too much (or if it is the look as per the design)

STEP 2: Place the applique where it is required to be stitched on the main fabric. The stitching will happen from the front of the piece
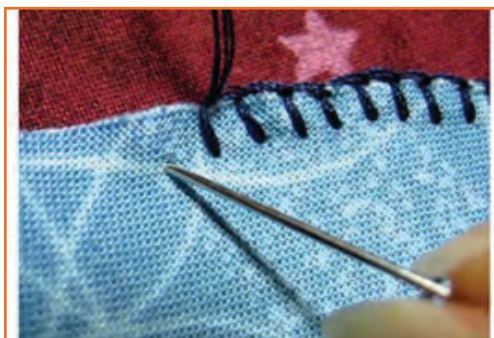
STEP 3: Run the needle down through both layers of fabric. Work this part a short distance from the edge of the applique.
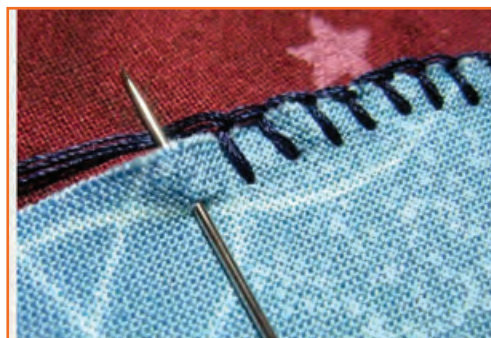
STEP 4: Run the needle up through the base fabric. Try to get it at the edge of the applique piece or just slightly underneath.

STEP 5: Catch the thread from the preceding stitch under the tip of the needle. Now Pull the stitch tight and repeat. If you caught the thread from the previous stitch correctly, this stitch should hold a bit of thread along the edge of the applique

STEP 6: This is how an applique work looks like

3.3.6 Cut Work and its STEPs

Cutwork is an embroidery technique that features embroidered designs with spaces cut completely out of the fabric. Cutwork is usually done on linen. It can also be worked on cotton or cotton / linen blends. Cut work is used to decorate household items like table linens, fine hand towels, curtains, bed linens and even clothing.

The steps involved in cut work are:
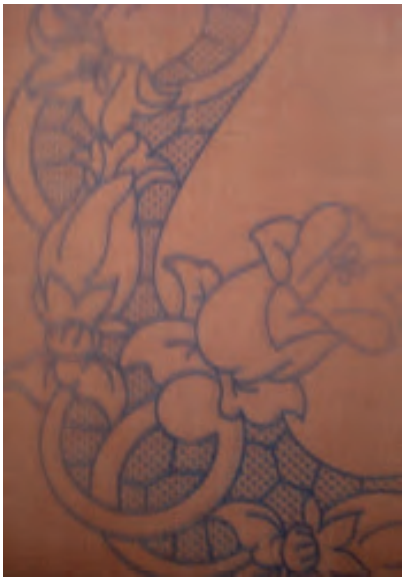
STEP 1: Transfer the design on the fabric using transfer paper or hot iron or pouncing method

STEP 2: Use reinforced stitch to stitch all around the traced design
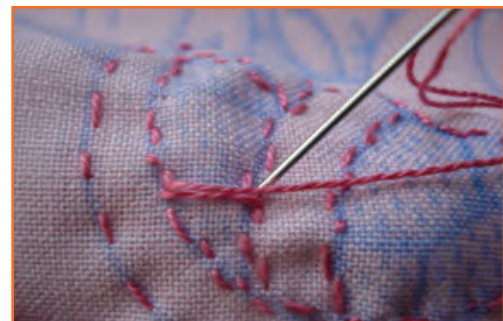
STEP 3: Work the bars exclusively on the surface of the fabric. Make two or three strands. The more strands the thicker the bar.

STEP 4: Start filling the bars. When you come to the other end, secure it by intertwining the embroidery floss into the neighbouring stitches

STEP 5: Now start cutting the fabric as per design. Be careful as to avoid cutting the bars

STEP 6: Use the buttonhole or satin stitch to embroider the piece tucking the cut-out piece underneath. Another method is to do all the needle work first and when finished do the cutwork. But this requires lot of precision work.

STEP 7: This is how the finished piece looks like

Industry Visit

The purpose of visiting an apparel manufacturing unit is to get hands on knowledge about various processes involved in the work of an Hand Embroiderer. During the visit you have to interact with Hand Embroiderers and supervisors to understand how work is done in industry. Make sure that you keep a notebook handy and note down any important points that come up during your interaction at the apparel manufacturing unit. When you go to an apparel manufacturing unit, you should:

- Analyze how a Hand Embroiderer make different types of edges like:
    - » Hem stitch,
    - » Scallops,
    - » Lace & rolled hem
- Understand the out applique and out cut work
- Ask questions to Hand Embroiderers/supervisors if you have any query.

Exercise

1. Which of the followings are the steps of making a Scallop Stitch?
    a) Come up at point 1, and then go down at point 2, leaving the thread loose.
    b) Go down at point 4, but not the same hole
    c) Come up at point 3, catching the loop of thread
    d) All the above

2. Hemstitch is used in drawn thread work.
    a) True
    b) False

3. Applique is an embroidery technique that features embroidered designs with spaces cut completely out of the fabric.
    a) True
    b) False

4. What is Rolled Hem Stitch?

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UNIT 3.4: Common Embroidery Techniques in India

Unit Objectives 🎯

At the end of this unit, you will be able to:

• Identify and understand Chikankari Motifs and Stitches.

• Identify and understand Phulkari Motifs and Stitches.

• Identify and understand Zari Motifs and Stitches.

3.4.1 Chikankari

The word 'Chikan' is derived from the Persian word 'Chikin' or 'Chikeen' which means a kind of embroidered fabric. Chikankari is an ancient form of white floral embroidery, intricately worked with needle and raw thread. It is centered mainly in the northern heartland of India, Lucknow. Chikan is primarily white embroidery on white fabric, with mainly floral designs performed on fine white cotton with loosened threads of white cotton. Chikankari is one of the most widespread embroidery work of North India. It is an ancient form of delicate floral embroidery done intricately with raw cotton thread on the finest of fabrics. Conventionally, chikankari was done on white fine muslin called Tanzeb.

3.4.1.1 Chikankari Motifs

A major features of Chikankari embroidery is its great contrast in texture. The embroidery on a single piece of fabric ranges from fine pulled thread work, executed with one thread, to heavily pressed stitches. Chikankari is a understated embroidery, white on white, in which minute and delicate stitches stand out as textural contrasts, shadows and decorations. Some stitches are worked from the back and some from the front. In AnokhiChikan, a type of Chikankari embroidery, the stitches do not appear at the back.

Common Chikankari motifs are:

No.	Motif Details	Illustration
	Paisley It is also known as Keri (raw mango) and is termed differently in different languages. • In Bengali, Kalka; • In Tamil, Mankolam, or simply, mango pattern; • In Marathi, Koyari, or mango seed; • In Hindi/Urdu, Carrey, or mango seed; • In Punjabi, Ambi, or raw mango.	

	Machli- Fish **This motif comprises of two fishes symbolizing good luck.**	
	Hindi-Urdu Flower This representation of lyrical stylized flowers and petals is influenced by the Ganga-Jamuni tehzeeb.	
	Bel or Creepers Bel motifs are very common in the Awadh tradition of textiles and are an integral part of Chikankari.	

	Buta	
	Butais one of the most popularmotifs of Mughal art, consisting of a floral spray with stylized leaves and flowers. Buta, or Buti, motifs are designed after a single flower or figure not as part of a larger pattern. It is commonly used in decorating buildings and paintings and in textile enamels and other decorative arts.	
	Geometrical patterns	
	Geometrical patterns include vertical, horizontal, diagonal or zigzag patterns and stripes. These were used independently or to enclose a pattern in compartments or closed figures called 'jaals.'	

Fig. 3.4.1: Chikankari Motifs

3.4.1.2 Chikankari Technique

A major characteristic of Chikankari embroidery, not shared by other white work, is its great contrast in texture. The embroidery on a single piece of fabric ranges from fine pulled thread work, executed with one thread, to heavily embossed stitches. Chikankari is a subtle embroidery, white on white, in which minute and delicate stitches stand out as textural contrasts, shadows and traceries. Some stitches are worked from the back and some from the front. In AnokhiChikan, a type of Chikankari embroidery, the stitches do not appear at the back.
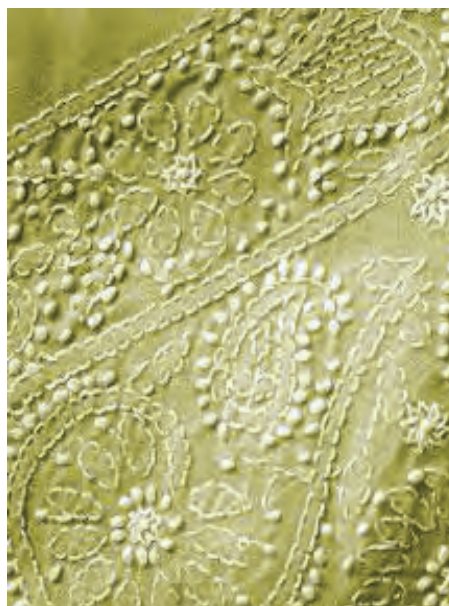
3.4.1.3 Chikankari Stitches

Chikankari incorporates different surface ornamentation techniques/stitches:

• Embroidery stitches

• Jaalis

• Darazdari
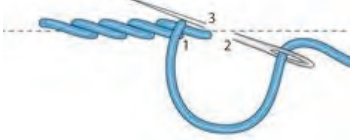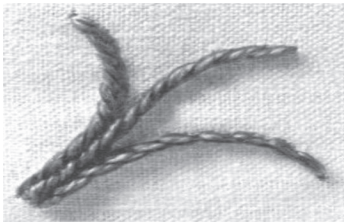
Stitches		Jaalis	Darazdari
Flat Stitches	**Embossed Stitches**	• Madrasi • Makra • Chataiya • Siddhaur • Bulbul Chasma • Bangle	• Kohidaraz • Komaldaraz • Muchii-daraz • Singbada
• Tepchi • Bakhia • Hool • Zanzeera • Rahet • Pechni • Kaj • Ghas-patti • Gitti	• Murri • Fanda		
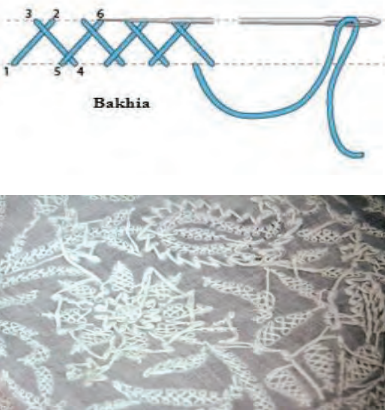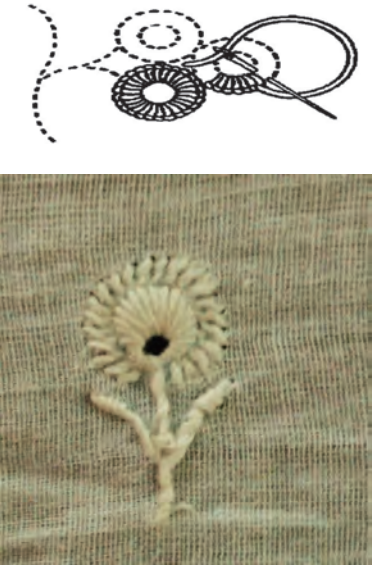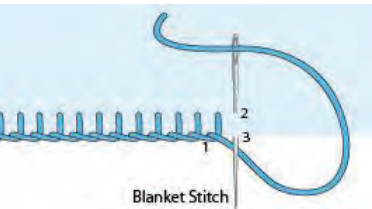
Fig.3.4.2: Chikankari Techniques/Stitches

Types of Embroidery Stitches The stitches in Chikankari are divided mainly into three heads:

• **Flat stitches:** These are delicate, subtle and lie close to the surface of the fabric giving it a very distinctive textural appearance.

• **Embossed stitches:** These stitches are highlighted from the fabric surface lending it a characteristic grainy texture.

Types of Flat Stitches

S. No.	Type of Flat Stitches	Uses	Illustration
	Taipchi: Variations of runningstitch, which is worked on the right side of the fabric. It is occasionally done within parallel rows to fill petals and leaves in a motif, called Ghaspatti. Sometimes Taipchi is used to make bel-buti all over the fabric. This is the simplest chikan stitch. Work from right to left. Bring thread up at 1 then down at 2, up at 3 and down at 4 and continue. The spaces between the stitches can be the same length as the stitches or shorter for a different look. Take several stitches on needle before drawing it through.	Outlining, straight and curved lines. This is the simplest Chikan stitch and often serves as a basis for further embellishment.	
	Pechni: Here the Taipchi is covered by entwining the thread over it in a regular manner to provide the effect of something like a lever spring and is always done on the right side on the cloth.	Outlining, straight and curved lines. Taipchi is sometime used as a base for working other variations and pechni is one of them.	
	Rahet: Rahet is a stem stitch worked with six threads on the wrong side of the fabric. It forms a solid line of back stitch on the right side of the fabric. Work from left to right. Bring needle up at 1 and down at 2. Bring needle back up halfway between 1 and 2 at 3, just slightly above the first stitch. Be sure to keep thread below the needle. Continue stitching along line, keeping stitches small and uniform.	It is rarely used in its simple form. It is common in the double form called Dohra Bakhiya as an outlining stitch.	

	Bakhia is a variation of the Herringbone stitch. It is of two types: 1. Ulta Bakhia: The floats lie on the reverse of the fabric underneath the motif. The transparent muslin becomes opaque and provides a beautiful effect of light and shade. 2. Sidhi Bakhia: Satin stitch with crisscrossing of individual threads. The floats of thread lie on the surface of the fabric. This is used to fill the forms and there is no light and shade effect.	It is a filling stitch and is often referred to as shadow work.	
	Hool- Eyelet stitch Hool is a fine detached eyelet stitch. Herein, a hole is punched in the fabric and the threads are teased apart. It is then held by small straight stitches all round and worked with one thread on the right side of the fabric.	It can be worked with upto six threads and often forms the centre of a flower.	
	Kaj Similar to the Blanket stitch, the stitch is used to seal the edges of the material where it would be cut to save from fraying. The other name for the stitch is 'Kat'. Kaj is often done upon a scalloped design using the covering stitch.	It is used to fish the edges and prevent the fabric from fraying.	
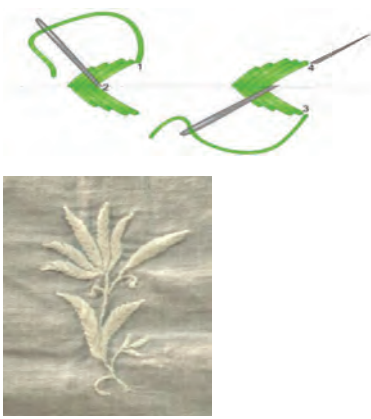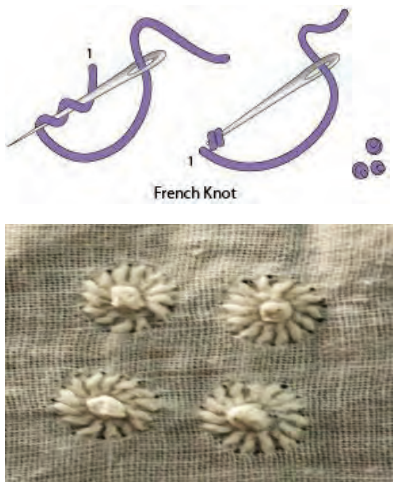
	Ghass Patti	It is used as a filler stitch in leaves and gives a finish look.	
	It is a variation of fish-bone stitch. Ghas appears as angled, tapering stitches, wide at the base of the patti and pointed at the top. The needle emerges from the central line of the leaf and defines the 'Frond' at the left edge. First, the needle passes under the cloth to the right side where the corresponding frond is traced back to the centre.		
	Zanzeera	Outlining, straight and curved lines, filling if rows are stitched closely together.	
	Zanzeera is a small chain stitch worked with one thread on the right side of the fabric. Work from top to bottom. • Bring needle up at 1 and then reinsert needle in same hole, forming a loop. • Bring needle up at 2 and pull thread to tighten loop until desired shape is achieved. Repeat multiple stitches to create a chain. • To end the row, make a small stitch over the last loop to hold it in place to secure thread on backside.		

Fig.3.4.3: Types of Flat Stitches (Chikankari)

Types of Embossed Stitches

S. No.	Types of embossed stitches	Usage	Illustration
	Murri (French knot) It is a very minute satin stitch in which a knot is formed over already outlined Taipchi stitches. The smaller knots in rice shape are called Murri. Bring needle up at 1. Hold thread taut with other hand and wrap the thread twice around end of the needle. Gently pull the thread so that the wrapped threads tighten and while holding it taut, insert the needle next to 1.	It enhances the depth in the design and helps create a fine 3D texture. It is often used in creating the centre of flowers.	

	Phanda: It is a smaller shortened form of murri. The knots are spherical and very small, not pear shaped as in murri. This is a difficult stitch and requires very good craftsmanship.	Sometimes used to fill small cavities and depict flower Buds .	

Fig.3.4.4: Types of Embossed Stitches (Chikankari)

Types of Jaalis

Jaali work is the most striking feature of Chikan embroidery and creates a delicate net effect. The fabric is broken into holes by teasing the warp and weft yarns and holding them in position using small stitches.
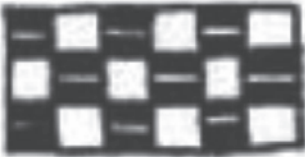
S. No.	Types of Jaalis	Illustration /Picture
1	**Madrasi jaali** This is a series of small holes, square in shape, alternating with closed areas.	
	Makra This is similar to the madrasi jaali. In this, the holes are filled with diagonal intersecting threads.	
	Chataiya jaali This is a checkered pattern formed with holes and closed areas.	
	Bangle Jaali In this jaali, the holes are smaller as compared to the madrasi jaali. The holes are assorted in parallel banks with alternate closed areas.	

Fig.3.4.5: Types of Flat Stitches (Chikankari)

Types of Darazdari
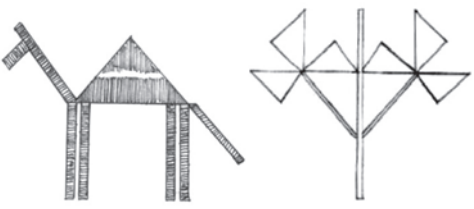
Darazkakaam is a unique way of assembling two pieces of a garment through seemingly invisible stitches that are concealed. Tiny pieces of fabrics are cut out in different shapes which are applied either on the surface or between the two surfaces and then outlined with fine stitches. All this used to be done by hand, including the finishing of the edges and joining of the seams. It is visible only when seen against the light. Different motifs were used for joining the seams such as phooldaraz and macchlidaraz.

3.4.2 Phulkari

Phulkari is the traditional art of making embroidered odhnis which are head drape or stoles used by women in Punjab. "PHULKARI" means "flower working" or "flower embroidery". This art form invented in Punjab as early as the 15th century. This form of embroidery has more than twenty- three patterns which are skillfully reproduced by craftsperson trained in this art for several generations. The word Phulkari is a combination of two Sanskrit words phul (flower) and karya (to do). Therefore, phulkari means "to do flower work". When useful to folk embroidery, it represents for the ancient craft of embroidering flower designs with pure silk floss, called pat, on a chaddar (women's shawl) of plain rough hand woven pure cotton cloth, called khaddar (khadi).

3.4.2.1 Phulkari Motifs

The patterns are created by counting the threads of the base fabric and creating stitches in straight lines. The motifs are created primarily by varying the starting and ending points of adjoining stitches. Therefore, in Phulkaris, other than 'Sainchi', the motifs and figures used look geometrical and seem to be constructed with vertical, horizontal and diagonal lines. The colours of the thread may be varied to create a motif. In single coloured baghs/motifs, the orientation of the straight lines isalso varied to create a variation in gloss. This results in the variation in the amount and nature/direction of light reflected by the differently oriented thread.

Motif	Description	Visual
Geometric motifs	For phulkari, geometrical motifs such as triangles, squares and vertical and horizontal lines with changing directions and the darn stitch with various colour combinations are used. The subject matter of Phulkari comprises of flowers, animals and human forms and many other things made with geometrical patterns.	
The vegetables, fruits and floral motifs	As the name Phulkari suggests 'growing flower', many floral motifs were created by women from their own imagination. Genda (marigold), Surajmukhi (sun flower), Motia (jasmine) and Kol (lotus flower) arecommonly used for Phulkari and Bagh.	
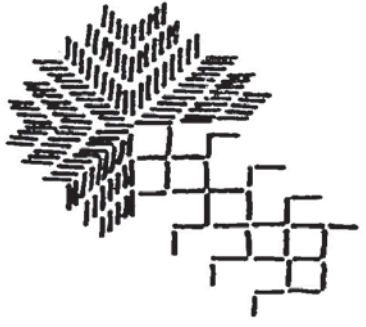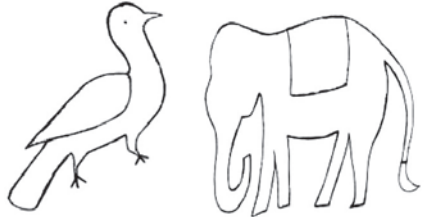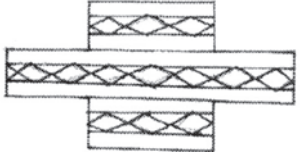
	Sometimes, the field of phulkari isembroidered with small patterns called "Butian". Among the different fruits, santaran(orange), anar (pomegranate), nakh (pear), bhut (muskmelon), mango slice, wheat or barley stalk and chhuare (dried dates) areused as motifs for a Phulkari. Among the vegetables, women use replicas of karela (bitter guard), gobhi (cauliflower), mirchi (Chili) and dhaniya (coriander).	
The birds and animal motifs	In a "sainchi phulkari", human forms, animals and birds areused. The most common animal motifs are the cow, buffalo, goat, camel, horse, elephant, snake, fish, tortoise, pig, rabbit, frog, cat, rat, donkey, squirrel and lion. Among the bird motifs, the peacock, parrot, sparrow, crow, owl, hen, and pigeon are the most popular.	
Jewellery motifs	Women of Punjab often use jewelry articles as motifs for embroidering Phulkari. They use items like the necklace, Kangan, Karanphool and Jhumka, different types of earrings, guluband different types of bracelets, nose rings, Tikka, Shingar Patti, Phools, and Rani Har with a pendant. All these articles are embroidered in a yellow coloured thread to make it look likethey are made of gold.	
Household articles	Articles from the kitchen are also used as motifs. These included the velana (rolling pin), gadava (brass urn) half filled with water, and ghara (pitcher) etc.	
Miscellaneous articles	Other Phulkari motifs are taken from rural life - For example, Shalimar, Charbagh and Chaurasia Bagh depict the Mughals and other gardens. Bagh that was embroidered with a red and yellow coloured flower was called Asharfi (mohur or gold coin) Bagh. "Ike" (ace of diamond design) came from playing cards. There are Dhoop Chhaon (sun light and shade), Lahriya (waves), Patedar (stripes), Chand (moon), Patang (kite), Saru (cypress tree), Pachranga (five coloured), Satranga (seven coloured), Dariya (river) and Shisha (mirror) patterns as well.	

Fig.3.4.6: Phulkari Motifs

3.4.2.2 Phulkari Stitches

The thread stroke shaped on the front side of the fabric or any other suitable material/surface by the movement of the embroidery needle from the backside of the fabric to the front side and back to the back side is known as an embroidery stitch. Embroidery stitches are the least units in embroidery. Embroidery patterns are formed by doing many embroidery stitches, either all the same or dissimilar ones, following a counting chart on paper, following a design painted on the fabric or even working freehand. The basic embroidery stitches used in Phulkari can be categorized into three types depending on their formation

FLAT STITCHES	LOOP STITCHES	KNOTTED STITCHES
RUNNING	CHAIN	FRENCHKNOT
BACK	LAZY DAISY	BULLION
STEM	FEATHER	COLONIAL
SPLIT	FLY	CORAL
SATIN	BUTTON HOLE	
LONG & SHORT	FISHBONE	
COUCHING		
CROSS		
HERRINGBONE		
CHEVRON		
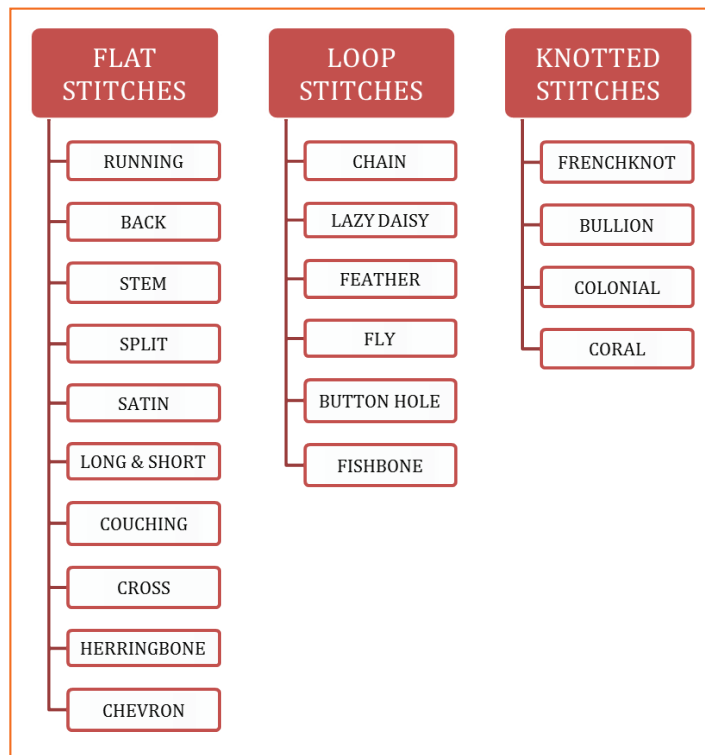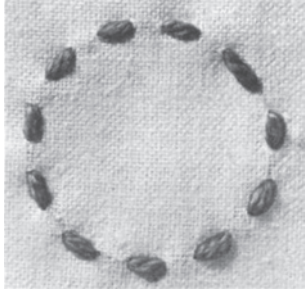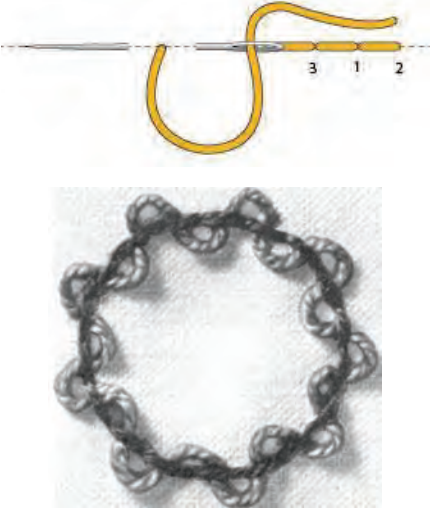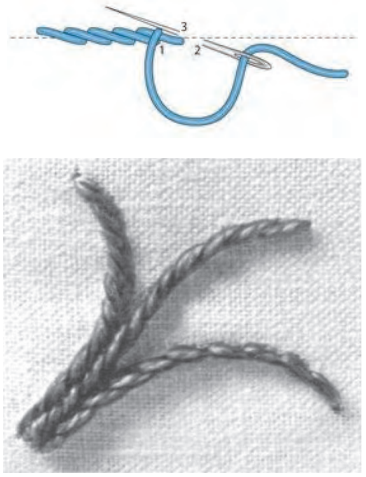
Fig.3.4.7: Phulkari Stitches

Types of Flat Stitches

S. No.	Type of Flat Stitches	Uses	Illustration
	Running Stitch Running stitch or straight stitch is the basic stitch in hand-sewing and embroidery, on which all other forms of sewing are based on. • Work from right to left. Bring thread up at 1 then down at 2, up at 3 and down at 4 and continue. • The spaces between the stitches can be the same length as the stitches or shorter for a different look. Take several stitches on needle before drawing it through.	Outlining, straight and curved lines.	

	Back Stitch Backstitch or back stitch and its variants stem stitch; outline stitch and split stitch are a class of embroidery and sewing stitches in which individual stitches are made backward to the general direction of sewing. • Bring needle to right side and repeat. • Work from right to left. • Bring needle up at 1 and back down at 2. • Move left and bring needle up at 3, then back down at 1. • Continue stitching.	Outlining, straight and curved lines	
	Stem Stitch An embroidery stitch, derived from backstitch, in which each stitch overlaps the previous stitch to one side, forming a twisted line of stitching, with the thread passing below the needle. • Work from left to right. • Bring needle up at 1 and down at 2. • Bring needle back up halfway between 1 and 2 at 3, just slightly above the first stitch. • Be sure to keep thread below the needle. • Continue stitching along line, keeping stitches small and uniform.	Outlining, straight and curved lines, stems for plants, filling if rows are stitched closely together. Creates a rope like appearance.	

	Split Stitch An embroidery stitch, derived from backstitch, in which each stitch is formed by splitting through the previous stitch, forming a chain-line formation. • Work from left to right. Bring needle up at 1 and down at 2. • Bring needle back up at 3, splitting the center of the previous stitch. • Take needle down at 4 and then back up at 2. • Continue stitching.	Outlining, straight and curved lines, filling a shape by working rows closely together.	
	Long and Short Stitch Long-and-short stitch is a variation of satin stitch which is used for fine shading; in the first row of satin stitches, every other stitch is half the length of its neighbours. • First, work a row of alternating long and short Satin Stitches. Keep the upper edge of the design line even. • Next, work a second row of long even length stitches into the short stitches of the first row, passing the needle through the tip of the stitch above. • Continue stitching rows until the shape is nearly filled and the last row of long stitches are worked along the bottom of the design line. • Stitch the last row with short stitches to fill in the open area along the bottom.	Filling of larger shapes especially when colour shading is desired.	
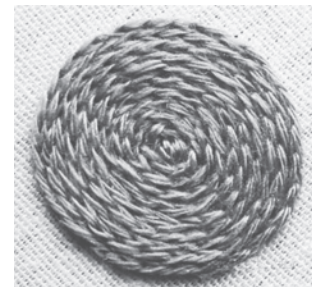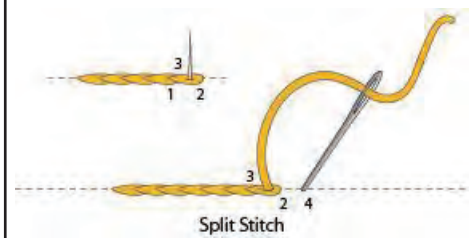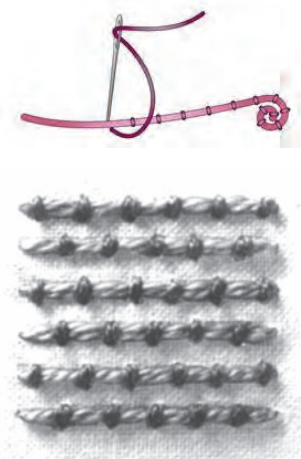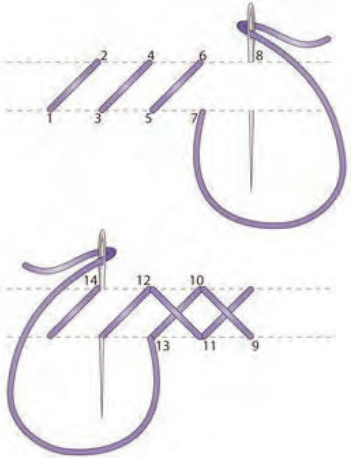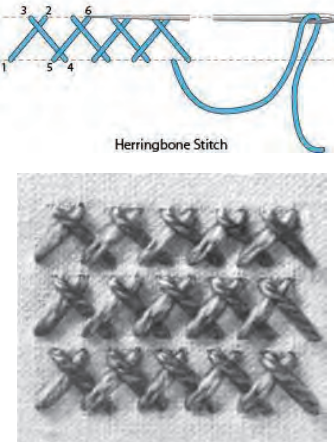
	Couching Stitch Couching technique involves laying of yarn or other materials across the surface of the ground fabric and fastened in place with small stitches of the same or a different yarn. This stitch involves two threads: a thicker foundation thread, and a thinner thread called the couching thread. • Bring foundation thread onto the front and place along the design line. • Bring the couching thread up under the foundation thread and make a tiny stitch over the thread, going back into or very close to the entry hole.	Outlining shapes, straight and curvy lines, spirals, bold dimensional accents, decorative borders.	
	Cross Stitch Cross-stitch is a popular form of counted-thread embroidery in which X-shaped stitches in a tiled, raster-like pattern are used to form a picture. • Stitching from left to right, bring needle up at 1, down at 2, then up at 3 and down at 4. • Continue stitching across to end of line. • Start back stitching from right to left, make crosses by bringing the needle up at 5 and down at 6. • Continue until all crosses have been stitched.		
	Herringbone Stitch A herringbone stitch is a needlework stitch used in embroidery, resembling the bones extending from the spine of a herring fish. • Work from left to right. Bring needle up at 1, and down at 2. • Bring needle up at 3 and down at 4 to create an elongated cross stitch. • Bring needle up at 5 and continue.	Border, edging, can be stitched over a ribbon or braid to hold it down.	 Herringbone Stitch
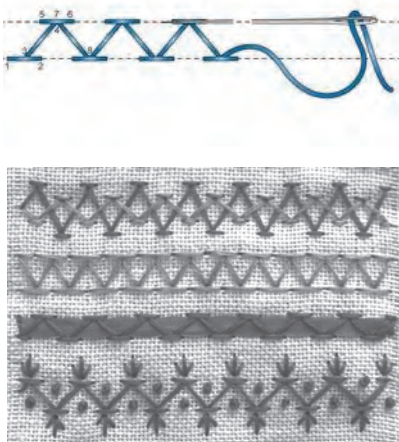
	Chevron Stitch Chevron stitch is a line and a filling stitch which you can work on even weave or plain weave fabrics. It makes a decorative border with a zigzag design which is worked from left to right. • Bring needle up at 1, down at 2. • Bring the tip of the needle back through the fabric halfway between 1 and 2 at point 3. • Bring the needle up to 4 and make a backstitch by bringing your needle up from 5 down at 6. • Bring the tip of your needle back through the fabric halfway between 5 and 6 at point 7. • Bring your needle down at 8 and repeat the stitching sequence.	Border, edging, can be stitched over a ribbon or braid to hold it down.	

Fig.3.4.8: Flat Stitches - Phulkari

Types of Loop Stitches

S. No.	Type of Flat Stitches	Uses	Illustration
	Chain Stitch Chain stitch is a sewing and embroidery technique in which a series of looped stitches form a chain-like pattern. • Work from top to bottom. • Bring needle up at 1 and then reinsert needle in same hole, forming a loop. • Bring needle up at 2 and pull thread to tighten loop until desired shape is achieved. • Repeat multiple stitches to create a chain. • To end the row, make a small stitch over the last loop to hold it in place to secure thread on backside.	Outlining, straight and curved lines, filling if rows are stitched closely together.	

	Lazy daisy stitch (Detached Chain Stitch) Lazy daisy is an embroidery stitch formed by an elongated loop or a long chain stitch held down at the free end by a small stitch. • Come up at A and back down in the same hole or right next to point A, forming a loop on the front side. • Bring needle up at B and pull thread to shape loop into desired shape. Pulling tighter creates a straighter looking stitch, while a looser thread creates a more rounded loop.	Stitch in a circle to create flowers, single stitches can be leaves.	 Lazy Daisy Stitch
	Feather Stitch Featherstitch is an embroidery technique made of open, looped stitches worked alternately to the right and left of a central rib. • Work vertically, from top to bottom. • Bring needle up at 1 and back down to right at 2, leaving a loop on the front. • Bring the needle back up at 3 and pull thread to shape loop as desired. • Insert the needle to the right of 4 at 5, leaving a loop of thread on the front. • Bring needle up at 6 and pull thread to shape loop. • Take next stitch to the left and continue stitching. • To finish, take a small stitch over the last loop.		 Feather Stitch
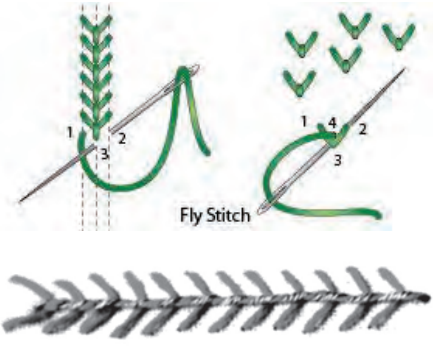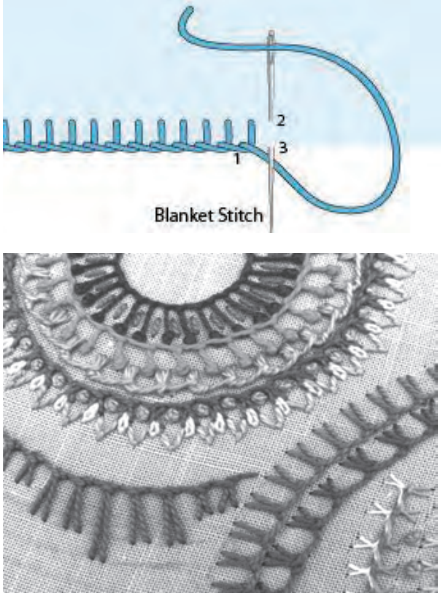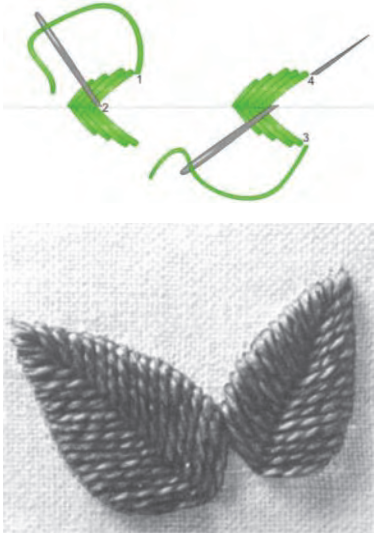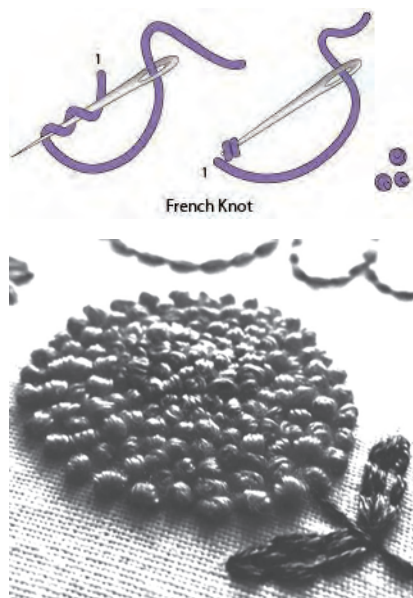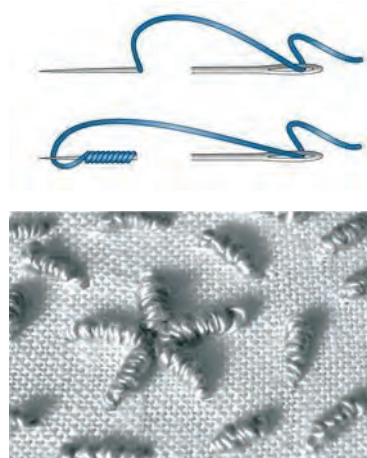
	Fly Stitch Fly stitch is also known as 'Y' stitch, and open loop stitch. Fly stitch is worked easily since it is made up of a V-shaped loop which is then tied down by a vertical straight stitch. • Bring needle up at 1 and down at 2, leaving a loop. Come up at 3 and with the needle over the loop, pull the thread to shape a V. Go down at 4 to anchor the V shape.	Stitch in rows for edging or singly for accents, plants and foliage, decorative lines, interesting filling.	
	Button hole Stitch Buttonhole or blanket stitch is a looped stitch used to strengthen and secure the edge of a material, as around a buttonhole. Buttonhole stitches catch a loop of the thread on the surface of the fabric and needle is returned to the back of the fabric at a right angle to the original start of the thread. • Work from left to right. Bring needle up at 1, down at 2 and up at 3, keeping the thread looped under the needle. • Pull thread through and shape stitch as desired. Repeat multiple stitches until complete.	Straight and gently curved lines, borders and finishing edges.	
	Fish Bone Stitch Fish bone stitch is a decorative stitch, used for filling in patterns such as leaves and petals and making decorative borders. Each stitch is worked from outer edge to the center line. • Bring the needle at (a) and insert to point (b) again bring needle up at point (c) and insert at point (d) covering the base of the first stitch. Continue the stitches from side to side by overlapping the base of the previous stitch until the design is filled.	Decorative filled-out designs, patterns and borders.	

Fig.3.4.9: Loop Stitches - Phulkari

Types of Knotted Stitches

S. No.	Type of Knotted Stitches	Uses	Illustration
1.	**French knot Stitch** French knot is a decorative embroidery stitch made by looping the thread two or more times around the needle, which is then inserted into the fabric. • Bring needle up at 1. • Hold thread taut with other hand and wrap the thread twice around end of the needle. • Gently pull the thread so that the wrapped threads tighten and while holding it taut, insert the needle next to 1. Pull thread through onto the backside until the knot is formed and lies securely on the surface.	Decorative dots, filled out flower centers, leaves, plants, eyes.	
	Bullion knot Stitch Bullion is a decorative stitch in embroidery made by winding the thread several times around the needle before sewing a backstitch. • Make a back stitch, the length of the bullion knot required. • Bring the needle out at 1, but do not bring it out all the way. • Twist the thread around the needle point, as many times as is necessary to equal the length of the back stitch. • Holding the left thumb on the coiled thread, turn the needle back to 1 and insert it in the same place. Pull the thread through until the bullion knot lies flat.	Decorative dots, leaves, plants	
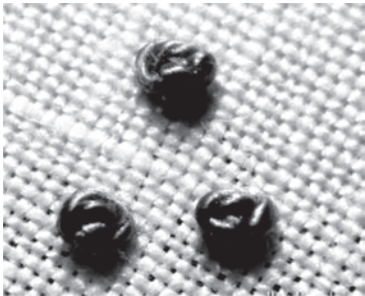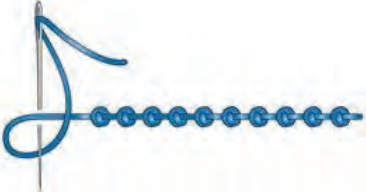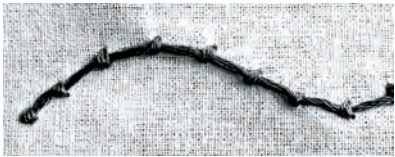
	Colonial Knots Colonial knots are a kind of surface knots used in embroidery made by wrapping the thread around the needle with the tail of the thread towards the eye of the needle (this is opposite of the French knot, with the tail wrapped towards the tip of the needle). • Bring need up through fabric and wrap the thread up, over and behind the needle forming a figure 8 around the needle. • Insert the tip of the needle back through the fabric, close to where it first came up, but not in the same hole. Pull the thread carefully until a knot is formed, then push the needle to the back and pull the thread through.	Use alone as decorative accents, or stitch closetogether to form lines and or fill in shapes.	
	Coral Stitch Coral stitch is an old embroidery stitch which creates a line that looks like a row of knots and is used for outlines and follows a curved detail well. • Working from right to left, hold the working thread to the left of the starting point (or the last stitch). • Insert the needle into the fabric above the working thread and bring the tip of the needle out just under the thread. • Wrap the thread around the needle from left to right and pull the needle through the resulting loop.	Decorative borders, foliage, plant stems.	

Fig.3.4.10: Knotted Stitches - Phulkari
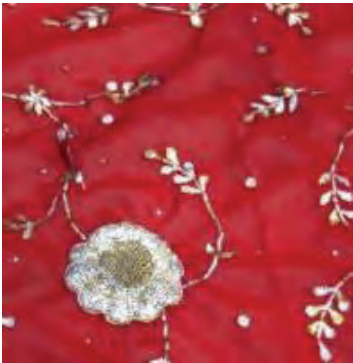
3.4.3 Zari

The word "Zari" comesfrom the Persian word "Zarkas", which means Gold Zari Embroidery. Zari embroidery art was brought to India by Persian migrants between 1700-1100 BC.
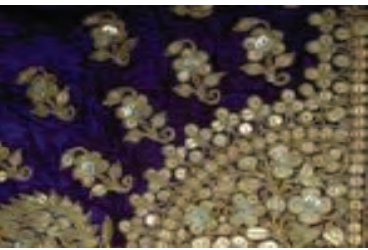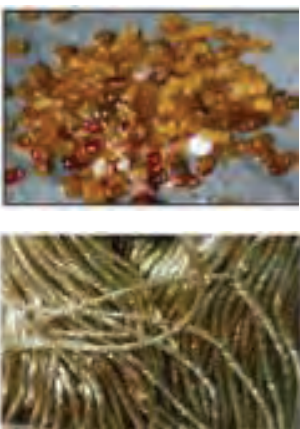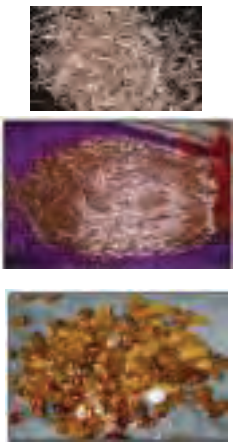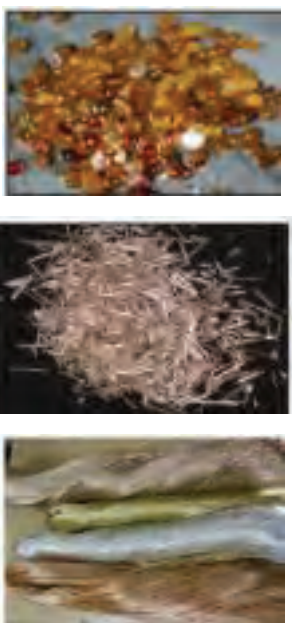
In Zari work, lustrous metallic wire, traditionally silver wire coated or plated with gold, along with silk threads, beads, beetle wings, precious stones, etc. were used for embroidery, unlike other embroideries where floss silk/cotton/wool yarns were used. Many of the folk tradition of zari work also use mica, beads and cowries as additional embellishments. But the use of semi-precious stones was restricted to zari work because of its opulent style.

3.4.3.1 Zari Designs and Motifs

The Design patterns of zari embroidery are distinguished in terms of material used and types of work. Some of the embroidery style and their material details are as follows:

S. No.	Types of Embroidery	Description	Material used
	KAMDANI	This is a light needle work done on light material like scarves, veils, and caps using flattened wire. Ordinary thread is used and the wire is pressed down with the stitching producing a satin-stitch effect. The effect produced is glittering and is called HazaraButti (thousand lights). A cowrie shell is rubbed over the embroidery to flatten and burnish the metal strips. Kamdani generally refers to the work done on muslin, silk and other fabrics. This technique remained more popular on the dresses, coverlets, caps and many miscellaneous items.	Mukaishis used in this embroiderywhich is a flat wire which cannot be threaded and is stitched on to the material directly.
	GIJIA(Karchobi)	It is a form of raised Zari metallic thread embroidery created by sewing flat stitches on cotton padding. The technique is commonly used for bridal and formal costumes as well as for velvet coverings, tent hangings, curtains and the coverings of animal carts and temple chariotsetc. Traditionally with badla was calledKarchobi.	Gijia wire is used to highlight the motifs which look like a coiled wire.

	KASAB – TIKI (karchobi)	Kasab –tiki is done byusing gold or silver threads and spangles (sitara). The stitches used in this embroidery are running & chain with which outline iscreated and filled with the sequence (tiki). It gives the shimmer look and is also very light in weight.	Kasabzari and Tiki
	ZIK-CHALAK (Karchobi)	Zik- chalak is the combination of coiled wire zik and zigzag wire chalak which is tucked from one point to the other to form a three dimension motif on padded cotton stuff.	Salma &Chalak
	BHARAT – KARACHI (karchobi)	Using pieces of cardboard to provide a raised body for the design, the material being used as padding on fabric when embroidery is in progress. The image showsapadded motif of a peacock raised by inserted foam and stitched over by thread. Nakshi and Gijia wires are used here to give the finished look of embellished motif.	Nakshi&Gijia

ZIK –TIKI (karchobi)	Uses twisted coiled wire (zik) and spangles (Tiki). The image represents the opulent intricacy of the combination of Zigzag coiled wire and sequence (Tiki) grounded on to silk velvet. This embroidery is usually very dense.	Sitara&Nakshi(zik)
ZARDOZI	This is a heavy and more elaborate embroidery work which uses varieties of gold coiled wire like dabka, salma-sitara, gijai, badla, katori, kora, chikna, spangles, beads, seed pearls, and gota. The design comprises of heavy miniature floral style of Mughal era. The material on which this kind of embroidery is done is usually heavy silk, velvet and satin.	Dabka, salma-sitara, gijai, badla, katori, kora, chikna, spangles, beads, seed pearls
KATOKI –BEL	This is a border pattern made on stiff ground fabric and the whole surface is filled with sequin edging and dabka, kasab&sitara. A variation of this border technique is lace made on net and filled with zar stitches and spangles. The details of dabka&tiki are articulated to make a heavy dense design used typically in border of the sari, lehenga and other dress materials.	Sitara,Dabka & kasab

	MUKAISH	This is one of the oldest styles and is done with silver wire or badla. The wire itself serves as a needle, piercing the material to complete the stitches. A variety of designs are produced in this manner. It is also known as the Fardikakaam in Lucknow. In Gujarat and Maharashtra it is calle Badla.	Mukaish
	TILLA or MARORI WORK	This is the kind of embroidery where gold thread Tilla is stitched on to the surface with a needle using the thin Zari or silk threads leaving no space between the threads. This technique is generally used in making the motifs at the centre which gives it an antique look. It takes time to make it perfectly. Work is delicately done to achieve it.	TillaZari
	GOTA WORK	In the Technique of Gotatukdi, gota is cut into shapes such as the gamla (flower pot), kairi (mango) and Champak flower, and appliqued onto a base fabric embellished with embroidery techniques such as Zari and Aari. Gotapatti. It involves folding of tapes into basic rhomboid units, referred to as patti or leaves and combining them to create elaborate motifs and patterns that are sewn onto garments.	Zari lace & sitara
	KINARI WORK	A small variation is kinari work where the embellishments are done only at the edges in the form of tassels with the combination of beads, silk yarns & studded pearls.	Beads & stones

Fig.3.4.11: Design/Motifs - Zari

3.4.3.2. Zari Stitches

The thread stroke formed on the front side of the fabric surface by the movement of the embroidery needle from the backside of the fabric to the front side and back to the back side is known as an embroidery stitch. Embroidery stitches are the lowest units in embroidery. Embroidery patterns are formed by doing many embroidery stitches, either all the same or different ones, succeeding a counting chart on paper, following a design painted on the fabric or even working freehand. The zari embroidery stitches can be categorized into two types depending upon usage of normal needle (flat stitches) and Aari hooked needle which are as follows:

FLAT STITCHES

LOOP STITCHES

RUNNING

CHAIN

STEM

SATIN

COUCHING
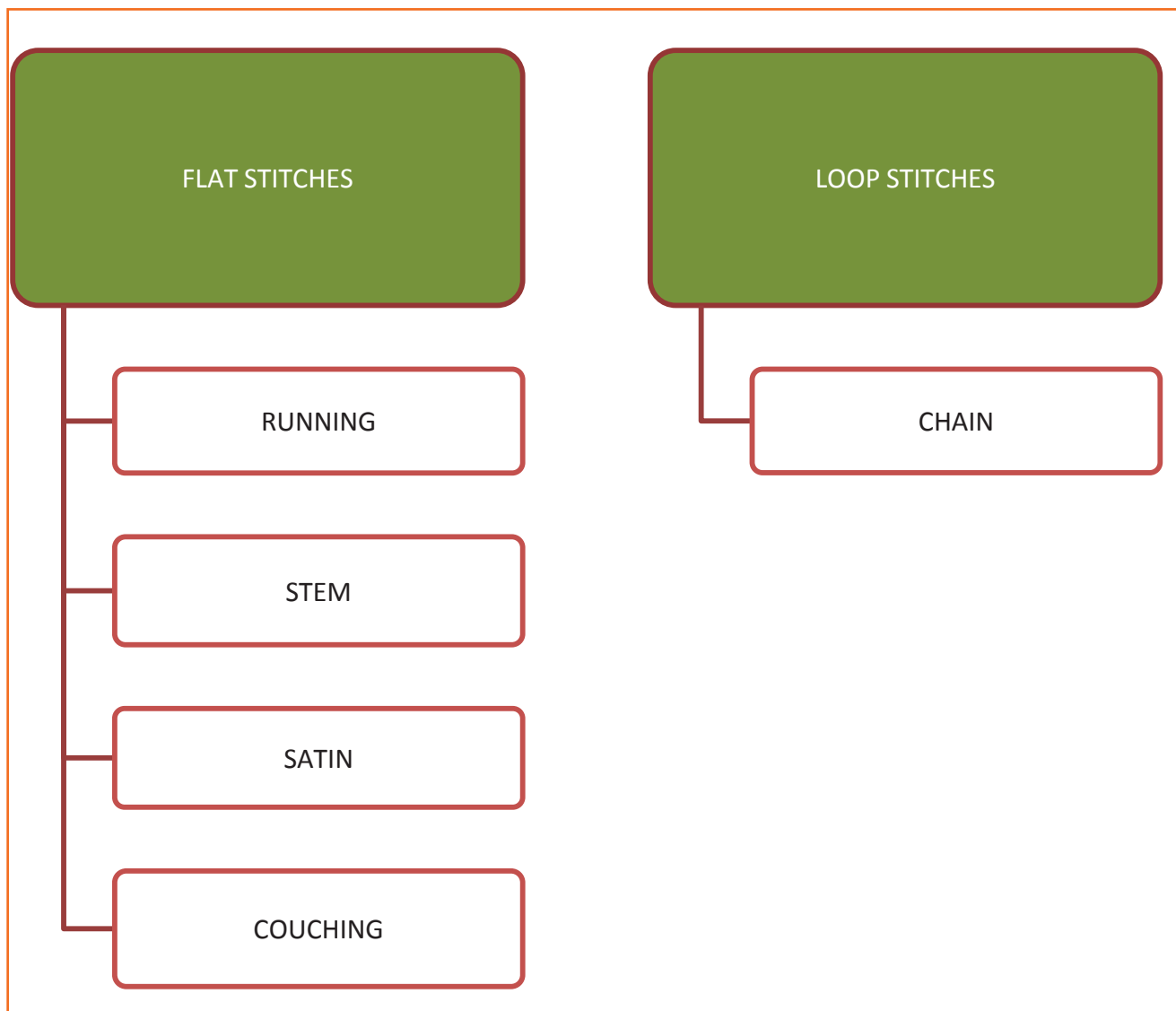
Fig.3.4.12: Zari Stitches

Types of Flat Stitches
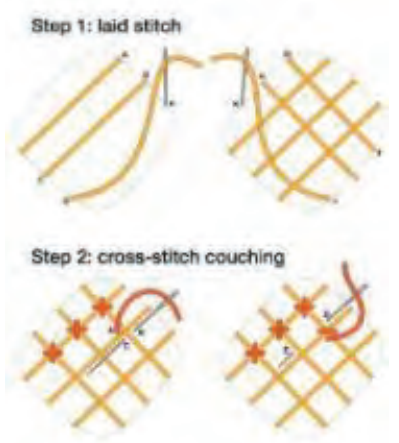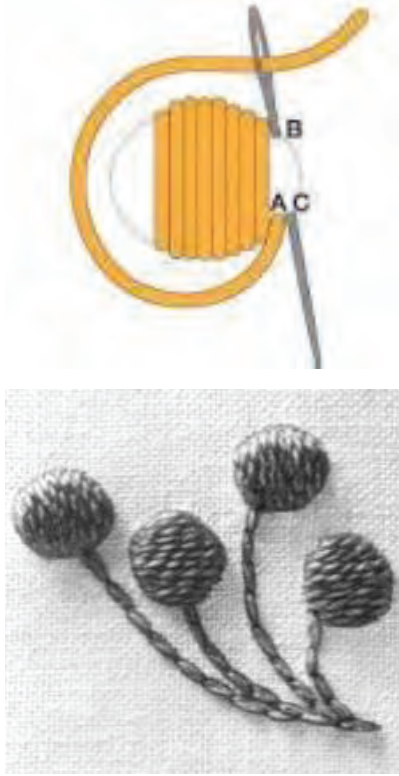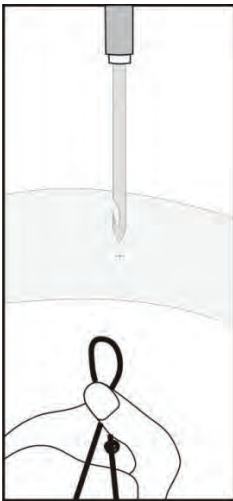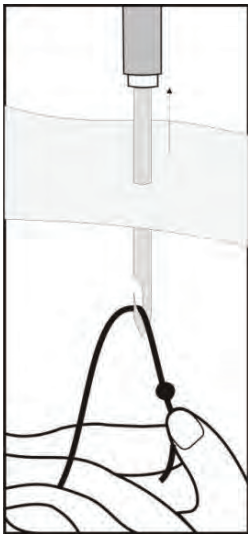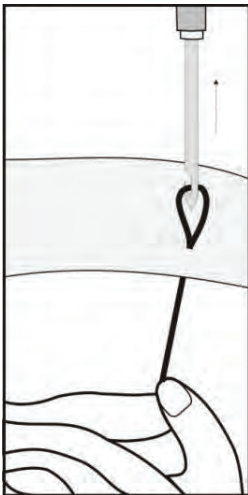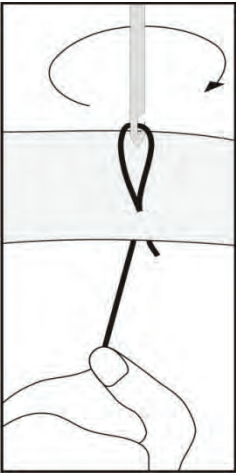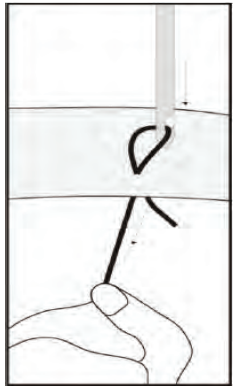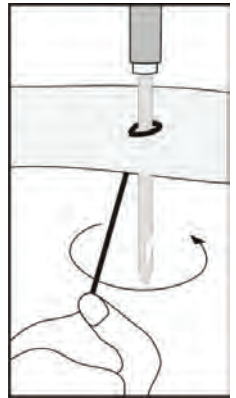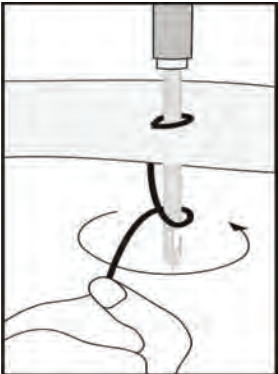
S. No.	Types of Stitches & Needle Used	Method	Illustration
1	**Laid /Couching** Couching technique involves laying of yarn or other materials across the surface of the ground fabric. This stitch involves two threads; a thicker foundation thread and a thinner thread called the couching thread. The needle used is #9 & #10 generally.	Pull the needle from A to B and take the long stride B-C, D-E like put G-F, H-J-K. Then for cross-stitch couching, insert the needle at the corner end of dissection of threads take it from above A to B inserting the needle at other end corner C and finishing the loop at D. Continue to the other pair of threads	
	Satin: A satin stitch or damask stitch is a series of flat stitches that are used to completely cover a section of the background fabric. The needle used is #9 & #10 generally.	Pull needle through to and front at A. Make single straight stitches, inserting the needle at B, out again at C. Keep stitches very close together, and continue to fill the area or shape.	

Fig.3.4.13: Flat Stitches - Zari Stitches

Types of Loop Stitches

STEP	Method	Illustration
1	Take a thread with one end knotted and make a loop under the fabric to be hooked in the needle's end.	
2	After being hooked in the needle's end; pull the needle upward.	
3	Pull the needle upward to make a loop and hold the thread gently underneath.	

4.	Rotate the needle in opposite direction to move forward.	
5	Move forward to insert the needle in the another spot; hold the threads gently underneath.	
6	Insert the needle and hold the threads gently to make a loop around the needle.	
7	Hook the threads into the needle's end.	
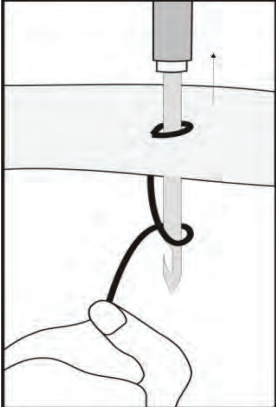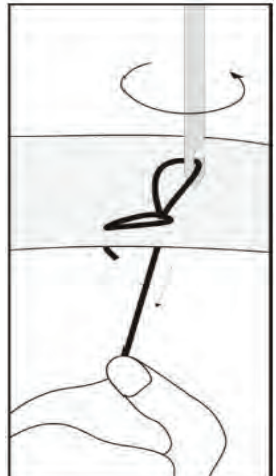
8	After the thread is hooked; rotate the needle in the opposite direction and move the needle upward.	
9	After moving forward and repeating the same step at another spot getting the chain stitch, hold the thread gently underneath.	

Fig.3.4.14: Loop Stitches - Zari Stitches

Industry Visit

The purpose of visiting an apparel manufacturing unit is to get hands on knowledge about various processes involved in the work of an Hand Embroiderer. During the visit you have to interact with Hand Embroiderers and supervisors to understand how work is done in industry. Make sure that you keep a notebook handy and note down any important points that come up during your interaction at the apparel manufacturing unit. When you go to an apparel manufacturing unit, you should:

- Precisely understand the concept of different embroidery techniques in India like; Chikankari, Phulkari and Zari and also their designs and motifs.

- Ask questions to Hand Embroiderers/supervisors if you have any query.

Exercise

1. Which of the followings are the Chikankari Stitches?

    a) Jaalis

    b) Embroidery stitches

    c) Darazdari

    d) All the above

2. Kaj stitch is used to seal the edges of the material where it would be cut to save from fraying.

    a) True

    b) False

3. What are the chikankari techniques?

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4. What are the types of Embossed Stitches?

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5. What are the design patterns of Zari Embroidery?

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4. Contribute to Achieve Quality in Embroidery Work

Unit 4.1 - Contribute to Achieve Quality in Embroidery Work

Key Learning Outcomes

At the end of this module, you will be able to:

1. Familiarize with the product quality.

2. Coordinate with seniors and others.

3. Inspect stitched products against specifications.

4. Identify, mark and place rejects in the designated locations.

5. Carry out alterations.

6. Maintain workflow and meet production target.

7. Understand and inspect the possible defects.

UNIT 4.1: Contribute to Achieve Quality in Embroidery Work

Unit Objectives ◎

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2. Coordinate with seniors and others.
3. Inspect stitched products against specifications.
4. Identify, mark and place rejects in the designated locations.
5. Carry out alterations.
6. Maintain workflow and meet production target.
7. Understand and inspect the possible defects.
8. Understand documentation

4.1.1 Product Quality

What is quality? If a product fulfills the customer's expectations, the client are happy and consider that the merchandise is acceptable or even prime quality. If his or her expectations are not fulfilled, the client will consider that the merchandise is of low quality. This means that the quality of a product may be outlined as "its ability to fulfill the customer's desires and expectations".

Quality has to be outlined first off in terms of parameters or characteristics , that vary from product to product. for example, fora mechanical or electronic product these are performance, reliability, safety and appearance. For pharmaceutical merchandise, parameters such as physical and chemical characteristics, medicinal impact, toxicity, taste and period of time may be vital. For a food product they will embrace taste, nutritional properties, texture ,shelf life and so on.

Fig 4.1.1: Quality

Fixing product specifications

A specification is the minimum demand according to that a producer or service supplier makes and delivers the product and service to the client. In setting specification limits, the following ought to be considered:

• The user's and/or customer's needs.

• Requirements relating to product safety and health hazards provided for in the statutory andregulatory requirements. Requirements provided for in national and/or international standards.

• The competitor's product specifications, in order to achieve selling advantages.

- In planning the merchandise, the capability of processes and machines ought to be kept in mind.

- it is additionally necessary to keep up a balance between cost and value realization. The clearer the specification , the higher the possibility of making and delivering quality merchandise. preparing productdesign.

- The specifications and drawings created by the designer should show customary} standard demanded by the client or marketplace in clear and precise terms.

- every dimension ought to have realistic tolerances and alternative performance necessities.

- Product quality ought to have precise limits of acceptability so the production team will manufacture the product strictly per specification and drawings.

To achieve the above, those accountable for design, production and quality ought to be consulted from the sales negotiation stage onwards. the general design of any product is created from several individual characteristics. For example these could be:

- Dimensions, like length, diameter, thickness or space.

- Physical properties, like weight, volume or strength.

- Electrical properties, like resistance, voltage or current.

- Look, like end, color or texture; practical qualities, like output or metric linear unit per liter.

- Effects on service, like style, feel or noise level.

Manufacturing drawings and specifications are prepared by the designers and these ought to illustrate to the production team exactly what quality is needed and what raw materials ought to be used. Preparation for manufacture once the design, together with the producing drawings, has been reviewed and finalized, it is timeto plan for manufacture.

This will include the following steps:

1. **Preferring the strategy of manufacture:** ways should be devised that let the operators and processes to make the merchandise within the fastest, best and most foolproof approach, as well as preparation of producing instructions, putting in procedures, listing numerous operations then on.

2. **Providing the mandatory machines, plant, tooling and alternative equipment:** Everything that's needed for manufacture should be elect, taking care that each one the weather are capable of achieving the quality of quality demanded.

3. **Getting satisfactory raw materials:** nobody will build a decent product from unsatisfactory raw materials,so each material should have a particular written shopping for specification in order that the business department will buy precisely what's needed. typically purchasers ar expected to shop for from suppliers United Nations agency are assessed and approved by them and once provides arrive the products ought to be checked before acceptance into stores. Quality necessities and producing processes ought to be mentioned with the suppliers, also because the inspection activities to be dole out by the client on the products on arrival.

4. **Getting and coaching operators:** Operators United Nations agency ar willing and ready to do the add a satisfactory manner must be chosen and given no matter coaching they have.

5. **Designing review and work quality control:** Plans for review activities ought to be ready, proper work places provided for review employees, written review.

4.1.1.1 Guidelines

A guide for small and medium-sized enterprises procedures ready, inspection instrumentality provided, checking and calibration of examination instrumentality planned for, inspection personnel selected and trained and prepilot and pilot runs carried out. One ought to never conceive to solve a high quality drawback by closing additional inspections.

The producing will begin only if coming up with|the look} and planning are completed. If the look is carried out systematically, things ought to run smoothly. during manufacture the subsequent are the foremost common factors that can affect quality:

- **Set-up:** Some processes, like punching, cutting, printing and labelling, are thus consistent that, if the initial set-up is correct, the entire ton can change to the specifications. However, the initial set-up should be checked by carrying out first-piece inspection.

- **Machines and tools:** From time to time changes will occur in machine or tool settings, which may then causedefects. Processes of this kind include machining, resistance welding and filling. Here it is necessary to carry out periodic checks by patrol inspection.

- **Operator:** There are some processes wherever the result depends on the ability and a focus of the operator, suchas welding, hand fastening and painting processes. For such processes it is necessary at the manufacture planning stage for the operator's operating strategies to be determined upon.

- **Materials and components:** it is vital to ensure the standard of raw materials and components by undertaking regular checks on the suppliers' processes and additionally wherever necessary by carrying out incoming inspection.

The following are obvious possibilities:

- The shop-floor operators had no clear plan what standard of quality was needed.

- the method was such that it was terribly difficult to induce the work right, but very simple to induce it wrong.

- The machine and instrumentality were incapable of achieving the tolerances needed.

- The incoming materials and components were unacceptable.

- The operators were untrained and not up to the job; Shop-floor internal control was either not properlyplanned or not properly executed, or both.

4.1.1.2 Coordination

It is obvious from the on top of steps that everyone in the company, that is, the salesmen, designers, purchasing,stores and strategies employees, plant engineers, jigs and tool personnel, production planning and production employees,operators, inspection and testing employees, packaging, dispatch and so on, square measure answerable for product quality.Indeed, quality is everybody's business. unfortunately, if care is not taken, it winds up being nobody's business.It is so necessary to ensure that everybody is quality-conscious which all of them work along on matters related to quality.

4.1.2 Ensure Embroidered Products meet Specification

It is essential to analyse the meet specification in terms of labels and trimmings. There should be various quality check points and before sending the product for final finish it should be thoroughly crosschecked that it has correct labels them. The stitched products should be checked in sewing section and well as printing, labeling or finishing section as well.

- **Matching Shade of Thread:** It is essential that the thread's colour should match with base fabric and also according to the design specification

- **Matching Fabric:** It is necessary to ensure that the fabric used in embroidery is according to the type of embroidery needed, type of thread and needle used.

- **Neatness of Embroidery:** One has to ensure that the embroidery is free from any visual defects like needle holes in fabric, thread not properly cut etc.

- **Colour bleeding:** The fabric or thread should be checked for colour bleeding. In this test, the fabric and thread are washed to ensure that there is no colour bleed

- **Measurement of Stitches:** The stitches used in embroidery should be as specified in the design specification. The stitches should be evenly spaced and their width/thickness should also be even or according to specification

- **Labels and Tags:** If there are any labels or tags, they also need to be checked. Texts printed on hang tags, price tags, brand labels, case labels etc. play a vital role. It is significant to ensure that all the material and details must match with the fabric type. The fabric type and the label should not mismatch. Also, the content or text used should be only the one which is approved by the concerned authority. Also, the fibre content printed in care label must match with test report made for fibre content.

4.1.3 Identify Mark and Place Rejects in the Designated Locations

- Always examine your working surroundings and then the work station where you are working. Inspect if there are any unwanted hazardous materials scattered around your work station or the work area.

- Keep the work area clean and tidy all the time, once this is accomplished look for any unwanted or faulty item.

- While looking for a faulty item make sure to identify it properly, mark it clearly and label it promptly as rejected.

- Place the rejected item in the assigned or designated locations only.

- Place the fabric or other rejected items which are torn, damaged broken, stained etc in the rejection box (designated area) of the work-place.

- If we talk about garments in particular then it can be said that the garment can be rejected after been tested and declared failed in terms of conformance and specifications.

- Always check the raw-materials to identify if there are any signs of discoloration or if there are any other defective signs present in the raw material, if yes label it as reject and take it to the designated location for all rejects and place it there.

- Tag items as rejected items so that if possible, they can be reworked on.

- Items tagged as rejects, should be disposed if they can't be re-worked on.

- Always maintain inspection records to compute level of quality control achieved.

4.1.4 Carry Out Adjustments and Alterations

Making a product which is of customer's choice and prospect is the best ways to run the business or an industry magnificently. Hence, it is important to make sure that the material used for making a product should be compatible with that product's specification. Product's accuracy and finishing always depends on what materials are been used on it, what quality fabric is it and are these matching the product's specification or not? Make sure to carry out alterations in the embroidered designs if they are not meeting the design specification.

Many times alterations are required when the fabric is not stitched properly i.e. it contains missing stitches also known as skipped stitches or staggered stitches etc. below, some of the common issues discussed where the alterations might be required if they are not meeting the customer's requirements.

Some of the common defects which are found during the embroidery are as - incorrect stitch, uneven stitch width or gap, fabric bleed etc. After identifying the defects, it is important to carry out alterations, without a delay. Reworking on the defects is important however it is more important to understand why the defects occurred, so that it can be avoided in future.

4.1.5 Maintain Workflow and Meet Production Target

Here are some of the tips with which work should be carried out so that the workflow can be maintained and production target can be achieved:

- Fabric's pieces and lining must be pinned or sewn together as per the requirement and they should be set in such a way that they are ready for assembly.

- One production's workflow should not affect the workflow of other production, handling of material should be very careful to keep away material from the risk of damage.

- All the production sections should work in synchronization with each other i.e. trimming should work in a way that spreading and cutting can work in sync with stitching and stitching can maintain coordination with embroidery, printing and so on. By doing so, a production target and quality products can be produced.

- Working in sync can improve efficiency in work.

- Always sort your work in such a way that it is in readiness for assembly.

- Each production should sort and place their work in such a way that it can be easily used at the next stage of production for e.g. if you are working at embroidery section then the fabric's embroidery should be placed in such a right order that it should not be a problem for a person in a stitching operation to arrange and stitch the fabric.

- One must be thoroughly aware about the tools, settings and equipment that are required to work on and how to handle materials without damaging them. They should know what a finished product looks like, so that they can have perfection in their working.

- Make sure to check the materials available in the stock, if it is not sufficient inform the concerned department to arrange one; it should not disrupt the workflow of other production.

4.1.6. Embroidery Defects Checklist

S NO	Embroidery Defect Checklist
1	Does the embroidery have the proper registration?
2	Was the fabric hooped properly to minimalize alteration of the fabric that the pattern was sewn in to?
3	Was the embroidery design ranged and situated properly on the stitched product?
4	Does there appear to be extreme "pull" affecting "grin-through" or misrepresentation of the stitched pattern?
5	Are all points clean with corners finished properly?
6	Are any parts of the embroidery too colossal or thick?
7	Are there any filaments or thread that was not trimmed properly? Is there any fabric "grin through" or "gapping"?
8	Are stitches shaped appropriately (not too loose or too tight)?
9	Signs of looping or malformed stitches?
10	Signs of poor tension control?
11	Is there any reparation required, to the fabric caused by the needle size or too many stitches sewn in the same area of the pattern?
12	Extreme wrinkling or illustration of the pattern?
13	Are there unnecessary hoop marks that need to be steamed away?
14	Are there excessive hoop marks that need to be steamed away?

Fig 4.1.2: Defects Checklist

4.1.7. Documentation

A "document" is a collection of data, regardless of the medium on which it is recorded, that generally has permanence and can be read by humans or machines. Documents include both paper and electronic documents. A document is an amount of information on one or more related topics prepared for a specific purpose and presented as a unit. A document may be used in a printed form, online form or a combination of the two. Examples of documents include: manuals, reports, proposals, letters, faxes and emails. Proper documentation of events is essential for providing the contemporary professionals and future generations the opportunities to know, learn, and benefit from the past knowledge and experience.

Fig 4.1.3 Documentation

Industry Visit

The purpose of visiting an apparel manufacturing unit is to get hands on knowledge about various processes involved in the work of an Hand Embroiderer. During the visit you have to interact with Hand Embroiderers and supervisors to understand how work is done in industry. Make sure that you keep a notebook handy and note down any important points that come up during your interaction at the apparel manufacturing unit. When you go to an apparel manufacturing unit, you should:

- Know about the production system.

- Inspect stitched products against specifications.

- Analyze how Hand Embroiderer:

  » Inspects stitched products against specifications

  » Carryout alterations

  » Sew and apply trims

- Also Understand the inspection and possible alteration.

- Ask questions to Hand Embroiderers/supervisors if you have any query.

Exercise

1. A "document" is a collection of data, regardless of the medium on which it is recorded, that generally has permanence and can be read by humans or machines.

   a) True

   b) False

2. Working in sync can improve efficiency in work.

   a) True

   b) False

3. What is quality?

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5. Maintaining Work Premises and Tools

Unit 5.1 - Maintain Work Premises and Tools

AMH/N1004

Key Learning Outcomes

At the end of this module, you will be able to:

1. Maintain Hazard Free Work Environment
2. Maintain Embroidery tools
3. Understand and adopt safe work practices
4. Minimize waste
5. Know different Cleaning Substances

UNIT 5.1: Maintain Work Premises and Tools

Unit Objectives

At the end of this unit, you will be able to:

1. Maintain Hazard Free Work Environment
2. Maintain Embroidery tools
3. Understand and adopt safe work practices
4. Minimize waste
5. Know different Cleaning Substances

5.1.1 Maintaining Hazard Free Work Environment

Effective maintenance of work premises or housekeeping can remove many workplace hazards and help in safe and proper work. On the other hand poor housekeeping can result in accidents by concealing hazards that may result in injuries.

Housekeeping does not only mean cleanliness, it includes neat and orderly work areas, maintaining floors free of slip and hazards and removal of waste materials (e.g., threads, paper, pieces of fabric etc.) and preventing fire hazards. It involves giving attention to details like the layout of the workplace, aisle marking, the adequate storage facilities and maintenance. Good housekeeping also involves accident and fire prevention.

Effective housekeeping is a continuous process. It is not a hit-and-miss clean-up done occasionally. Irregular or last minute clean-ups may prove costly and ineffective.

5.1.1.1 Purpose and Benefits of Maintaining Hazard-free Workplace

Poor housekeeping or ill-maintained workplace can result in accidents like:

- Tripping over loose objects on floors, stairs and platforms
- Being hit by falling objects
- Slipping on greasy, wet or dirty surfaces
- Collision against poorly stacked items or out of place material
- Cutting or tearing of skin on projecting needles, wire or steel strapping

In order to prevent these hazards, a workplace must be maintained regularly. This may require a lot of efforts hand planning but the benefits are many.

Benefits of maintaining hazard-free work place

• Reduced handling for better flow of materials

• Reduction in tripping and slipping accidents

• Decreased fire hazards

• Decreased exposures to hazardous substances (e.g. broken needles, dusts, vapours)

• Better control of tools and materials, including inventory and supplies

• More efficient equipment clean-up and maintenance

• Better hygienic conditions leading to improved health

• More effective use of space

• Reduced property damage by improving preventive maintenance

• Improved morale

• Improved productivity (tools and materials will be easy to find)

5.1.1.2 Planning Workplace Maintenance

A good maintenance program plans and manages the orderly storage and movement of materials from point of entry to exit. It includes a material flow plan to ensure minimal handling. The plan also ensures that work areas are not used as storage areas by having workers move materials to and from work areas as needed. Part of the plan could include investing in extra bins and more frequent disposal.

Housekeeping order is "maintained" not "achieved." Cleaning and organization must be done regularly, not just at the end of the shift. Integrating housekeeping into jobs can help ensure this is done. A good housekeeping program identifies and assigns responsibilities for the following:

• Clean up during the shift

• Day-to-day clean-up

• Waste disposal

• Removal of unused materials

• Inspection to ensure clean-up is complete

5.1.2 Maintaining Tools and Equipment

Maintenance of tools and equipment used in embroidery like needles, threads, scissors, fabric etc. is part of the job responsibility of the hand embroiderer. Even the best quality tools and equipment cannot last long if not properly taken care of. Few key points in tool and equipment maintenance are:

• **Proper Storage:** All tools and equipment should be stored properly in their designated places. Good organization is not just about saving time when you're looking for the proper tool, or even just about saving

space in your garage or shed. Good organization can go a long way toward keeping tools in proper working order for longer. Do not leave tools like needles, scissors, hoops scattered around or lying on the work station. After finishing the work, all tools and equipment should be placed in their designated places

- **Regular Maintenance:** All tools that require lubricant should be regularly lubricated like scissors and hoop locks. Also, regular checks should be done to ensure the tools are working properly and if required repairs should be carried out

- **Correct Usage:** Most tools are designed to perform specific functions. Using the wrong tool for a job can pose a safety hazard to you and those around you. By using your equipment incorrectly, you can make the tool less effective for its intended use. For instance, proper needles should be used for embroidering depending on the type of stitches and fabrics used

- **Cleaning tools after use:** Tools like needles, scissors, hoops etc. should be properly cleaned after every use. This can be simply done by wiping them with a clean piece of cloth.

5.1.3 Common Cleaning Products

Cleaning substances are substances (usually liquids, powders, sprays, or granules) used to remove dirt, including dust, stains, bad smells, and clutter on surfaces. Purposes of cleaning agents include health, beauty, removing offensive odour, and avoiding the spread of dirt and contaminants to oneself and others. Some cleaning agents can kill bacteria and clean at the same time.

Common types of cleaning products are detailed below:

Acidic: Acidic cleaning agents are mainly used for removal of inorganic deposits like scaling. The active ingredients are normally strong mineral acids and chelants. Often, surfactants and corrosion inhibitors are added to the acid. Hydrochloric acid (also called muriatic acid) is a common mineral acid typically used for concrete. Vinegar can also be used to clean hard surfaces and remove calcium deposits. Sulfuric acid is used in acidic drain cleaners to unblock clogged pipes by dissolving greases, proteins

Alkaline: Alkaline cleaning agents contain strong bases like sodium hydroxide or potassium hydroxide. Bleach (pH 12) and ammonia (pH 11) are common alkaline cleaning agents. Often, dispersants, to prevent re-deposition of dissolved dirt, and to attack rust, are added to the alkaline agent. Alkaline cleaners can dissolve fats (including grease), oils, and protein-based substance

Neutral: Neutral washing agents are pH-neutral and based on non-ionic surfactants that disperse different types of dirt.

Degreaser: Cleaning agents specially made for removal of grease are called degreasers. These may be solvent-based or solvent-containing and may also have surfactants as active ingredients. The solvents have a dissolving action on grease and similar dirt. The solvent-containing degreaser may have an alkaline washing agent added to a solvent to promote further degreasing. Degreasing agents may also be made solvent-free based on alkaline chemicals and/or surfactants

5.1.3.1 Commonly used Cleaning Substances

Some commonly used cleaning substances are:

• Water, the most common cleaning agent, which is a very powerful polar solvent

• Soap or detergent

• Ammonia

• Calcium hypochlorite (powdered bleach)

• Citric acid

• Sodium hypochlorite (liquid bleach)

• Sodium hydroxide (lye/caustic soda)

• Acetic acid (vinegar)

• Various forms of alcohol - like isopropyl alcohol or rubbing alcohol

Fig 5.1.1: Type of Cleaning Substance

• Borax, Sodium bicarbonate (baking soda)

• Tetrachloroethylene (dry cleaning)

• Carbon dioxide

• Chromic acid

• Trisodium phosphate

• Saltwater soap (a potassium based soap)

Industry Visit

The purpose of visiting an apparel manufacturing unit is to get hands on knowledge about various processes involved in the work of an Hand Embroiderer. During the visit you have to interact with Hand Embroiderers and supervisors to understand how work is done in industry. Make sure that you keep a notebook handy and note down any important points that come up during your interaction at the apparel manufacturing unit. When you go to an apparel manufacturing unit, you should:

• Understand the tools safety and maintenance rules of industry.

• Analyze how HEs:

  » Carry out basic maintenance of machine.

  » Maintain tools and equipments and handle them safely and use materials to minimize waste.

  » Work in a comfortable position with the correct posture.

  » Dispose of waste safely in the designated location.

  » Store cleaning equipment safely after use.

• Ask questions to Hand Embroiderers/supervisors if you have any query.

Exercise

1. Which of the followings are the key points in tool and equipment maintenance:

    a) Correct Usage

    b) Poor storage

    c) Cleaning tools after use

    d) All the above

2. Which of the followings are the common cleaning products:

    a) Neutral

    b) Acidic

    c) Degreaser

    d) All the above

3. What is waste management?

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6. Maintain Health, Safety and Security at Workplace

Unit 6.1 - Maintain Health, Safety and Security at Workplace

APPAREL MADE-UPS HOME FURNISHING SECTOR SKILL COUNCIL

AMH/N0103

Key Learning Outcomes

At the end of this module, you will be able to:

1. Comply with health and safety related instructions applicable to the workplace.
2. Use and maintain personal protective equipment as per protocol.
3. Maintain a healthy lifestyle and guard against dependency on intoxicants.
4. Follow environment management system related procedures.
5. Identify and correct if possible) malfunctions in machinery and equipment.
6. Report any service malfunctions that cannot be rectified.
7. Store materials and equipment in line with manufacturer's and organizational requirements.
8. Safely handle and move waste and debris.
9. Minimize health and safety risks to self and others due to own actions.
10. Seek clarifications, from supervisors or other authorized personnel in case of perceived risks.
11. Monitor the workplace and work processes for potential risks and threats.
12. Carryout periodic walk-through to keep work area free from hazards and obstructions, if assigned.
13. Report hazards and potential risks/threats to supervisors or other authorized personnel.
14. Participate in mock drills/ evacuation procedures organized at the workplace.
15. Undertake first aid, fire-fighting and emergency response training, if asked to do so.
16. Take action based on instructions in the event of fire.
17. Follow organization procedures.

UNIT 6.1: Maintain Health, Safety and Security at Workplace

Unit Objectives 🎯

At the end of this unit, you will be able to:

1. Comply with health and safety related instructions applicable to the workplace.
2. Use and maintain personal protective equipment as per protocol.
3. Maintain a healthy lifestyle and guard against dependency on intoxicants.
4. Follow environment management system related procedures.
5. Identify and correct if possible) malfunctions in machinery and equipment.
6. Report any service malfunctions that cannot be rectified.
7. Store materials and equipment in line with manufacturer's and organizational requirements.
8. Safely handle and move waste and debris.
9. Minimize health and safety risks to self and others due to own actions.
10. Seek clarifications, from supervisors or other authorized personnel in case of perceived risks.
11. Monitor the workplace and work processes for potential risks and threats.
12. Carryout periodic walk-through to keep work area free from hazards and obstructions, if assigned.
13. Report hazards and potential risks/threats to supervisors or other authorized personnel.
14. Participate in mock drills/ evacuation procedures organized at the workplace.
15. Undertake first aid, fire-fighting and emergency response training, if asked to do so.
16. Take action based on instructions in the event of fire.
17. Follow organization procedures.

Fig 6.1.1: Health and safety

6.1.1 Introduction

Features in garment industry that could be improved to prevent injuries include; communication, involvement of employees in decision making, education and training of employees and management on prevention strategies, and the ergonomic conditions at the plant.

The clothing industry is usually considered as a safe place to work. Compared to other industries, there are fewer serious risks in clothing factories. The hazards in clothing industry are different from others. The major health risks in this industry come from more subtle hazards whose effect build up over time.

Work surface height should be around elbow level

Work surface thickness 5 cm maximum

66 - 72 cm

min 40 cm

Thigh clearance 20 cm maximum

Seat height 34 - 45 cm (adjustable to each worker)
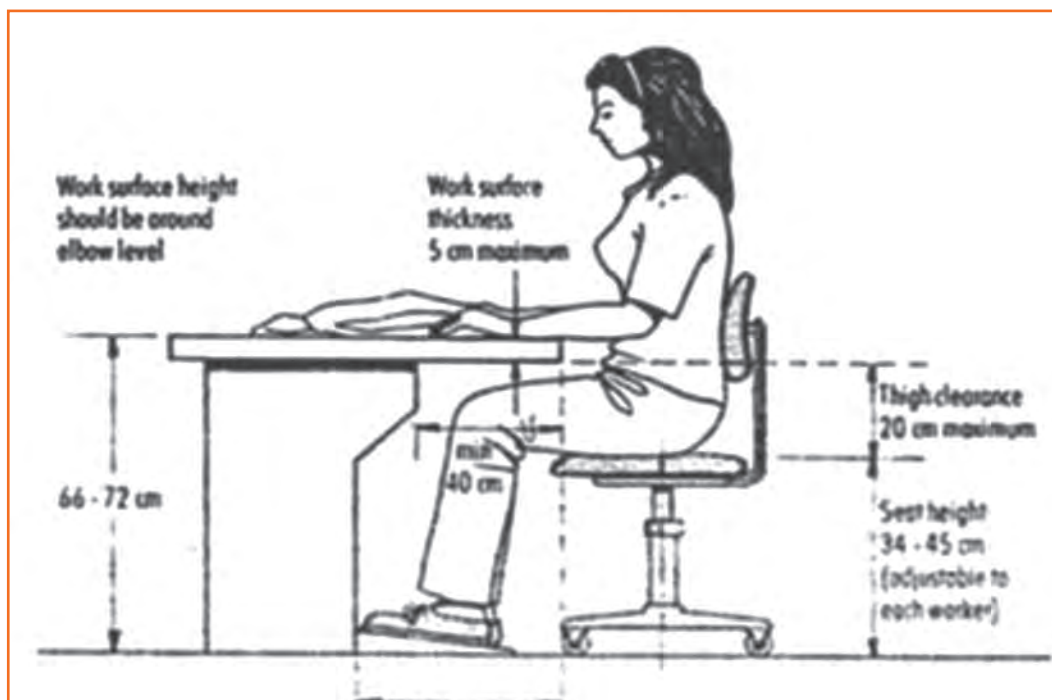
Fig 6.1.2: Body Posture

Sewing Machine Operator face a substantially higher risk of muscle pain and injury than workers in other jobs. Studies also show that frequency of neck and shoulder injuries increases with years of employment. Sewing Machine Operator experience a number of cases of strain injuries. These injuries have a long-term effect on workers' health.

The physical requirements of a job are an important risk factor related to muscle pain and injury. The risks for Sewing Machine Operator have been linked to conditions such as improper work area design, including sitting arrangements.

Factors like repeated motions, force, body-posture are associated with higher risks and rate of injury. There are other factors

Fig 6.1.3: Body Posture

are linked to injuries. Some of these factors include improper height of work pace, excessive workload, lack of support from co-worker, overall work environment etc. The factors that lead to reduction in injury rates include empowering workforce, following safety protocol, good housekeeping practices and increased support from top management.

6.1.2 The 'Ergonomics'

Ergonomically-designed job ensures that an employee who is tall is given a comfortally enough space in or near his/her workspace so that the work efficiency is not hindered. Similarly, an employee who is shorter is able to reach all of his or her tools and products without upsetting comfort and safe assortment.

Workers are usually compelled to work in the confinement of the job or workstation that previously was designed with no dynamism or change when they are hired. This leads the workforce to work in difficult postures and positions, all of which may result in work-related injuries/disorders.

The work-place related injuries often start as minor aches and pains but can develop into incapacitating injuries
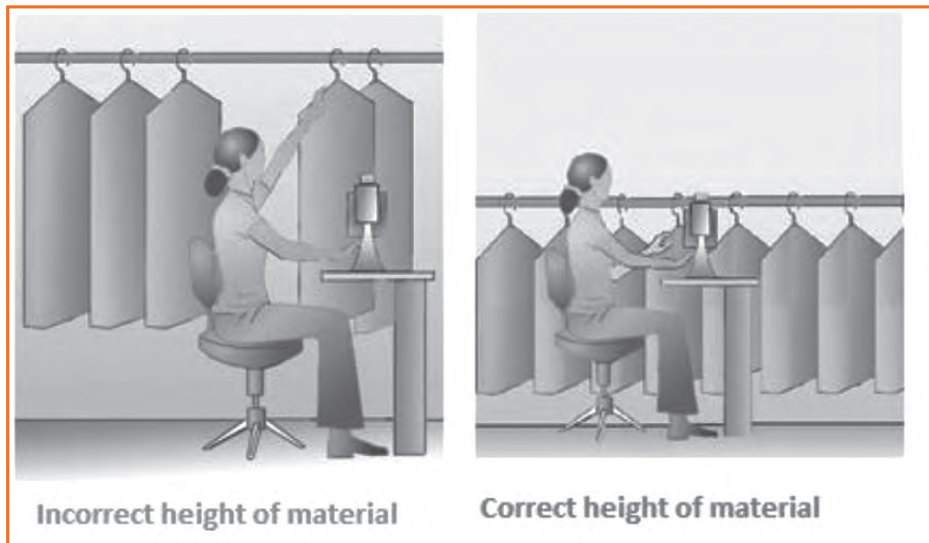
Fig 6.1.4: Situating the material

that affect everyday activities. Ergonomics aims at preventing injuries by monitoring the risk factors such as force, repetition, posture and vibration that can cause injuries to develop.

Injuries and illnesses among textile and apparel workers

- 81% complained CTDs to the wrist.
- 70% of Sewing Machine Operator complains of back pain.
- 49% of workers is suffering from neck pains.
- 35% report obstinate lower back pain.
- 25% have suffered a compensable increasing trauma disorder
- 14% reported CTDs to the elbow.
- 5% reported CTDs to the shoulder.
- Absenteeism increases as working conditions worsens.

- High employee turnover is associated with detrimental working conditions.

- Embroidery tasks are associated with pain in the shoulders, wrists, and hands.

- Ironing by hand is associated with elbow pain.

- Fitting fabric in frames like of work, are associated with CTDs of the hands and wrists.

Some fundamental ergonomic principals that should be followed in our workplaces are:

- **Proper tools:** Tools and equipment provided at work place should be appropriate for the specific tasks being performed. The apparatus should allow the workers to keep their hands and wrists straight – the position they would be in if they were droopy relaxed at your side. The workers should bend the tool– not the wrist. The tool should fit easily into the hand. If the grip size is too large or too small, it will be uncomfortable and will increase the risk of injury. Tools should not have sharp edges .

- **Keep repetitive motions to a minimum:** Workstations can be restructured to avoid the number of health hazards which chances due to repetitive motions that must be performed. Using a power-driven screwdriver or tools with a notch device can decrease the number of twisting motions with the arm. Work stations should have enough space for the given tasks and provide proper chairs. For deterrence of ergonomic injuries, the labour force should be encouraged to change work and take frequent but short breaks. Some tasks can be mechanical or reformatted to eliminate musculoskeletal injuries. Manufacturing tools and equipment should integrated ergonomic design codes and should not require an extreme amount of force to operate.

- **Avoid awkward postures:** The industry is such that the workforce's job should not require you to work with your hands above shoulder height on a regular basis. Arms should be closer to the body and not raised too high. Bending of their wrists, back and neck should be avoided.

- **Use safe lifting procedures:** The employee should avoid lifting objects that are too heavy. Use more than one person or a mechanical device to reduce the load. The workstation should not require lifting objects above the head or twisting his/her back while lifting. One must keep the load close to his body. Heavy and often lifted objects should be kept between knee and shoulder height and not on the floor or above the head level.

- **Get proper rest:** It is imperative to take frequent breaks to rejuverate the body and mind so that they don't get injuried. The workforce should be groomed to understand that they should take a break from the work not just mentally but physically too. If a person has errand which doesn't allow him to sit, he must take intervals from his work to relax his leg muscles. If he is doing a sitting job, he ust go for a walk whenever his work permits.

  For example, if you stand all day, while performing your job you should sit down to rest your legs and feet during your breaks. If you sit down, when working you should stand up and walk around during your breaks to give your back a rest and to increase circulation in your legs. By doing this the musculoskeletal injuries can be prevented.

- **Other things to consider:** Chemicals also have a part in garment manufacturing. Dyes, enzymes, solvents and other chemicals are used to create different fabric finishes and provide durability to the product. Proper ventilation and personal protective equipment are important for protection of workers engaged in chemical processing. Similarly, for workers who handle the finished material and may be exposed to excess chemicals and off-gassing, protective equipment should be used.

Fig 6.1.5(a): Don'ts

Fig 6.1.5(b): Don'ts

Fig 6.1.6(a): Do's
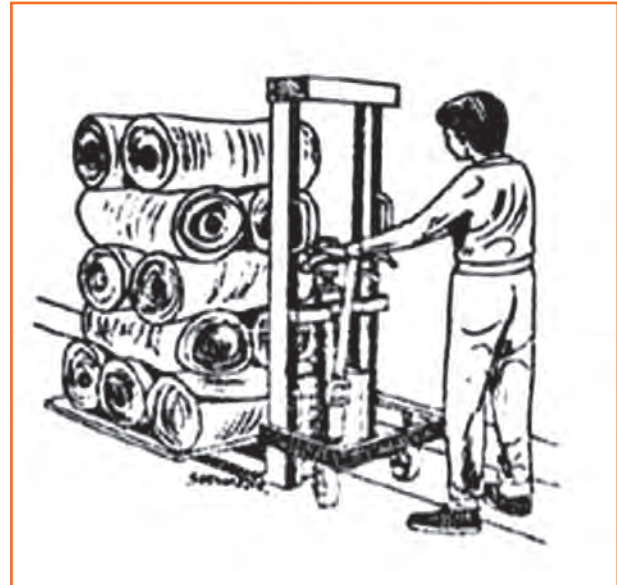
Fig 6.1.6(b): Do's

6.1.3 Environmental Control Measures

Hazardous substances in one form or another can be found in almost all small and medium-sized enterprises. The garments industry generates a lot of dust from fabrics being cut and sewn. Some fabrics release chemicals which saturate the air causing difficulties in breathing and eye irritation. Solvents used for cleaning fabrics and garments may cause fatigue, headache and dizziness. Dust and solvents, when breathed, can lead to lung diseases and

are very dangerous. Not only will this affect the well-being of your workers, it will also result in a reduction of productivity and product quality, increased absenteeism and turnover of staff. High levels of dust interfere with efficient production and require cleaning operations that may spoil materials and finished products. Improved conditions usually mean increased output, higher productivity and quality. There are simple and inexpensive ways to control most of the environmental problems. Improvements often result in cost savings, productivity benefits and increased safety of workers. The following rules provide a series of low-cost measures for sound environmental control.

6.1.3.1 Clean Regularly and Properly - Don't Spread Dust

Dust originates from fabrics and threads, from cutting and sewing to packing operations. Thus, it is very common to see small clothing enterprises with ceilings and walls full of dusty cobwebs. Even machines which are not regularly cleaned could be full of dust which may cause them to break down.

Dust increases wear and tear on machinery, necessitating more maintenance. It also negatively affects the quality of raw materials and finished products. Dust entering the respiratory system can damage the worker's lungs. Some dust can also cause allergies. Dust should be removed regularly and eliminated from the source. More comprehensive cleaning should be carried out as often as necessary. This cleaning should also include walls, ceilings, storage racks and other areas where dust accumulates. Dust on windows, walls and lamps will significantly reduce the lighting in the workplace.

Fig 6.1.7 Cleaning the Shop Floor

One low-cost cleaning method is sweeping the floor carefully with an appropriate broom and accompanying dust pan to prevent dust from spreading. Spraying water on the floor before sweeping will avoid dust remaining airborne. When dust is moistened it can be easily removed with a broom More effective methods of controlling dust include using a vacuum cleaner or a wet mop.

6.1.4 Make Local Ventilation Cost-effective

Local ventilation should only be considered as a means of reducing chemical hazards when other means have failed. There are cost-effective ways of improving ventilation.

Use proper fans

Apart from those used for ventilating workstations, fans may be utilized to remove dangerous substances from the workplace. Contaminated air can be pushed or blown outside by having more open windows. A few points should be considered:

- There should be no obstacles between the fan and opening. Anything in the way significantly reduces the desired effect.

- The air speed should be low to reduce turbulence. In the garment industry, different fans are used; some use industrial fans or wall fans as shown in Fig. There are advantages and disadvantages for these types of fans. Industrial fans are so powerful that workers near them may be affected. Ceiling fans of the rotary type may lift the cloth being sewn, hence speed should be controlled.

- Contaminated air should not be blown in the direction of other workers on the way to the opening.

- Care should be taken that air expelled from the workplace does not affect people outside the enterprise.

- A fan may not be sufficient to remove vapours from hazardous fumes such as those sometimes used in silkscreen printing. Extractor systems to remove dust and hazardous chemicals should be installed. These systems may be quite expensive and it may be more economical to replace the hazardous chemicals.

6.1.5 Good Lighting for Quality Products

Good lighting does not mean more light bulbs and more use of electricity. Natural lighting is usually a better option than the bulbs. But if there is a difficulty in arranging for a natural lighting through windows and ventilators, its important that the bulbs and other elements of artificial lights should be well-maintained. A good lighting arrangement is directly proportionate to an efficient workforce.

80% of the absorption of information from our surroundings are from our eye as a sense organ. Bad lighting means wrong or lesser absorption of information, leading to lower productivity. Eye strain in low light can lead to head ache and again decreases the productivity level of the worker.

It is imperative to understand the ways in which we can arrange for a good lighting without increasing the electricity bills. First of all one has to identify if at all you need to work upon the existing brightness level in the work place. Lighting requirements are reliant on three main features:

• The environment of the working area

• The nature of the task

• The sharpness of the worker's eyesight

A sewer needs focused light at needle point, so needle lights should always be fitted. A worker packing garments requires more largely lighting. In many situations, packers work on special tiered work tops, where lights are built into the station. The age group of the workforce is also important factor to determine this. Which means, an older worker may need twice as much light as a younger one. Another way to identify the gap, in lighting problem is going around the workplace, observing the workers and asking them about their visual problems. The plan of improvements may not have much impact if the workers' eyesight is insufficient. An eyesight test for all employees should be carried out. Even if some workers do not follow advice about obtaining glasses. One will be aware of the problem and a possible reason for low efficiency and decreased productivity.

6.1.5.1 Make Full use of Daylight

It is very unfortunate that many corporations undermine the fact that natural light is the best and the cheapest source of illumination. One had to gauge the surface area of the work area and measure the windows and skylights. Ideally the open space that includes the windows, ventilation windows and door should be one-third of the total area of work.

However a determinant of choosing the natural light is the heat that is emitted in the work place.

If there is too many machinery omitting heat, it isn't a great idea to allow the natural heat to come in and add up to the temperature.

The higher the window, the more light is in. Skylights can double the light of a low light but if made in a lower level, it faces obstacles ad is blocked by the machineries and storage containers. If the factory doesn't have a skylight, one must consider to replace the opaque roofs with translucent or transparent plastic rooftops.

It is important to paint the walls in lighter shades which not just give a sense of space to a room, but the workstation would look illuminated. It enhances the visual conditions and a pleasant cheerful environment is encouraged.

The matt finish of whitewash is a great idea. Many enterprises are implementing white tile ceilings. To avoid harmful glare, one should avoid gloss paint for walls. Pale colours are better than white. A slightly dimmer colour below eye level

is accommodating. But one should maintain cleanliness, since lack of regular cleaning can result in the loss of at least 10 to 20 per cent of light. Special care should be taken to clean skylights, which are sometimes difficult to reach.

These colours are much better than the black formerly used for the bodies or chrome finish for the Figs, which reflect more glare. An unsatisfactory circulation of natural light over the work area, particularly in embroidery rooms, is a problem. Considering the fact, one must change the layout of benches and machines in order to minimize shadow zones. Workstations with high lighting requirements should be moved closer to the windows and possibly be assembled together for the provision of additional lighting . However, if the workstation layout responds well to your production needs, you may instead reorganize the delivery and height of the lamps or add needle lights which are good options.

6.1.6 Reporting an Accident and an Incident

Your responsibility requires you to be aware of potential hazards and correct reporting processes. If you notice a potentially hazardous situation, eg: a client expressing violent behavior, it is important that you report it immediately to management and fill out the appropriate forms as legally required of you.

If you are injured at work you must:

- Report the injury to management as soon as possible, and certainly within 24hours.

- Seek proper treatment for your injury.

6.1.6.1 Accidents

Always work in a safe manner to prevent accidents from occurring in the first place. Make sure that you have been given adequate information and on-the-job training about the first aid facilities and services available in your workplace, including:

- Where to find first aid kits.

- Location of first aid rooms.

- Complete, up-to-date contact details of trained first aid officers in the workplace procedures for critical accidents – such as who should be responsible for calling.

- The ambulance/doctor/nurse and what is the best method of contact, measures for evacuation of the injured person/s.

- Emergency procedure for the elimination of life-threatening chemicals commonly used in the workplace.

- Universal precautions for the control of infection.

- Who to contact for debriefing/psychological support.

Reporting of incidents and accidents is required under the Work Health and Safety (WHS) legislation. Workplaces tend to have well developed reporting procedures in place, which aim to fully understand the accident/incident and prevent any future occurrences through investment in injury prevention, based upon accurate data. Reporting and recording should also facilitate costing and associated financial loss.

Always report an accident to management immediately. There should be a form at each workplace that you (or the person involved) and any witnesses can fill out, where possible, otherwise. The form should cover the following areas:

- **Description of the occurrence:** What was the event that occurred, which required this report to be completed?

- **Nature of injury or disease:** Select the most appropriate description from a range of options. What injury or disease happened as a result of the occurrence?

- **First aid, medical treatment or hospital admission:** This section asks for a description of what was done to treat the injury or disease.

- **Part of the body affected:** Tick off which part or parts of the body were affected as a result of the occurrence.

- **Source of injury:** What actually caused the person to be injured or acquire a disease? This could be a piece of machinery or other hazardous materials for example.

- **Probable cause or causes of injury:** How was the source listed above actually responsible for the injury?

- **Investigation:** This asks a series of questions that seek to find out why the person has been injured or has acquired a disease.

- **Notification checklist:** This checklist makes sure that everyone who should have been contacted regarding the matter has been contacted and asks whether appropriate action has been taken by the authorities.

- **Preventative action:** This asks whether or not any action has been taken to prevent the occurrence from happening again.

- **Witness details:** This part is to be filled out if someone saw the occurrence happen. It is essential if any sort of legal action is to be taken.

6.1.7 Mock Drills / Evacuations

Fire safety and evacuation plans sketch staff duties and accountabilities in time of emergency. Continuing training is required to help safeguard that the employees are conscious of those duties and responsibilities. Fire fighting trainings serve as an prospect for staff members to validate, under replicated fire conditions, that they can perform those duties and responsibilities safely and efficiently. It's also a time for them to demonstration that they are aware of defend-in-place strategies and can take advantage of your facility's fire protection features and exit facilities to protect the people in their care.

Fire drills are excellent exercise designed to evaluate staff response to a replicated emergency. They are also a test of your facility's fire safety/ evacuation strategies and staff training programs. It is not essential that all fire drills run smoothly. That's okay, so long as staff and the organization learns from them and correct mistakes made. It's vital, therefore, that there be a analysis of each drill so that any problems met can be addressed. Perhaps the problems are due to unfinished or out-dated fire safety/emigration plans. Perhaps there's a need for additional staff training.

Fig 6.1.8: Fire Safety

The two essential components of a fire preparedness plan are the following:

1. An emergency action plan, which details what to do when a fire occurs.

2. A fire prevention plan, which describes what to do to prevent a fire from occurring.

6.1.8 Low-cost Work-related Welfare Facilities and Benefits

Work-related welfare conveniences and facilities are never given heed to. Who cares about toilets, first-aid kits, lunch rooms or lockers? What do they have to do with the hard authenticities of production? One answer is that workforces care. During each working day, workers need to drink water or some other beverage, eat meals and snacks, wash their hands, visit a lavatory, and rest to recover from fatigue. This can be difficult or easy, unpleasant or comfortable, a health risk or an aid to hygiene and nutrition. The essential facilities in the factory show if you care about employees more or the machines.

Another good reason is that extra efforts for better facilities are often appreciated far beyond the time and money capitalized, Work-related facilities benefit workers to overcome problems which are important to them. Let workers express their priorities for improvements and give their feedback . You may be surprised at the results. Giving a hygienic and wel-maintained workplace is indirectly showing yur employees how much you care for them.

A small enterprise can be a community where workers are loyal, with good industrial relations and high morale, It can also be a place where workers look for the first chance to leave and care little about the owner's success. Which kind of initiative do you want? The series of low-cost facilities that trails will help to retain the best staffs.

6.1.8.1 Make Sure Essential Facilities Serve Their Purpose

Drinking water

Drinking water is indispensable for all workers; if this is not provided, they become thirsty and gradually dehydrated. This greatly increases fatigue and lowers productivity, especially in a hot environment. Place water vessels near each group of workers, or provide taps or cascades with clean water in a central place. This will minimize the time lost in going to get a drink. However, drinking water should not be placed in washrooms or toilets, near dangerous machines or other hazards, nor in places where it can be contaminated by dust, chemicals or other substances.

If there is any doubt about contamination, water must be thoroughly boiled or properly filtered or treated. Unhealthy water will lead to illness and therefore absenteeism from work. Before starting to use a new water source for drinking purposes, it is advisable to have it tested to make sure it conforms to the national standard for drinking water. The design, construction and operation of deep wells for the extraction of ground water should be subjected to the provisions of existing water codes. Piped water should only be used when a hygienic water supply is guaranteed. A clear distinction between potable and non-potable water taps should be made and a "Safe Drinking Water" sign should be put up near to each tap.

Drinking water vessels should be made from materials that can easily be cleaned, Even if the vessels are filled with fresh water, the water inside, if kept for even a short time, can become unhygienic. It should therefore be different frequently. It is also imperative to make sure that drinking water is cool. If a water cooler is too luxurious, the water vessels can be placed in the coolest place in the factory. It will facilitate the water to remain cool throughout the day. They should not be left uncovered, under the sun or in a hot place. Drinking fountains for production areas are very advantageous from a hygienic point of view . They can be fitted with a jet or bubbler outlet and/or goose-neck or other outlet for filling drinking cups. The fountain should be free from sharp angles and designed to prevent unnecessary splashing. Water outlets should be above the rim of overflow level so that they will not be contaminated with waste water. The water outlet should be shielded to prevent the lips of a drinker from being placed on it. Drinking water containers should be attended by a designated person. Containers should be made of impermeable materials. A cooling device would be an advantage. (Unglazed pottery can be used, due to its unique cooling effect, in dust-free places.) Containers should be provided with suitable covers, and kept in a cool place protected from the sun. The water must be changed frequently.

To avoid the possible spread of infection, it is better to use throwaway cups or to provide separate cups for each worker and to arrange for regular washing. When containers are used, it is important to clean them regularly. Cleaning and other necessary conservation tasks should be assigned to a specific person. In addition, the provision of a competence for boiling water will enable people to make coffee or other hot beverage during breaks. Hot water is required if the enterprise has a childcare facility.

6.1.8.2 Sanitary Facilities

There are several reasons why the provision of washing facilities is important:

• Dirt and grime can be ingested and cause sickness or disease; they are, in any case, unpleasant and demoralizing.

• Washing is a necessity when women have their monthly periods.

• Washing is required for basic hygiene after using the toilet.

• Apart from the obvious basic need, sanitary facilities are required by law. Clienteles often create an impression of an enterprise through the quality of its sanitary facilities.

• There should be a sufficient number of hygienic facilities on the work locations and each should be conveniently located to avoid long walks, waiting and hindrance. The law of the country must be monitored, but the following are the minimum requirements:

• One restroom is required for up to five men; two toilets for six to 40 men.

• One separate restroom for up to five women and two toilets for six to 30 women.

• One wash-basin for every 15 workers.

Fig 6.1.9: Signages

Ideally, there would be a separate toilet for men and women. These should be characterized as follows:

• The toilet bowl must be free from stain or odour and function properly.

• The walls of the toilet must be clean and tiles unstained.

• The ceiling of the toilet must be free from cobwebs and dust.

• Floors must be clean and safe (no broken tiles, nor slippery surface).

• Proper illumination must be provided inside the toilet.

• Toilets must have a continuous supply of water; in case water is limited in the area, water should be stocked in containers and refilled regularly.

• Mirrors and rubbish bins should be provided in the washroom.

• Soap and toilet paper should be provided.

• The washroom should provide complete privacy to users and should be fully ventilated.

6.1.9 Be Ready for Emergencies

Misfortunes can happen even if proper defensive measures are installed. So, always be prepared for emergencies and have readiness for disaster management, like cuts and bruises, eye injuries, burns, poisoning and electric shocks. Every enterprise should maintain a well-stocked first-aid box and assign at least one person from every shift to handle emergencies. First-aid boxes should be clearly marked and situated in a place, so that they are readily reachable in an emergency. They should not be more than 100 metres away from any place on the work site. Ideally, such kits should be near a wash-basin and in good lighting conditions. Their supplies need to be

regularly checked and replenished. The contents of a first-aid box are often regulated by law, with variations according to the size and the likely industrial hazards of the enterprise. A typical basic kit may include the following items in a dustproof and waterproof box:

Fig 6.1.10: First Aid

• Sterile bandages, pressure bandages, dressings (gauze pads) and slings. These should be individually wrapped and placed in a dustproof box or bag. Adequate quantities of the different sizes should be available at all times to treat small cuts and burns.

• Cotton wool for cleaning wounds

Ideally, there would be a separate toilet for men and women. These should be characterized as follows:

• The toilet bowl must be free from stain or odour and utility properly.

• The walls of the toilet must be clean and tiles unstained.

• The ceiling of the toilet must be free from torpors and dust.

• Floors must be clean and safe (no broken tiles, nor slippery surface).

• Proper illumination must be provided inside the restroom.

• Lavatories must have a continuous supply of water; in case water is limited in the area, water should be stocked in containers and refilled regularly.

• Mirrors and rubbish bins should be provided in the washroom.

• Soap and toilet paper should be provided.

• The washroom should give complete privacy to users and should be fully aired.

6.1.10 Safety Signs at Workplace

Safety Signs: Sign providing information or instruction about safety or health at work by means of a signboard, a colour, an illuminated sign or acoustic signal, a verbal communication or hand signal

Signboard: A sign which provides information or instructions by a combination of shape, colour and a symbol or pictogram which is rendered visible by lighting of sufficient intensity. In practice, many signboards may be accompanied by supplementary text, eg 'Fire exit', alongside the symbol of a moving person. Signboards can be of the following four types:

1. **Prohibition sign:** A sign prohibiting behaviour likely to increase or cause danger (eg 'no access for unauthorised persons').

Fig 6.1.11: Prohibition sign

2. **Warning sign:** A sign giving warning of a hazard or danger (eg 'danger: electricity').

Fig 6.1.12: Warning sign

3. **Mandatory sign:** A sign prescribing specific behaviour (eg 'eye protection must be worn').

Fig 6.1.13: Mandatory sign

4. **Emergency escape, Fire and First-aid signs:** A sign giving information on emergency exits, first aid, or rescue facilities (eg 'emergency exit/escape route'.

Fig 6.1.14: Emergency escape

Signs for emergency exits

Fig 6.1.15: Signs for emergency exits

Signs for Fire and First Aid

Fire extinguisher   Fire alarm   Emergency telephone for first aid or escape   First-aid poster
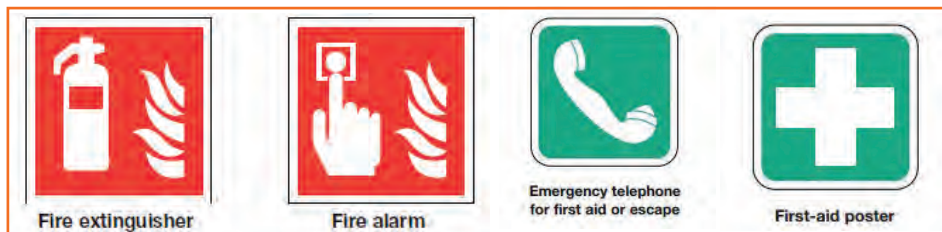
Fig 6.1.16: Signs for Fire

Industry Visit

The purpose of visiting an apparel manufacturing unit is to get hands on knowledge about various processes involved in the work of an Hand Embroiderer. During the visit you have to interact with Hand Embroiderers and supervisors to understand how work is done in industry. Make sure that you keep a notebook handy and note down any important points that come up during your interaction at the apparel manufacturing unit. When you go to an apparel manufacturing unit, you should:

• Know about the production system.

• Understand the machine safety and maintenance rules of industry.

• Analyze how HEs:

   » Use and maintain personal protective equipment as per protocol.

   » Maintain a healthy lifestyle and guard against dependency on intoxicants.

   » Follow environment management system related procedures.

   » Identify and correct (if possible) malfunctions in machinery and equipment.

   » Store materials and equipment in line with manufacturer's and organizational requirements.

   » Minimize health and safety risks to self and others due to own actions.

   » Monitor the workplace and work processes for potential risks and threats.

   » Carryout periodic walk-through to keep work area free from hazards and obstructions, if assigned.

   » Report hazards and potential risks/threats to supervisors or other authorized personnel.

   » Participate in mock drills/ evacuation procedures organized at the workplace.

   » Undertake first aid, fire-fighting and emergency response training, if asked to do so.

   » Take action based on instructions in the event of fire.

• Ask questions to Hand Embroiderers/supervisors if you have any query.

7. Soft Skills And Communication Skills

Key Learning Outcomes

At the end of this unit, you will be able to:

1. Understand Art of Effective Communication.

2. Able to handle effective Communication with co-workers.

3. Able to handle effective Communication with Peers/ colleagues.

4. Learn basic reading and writing skills.

UNIT 7.1: Introduction to the Soft Skills

Unit Objectives ⊘

At the end of this unit, you will be able to:

1. Understand the basic meaning of Soft Skills, their components and their benefits.

2. Understand Work Readiness and its significance.

7.1.1 What is a Soft Skill?

These are personal characteristics that describe an individual's ability to interact with people and situations around. Soft skills can be explained as a group which comprises personality traits, social graces, language, habits, sociability and optimism that characterise relationship with other people. Soft Skills complement hard skills which are occupational requirements of a job and many other activities. They are related to feelings, emotions, insight. Soft skills has to do with who we are than what we know.

For instance – the soft skills required for doctor would be empathy, understanding, active listening and a good bedside manner.

Soft skills also determine how satisfied and happy one remains in professional and personal situations.

Fig.7.1.1: Soft skills

7.1.2 Components of Soft Skills

- **Adaptability:** It is the ability of an individual to manage change. It's about how fast and smoothly a person is able to blend in and be productive in an changed environment.

- **Emotional Strength:** This involves managing mood and having control over it. An emotionally strong person succeeds in directing his moods and emotions such as anger frustration and excitement.

- **Leadership Quality:** How one manages conflict in personal and professional situation and convinces people reflects upon his leadership quality.

- **Team Playing Ability:** It is the ability to manage different types of people and make them work harmoniously with each other.

- **Decision Making:** This reflects upon how one manages his time and other resources in efficient and productive manner.

- **Interpersonal Communication:** This is an individual's ability to effective communication with other and in the process creating a positive image of him.
- **Negotiation Skills:** This is how one negotiates with others and reduces the level of stress in work, professional and personal environment.

7.1.3 Benefits of Soft Skills

Some of the benefits of Soft Skills are as:

- Increased credibility with customers.
- Increased customer satisfaction.
- More productive employees.
- Out service the competition.
- Recognition from the industry, employer and peers.
- New employment opportunities.
- Increased ability to perform on the job.

7.1.4 Work Readiness

Work readiness involves you having what employers call "the right attitude". At the most basic level you should have:

- A positive attitude to spend some days at workplace
- The capacity to function in a mature environment without the support of other co-workers
- An allegro attitude to the owner
- A clear interest at work to be done
- Expectations of the work that a fresher will be able to do at a workplace with commercial goals to achieve
- The willingness to be supervised, follow instructions and wear safety gear as directed

Fig.7.1.2: Work readiness

- The confidence to ask questions to clarify instructions
- Pride in appropriate personal presentation
- The ability to communicate appropriately in an adult working environment
- The capacity to acknowledge customers and provide the assistance recommended by the employer
- A commitment to maintaining their reliability and punctuality for the whole of the period spent in the workplace
- Completed a preparation for workplace learning program which includes OH&S practices, acceptable behaviour in the workplace (including child protection issues) and emergency contact procedures.

UNIT 7.2: Effective Communication

Unit Objectives

At the end of this unit, you will be able to:

1. Do public speaking.
2. Describe likes and dislikes of a person.
3. Know basic etiquette of conversation.

7.2.1 Introduction

We are living in an information age where communication is an integral part of our lives. We have to send, receive and process huge number of messages everyday. But effective communication is more than just passing information to each other. An effective communication is nothing but understanding the emotion behind the information. Effective communication helps us develop relationship at home, work, and in social situations by excavating our connections to others and improving teamwork, problem solving and decision making.

Effective communication skill is a learned skill, it is more effective when it's spontaneous than formula.

7.2.2 The Communication Process

The process of conveying information through the exchange of thoughts, ideas, feelings, intentions, attitude by speech, gesture, writing etc. is known as communication. It is the meaningful exchange of information between two or more participants.
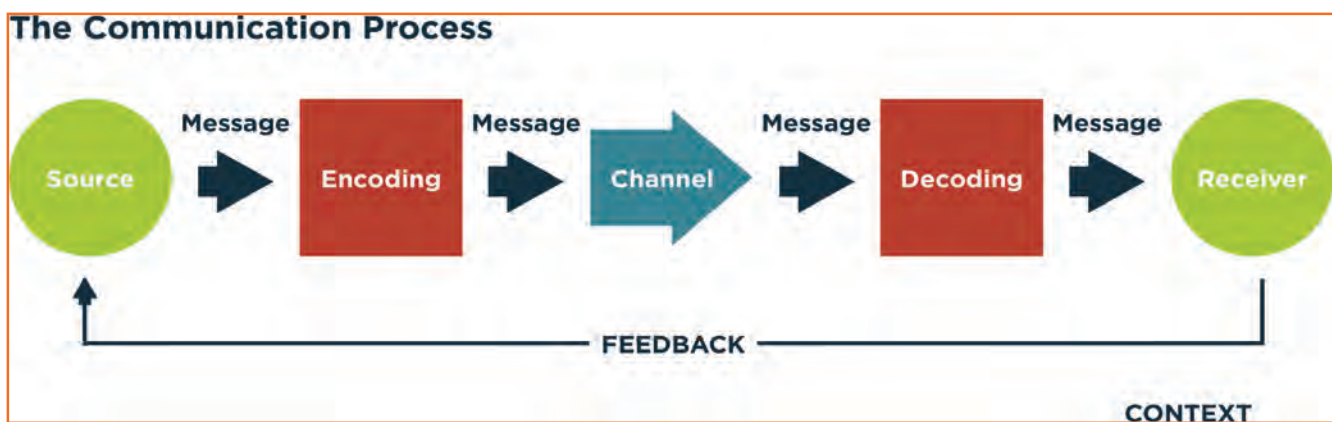
Fig.7.2.1: The Communication Process

Communication requires a sender, a message, a medium and a recipient. Communication process is not complete if a receiver does not understand the sender's message.

Communication with other involves three steps:

1. **Message:** First of all the information exists in sender's mind. It could be a concept, an idea, a formation or a feeling.

2. **Encoding:** A message is sent to the receiver in encoded language/format.

3. **Decoding:** Lastly the receiver translates the words or symbols into a concept or information that a person can understand.

7.2.3 Verbal and Non-Verbal Communication

There are three main types of communication. These are:

1. **Verbal Communication:** It means you listen to a person to understand what message the person is trying to convey. The speaker have the advantage of immediate feedback. This type of communication is best for conveying emotions and can involve storytelling and critical conversations.

2. **Written Communication:** Letters, books, newspapers are few of the examples of written communication. Printed media, emails can also be categorised into this communication. They are asynchronous, can reach many readers and are best for conveying information.

3. **Nonverbal Communication:** A nonverbal communication can also be called Body language because this communication does not involvedany verbal interaction but mere observation of the people involved in the communication. Both verbal and written communications convey nonverbal communication and are also supported by body language, eye contact, facial expression, posture, touch and space.
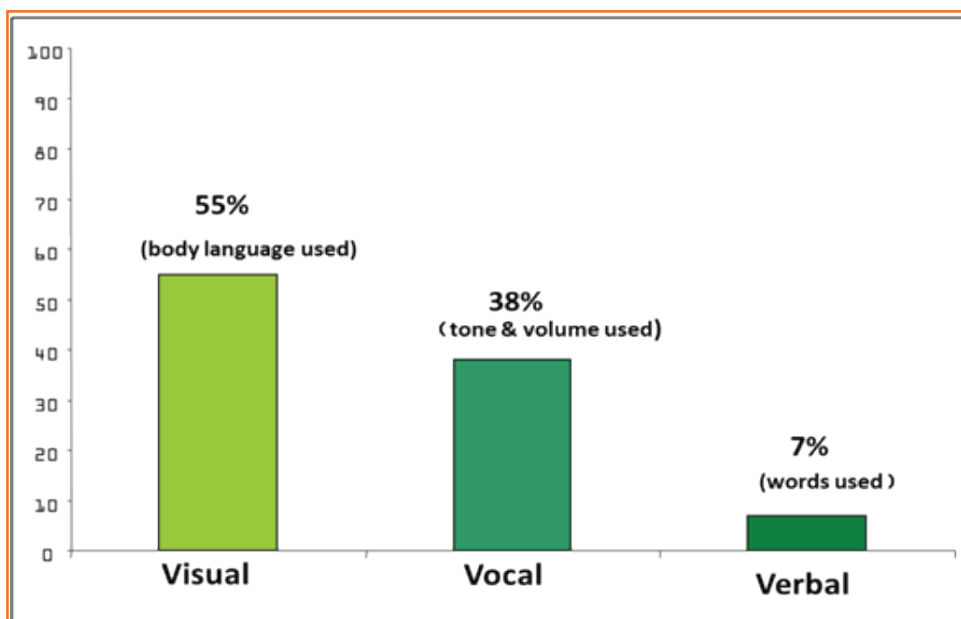
Fig.7.2.2: Categorization and ratio of Verbal and Non-Verbal Communication

According to a study only seven-membered of a receiver's comprehension of a message relies on sender's actual words, 38th relies on paralinguistic communication (tone, pace and volume of speech) and 55th relies on nonverbal cues.

Research shows that once people are lying they're more doubtless to blink more frequently, shift their weight and shrug.

7.2.4 Communicating Effectively Identifying Barriers

There are various reasons why communication is not effective and successful. These failures are because of the barriers in communication which occurs at any stage in the communication process. Barriers may lead to one's message becoming misleading and therefore at risk of wasting both time and money by causing confusion and misunderstanding. Effective communication involves overcoming these barriers and conveying a flawless and concise message.
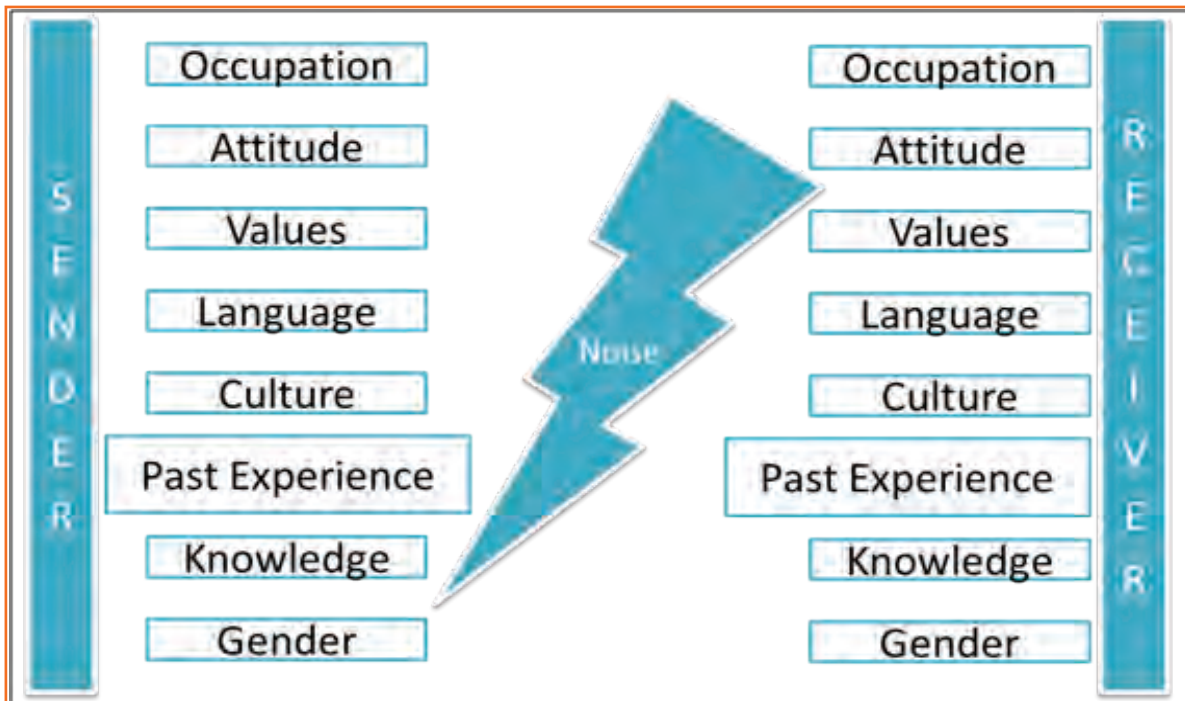
Fig.7.2.3: Barriers in Communication

A skilled person should remember these barriers and try to reduce their impact by regularly checking understanding or by giving correct feedback.

Dealing with Barriers

• Use simple, easily understood word. Over complicating makes things confusing

• While speaking in other language always prepare beforehand

• Always give or take feedback to ensure the effectiveness of communication

• Be alert to cues

• Listen, listen, listen …

• Test your understanding

• Share opinions, perceptions

7.2.5 Effective Communication-Practice

Active Listening

Listening is one of the most significant skills one can have. To become a better listener it is important that you practice active listening at all time of verbal communication.

7.2.5.1 Some tips for active listening

- **STEP 1:** Concentrate what the person is talking about and not on noise or other external distractions.

- **STEP 2:** Understand his emotions and you get it all right. Is the speaker angry, happy or plainly inquisitive?

- **STEP 3:** When the speaker is saying or telling something, don't break the chain of his thoughts.

- **STEP 4:** Don't avoid completing sentences of the speaker. Let them speak and speak only after they finish.

- **STEP 5:** It's alright if you haven't understood at first chance. Request to repeat the information.

- **STEP 6:** Practice makes a man perfect. Listen intently, focus and ignore other noises. Listen more and talk when required.

It takes lots of concentration and determination to be active listener. Previous habits are arduous to break and if your listening habits are not good then you have to break those. Start listening deliberately and prompt yourself frequently that your goal is to hear truly what the other person is saying.

UNIT 7.3: Grooming and Hygiene

Unit Objectives

At the end of this unit, you will be able to:

1. Maintain cleanliness and hygiene.

2. Keep their dress clean and tidy.

3. Maintain positive body language while speaking.

4. Enable to perform more of the do's than the don'ts.

5. Learn about good eating habit and their impact on health.

6. Avoiding bad things such as gutkha and alcohol.

7. Learn about AIDS and its prevention.

7.3.1 Personal Grooming

An art of keeping your body and mind clean is Personal Grooming. It is very important that everyone should take care of their hygiene n cleanliness. Due to this, one would not just look good but feel healthy to. Taking care of your body appearance is imperative. Once you enter your store/department you need to be dressed in full uniform as per company standards, and also properly groom yourself as per the service ethics.

Fig.7.3.1: Personal Grooming

Personal grooming not only makes us presentable but also makes us feel confident about ourselves. Good personal hygiene is essential for good health. Habits that are considered personal grooming include, bathing, dressing, applying makeup, hair removal and taking care of one's teeth, nails and skin.

Appearance

- The front line person/team is the brand ambassador of the company, just like the face is to your body. The customers visiting the stores are greeted by this team and lend their assistance. Hence they are expected to present a neat & clean looks.

- When in store premises, even during off-duty hours, a well-dressed appearance needs to be maintained. They are expected to be in uniforms (including shirt, trousers, shoes & socks) which must be worn clean & ironed.

- We should take care about no stains, broken buttons, or loose thread present on the uniform.

- You should always clean & polish your shoes. Sandals/slippers/sports shoes and white socks should not to be worn during on duty.

- Nails must be trimmed and clean.

- Hair should be neatly combed before commencing duty. For female members hair should be tied up if longer than shoulder length. Display ID cards when on duty is a must since accountability is important for the customers.

7.3.2 Specific Uniform Guidelines

Sr. No.	Specifically for Men	Specifically for Women
1	Uniform prescribed should be clean and pressed.	Women having long hair should tie it with rubber band or hair clips and not keep it loose. She should apply much oil in hair.
2	Shoes should be clean and polished.	They should avoid bright color nail polish and long nails as they'll be a cause to distract customers or harm the merchandise on display.
3	Hair must be short, clean & tidy.	Minimum, non-flashy jewellery should be worn.
4	One is expected to have a clean shaven look.	Dangling earrings, noisy anklets & bangles must not be worn on the floor
5	In case of beards/moustaches, must be trimmed, neat & tidy.	Only very light make-up to be applied (lip- stick of very light shades only)
6	Nails should be cut or trimmed neatly at regular intervals.	Any type of earrings studs & bracelets are not to be worn on the floor during official hours.

Fig.7.3.2: Specific Uniform Guidelines

7.3.3 Body Posture

- Staff needs to keep their hands clean at all times as they mostly will be handling merchandise or in contact with customers.
- Avoid biting nails on the floor.
- Manage body odour & bad breath to be under control as they are offensive to the customer.
- Maintain straight & upright posture on the shop floor.
- Slouching on the floor, hands in pockets, hands on the hips are not courteous to the customer & hence should be avoided.

It just takes a few seconds for people to assess others when they meet for the first time. The other person creates an opinion based on appearance, body language, mannerisms and how one is dressed. For creating a first positive good impression always follow these things:

- Be on time
- Be yourself and be at ease
- Present yourself appropriately
- Always smile
- Be courteous and attentive
- Be positive

7.3.4 Positive Body Language

While meeting someone for the first time always remember that not only you should talk positively but your body language also needs to be positive. There are some tips for positive body language as:

- Avoid your pockets. Keep your hands out of your pocket. Hand in pocket shows we are uncomfortable and unsure of ourselves. Keeping our hand in open indicates confidence and show that people has nothing to hide.

- Don't Fidget. Fidgeting is a clear sign of nervousness. An individual who can't keep still is an individual who is worried, tense and not confident. Keep your gesture calm and under control.

- Keep your eyes forward. This indicates that you are interested in communication with other.

- Stand up straight with your shoulders back. It communicates confidence.

- Take wide steps. It makes you seem purposeful and suggest a personal tranquility and denotes confidence.

- Firm handshake. Grip other persons hand firmly and confidently instead of getting a palm full of dead fish. Firmness adds warmth and enthusiasm to the handshake. But make sure that you don't crush the other person's hand and don't hold on too long.

- Don't cross your arms when meeting other persons. This is a protective posture.

- Use contact to show appreciation.

7.3.5 Personal Hygiene

What is Personal Hygiene?

Personal Hygiene is the set of practices to follow to preserve one's health. Maintaining a high level of personal hygiene will help to increase self-esteem while minimizing the chances of developing infections. Poor personal hygiene can have significant implications on the success of job applications or chances of the promotion.

Fig.7.3.3: Personal Hygiene

Why to brush teeth?

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Brush your teeth in the morning and before going to bed with paste, datun or tooth powder

Fig.7.3.4: Brush teeth
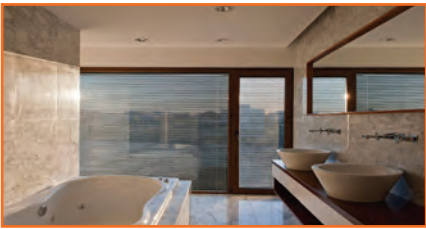
Fig.7.3.5: Take bath

Why to take bath?

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Why to wear clean clothes?

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Fig.7.3.6: Clean clothes

Fig.7.3.7: Cut nails

Why cut nails?

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Why wash hands?

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Fig.7.3.8: Wash hands

7.3.6 Physical Fitness

Apart from following these hygienic practices, one should also be physically fit. Physical fitness is an outcome of regular exercise. Exercise may be of many different forms. Jogging, morning-walk, weight-lifting, gym, swimming, cycling, yoga and many more.

Fig.7.3.9: Physical Fitness

Advantages of Physical Fitness

• It maintains optimal body weight.

• It reduces risk of diseases.

• It boosts confidence and self esteem.

• It reduces stress, anxiety and depression.

Healthy Eating

We can follow hygienic practices and exercise regularly, but what we eat has the biggest impact on our health. To be healthy, one has to eat healthy. But what do we mean by eating healthy?

Eating a healthy, balanced diet provides nutrients to our body. These nutrients give us energy; keep our brain active and our muscles working.

Fig.7.3.10: To eat

Fig.7.3.11: Not to eat

What are healthy eating habits?

• Always try to eat home-made food

• Avoid oily food

• Always cook and eat fresh food

• Avoid junk food like burgers, carbonated drinks etc.

• Eat fruits regularly

• Drink lot of water

Things to be avoided

There are certain habits that have severe ill-effects on one's health. Such habits should be avoided for a healthy life.

Alcoholism

It's the tendency during which one consumes alcohol to manage difficulties or to avoid feeling unhealthy.

Alcohol has the potential to interrupt almost every organ in the body as well as the brain. Uncontrolled consumption of alcohol not only affects a drinker's health but also human relationship and social standings.

It's effects:

- Health increase risk of heart diseases, cancer, impaired immune system, liver infection (Cirrhosis) etc.

- Reduced work focus and drop in performance
- Degradation in social and economic status

- Withdrawal symptoms like anxiety, trembling, fatigue, headache and depression etc.

Fig.7.3.12: Effects of alcohol

Tobacco

Tobacco is the second largest cause of death in the world. It claims one death in every six seconds.

Smoking is a practice of burning a substance and inhaling the smoke coming out of it. Common smoking implements include cigarette, bidi, hookas and pipes. According to a report every year 4.9 million people die worldwide as a result of smoking. Smoking is prime cause of lung cancer. According to a study male smoker lose an average of 13.2 years of life while a female smoker lose 14.5 years of their life. Smoking increases 50 % chances of heart diseases than a non smoker.

Fig.7.3.13: Risks from smoking

Chewing tobacco is a product consumed by placing a portion of it between the cheek and upper gum or upper lip teeth and chewing. Having tobacco increases the risk of oral cancer.

It's effects:

• It is the biggest reason for oral cancer which effects mouth, tongue, cheek, gums and lips

• Chewing tobacco lessens a person's sense of taste and ability to smell

• Smokers face a greater risk of suffering from lung cancer

Gutkha

Gutkha is extremely habit-forming and a acknowledged substance. Excessive use of gutkha can cause loss of appetite; promote uncommon sleeping pattern and loss of concentration beside different tobacco related issues. A gutkha user may be simply illustrious by prominently stained teeth ranging from dirty yellow orange to scarlet black. The stains are powerful to remove by normal brushing sometimes want the attention of dentist. According to a world adult tobacco survey 53.5% of Indians use tobacco products. Gutkha's each sachet contains 4000 chemicals, including 50 that cause cancer, Betel nut, Tobacco, Flavouring.

Impact of Gutkha on health:

• Loss of sensation in tongue

• Disfigured mouth

• Increased sensitivity to heat, spices, cold and spices

• Inability to open the mouth

• Swelling, lumps, rough spots on gums or in other places inside the mouth

• Unexplained bleeding in mouth

• Difficulty in swallowing and finally Mouth Cancer

Fig.7.3.14: Oral Cancer

7.3.7 AIDS/HIV Awareness

The full form of AIDS is Acquired Immunodeficiency Syndrome. AIDS is caused by HIV (Human immunodeficiency Virus). It is the last stage of the HIV infection, if a person is HIV positive, he/she is suffering from AIDS.

According to a survey number of AIDS patients in India is between 2 to 3.1 million almost 50% of total patients of AIDS. More men are HIV positive than women. A total of population of 0.29% females are suffering from AIDS while 0.43 % males are suffering.

AIDS is transmitted by:

• Unprotected sexual relationships

• Contaminated blood transfusion

• Hypodermic Needles

• From infected mother to child

Fig.7.3.15: NACO Logo

As per studies in India HIV/AIDS is largely due to unsafe sex worker interactions. About 86 % HIV incidents in the country is from unprotected sex. Migrant workers, truck drivers and majority of men who have sex with men pose greater risk of infecting their spouse and unborn children. People between 18-29 age groups accounts for 31 % of AIDS burden.
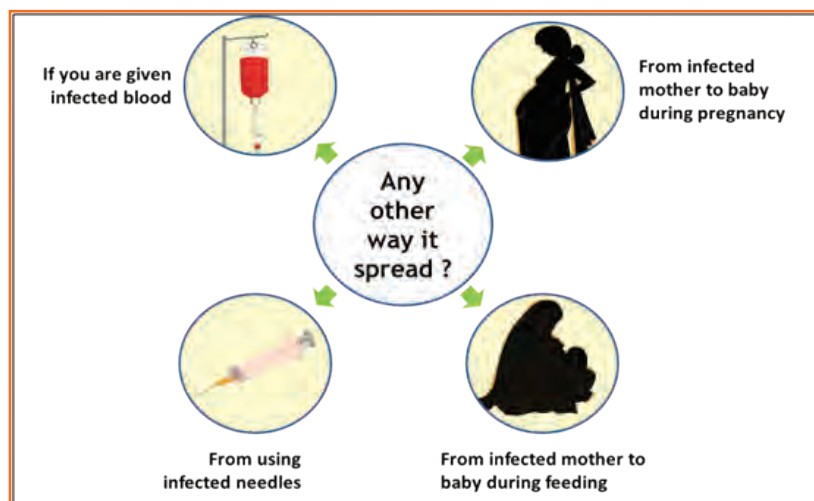
Fig.7.3.16: AIDS transmition

There are no medicines or vaccines for AIDS so far. The treatment and medicines which are available in the market are expensive and have side effects.
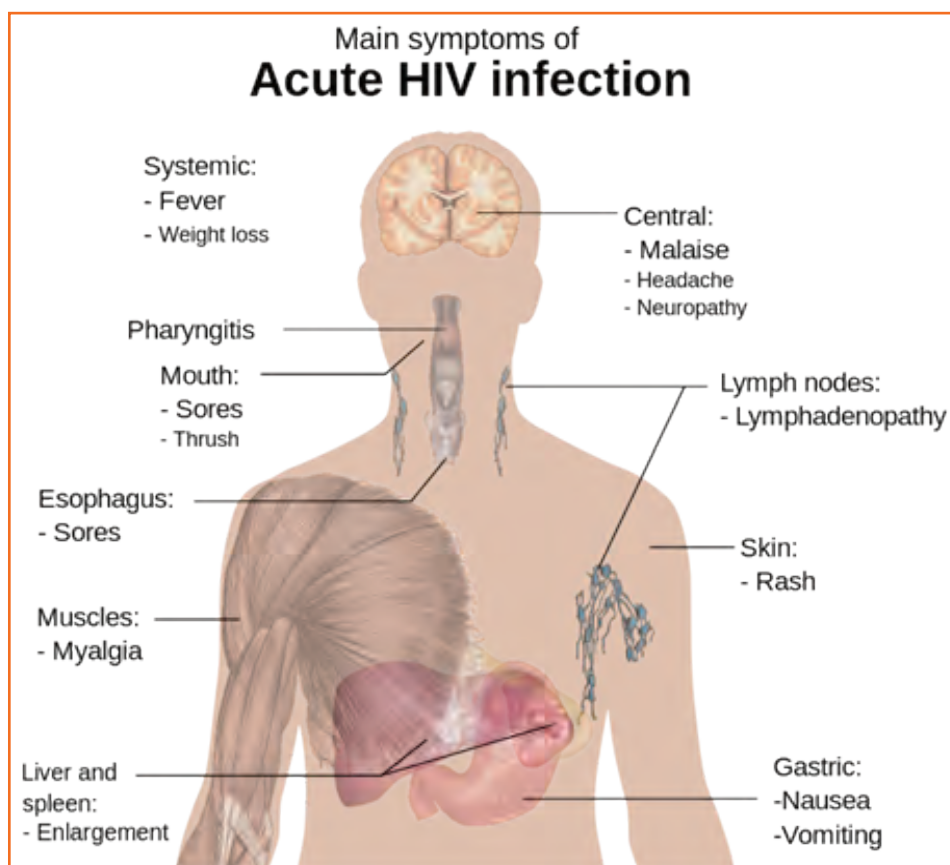
Fig.7.3.17: Acute HIV Infection

AIDS is not a disease like cancer or malaria, but is a condition that weakens a person's ability to fight diseases (immune system).AIDS not only affects you, but also has severe impact on family and friends. Even one mistake is enough to get HIV positive.
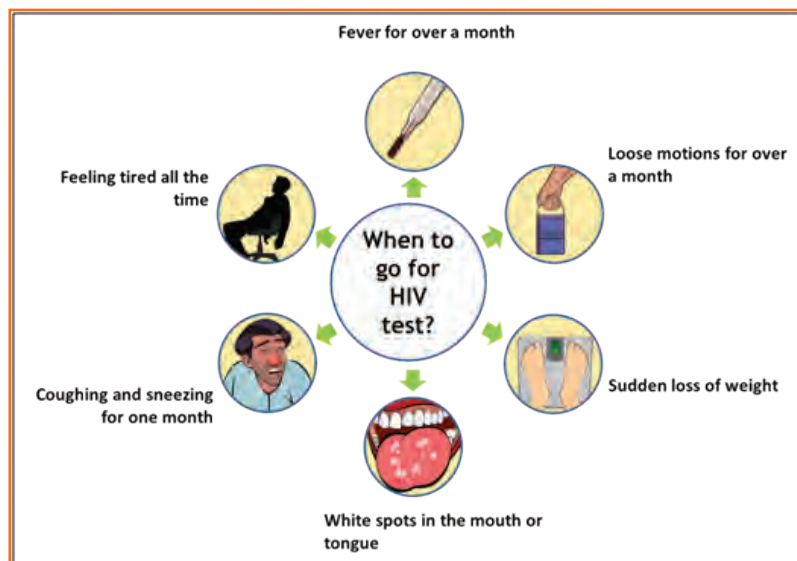
Fig.7.3.18: AIDS non-nispersing Deseases

Stay faithful

- In India large number of people move around for work, mostly men.

- Are you one of them?

- Take care. See that you don't catch any infection from AIDS.

- Even one visit to a sex worker may result in HIV infection.

- So it is advisable to avoid multiple sex-partners and always use protection (condoms/nirodh) during intercourse.

AIDS does NOT spread through

- Sitting close

- Working together

- Hugging

- Touching hands

- Mosquito bite

- Saliva or cough

- Taking care

- Sharing clothes

- Eating together or sharing utensils

Fig.7.3.19: Condoms

7.3.7.1 Case Study

Gautam is a plumber. His family lives in a village. He travels from place to place. Once he visited a sex worker. After one month he fell ill. He went for a checkup and found he had AIDS. Gautam did not know it, but that sex worker had AIDS. He was infected from that one visit.

Share four things that you know or learnt about AIDS.

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Always remember:

- AIDS has no cure but can be prevented, therefore be cautious of it not afraid of it.

- Be faithful to your partner and always use condom while making any sexual contact.

- Take blood only after checking proper medical certificates.

- Do not discriminate HIV positive people.

UNIT 7.4: Interpersonal Skill Development

Unit Objectives

At the end of this unit, you will be able to:

1. Develop a positive attitude and behaviour.
2. Understanding Goal Setting.
3. Motivated for team participation at work.
4. Learn how to manage relations.
5. Learn about Stress and anger management skills.
6. Learn to develop leadership qualities.

7.4.1 Introduction

Interpersonal skill development is the blend of different traits of day to day life that play an important role in creating our impression in other's mind. It starts from inside. The role of interpersonal skill development is to help us understand how to make choices about our attitudes and actions. It enables us to understand:

• Where are we now?

• How change and growth occur successfully?

• How we can change our attitude to get results we want and to be more effective in work and personal life?

One can learn to control over many aspects of our job and their environment by making appropriate choices and responses.

These include various traits like:

• Positive Attitude

• Motivation

• Goal Setting

• Team Work

• Managing Relations

• Etiquette

• Stress and Anger Management

• Conflict Resolution

7.4.2 Positive Attitude

What is attitude?

• Our approach...

• Our outlook towards situations and others...

- The emotions we express towards others.
- Our attitude must be positive and hopeful.

Remember:

- Luck favors those who help themselves
- Don't wait for things to happen make them happen
- Stay away from negative influences
- Start your day with something positive
- Learn to like the things that need to be done

Positive attitude shows in the following ways:

- Positive thinking
- Constructive things
- Creative thinking
- Optimism
- The motivation and energy to accomplish goals.
- An approach of happiness

Fig.7.4.1: Positive Attitude

Positive attitude results in happiness as well as success. Positivity not only affects you and the way you look at the world, but it also affects work environment and people around you.

7.4.2.1 Story of Carrot, Egg and Coffee Beans

Raju works as a Supervisor in a factory. He is not happy with his job. One day he spoke about his dejection to his elderly friend, Prashant, who runs a small canteen for the factory workers.

"Prashant I am not satisfied with my job. There are so many problems in the factory. If I solve one, another one crops up. The problems seem to be never ending. I am quite fed up and wish to quit."

Prashant said nothing. He quietly put three pots with water on the stove. He put some carrots into one pot, some eggs into another and coffee beans into the third pot. The water in the pots began to boil.

Raju wondered what was going on! "Oh, here I am with my tale of woes, and this illiterate cook goes about his business!"

After some time, Prashant switched off the stove and put

Fig.7.4.2: Story of Carrot, Egg and Coffee Beans

the carrots, eggs and the beans in different bowls. He then said, "My friend, what do you see here?" "Carrots, eggs and coffee", said Raju irritably. "Of course! Now come and feel them one by one", said Prashant. "Oh God! What do you want to prove?" asked Raju controlling his anger. "The carrots have turned soft. The egg is hard boiled beneath its shell and the coffee is stronger in aroma". "Exactly" said Prashant "Each of them faced the

same degree of heat, but each reacted differently. The carrots that were so hard before became soft and weak. The egg was fragile with its thin outer shell, but after boiling it became hardened and the inner liquid portion became hard boiled. But the coffee beans are unique. After boiling in water, they became stronger and richer. So my friend, tell me, are you the carrot, the egg or the coffee bean? How do you respond to difficult situations? Are you like the carrot that is hard to look at but with the slightest difficulty becomes weak and soft? Are you the egg born with a soft heart but became tough and stiff after a difficult or a bitter experience? Or are you like the coffee bean that gets stronger and tougher and reaches its peak in extreme adversity or difficulty?

When things get worse, you get better.

"Thank you Prashant. You've opened my eyes. I shall strive and do my best."

What have you learnt from the story?

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7.4.2.2 Some Successful People

Dirubhai Ambani - Founder of the Reliance brand

Born in Junagadh in a middle class family, son of a school teacher. His mother who had difficulty meeting the ends with his father's income, nagged him to begin earning some money. He snapped at her "Phadia, phadia su karo chho …paisa no to dhanglo karees …" Just to show that that he was serious, he once bought a tin of groundnut oil on credit from a local whole seller and sold the oil in retail sitting on the roadside, earning a profit of a few rupees that he gave to his mother.

Fig.7.4.3: Dirubhai Ambani - Founder of Reliance

Next, he began setting up onion and potato fries stalls at village fairs during weekends when his school was closed. When he grew up, he came to Mumbai with very little money and lived in a two room chawl with his family. But dreamt big and worked towards his dreams.

Fig.7.4.4: Rajnikanth: Super star of Tamil cinema

Rajnikanth: Super star of Tamil cinema

• Hero and demi-God for many thousands
• Original name Shivaji Rao Gaekwad
• From bus conductor to super star

Early life:

• Driven by poverty, went through extreme struggle
• No education; Worked as a bus conductor
• Entertained passengers in the bus
• Got a break in Tamil cinema
• Worked with a single mind to become a super hero

What have you learnt from these two people?

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7.4.3 Goal Setting

Goal setting is a powerful method for considering your ideal future. The method of setting goals helps you to decide on where you wish to go in life.

Goal setting consists of establishment of specific, measurable, achievable, realistic and time targeted aim. Goal setting helps individuals work towards their own objectives. Goals are a kind of motivation that sets the standard for self-satisfaction with performance. Achieving the goal one has for oneself is a measure of success and having the ability to satisfy job challenges is a way one measures success in the workplace. Set SMART goals:

- S : Specific

- M: Measurable

- A: Attainment

- R: Relevant

- T: Time bound

Identify

- What you want to achieve,

- Where you have to concentrate your efforts

- Also spot the distractions that can, lead you astray.

First create your "big picture" (the next 10 years)

- Identify the large-scale goals that you just wish to achieve.

Fig.7.4.5: Goal setting

- Then break these down into the smaller targets that you simply should hit to succeed in your life goals.

- Once you have your plan, you begin working on it to achieve these goals.

Setting goal is important for an individual because:

- Goals narrow attention and direct efforts to goal related activities.

- Goals lead to more effort.

- One works through setbacks if he is pursuing a goal.

- It develops and changes individuals behaviour.

Categorization of Goals

To give a broad balanced coverage of all important areas in your life set goals in all the important categories of your life such as:

- **Career:** What level do you want to reach in your career or where you want to reach?
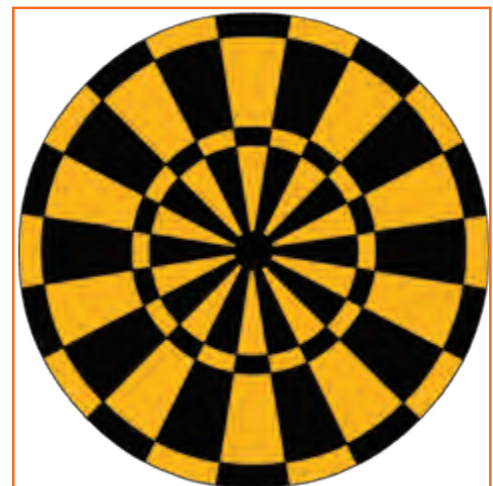
- **Financial:** How much you want to earn, by what stage? How it is related to your career goals?
- **Education:** Is there any specific knowledge you want to acquire in life? What information and skills you need to acquire in order to achieve your goals?
- **Family:** How you want to be seen by your spouse and family members?
- **Health:** Do you want to stay healthy in your old age? What are you planning to achieve this?
- **Public Service:** If you want to make the world a better place, what will you do?
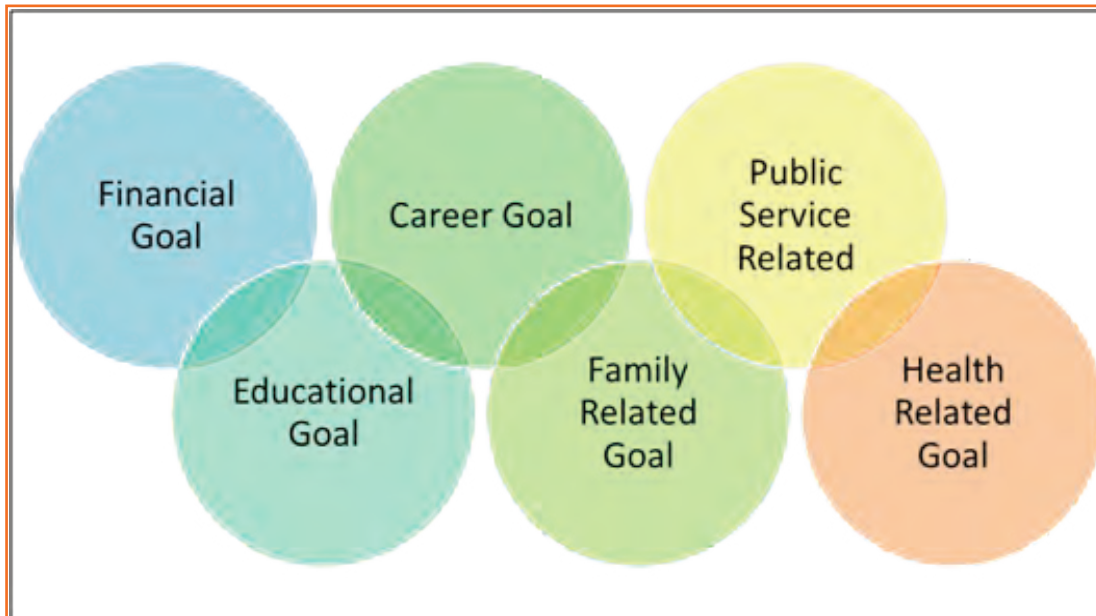
Fig.7.4.6: Categorization of Goals

Write down your two financil goals.

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Write down your two career goals.

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Write down your two educational goals.

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Write down your family related two goals.

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Write down your health related two goals.

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Write down your public service related two goals.

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7.4.4 Team Dynamics

A team is made up of a group of people associated to a common purpose. Teams are especially made to conduct complex works. A team is an example where a people share a goal. This creates a dynamic bond amongst the team members as they are dependent on one another for success. For example a sports team wins or loses as a whole.
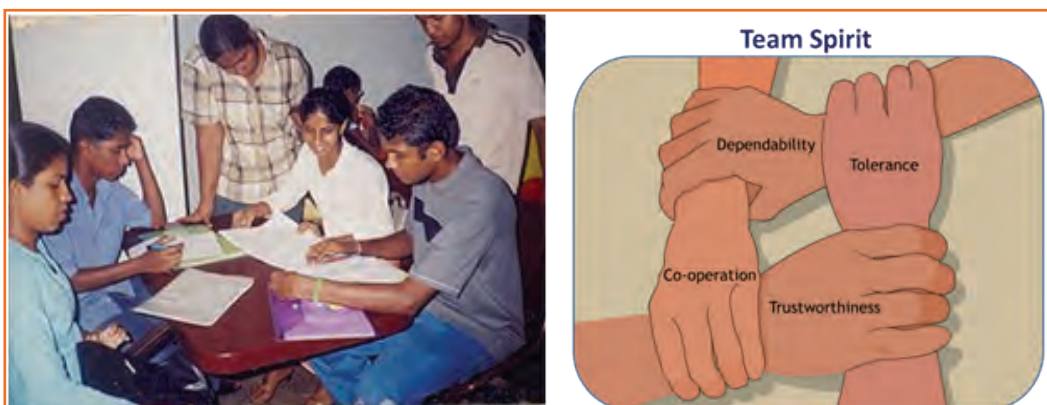
Fig.7.4.7: A teamwork

Team members need to learn:

- How to assist each other
- Realize their true potential
- Prepare the atmosphere that is familiar with each member to work beyond their streangth.

Factors of Team Dynamics

- Tolerance and Cooperation
- Set aside feelings of caste, creed, profession
- Put up with each other
- Identify strengths of each
- Who can do what

In a team, there is no room for personal gains and definitely not betrayals. In a team:

- A single person cannot achieve a big task single handedly.
- Big and difficult tasks can be accomplished only through collective effort, through teams.
- In a team, the team members stand by each other during good and bad times alike.
- Work together towards a common goal.
- Divide the task and share the burden.
- Help and accept help from others.

7.4.4.1 Story : Small Fishes and Big Fish

Once there was a shoal of tiny red fish living in the sea. One among them was a little different. His name was Swimmy and he was black in colour. Swimmy was the fastest swimmer in the shoal. The fish would swim around in the sea looking for food. One day when they were busy searching for lunch, Swimmy who was far ahead of the others saw a big fish coming in their direction. The big fish was also looking for his lunch---smaller fish. Swimmy was scared! If the big fish would spot his shoal, all of them would be eaten up. Swimmy thought hard of a way out and quickly came up with a plan. He quickly swam back to his shoal and told all the fish about the big fish and also explained his plan to escape from being eaten.

Fig.7.4.8(a): Small Fishes and Big Fish
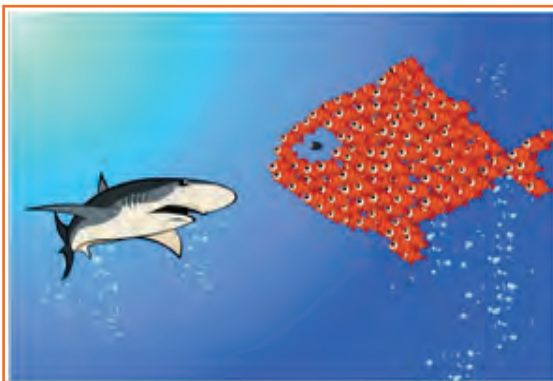
Fig.7.4.8(b): Small Fishes and Big Fish

When the big fish came closer he was shocked to see an even bigger fish swimming in his direction with its huge jaws wide open. Frightened that he would get eaten up, the big fish swam away. If he had looked carefully, he would have realised that the huge fish was actually all the tiny red fish swimming very closely together in such a way that they looked like one big fish. And little black Swimmy, being different, became the eye of the 'huge' fish!

What have you learnt from the story?

....

....

....

....

7.4.5 Managing Relations

We all have different personalities, different desires and wishes, and different ways of showing our emotions that affects people around us.

70% of the workplace learning is informal, once people discuss with each other at work they really are learning to do their job better. Friendlier staff are effective communicators, more productive and trustworthy more by employers and colleagues.

Tips for improving relations with people around us:

- Observe how you react to people such as do you reach to a conclusion

Fig.7.4.9: Managing Relations

> before you know all the facts.
>
> • Look honestly how you think and interact with other people.
>
> • Look at work environment. Do you seek attention for accomplishments or give chance to others.
>
> • Accept your weaknesses courageously and work on them.
>
> • Take responsibility for your actions.
>
> • If you think someone is hurted by you, apologise directly.

7.4.6 Etiquette

Etiquette are nithing but rules operating behaviour regarded as good and acceptable in personal and professional life. Etiquette includes:

Making Positive Impression

• Stand straight, make eye contact and turn towards people when they are speaking and genuinely smile at people.

• Follow the dress code prescribed by the organization.

• When meeting someone for the first time always shake hands with a gentle firmness.

• Always arrive early to work each day.

How you treat with people

• Think how you treat your supervisors and colleagues.

• Don't make value judgments on people's importance at workplace. Respect every individual equally.

• Respect people's personal space at workplace.

Communicating at Workspace

• Keep workspace professional and neat.

• Don't interrupt other people on the workplace.

• Limit personal calls especially when you are working in a manufacturing unit.

• Eat and smoke to the designated areas only otherwise it may disturb other people.

Work etiquette tells the individual a way to behave when handling situations in an exceedingly working environment however the trivial situation is. It also applies to co-worker interaction and communication with colleagues.

Work Ethics

Work ethics is a value based on hard work and attentiveness. Work ethics include:

• **Discipline:** It takes a certain level of commitment to finish your tasks every day. Only with discipline one can stay fixed on goals and determined to complete his assignment.

• **Commitment to work:** A strong sense of commitment to work affects how an individual work and the amount of work he does. When a worker is committed to work he turns up on time, puts in his best efforts and completes the projects to the best of his ability.

• **Punctuality:** It shows that you are dedicated to your work, interested in the work and capable of handling responsibility. Being punctual shows your professionalism and commitment to work.

- **Ownership and responsibility:** Ownership and responsibility stretches in all aspects of an employee's job. Co-workers value the employees' ability to give honest feedback. Supervisors rely on the high moral standards trusting him not create problems and being responsible.

- **Striving to excel:** Keep yourself updated with new developments and knowledge of your field. Learn new skills, techniques, methods required to uplift your career.

Workers exhibiting a good work ethic are usually selected for higher positions, increased responsibility as well as promotion. Workers who don not exhibit good work ethic can be regarded as incompetent and failing to provide a fair value to the employer for the salary.

7.4.7 Stress and Anger Management

Anger is a normal and a healthy emotion. Anger management may be critical for people who find it difficult to keep it under control. There are many health issues related to a unresolved anger like heart attack, high blood pressure, anxiety, depression, colds and flu/fever and digestive problems.

If your heart beats faster and you breathe quickly, tension in your shoulder or clinching your fists beware your body may be showing sign of anger, take steps to calm yourself down. Once you will be able to recognize the signs of anger you can calm yourself down.

Fig.7.4.10: Stress Management

Always remember:

- Avoid unnecessary stress, learn to say no and take control of your environment.

- Express your feelings instead of boiling them up.

- Accept the things you can't change.

- Learn to forgive.

- ANGER is only one letter away from DANGER.

- Anger can destroy lives, destroy relationships.

- Put yourself in other's shoes.

- Don't react immediately.

- Post pone for a few seconds whatever you wish to say or do.

- Take a deep breath.

- Speak when you have calmed down.

Fig.7.4.11: Anger Management

7.4.8 Conflict Resolution

What is a Conflict?

A problem or a situation that may be difficult to understand or to deal with.

Why do we need to resolve conflicts?

- If a problem is not solved or addressed at the right time it may blow out of proportion
- An unsolved problem can be like Cancer which spreads and translates itself into all other areas in life
- Unsolved problems may lead to increased levels of bitterness and frustration
- It may foster bad habits like back-biting, gossiping, etc.
- Persons involved in conflict may lose focus and target each other's character instead of the specific behavior to be modified.

How to work out Conflicts?

1. STOP . . .

   before you loose your temper and make the conflict worse.

2. SAY . . .

   what you feel is the issue. What is the reason of disagreement? What do you like?

3. LISTEN . . .

   to others ideas and feelings.

4. THINK . . .

   of solutions that satisfy both the parties.

If you still can't agree, ask someone else to help you work it out.

7.4.9 Leadership Skills

The ability to lead effectively depends on variety of key skills. These skills are extremely sought after by employers as they involve managing a number of individuals in such a way on inspire, enthuse and build respect. Some of the qualities that every good leader should possess are:

- **Honesty:** If you make honest and ethical behaviour a key value your team will follow the suit.
- **Ability to delegate:** delegating task to one of the appropriate person is the one of the most important skills that needs to be developed. The key to delegation is to identify the core strengths of the team and capitalizing on them.
- **Good communications skills:** Beingable to communicate clearly is quite important.
- **Confidence:** Keeps morale of the team high even in the tough times.
- **Commitment:** If you expectyour team to work hard and produce quality content then you should lead by example.
- **Positive Attitude:** Keeping teams motivated towards continued success of the company.
- **Creativity:** During the critical situations it is important to think out of the box solutions than to prefer the set course of action.
- **Be decisive:** Plan for the unexpected and nothing will surprize you. If you have thought of things go wrong in a particular task you will be able to make confident decisions on corrective actions when necessary.
- **Focus on the big picture:** Plan future strategies for your department and communicate them to supervisors and staff members. Set realistic and measurable individual and team goals and communicate your expectations within the context of massive picture.

How to become a leader:

- Use initiative to act on opportunities. Become a frontrunner before other people view you together.
- Take responsibility of own objectives, set priorities.
- Attempt to solve the matter instead of to pass on to others.
- Go the extra mile when asked to do tasks. go beyond your job description.
- Show enthusiasm.
- Take ownership of the issues. Anticipate potential issues, take pre-emptive action and act quickly to resolve the issues.
- Introduce enhancements to the ways in which things are done.
- Develop innovative practices. Value innovative thinking.
- Learn new skills that may enhance capability.

UNIT 7.5: Social Interaction

Unit Objectives

At the end of this unit, you will be able to:

1. Understand what is social interaction and what are social interaction behaviour.
2. Give a brief description about himself/herself in public.
3. Follow daily duties.
4. Cooperate with peers, family and other members in society.

7.5.1 Social Interaction

Social interaction is a process through which we respond to people talking with us. It includes acts where people perform toward each other and responses they give in return. Social interaction has a number of behaviours. Some of them are:

Fig.7.5.1: Social interaction

- **Exchange:** Exchange is the most elementary kind of social interaction. It's a human process by that social behaviour is exchanged for some kind of reward for equal or greater value.

- **Competition:** It's a process by which two or more individuals plan to accomplish a goal that just one can attain. It will lead to psychological stress, a lack of cooperation in social relationship, difference and even conflict.

- **Cooperation:** It's a process in which people work together to achieve shared goals. Task can not be completed without their cooperation.

- **Conflict:** Social conflict is the struggle for agency or power among a society to achieve control of scarce resources. It happens when two or more individuals oppose each other in social interaction to achieve incompatible goals.

- **Coercion:** People or teams are forced to provide in to the desire of other people or teams.

7.5.2 Self- Introduction

We all, in our lifetime, have to introduce ourselves to the others. The introduction usually lasts for around 2 minutes to 3 minutes. It is very important that it gives the first impression to other about us. It has a great impact on your self-esteem and self-confidence. It's helpful in:

Fig.7.5.2: Self- Introduction

- Feeling better about yourself
- Boosting your confidence
- Building your self esteem
- Making friends
- Feeling in control

Points for Self Introduction

Following are some self-introduction points:

- **Wishes:** It is the first thing that we need to do before addressing a gathering. At this point we need to make effort to grab the attention of audience. You have to wish depending on the time either, Good Morning, Good Afternoon or Good Evening.

    » Good Morning! My dear friends.

    » Respected Sir! Good morning.

    » Special or lovely or cool morning to you all.

- **Purpose:** We have to tell the purpose of coming in front of the audience. We can say I have come here to tell you about myself.

- **Name:** Here you tell about your name….. . To grab the eye of the audience, you have got to present your name differently. If you know you can tell the meaning of your name or nay famous celebrity along with your name.

- **Father's Name:** Here you have to say concerning your father's name. begin your father name as Mr. or Prof. or Dr.

- **Family:** It's a good chance to inform about your family, therefore tell the small print what you want to tell about them.

- **Profession:** Tell about your profession what you're doing at the moment.

- **Location:** Tell about your present location, wherever you're staying and if you would like you can also tell with whom you're living.

You can also tell about your native place. It is better to describe about or tell about your place which is famous for.

- **Hobbies/Habits:** Hobbies means what you like in your leisure and habit means your regular activities. This part tells about your nature and your life style, be careful while telling this.

- **Life Aim:** Tell about what is your aim in life, it will be good if your aim is high. You have to think high and reach high.

- **Achievements:** Tell about what you achieve up to now, minimum it is good to tell about three achievements and maximum five. Though achievements are small, tell them it shows your confidence but don't say I don't have any achievements.

- **Favourite Person's or Ideal:** It is good to say about your ideal persons.

- **Favourite movies, things, colour, places etc.:** if you want to tell your favourites, which tell about your tastes and preferences to others.

- **Your Strengths and Weakness:** You can tell about your strengths and weaknesses.Make sure your weakness should not be absurd or incorrigible.

- **People you like and dislike**: You have to tell what kind people you like or what kind of people you dislike.

- Any turning point in your life

- How are you different from others

- **Conclusion:** In conclusion offer a memorable answer on the question the listeners probably will have when they have listen to your public speaking speech. Tell how this aspect of your life makes you what you are and who you are. It will be perfect ending to your self –introduction.

- Finally say thank you.

You will have to maintain your speech according to the time, generally 3 minutes and you have to make the speech depending on the section of people you are giving the speech and what you want to reveal about yourself.

Improving self-introduction

There are a few things that you can do that helps in making your self-introduction better:

- **Listen to what you are saying to yourself:** Notice what your inner voice is saying. Take some time to listen and even write down what you are thinking.
- **Monitor your self-talk:** Analyse that your self-talk is more positive than negative.
- **Change your introduction:** counter your negative thoughts with positive ones. Avoid speaking negative and try to look for things that might add a better spin to a tough situation.

7.5.3 Our Duties and Responsibilities

There are certain duties which are laid by the Constitution of India. These duties are very to be fulfilled by every citizen of India. These are as follows:

- To bear by the Constitution and respect its ideals and establishments, the national flag and also the national anthem.
- To encourage and respect the noble ideals that galvanized our national struggle for freedom.
- To uphold and protect the sovereignty, unity and integrity of Republic of India.
- To defend the country and render national service once called upon to do so.
- To promote harmony and also the spirit of respect amongst all the people of the Republic of India transcending religious, linguistic and regional diversities.
- To forbid practices derogative to the dignity of ladies.
- To preserve the rich and diversified heritage of our culture.
- To conserve the natural surroundings like forests, lakes, rivers and wild life, and to have compassion for living creatures.
- To develop the scientific temper, humanism and the spirit of inquiry and reform.
- To safeguard public property and to retract violence.
- To try towards excellence altogether spheres of individual and collective activity so that the nation perpetually rises to higher levels of endeavour and accomplishment.

These need to be followed by every citizen of India for development of the country.

7.5.4 Cooperation

The process of groups of organisms working or acting together for their mutual benefit is called coopration. Cooperation among family members, friends and peers is very common and healthy. It is the backbone of any society.

Family cooperation provides an avenue for a family to come closer. It increases coping skills and decision making. Some steps to promote family cooperation are:

Fig.7.5.3: Cooperation

- **Plan things together:** It calls for negotiation and compromise and teaches everyone to be more tolerant and considerable to other's viewpoint.

- **Share responsibilities:** Diving up necessaryhousehold responsibilities can be a good exercise in family cooperation.

Peer support occurs once individuals give knowledge, experience, and emotional, social or sensible help to each other. It's a distinct state of social support in this the source of support may be a peer an individual who is analogous in ways to the recipient of the support.

The effective peer support can be in form of:

- **Social Support:** In form of positive psychological interactions with others with whom there is mutual trust and concern.

- **Experiential Knowledge:** contributes to solve problems and improve quality of life.

- **Emotional support :** Esteem, attachment and reassurance

- **Instrumental Support:** Product and services.

How to be a cooperative person:For being a cooperative person following things needs to be done:

- Listen carefully to others and make sure you perceive what they're expressing.

- Share when you have something that others would really like to have.

- Take Turns once there's something that no-one desires to do, or when more than one person desires to do a similar factor.

- Compromise when you have a significant conflict.

- Do your part the very best that you just probably can. this can inspire others to do the same.

- Show appreciation to people for what they contribute.

- Encourage people to do their best.

- Make people needed. working together may be a lot more fun that manner.

- Don't isolate or exclude anyone. everyone has something valuable to offer, and nobody likes being omitted.

UNIT 7.6: Group Interaction

Unit Objectives ◎

At the end of this unit, you will be able to:

1. Participate in group discussions in the class.

2. Give speech in the public.

3. Understand the importance of team building and team work.

7.6.1 Group Interaction

Every day we tend to meet with teams of individuals socially and professionally. However we interact to play a big role in the impressions we tend to produce. Interaction that happens whereas a group completes a cooperative task describes how the group works. For a successful and positive group interaction these steps needs to be followed:

Fig.7.6.1: Group Interaction

- Put your mobile phone away or place in silent mode.

- Greet everyone.

- Be friendly with everyone in the group.

- Show an interest in others by paying someone a compliment and listen carefully to what is being discussed.

- Be proactive and introduce yourself to others in the group.

- Sit up straight. Poor body posture is an indication of low self-esteem.

- Focus your attention on the person talking.

- Don't discount anyone's comment. Remember everyone is different and have different the ability to think.

- Think before you speak. Don't be too quick to jump into the conversation.

- Be a respect listener and observer.

- Include everyone when talking. Be sure to share eye contact with each person in the group.

- Unless there is a clear indication don't change the topic. Otherwise it will make people feel you are not interested in the topic.

- Don't start or participate in a side conversation. Don't allow their mistake to prevent you from being a good listener.

- Make sure to smile shake hands and embrace and use each person's name when conversation and the person's name when the discussion is over.

Everything you are doing in a group setting makes an effect on everybody in the group. Don't ever suppose something doesn't matter. Everything matters. Take every chance to take part in informal and formal group interactions. Begin by creating small contributions to discussion, prepare an issue to raise or accept as true with another person's remark. ask for other persons opinion.

7.6.2 Importance of Group Interactions

As a participant group interactions is important as:

- It helps you to get a subject more deeply.
- It improves your streangth to think positively.
- It helps in solving a serious issue.
- It helps the team to go on a final decision.
- It provides you the chance to listen to others' ideas.
- It improves your listening skills.
- It increases your confidence in communications.
- It can change your behaviour.

As a moderator a group interaction helps in:

- Understanding a member interpersonal skills.
- Identifying if a member is able to work in a team.
- Understanding ones behaviour.
- Selecting a perspective member in a perspective methodology.

Dos and Don'ts of Group Interaction

Do's	Don't
• Speak pleasantly and in a well mannered way to the group. • Respect the contribution of each speaker. • Remember that a discussion isn't AN argument. Learn to disagree in a well mannered way. • Think about your contribution before you speak. How best can you answer the question/ contribute to the topic? • Try to follow the discussion topic. do not introduce tangential information. • Be aware of your visual communication when you are speaking. • Agree with and acknowledge what you find fascinating.	• Lose your temper. A discussion isn't an argument. • Shout. Use a moderate tone and medium pitch. • Use too several gestures when you speak. Gestures like finger pointing and table thumping will appear aggressive. • Dominate the discussion. Confident speakers ought to enable quieter students an opportunity to contribute. • Draw too much on personal experience or anecdote. Although some tutors encourage students to reflect on their own expertise, keep in mind to not generalize an excessive amount of. • Interrupt. Wait for a speaker to complete before you speak.

Fig.7.6.2: Dos and Don'ts of Group Interaction

7.6.3 Team Work

Team work is a critical part of professional life. They can have a big impact on:

- The profitability of an organisation.

- People enjoy their work.

- Staff retention rates.

- Team and individual performance.

- Company reputation.

Importance of Team Building

Team building activities not only boost morale of the team members, but it can also increase the success rate of the teams. Team building is an important activity as it:

Fig.7.6.3: Team work

- **Facilitates better communication:** Activities that create discussion results in open communication among the employees, and among employees and management. This improves office environment also the quality of work.

- **Motivates employees:** The more comfortable team members are to share their ideas and opinions, the more confident they will be. This motivates them to take on new projects or challenges .

- **Promotes creativity:** Working closely with other team members increase creativity and promotes new ideas.

- **Develops problem-solving skills:** Team building activities that require team members to work closely to solve problems improves the ability to think rationally and logically. Teams that determine when a problem arises and knows the solution can work better when a real problem occurs.

- **Breaks the barrier:** Team building increases trust among workers.

Do and Don'ts of working in a Team

- **Don't argue in public:** if you have a disagreement with someone in the team find a neutral place to discuss the situation.

- **Do encourage each other:** when things get tough the tough gets going. Contribute to the team in trying situation.

- **Don't talk behind the backs:** if you have trouble with some team member don't share with others. Go directly to the person in a kind and compassionate manner and share what is in your mind.

- **Do lend a hand:** if a team members is asking for help don't hesitate in helping him.

- **Don't be the weakest link:** Live up to your responsibilities, meet team expectations and communicate effectively in the team.

- **Give and receive feedback:** As a part of growing team give and receive feedback respectfully and graciously.

UNIT 7.7: Time Management

Unit Objectives 🎯

At the end of this unit, you will be able to:

1. Understand the importance of time management.

2. Develop time management skills.

3. Learn about effective time planning.

7.7.1 Time Management

Time management is the process of planning and practicing control over the time given to a specific task, especially to increase effectiveness, efficiency and productivity. It is an activity with the goal to increase the overall advantage of a set of activities within the limited condition of a limited time.

Some effective time management

- Delegate tasks.

- Identify time wasters.

- Combine activities – Plan for them.
- Break down big tasks down to the smallest task possible.

- Accomplish them one by one.

- At the end of the day conduct a simple analysis to see which activity took time.

Fig.7.7.1: Time management

7.7.2 Time Robbers

Time robbers are those activities which create interruption at the workplace. These activities create a deviation from the objectives which needs to be achieved. Time Robbers could be:

- Poor personal planning and scheduling.

- Interruptions by people without appointments.

- Poor delegation.

- Poor use of the media: Telephone, Mobile, e-mail, and fax, etc.

- Reading junk mail.

- Lack of concern for god time management.

- Lack of clear priorities

The Time Robbers can be avoided by:

- Be active all the time.

- Develop and maintain an organized personal activity schedule.

- Set your priorities.

- Proper delegation.

- Utilize modern technical media.

7.7.3 Pareto Analysis

- According to this 80% of the tasks can be completed in 20% of the time. The remaining 20 % of the tasks take 80 % of your time. And the task which should fall in first category should be given a higher priority.

- Time also depends on the type of method adopted to process the task. Methods should always be simpler and easier to complete the task. If we use difficult ways, it shall be result the waste of time. One should always try to find out alternate ways to complete a task.

Urgent Important Matrix

1.The Urgent and Important Tasks	2. The Non Urgent but Important Tasks
DO NOW	PLAN TO DO THEM
• Emergencies, complaints and crisis issues	• Planning, preparation
• Superiors desire	• Scheduling
• Planned tasks or project work now due	• Designing, testing
• Meetings with superiors/colleagues	• Thinking, creating, modeling the data
3. The Non Important but Urgent Tasks	**4. The Non Important and non-Urgent Tasks**
REJECT AND EXPLAIN	RESIST AND CEASE
• Small requests from others	• Comfort' activities, computer
• Ostensible emergencies	• Games, net surfing, excessive
• Misunderstandings rising in work	• Cigarette breaks
• Pointless routines or activities	• Chat, gossip, social
	• Communications
	• Reading irrelevant and useless material

Fig.7.7.2: Urgent Important Matrix

This matrix helps you understand:

- What should be done

- What should be planned

- What should be resisted

- What should be rejected

The simplest method of managing time is to create a general to do list. Prioritize the task list:

- A daily list of things to do, numbered in the order of their priority
- Start with the most unpleasant and difficult task first latter will completed easily and quickly.
- Map out everything while making a task list
- Learn to say "No" to unimportant things
- Strikeout the things completed so that you are familiar what have been completed and what needs to be completed.

List down the routine activities that you perform in a day.

....

....

....

....

Prioritize the above mentioned activities in the following heads.

Important Tasks	Unimportant Tasks	Urgent Tasks	Not Urgent Tasks

UNIT 7.8: Resume Preparation

Unit Objectives

At the end of this unit, you will be able to:

1. Understand the importance of resume.
2. Learn how to prepare a resume.

7.8.1 Introduction

A resume is a self-declaration which once done properly shows how an individual's skills, experience and achievements matches the need of the work that they wish to get. The sole purpose of a resume is one to win an interview. It convinces the future employer what he wants from the prospective employee in new career or position.

It also establishes an individual as a professional person with high standards and excellent writing skills based on the fact that his resume is written well. It also helps you clarify your direction, qualifications and strengths, boost your confidence or to start out the process of committing to a job or a career modification.

Fig.7.8.1: A resume

One must know about a resume that:

• Your resume is an instrument to get you an interview but not a job

• Employer will be screen your resume for just 15-20 seconds. That's the time your resume will make an impact on employer.

There are different sections on the resume in the same order as mentioned under:

Section	What is the employer looking for
Header	Your identity and to contact you
Objective	To check if their requirement and your objective match
Education	To check if you have the basic qualification for the job/internship you are applying for
Practical Experience/Projects	To see if you have done anything that reflects your potential capability. Also to see how different you are from your peers.
Skills	How equipped you are in terms of your personality traits as well as occupational skills
Interests	Professional aspects apart, how meaningful is your life?
Other	Is there anything else significant and relevant you want to showcase, that will add value to your resume.

Fig.7.8.2: Different sections on the resume
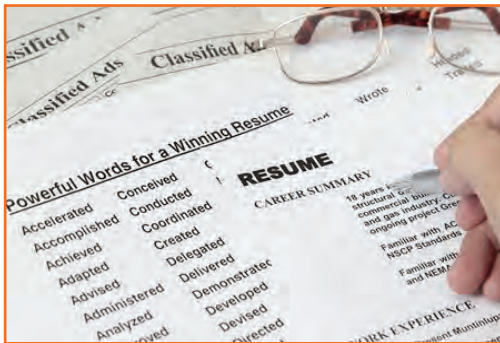
Preparation work and important tips

Before you start preparing your resume make sure to follow the checklist:

- Educational documents from class ten onwards to calculate scores
- Make list of all things that you need to add to your resume. Like internships, projects, part time jobs, extracurricular activities, sports, training, skills, interests etc. the list doesn't need to be complete, you'll always add to the list as you go.

Before preparing resume always remember:

- Every point in your resume should be specific and must be supported be supported by a number of factual information.
- Use action verbs in all your points. They catch attention immediately and make your sentences clear.
- Use bullets not paragraphs.
- Do not mention your responsibilities mention what you have accomplished.
- A common mistake we make while constructing the resume is to copy the format from our friends resume and built it based on that.

7.8.1.1 Resume Header

Purpose: You have to provide some information about yourself, so that the employer can reach you.

Mandatory fields include: Name, current address, email id, phone number, date of birth. Your name should be written in bigger font.

Do Not:

- Include your photo.
- Write RESUME as heading to the file.
- Give details like family information, marital status, etc.
- Add these details to the bottom of your resume or occupy more space to fill up these details.

7.8.1.2 Framing the Objective

Purpose: To convey the employer what goals you have. The focus should be towards getting a particular position in a specific industry.

Always remember:

Your objective should include the following:

- Position wanted
- Functional area

- Industry wanted

- Be specific and restrict it to minimum words.

- You objective should be different to each role you apply to

- While writing the objective, keep the employers requirement in mind. The objective is not what you desire from the company, it's about company's need.

7.8.1.3 Education

The next session in your resume is to highlight your educational qualifications.

Purpose: For the employer to know whether you have basic qualification for the job for which you are applying or not.

Always Remember:

- To write all educational qualifications from class 10 to highest education.

- For class 10 and 12 – include school/college name, Board, Stream/Specialization (If any), year of study, Marks.

- For undergraduate – include College name, University name, Degree and Specialization, year of study.

- Write all your qualifications in reverse chronological order, i.e. the latest qualification on top.

- You may write the educational qualifications in a tabular format or in a simple one after the other order.

7.8.1.4 Projects and Internships

The next part of your resume includes the hands on work that you have done, like projects, internships, in-plant training, part time jobs, volunteering, starting up a company and other initiatives. The number and the nature of initiatives taken defines whether to keep one heading or detail them under different headings.

Purpose: This is a mandatory part of a resume, as your hands on work and the initiatives you have taken apart from your curriculum in what will reflect your real streangth as well as saperate your resume from your peers.

Remember:

- The heading should be – title / project name, role, company/organisation name, -2 lines description about the specific time period.

- Time period is must.

- The entries under each heading must be in reverse chronological order.

- Be very specific on what you have accomplished. Add numbers and facts wherever possible.

Do Not:

- Do not write simple statements. It does not give employer a clear picture of the work you have done. Thus the employer can assume that you have done an internship for the certificate.

7.8.1.5 Skills

Heading: You can have multiple headings under skills. Common heading can include:

- **Soft Skills:** must include, they showcase your personality traits.
- **Core occupational skills:** Optional include if you possess any core skills. These are skills you possess relevant to the role you are applying for.
- **IT Skills:** Optional, suggestive to include if you are applying for IT/software related roles.

Remember:

- List your skill and add a point which supports your skill the best.
- Make specific points. Add numbers and facts wherever possible.
- Pick only three to four soft skills that describes you the best.
- Dig your past to discover the best of these skills you possess and the best example you can quote to support it.

7.8.1.6 Interests

In this section of your resume carefully choose which of interests you want to showcase on your resume so that they can make your life seem meaningful.

The interests you showcase talk about your character. These interests frequently come up as a subject of discussions during the interviews, therefore sagely choose what to show.

Remember:

- List interests which are meaningful and display some learning.
- Support the interest you have listed
- Make points specific and add supporting fact to it.
- Do not just list random cluster of interests like: adventure, guitar, reading, environment
- Never include interests like partying, watching movies etc. they create wrong impression.

7.8.1.7 References

Give References

The very last thing on your resume ought to be a list of 2-4 professional references. These are all those who you're not related to, but whom you have handled in a professional manner. you would possibly think about previous leader, faculty member or volunteer coordinator to include on your reference page.

- Include the name of the reference, their relationship to you, mailing address, e mail and telephone number.
- The place you're applying to could contact these people, therefore always call them in advance to allow them to understand that you are using them for a reference and are presently applying for a job.

7.8.1.8 Points to Remember

- Make sure that the length of your resume doesn't exceed a pair of pages.

- Do a thorough recheck and confirm there are fully no errors in your resume. No grammatical errors, no spelling mistakes, no punctuation errors.

- Run through your resume time and again for to create enhancements and phrasing sentences better.

- Choose a professional font in a size eleven or twelve. You can use multiple fonts for different elements of resume, but try to limit it most of two fonts. Instead changing between fonts, strive creating specific sections bold or italicized instead.

- The font size of your header and the introduction to a part may be a size fourteen or sixteen.

- Your text should be printed in solid black ink. Ensure to deactivate any hyperlinks so that they don't print in blue or other contrastive colour.

- Your page ought to have one inch margin all the way around with 1.5 or 2 point line spacing. The body of your resume ought to align left and your header should be centred at the top of the page.

UNIT 7.9: Interview Preparation

Unit Objectives 🎯

At the end of this unit, you will be able to:

1. Understand the procedure of interview.
2. Go thorough mock interviews.
3. Understand how to present themselves during an interview.
4. Motivated to work after the training period is over.

7.9.1 Interview

An interview is a conversation between two or more individuals (the interviewer(s) and the interviewee) wherever queries are asked by the interviewer to get information from the interviewee. An interview is the first and last hurdle you need to cross in order to get employment.

Fig.7.9.1: Interview

Common Types of Interview

1. **Traditional HR Interview:** Most of the interviews are face to face interviews. The most traditional is a one-to-one conversation with the Human Resources Executive where the candidate's focus should be on the person asking question. You are advised to maintain good eye contact, listen keenly and answer promptly.

2. **Panel Interview:** In this situation, there is more than one interviewer. A panel ranging from two to ten members may conduct this part of the selection process. This is an ideal chance for you to display group management and group presentation skills.

3. **Technical interview:** The objective of this interview is to basically evaluate technical knowledge. Majority of the questions will be based on the skills sets mentioned in the candidate's resume.

4. **Telephonic Interview:** Telephonic interviews are used for initial screening of candidates who live far away from the job site.

Before going for an interview, it is important to have clarity of the role you are applying for. It's also important that for you to know where you are applying and whom will you be talking to. Your answers should tell the employer that you are the match they are looking for.

This requires you to do a small research on the following fields:

- Company & Field
- Job Description
- Yourself (Skills, Values & Interests)
- Resume (Experience)

If you were an employer, you would have chosen a person who is sure of himself, calm and confident. So it's important that you are:

- Confident
- Relaxed
- Sure of yourself
- Prepared
- Before, during and after the interview, it is important for you to be prepared.
- Dress Professionally

It is important that you dress professionally. It is a proven fact that the way we dress makes a huge difference in the way we are perceived. 90% of the way you communicate with other people is through body language (gestures, expressions, etc.) and the first Impression we make. It is very simple to make a great first impression.

For a good first impression it is important those we:

- Smell good
- Have a professional appearance
- Pay attention to your grooming
- Make eye contact
- Know what and how you speak
- Our overall personality contributes to our complete perception.

How to dress for Interview

Men	Women
Long-sleeved buttoned shirt (clean and pressed)	**Conservative pump, no stilettos**
Dark shoes (cleaned and polished) and dark socks	Jewellery -One set of earrings (preferably knobs)
Get a haircut (short hair is always best)	No bangles
No Jewellery (chains, earrings, piercing)	Minimal use of makeup
No beards or Tattoos	

Fig.7.9.2: Dress for Interview

7.9.2 The Do's and Don'ts in an Interview

Some of you might have faced an interview and some of you might not have. However, by now, you definitely have a better understanding what are the accepted standards of a professional behaviour. Read the sentences given and mark them as do's or don'ts, in relation to an interview:

Sentence	Do's	Don'ts
Be yourself		
Burp while talking!!!		
Just out from a 'powder factory' (worn too much make-up)		
Reach just about the right time for the interview		
Just barge in the cabin/ office		
Forget to greet the receptionist/ don't respond		
Think before you speak		
Do your homework- Visit the company website		
Take time to think (TTTT)		
Wear bright colour clothes on the D-day		
Emphasis on your strengths		
Argue/ Debate with the interviewer		
Chew gum during the interview.		
Review your educational and work experiences		
See your documents flying out of the file (Being clumsy)		
Thank the interviewer		
Have the 'they need me' attitude		
Maintain eye contact and good body language		
Only give monosyllabic answers(depends on the kind of questions asked…in-between)		
Carry a copy of your resume		

Fig.7.9.3: Do's and Don'ts in an Interview

7.9.3 During the Interview

- Be confident, not arrogant
- Sell yourself - Keep your energy up
- Maintain your posture
- Be positive, don't complain
- Know your resume and accomplishments.

It isn't sufficient to have ideas. They have to be expressed effectively in the interview. The parameters that the candidates are assessed on during the interview are very simple. These are the parameters that this training program has prepared you for.

7.9.4 Active Listening

- Clarity on ideas and expressions
- Correct language
- Good body language
- Fluency
- Ideas should be expressed fluently in the right tone, right voice, and right articulation

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8. IT Skills

Key Learning Outcomes 💡

At the end of the module, you will be able to:

1. Familiarise with computers
2. Identify and use basic uses of a computer
3. Familiarise with a computer motherboard
4. Familiarise with a computer operating system
5. Use Microsoft Word, Excel and Powerpoint
6. Familiarise with Internet and use e-mails

UNIT 8.1: Introduction to Computer

Unit Objectives

At the end of the unit, you will be able to:

1. Define the computer.

2. Recognise its various parts.

3. Differentiate the advantages and disadvantages of computer.

8.1.1 What are Computers?

Computer is the greatest technology of all times. An innovative electronic device that takes raw data as input from the user and processes these data under the control of set of instructions which is called program, to give the result the output. The first fully electronic computers, announced in the 1940s, were huge machines. The computer of today's time is thousands of times faster and in any size you want. They can fit on your desk, on your lap, or even in your pocket. Computers work through an interface of hardware and software.

Computers work through an interaction of hardware and software.

- **Hardware = Internal Devices + Peripheral Devices:** All concrete parts of the computer (or everything that we can touch) are known as hardware. The most significant piece of hardware is a tiny quadrangular chip inside the computer called the central processing unit (CPU), or microprocessor. It's the "brain" of the computer— the part that interprets instructions and performs calculations. Hardware items such as your monitor, keyboard, printer, mouse and other components are often called hardware devices.

- **Software = Programs:** Software provides "intelligence" to the computer. Software refers to the instructions, or programs, that tell the hardware what to do. A word-processing program that you can use to write letters on your computer is a type of software. The operating system (OS) is software that manages your computer and the devices linked to it. Windows is a well-known operating system.

8.1.2 Advantages of Computers

Compared to conventional systems, computers offer many notable benefits. The main benefits offered by computers are as follows:

- High Accuracy

- Superior Speed of Operation

- Large Storage Capacity

- User-friendly Features

- Portability

- Platform independence

- Economical in the long term

Exercise

1. When was the first fully electronic computer introduced?

   a) 1930s

   b) 1940s

   c) 1950s

   d) None of these

2. Give 3 examples of the hardware components of computers?

   ....

   ....

3. What is an Operating System (OS)?

   ....

   ....

4. Mention 3 advantages of computers

   ....

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UNIT 8.2: Basic Computer Knowledge

Unit Objectives

At the end of the unit, you will be able to:

- Use computer.
- Explain the web, email services.

What can you do with computers?

In the workstation, many people use computers to keep chronicles, records, analyze data, do research, and manage projects. At home, you can use computers to find information, track finances, store pictures and music, play games, and connect with others—and those are just a few of the opportunities. You can also use your computer to link to the Internet, a network that associates computers around the world. With Internet access, you can interconnect with people all over the world, communicate with them and find a vast amount of information. Some of the most prevalent things we can do with computers are cited in this chapter.

8.2.1 The Web

The World Wide Web is an enormous warehouse of information. The web is the most prevalent part of the Internet, partly because it exhibits most information in a visually pleasing format. Headlines, text, and images can be combined on a single webpage—along with sounds and animation. A website is a collection of interconnected webpages. The web contains millions of websites and billions of webpages.

Surfing the web means reconnoitring or exploring it. You can find information on the web about almost any topic possible. For example, you can read news stories and movie reviews, check airline schedules, book a hotel, find places to dine, see street maps, search the route to reach a place, get the weather forecast for your city, or research a health condition.

Fig.8.2.1: A Microsoft Web Plateform

8.2.2 E-mail

Who writes letters these days? Email which is a short form for electronic mail, is the most appropriate way to communicate with others to date. When you send an e mail message, it arrives almost instantly in the receiver's email inbox. You can send email to many people at the same time and you can save, print, and forward email to others. You can send almost any type of file in an email message, including documents, pictures, and music files.

Fig.8.2.2: Email Link (Exampple)

8.2.3 Instant Messaging

Instant messaging is like having a real-time conversation with another person or a group of people. When you type and send an instant message, the message is instantly visible to all participants. Unlike an email, all participants have to be online (connected to the Internet) and in front of their computers at the same time. Interaction by means of instant messaging is called chatting.

Fig.8.2.3: Instant Messaging

8.2.4 Pictures, Music and Movies

If you have a digital camera, you can move your images from the camera to your computer. Then you can print them, create slide shows, or share them with others by e mail or by posting them on a website. You can also listen to music and watch movies on your computer. Computer has become a prominent source of entertainment.

Fig.8.2.4: Media Resources Icons

Exercise

1. Give 3 examples of how you can use computers?

    ....

    ....

2. All participants have to be online and in front of the computers for instant messaging to work?

    a) True

    b) False

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UNIT 8.3: Components of Computer

Unit Objectives

At the end of the unit, you will be able to:

• Know the different parts and components of computer.

8.3.1 Motherboard

The motherboard is the main element inside the case. It is a large rectangular board with combined circuitry this connects the several parts of the computer as the CPU, RAM, Disk drives (CD, DVD, Hard disk or any others) as well as any other peripherals linked via the ports or the expansion slots. Components directly attached to the motherboard include the following.

The central processing unit (CPU)

The central processing unit (CPU) performs most of the calculations that allow a computer to function and is sometimes referred to as the "brain" of the computer. It is usually cooled by a heat sink and fan.
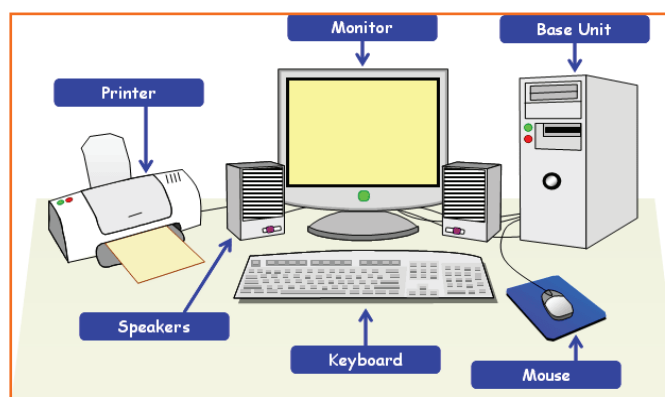

Fig.8.3.1: Different parts of a Computer

The chip set

The chip set aids communication between the CPU and the other components of the system, including main memory.

RAM (Random Access Memory)

RAM (Random Access Memory) stores all running processes (applications) and the current running OS.

The BIOS

The BIOS includes boot firmware and power management. The Basic Input Output System tasks are handled by operating system drivers.

Internal Buses

Internal Buses connect the CPU to various internal components and to expansion cards for graphics and sound.

Exercise

1. What is the full form of CPU?

   ....

   ....

2. What does the Chip Set do?

   ....

   ....

3. What is the full form of BIOS?

   ....

   ....

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UNIT 8.4: Concept of Operating System

Unit Objectives

At the end of the unit, you will be able to:

- Familiarise with the concept of operating system.
- Work on Windows 8 and 8.1.
- Add or Remove desktop icons, make or delete a folder etc.

8.4.1 Windows XP

Windows XP is a personal computer operating system created by Microsoft as part of the Windows NT family of operating systems. Basically it lets you use different types of applications or software on the operating system For example, it allows you to use a word processing application to write a letter and a spread-sheet application to track your financial information. Windows XP is a graphical user interface (GUI).

Learn more about Windows XP by exploring it

There are various versions of Windows, when you install any version of Windows on your operating system it is called 'upgrade´ your system. Below are the images of different versions of windows for your more clarity.

Desktop: The desktop is your work surface in place of a physical workspace at home or work. It is the screen you see once your computer has finished booting up and you are ready to get started.

Wallpaper (Desktop Background): The image on your desktop is called Wallpaper or Desktop Background

Fig.8.4.1(a): Different versions of windows

8.4.2 Tools and Parts of an Operating System

Icons: The small pictures are shortcuts to programs called icons. Double-click icons to start a program. Clicking the Start button also shows a list of programs and other options on the computer.

Taskbar: The blue bar across the bottom of the screen is called the Task Bar.

Fig.8.4.1(b): Windows XP Desktop

System Tray: It is an area where you can access programs that are running in the background. The more programs you have in this area, the longer it takes for the computer to boot up. The system tray of a desktop area has icons as shown in the image to indicate which programs are currently running in the background. Once you single click on the left-facing arrow button you would be able to open and see what else is there.

Volume Controls: The speaker icon will open the volume controls. Once you do the single click on an icon you can make a quick volume change. Click and drag on the bar to raise or lower the overall volume, or click in the check box to mute all sound as shown in the picture.
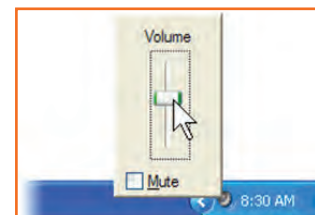

Fig.8.4.2(a): Volume Controler

To view sound settings, right click on the sound icon in task bar and left click on open volume control or double click on the sound icon. To change the volume settings, click and move the volume bars up and down in specific categories. To set volume balance, click and move balance bars right and left. To mute, click the check box below the volume categories.
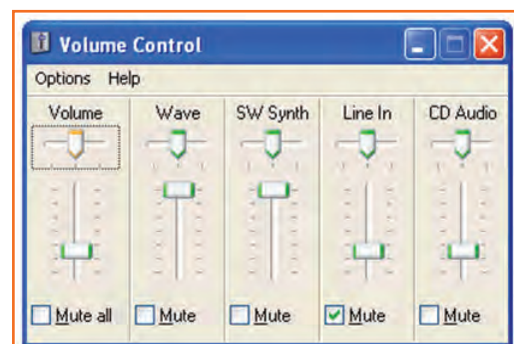

Fig.8.4.2(b): Volume Controler

External Hardware: You might run across this icon on your operating system frequently. This appears every time any piece of external hardware is plugged in. for e.g. USBs like pen drives, digital cameras, external hard drives, etc.
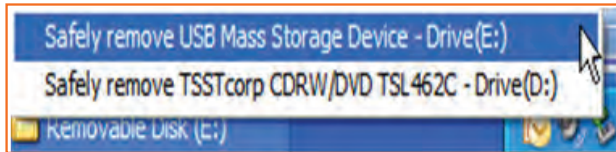

Fig.8.4.3: Removing External Drives

Fig.8.4.4: Message shown AfterRemoving External Drives

Windows Updates: A yellow shield with an exclamation mark on it will appear, if the computer has any updates from Microsoft to be downloaded. Make a single click on the icon to identify what needs to be done as shown in the picture, once you single click, your computer will walk you through the steps.
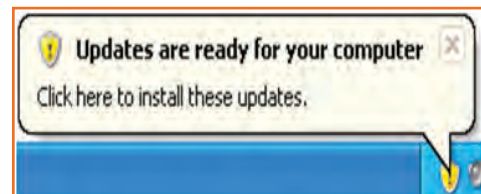

Fig.8.4.5: Message Windows Update

Power: There are 2 symbols for power one is a battery and the alternative is a power cord with a blue lightning bolt. The latter symbol means the laptop is plugged into the wall outlet and is charging. The battery symbol means the laptop is running purely off of batter Power.
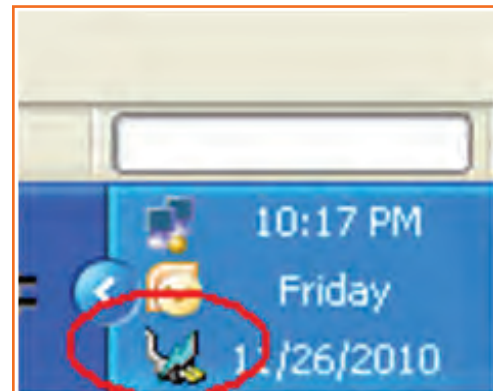

Fig.8.4.6: Icon Showing Charging on Laptop

Wireless: Laptop computers are capable of connecting to a wireless network to achieve access to the web. to connect to a network, right click on the wireless icon and select.

Fig.8.4.8: Network Selection Dialog

Fig.8.4.7: Wireless Network Icon

View Available Wireless Networks: In the Window that appears, select the network from the list that you just need to connect to and click on on the Connectbutton that may appear within the lower right corner.

8.4.3 Add or Remove Desktop Icons ⌐

You can add or delete Icons or Desktop Shortcuts from the Desktop area.

To add an Icon:

- **STEP 1:** Click on the *Start* button.

- **STEP 2:** Put your mouse over *All Programs*. A menu will appeat with all of your programs.

- **STEP 3:** Go to the program that you want to create a shortcut for and *Right-click* on it. A menu will appear.

- **STEP 4:** Point to *Send To.*

- **STEP 5:** Left click on *Desktop (create shortcut)*.

Fig.8.4.9: Delete Shortcut

To remove an icon:

- Left click on the icon.

- Hit the *Delete* button on your keyboard.

- When your computer asks if you are sure you would like to delete this program, click on the *Delete Shortcut* button. The window that popped up is called a Dialog Box.

Dialogue box: A dialog box is window that appears once your pc encompasses a question for you. Generally a dialog box appears just to tell you something. You must click on the OK button to acknowledge that you simply have scan the message before you'll be able to continue. For example:

- **STEP 1:** Double click on the *My Documents* folder on the desktop.

- **STEP 2:** Locate the folder titled *Travel Class*, and right click on it.

- **STEP 3:** Left click on *Rename*.

- **STEP 4:** Type *eBay* and press the enter key on the keyboard.

- **STEP 5:** A dialog box will appear to inform you that you cannot rename the folder to "eBay" because an item by that name already exists.
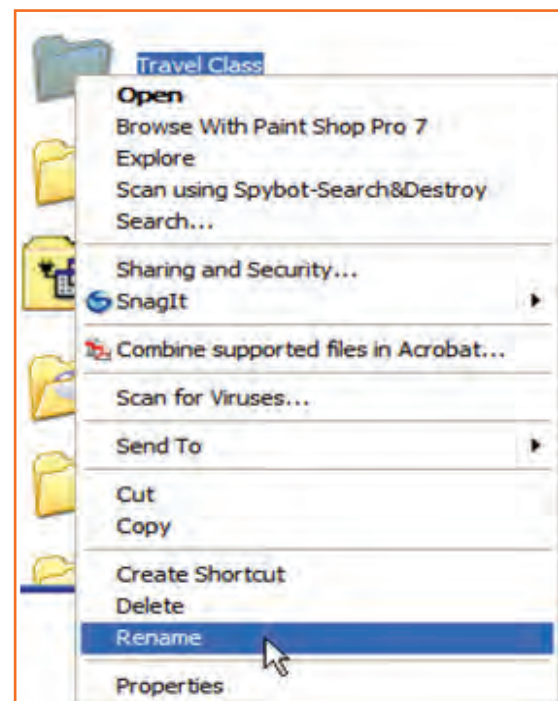

Fig.8.4.10: Rename File or Folder

8.4.4 Create a Folder

Some individuals wish to keep folders on their desktop to keeping vital files in. (You might also use the My Documents folder for this purpose.)

- **STEP 1:** Find an empty area on your desktop with no icons or windows in the way.

- **STEP 2:** Right click on the empty space.

- **STEP 3:** Point to *New*. (You do not need to click.)

- **STEP 4:** In the menu that pops out, left click on *Folder*.

- **STEP 5:** Your new folder has been created and is waiting for a name. *Don't click!* Just start typing to give the folder a name.

- **STEP 6:** When finished, hit the enter key on the keyboard or click beside the folder. Your new folder is ready to receive files.
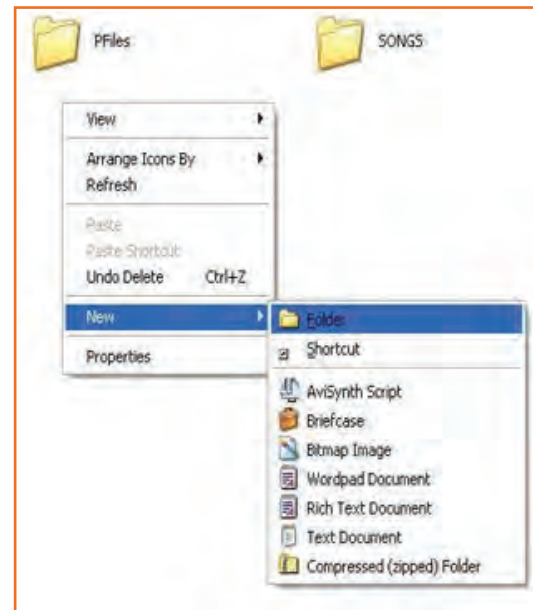

Fig.8.4.11: Create New Folder

8.4.5 Place Your Favorite Webpage as a Desktop Icon

You can create a shortcut of your favorite web page directly on your Desktop:

- **STEP 1:** To create the shortcut, you must first open your Internet browser. (Double click on the Internet Explorer icon.).

- **STEP 2:** Type in the web address of the page you want to view and hit the enter key on your keyboard.

Fig.8.4.12: I E Icon

- **STEP 3:** Once the website is open, restore down the windows to that you can view the Desktop space partially behind the opened webpage.

- **STEP 4:** Either, point your mouse at the icon to the left of the web address in the address bar as shown below. Hold down your left mouse button and drag the small icon onto empty space of your Desktop. Let go and a shortcut of your webpage will be created on your Desktop.

8.4.6 Managing Multiple Windows

Your taskbar area shows that windows are open, if you open a lot of windows from the same program, they're going to begin to stack up. Let's open a lot of windows and see what happens.

- **STEP 1:** In Internet Explorer, click on the *File* menu and then on *New Window*.

- **STEP 2:** In the *address bar* type Yahoo.com and hit the *enter key* on the keyboard.
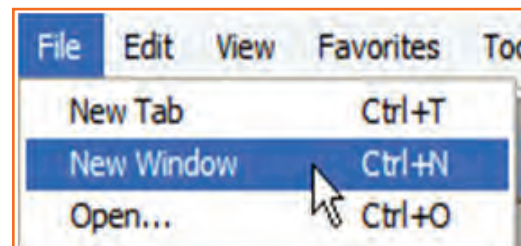

Fig.8.4.13: Create New Folder

- **STEP 3:** Repeat the first two steps at least 5 times and go to different websites such as *Google.com, abc.com, nbc.com, msnbc.com, pbs.org, fox8.com, andwews.com*. Your taskbar will start to get full. Once you have seven windows open, they will all group together under one item.

Fig.8.5.14(a): Application Icons on Taskbar

Normally, if your things aren't grouped along, you would be able to select one item from the taskbar to navigate to that window. After they are all stacked, you have to click on the group and go from there.

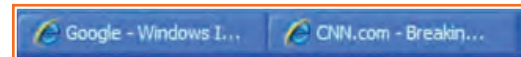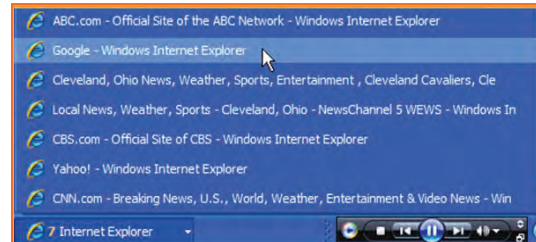- Left click on the group of stacked Internet Explorer windows in the taskbar to open the list.

Fig.8.4.14(b): Multiple Windows of Application

8.4.7 The Keyboard

A computer keyboard is same as a typewriter keyboard with some extra keys.

Fig.8.4.15: A Simple Keyboard

The ESC key in the upper left corner will close any menus or dialogs you have opened but do not want to select an item from. (Try to open the Start menu and then click on the Esc key.)

The Function keys along the top of the keyboard each key has its special utilisation, often in conjunction with the ALT, CTRL or a combination of both keys, depending on the application you are using. F1 generally opens the program's Help options. It is different for every application.

Fig.8.4.16: Esc Key on Keyboard

Fig.8.4.17: Function Keys on Keyboard

In the bottom left corner are three keys unique to the keyboard – CTRL, Windows, and ALT:

- **The CTRL key** is used in conjunction with other keys to perform various functions. (i.e. CTRL+P will open the print window when in Microsoft Word.)

- **The Windows key** works like pressing the Start button on the screen.

- **The ALT key** is another helper key used in conjunction with other keys.

- **The Caps Lock key** is used in typing. Pressing this key once will make all letters you type CAPITALIZED. Press the Caps Lock key again to turn typing into small letters.

- **The Shift key** is used in typing to make one capital letter. To capitalize a letter, press the Shift key and hold it down, then press the letter you want capitalized. Release the Shift key and continue to type.

- **Page Up** and **Page Down** move the cursor through a document page by page, either up or down.

- **The Arrow keys** help you move the cursor around the screen (when using a program like Microsoft Word) or across a line of text when typing in a text box.

- **The Insert key** is used when typing to replace words you have already typed.

- **The Delete key** removes text you have typed that is to the right of the cursor or to send selected items to the Recycle Bin.

- Pressing the **Home key** sends your cursor to the beginning of a line of text. Pressing the End key sends the cursor to the end of a line.

- To the right of the spacebar you see another **Alt key, Windows key, and Ctrl key**. Notice the new Application key. Pressing this key is the same as pressing the right mouse button (right clicking).

- **The Backspace** key removes text you have typed that is to the left of the cursor.

- **The Enter key** gives a new line (like a carriage return) when you are typing. At other times the Enter key works like a left mouse click.

8.4.8 Common Windows Commands

One feature of Windows is that there are usually some ways to perform an action. This table shows the Windows Command, with the Menu, Keyboard and Toolbar ways to inform the computer to perform that action.

Table: Common Window Commands

Key	Description
Alt + F	File menu options in current program
Alt + E	Edit options in current program
Alt + Tab	Switch between open programs
F1	Universal Help in almost every Windows program
F2	Rename a selected file
F5	Refresh the current program window
Ctrl + N	Create a new, blank document in some software programs
Ctrl + O	Open a file in current software program
Ctrl + A	Select all text
Ctrl + B	Change selected text to be Bold
Ctrl + I	Change selected text to be in Italics
Ctrl + U	Change selected text to be Underlined
Ctrl + F	Open find window for current document or window

Ctrl + S	Save current document file
Ctrl + X	Cut selected item
Shift + Del	Cut selected item
Ctrl + C	Copy selected item
Ctrl + Ins	Copy selected item
Ctrl + V	Paste
Shift + Ins	Paste
Ctrl + K	Insert hyperlink for selected text
Ctrl + P	Print the current page or document
Home	Goes to beginning of current line
Ctrl + Home	Goes to beginning of document
End	Goes to end of current line
Ctrl + End	Goes to end of document
Shift + Home	Highlights from current position to beginning of line
Shift + End	Highlights from current position to end of line
Ctrl + Left arrow	Moves one word to the left at a time
Ctrl + Right arrow	Moves one word to the right at a time
Ctrl + Esc	Opens the START menu
Ctrl + Shift + Esc	Opens Windows Task Manager
Alt + F4	Close the currently active program
Alt + Enter	Open the Properties for the selected item (file, folder, shortcut, etc.)

Fig.8.4.18: Some Important Keys and Their Uses

Exercise

1. Where is the taskbar located on your screen?

   ....

   ....

2. System Tray is an area where you can access programs that are running in the background?

   a) True

   b) False

3. To view sound settings, right click on the sound icon in task bar and left click on open volume control or double click on the sound icon.

   a) True

   b) False

4. When does the image appear on your screen?

   a) When any external hardware is inserted into the computer

    b)   When any external hardware is removed from the computer

5.   Laptop computers are capable of connecting to a wireless network to gain access to the Internet.

    a)   True

    b)   False

6.   You can add or delete Icons or Desktop Shortcuts from the Desktop area.

    a)   True

    b)   False

7.   What is a dialogue box?

    ....

    ....

8.   The ESC key in the upper right corner of your keyboard will

    a)   Close any menu you don't need

    b)   Open the start menu

    c)   Shut down your laptop

9.   The CTRL key is used in conjunction with other keys to perform various functions.

    a)   True

    b)   False

10. What happens if you press the Caps Lock key?

    a)   All letters get capitalised

    b)   All letter become small

    c)   The first letter is capitalised

11. The Delete key is used to remove text you have typed that is to the right of the cursor or to send selected items to the Recycle Bin.

    a)   True

    b)   False

12. Which is the command to select 'all the text'

    a)   Ctrl + C

    b)   Ctrl + D

    c)   Ctrl + A

    d)   Ctrl + X

UNIT 8.5: MS Word

Unit Objectives

At the end of the unit, you will be able to:

- Learn the concept of and practice MS-Word.
- Format a document.
- Print a document etc.

Concepts of word processing - MS Word

Most people who use a computer daily use word processing skills. word processing skills enable us to prepare text documents like letters, memos, and different correspondence. most up-to-date word processing software package permits us to create text documents that embody photos and drawings.

Fig.8.5.1: MS Word Icon

8.5.1 Creating a Word Document

Once the document that has opened, type a short paragraph of why you are taking this mini- session. for example, are you new to Microsoft Word 2007 or are you up your software your skills? keep in mind to purposely misspell some words. Later in the session you'll use this paragraph to learn the way to spell check and use basic Word 2007 functions.
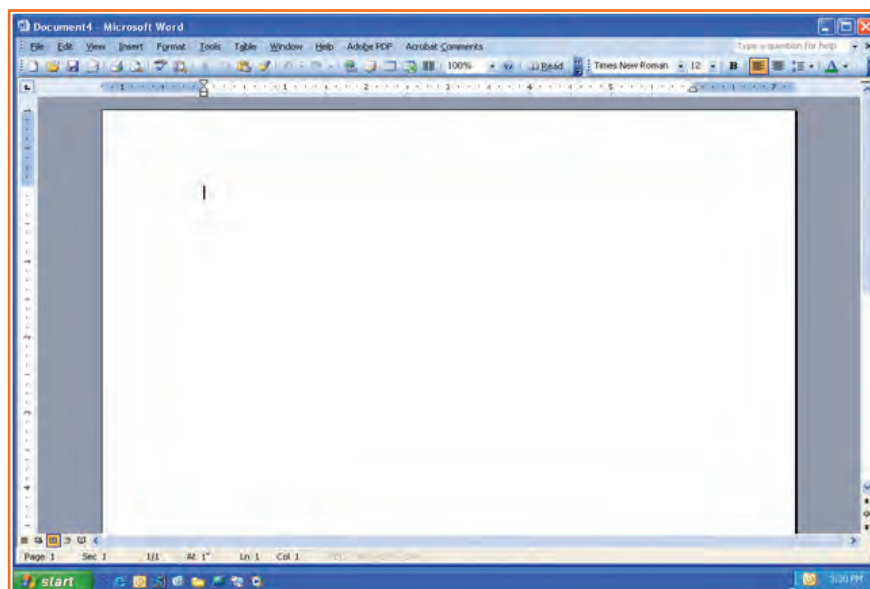

Fig.8.5.2: MS Word Window

The above image shows components of the Word window, that also contains a document in the window. This view displays rulers at the top and along the left aspect that indicate the size of the page.
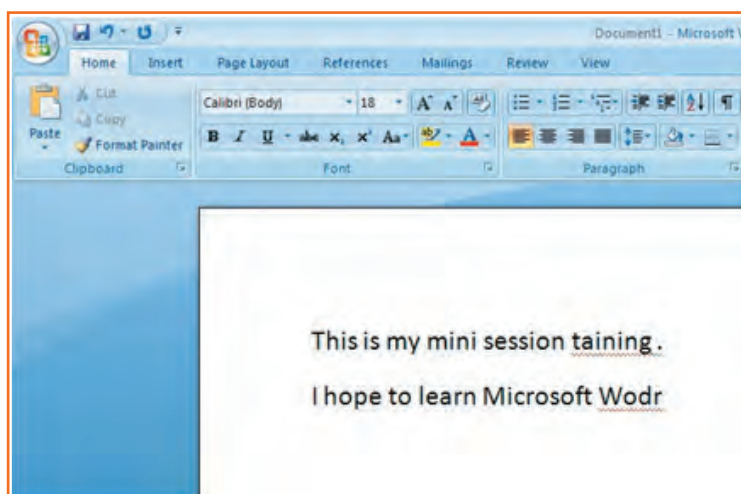

Fig.8.5.3: Writing Text in MS Word

8.5.2 Saving a Document

A Command is used for a first-time save or if you have created revisions to a document and want to replace the previous version with the new revised document. Use the 'Save as' command to save a revised document to a new name, so keeping the original as it was before revisions or to save a copy of a document in a different folder.

- **STEP 1:** Save your document in the "My Documents" folder.

- **STEP 2:** In the '*File Name*' box enter the document name.

- **STEP 3:** Check to make sure in the '*Save As Type*' box the word document is (*.docx.)*.

Fig.8.5.4: Saving a Document

8.5.3 Change Font Type and Size

As shown within the image below, the document that you have just created, you are currently going to format the font size and type different fonts and sizes can offer character to words in your document i.e. once you are creating your resume, you use bold as an 'eye-catcher' also, font size affects word characteristics.

1. **STEP 1:** Highlight the text you wish to change the font and size for; in this practice highlight your name.

2. **STEP 2:** Click on the font menu, select Theme font for e.g. Arial Black and then select the size of the font (let's say 16) as shown in the image below.
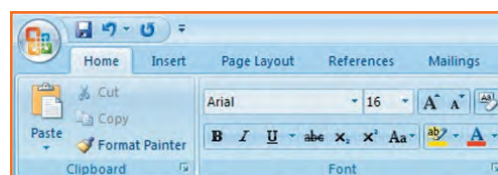

Fig.8.5.5: Change Font Type and Size

3. **STEP 3:** Now click on SAVE in the Quick Access Toolbar to save your document (Refer to the second picture below, for saving your document).

8.5.4 Create Headers and Footers by Inserting Texts

Headers and Footers in the word document are needed to insert information like text, page numbers and date. Information on either header or footer can appear in all current document pages by default, you don't have to re-type in the header or the footer column once you add a new page to your current document. The header information appears at the top of the page whereas the footer information appears at the bottom of the page.

Follow to the simple steps and refer to the image below to make it work:

*   **STEP 1:** Click on the option 'insert' right next to 'Home' from the bar above the word page and select 'Header'.

*   **STEP 2:** Choose a style you like, (for now use blank).

*   **STEP 3:** Let's use your last name to fill it; now hit enter.

*   **STEP 4:** Add today's date and then highlight your last name and date.

*   **STEP 5:** Click on the Home tab from the menu.

*   **STEP 6:** Now select 'Home' from the bar and then click on 'left justification button'.

*   **STEP 7:** finally click 'close Header and Footer'.

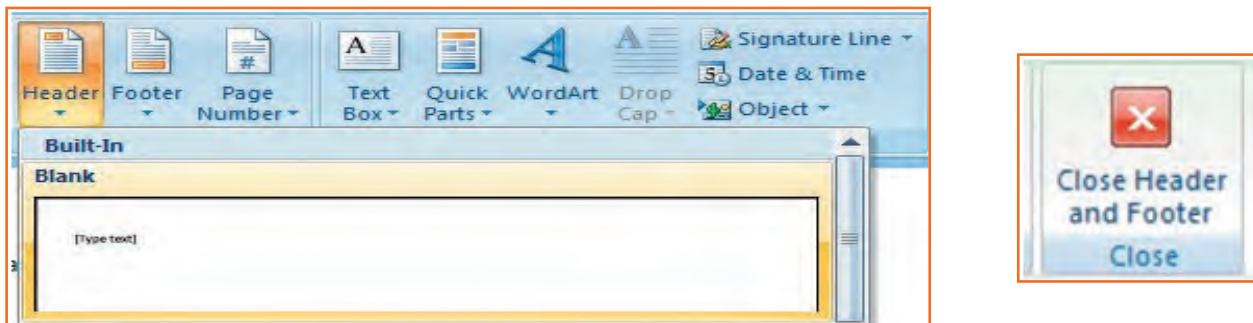*NOTE: the Header Menu will close and return you to your document to continue typing.*
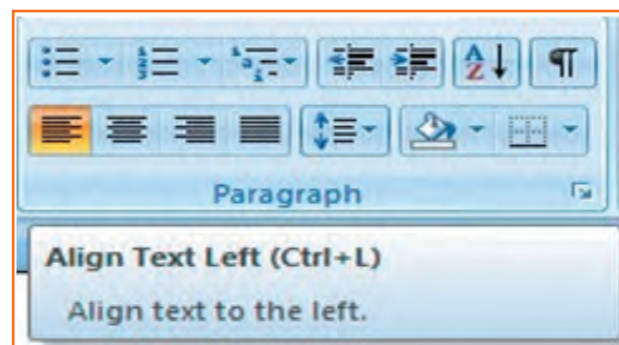

Fig.8.5.6: Headers and footers

Fig.8.5.7: Formatting

8.5.5 Indents and Spacing

Spacing your word document in a right way!

To prepare project reports which needs paragraphs in double line spacing so it is very important to understand how you would be able to change the space between lines and paragraphs by doing the following:

1. **STEP 1:** Select the paragraph or paragraphs you wish to change.

2. **STEP 2:** Click on the Home Tab then click 'Paragraph' Dialog Box.

3. **STEP 3:** Click the 'indents and spacing' Tab.

4. **STEP 4:** In the 'Line Spacing' section, adjust your spacing accordingly.

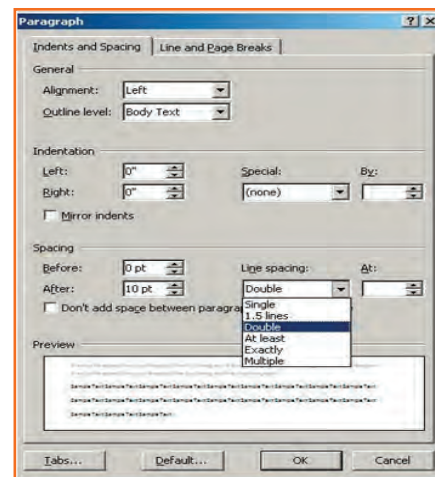5. **STEP 5:** The image below shows visual version of how your page would like.

Fig.8.5.8: Indents and Spacing

8.5.6 Modifying Margins

MS-Word 2007 allows you to preview how your paper will look if the margins are modified. The page margins can be modified through the following steps:

• **STEP 1:** Click the 'page layout' tab from the bar.

• **STEP 2:** Now select 'Margins' from there.

• **STEP 3:** Click a default margin Or,

• **STEP 4:** Click custom margins and complete the dialog box.

NOTE: As you roll over each Margin preset, it will show you how the document will look when it is modified.
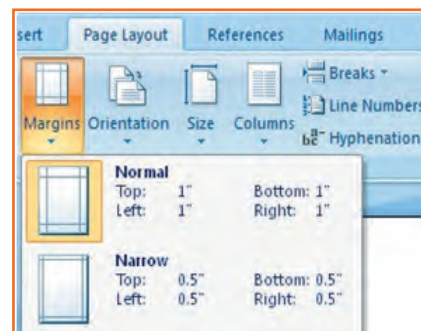
Fig.8.5.9: Modifying Margins

8.5.7 Lists

Lists enable you to format and organize text with numbers, bullets, or in an outline. instead of using numbers for steps, an outline list is used to show an example of a type of number lists.

8.5.7.1 Bulleted and Numbered Lists

Bulleted lists have bullet points, numbered lists have numbers, and outline lists combine numbers and letters depending on the organization of the list.

How to add list to the existing text?

1. **STEP 1:** Select the text you wish to make a list.

2. **STEP 2:** Click a bulleted or numbered lists button from the paragraph tab on the home tab.

Now, to create a new list in your document, place your cursor where you want the list to begin. Click a bulleted or numbered lists button and start typing.
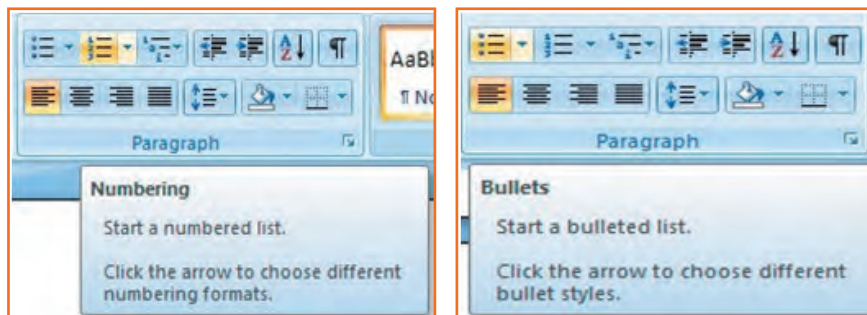

Fig.8.5.10: Bulleted and Numbered Lists

8.5.7.2 Formatting Lists

- **STEP 1:** The bullet image and numbering format can be changed by using the bullets or numbering dialog box.

- **STEP 2:** Select the entire list to change all the bullets or numbers, or place the cursor on one line within the list to change a single bullet.

- **STEP 3:** Right click once.

- **STEP 4:** Click the arrow next to the bulleted or numbered list.

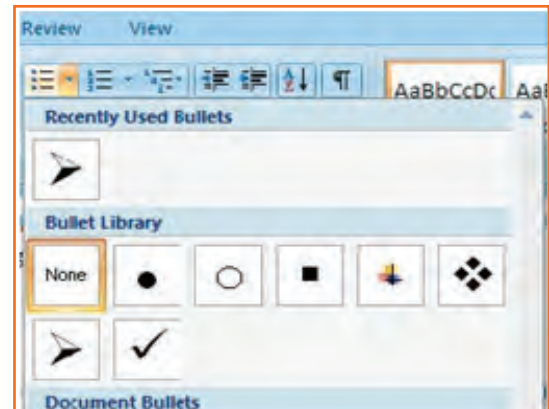- **STEP 5:** Now, select a bullet or numbering style.

Fig.8.5.11: Formatting Lists

8.5.8 Spelling and Grammar

There are many features in Ms-Word 2007 to help you proof-read your document these features include:

- Spelling and Grammar
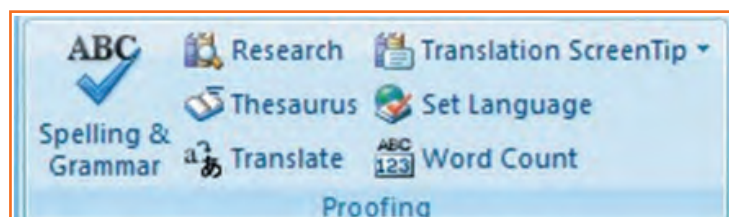- Thesaurus
- AutoCorrect
- Default Dictionary
- Word Count

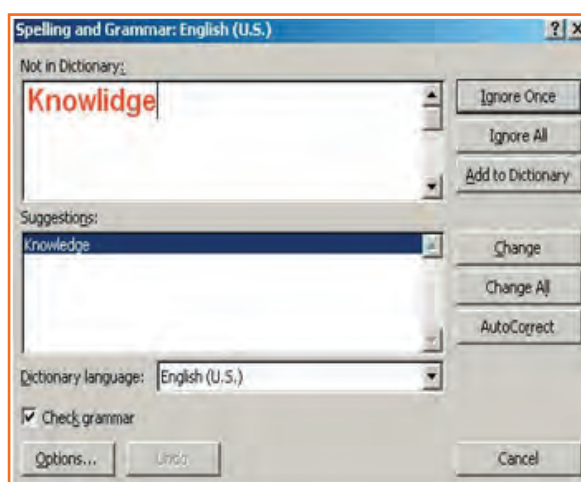*Fig.8.5.12(a): Spelling and Grammar*

Fig.8.5.12(b): Spelling and Grammar

The most common feature used is the spelling and grammar checker tool. To check the spelling and grammar of your document:

- **STEP 1:** Place the cursor at the beginning of the document or the beginning of the section that you want to check.

- **STEP 2:** Click the 'Review' Tab on the Ribbon.

- **STEP 3:** Click 'Spelling & Grammar' on the Proofing Group.

Note: Any errors will display a dialog box that permits you to choose a additional appropriate spelling or phrasing. Go through the spelling and grammar checker to correct any spelling errors you may have created in your document. Once the spelling and grammar checker has completed, you will see a dialog box that notifies you 'The spelling and grammar check is completed'.

8.5.8.1 Word Count

To count words in one selection, you can select the words you want to count. The status bar displays the number of words in the section for e.g. 50/1,200 means that the section accounts for 50 words out of the total number of 1200 in the document.

Note: To select the sections of text that are not next to each other, select the first section and press hold down CRTL (from the keyboard) and select the additional section.
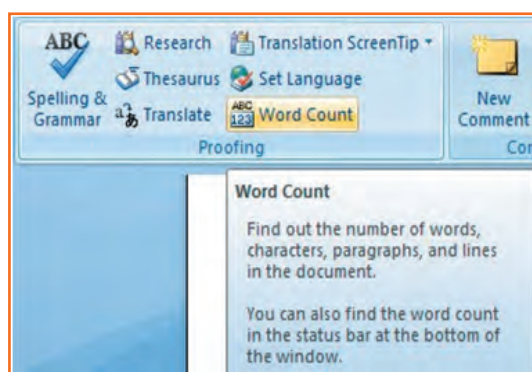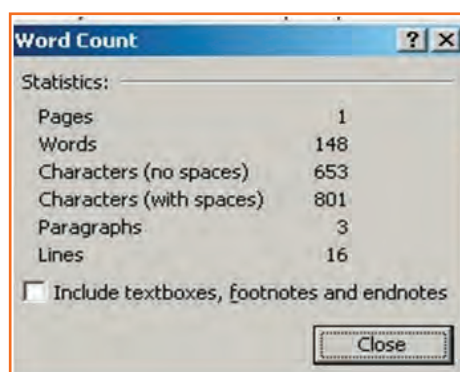

Fig.8.5.13(a): Word Count

Fig.8.5.13(b): Word Count

8.5.9 Different Editing Modes in Word

Insert mode and an overtype mode. when insert mode (default) is active, the data you can type is inserted at the insertion point where as when over-type mode is active the information is active it isn't inserted however; t replaces text as you sort. to modify between the two modes double click o the OVR letters on the standing bar.

Another interesting fact about the word document is that it's not just a document to write things however you can add expression to your document by inserting pictures with the document, currently let's see however this will be done. invariably bear in mind to not use any copyright image if you are using any pictures from the internet.

The insert picture method supports graphics that may be are too large to fit on the clipboard. The default setting for inserting or pasting pictures is "In Line With Text." The Advanced Word options, located in the office Button Commands Gallery, allow you to change the default settings to any of the available text wrapping styles.

Fig.8.5.14: Sample Image

8.5.10 Inserting an Image and Table

- **STEP 1:** Place the insertion point at the location where the image has to be placed In the document.

- **STEP 2:** Select Insert tab>> illustrations gallery.

- **STEP 3:** Now select *Insert picture.*

- **STEP 4:** Navigate to the appropriate location where the image is stored.

- **STEP 5:** Now select the appropriate image which you want to insert in the document by doing a double click on the image.

Fig.8.5.15 Inserting an Image

Similarly, now let's see how to insert a table in a word document

The table feature can be used to organize data into rows and columns without having to set tabs. Tables can even be used to produce forms and side by side paragraphs. A table consists of vertical columns and horizontal rows, the inter-section of these rows and columns produce cells. A cell is every individual square in which you'll be able to enter text. The tab key advances the pointer to next cell (Shift + tab) it moves the pointer backward within a table.
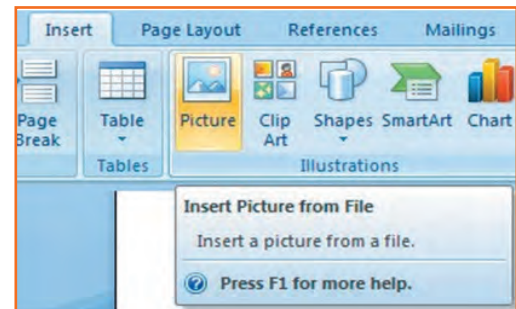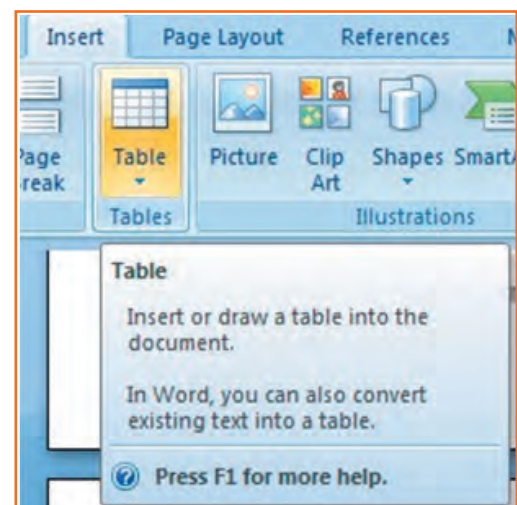

Fig.8.5.16(a): Inserting an Table

STEPs below would make it much easier for you to understand how to create a table:

- **STEP 1:** Place the insertion point at the desired location on your word document.

- **STEP 2:** From the bar select Insert tab>>tables gallery.

- **STEP 3:** Now select insert table.

- **STEP 4:** Enter desired no. of columns and rows at insert table dialog box.

- **STEP 5:** Now select AutoFit behavior.
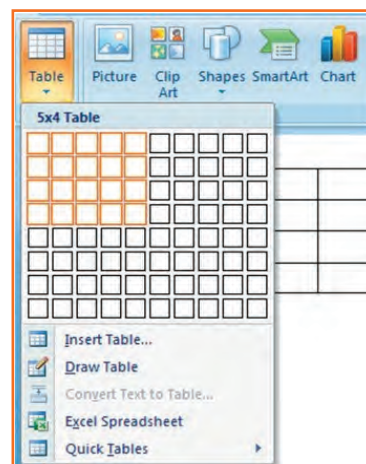
- **STEP 6:** Click OK.

Fig.8.5.16(b): Inserting an Table

8.5.11 Inserting a Blank Page

The blank page command permits you to manually insert a blank page at the required location. When you fill a page with text or graphics, Microsoft office Word inserts an automatic page break and starts a new page. However, you'll manually add pages or delete pages by adding page breaks or deleting page breaks. refer to the image below.
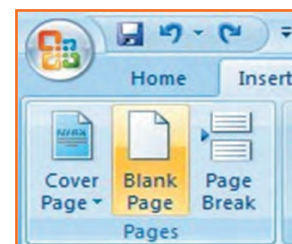
Fig.8.5.17: Inserting New Page

8.5.12 Inserting a Page Break

You can insert a page break anywhere in the document, or you can specify wherever Microsoft Word positions automatic page breaks. If you insert manual page breaks in documents that are quite many pages in length, you might have to frequently re-break pages as you edit the document. To avoid the difficult of manually re-breaking pages, you can set choices to control where word positions automatic page breaks. Refer to the image below.
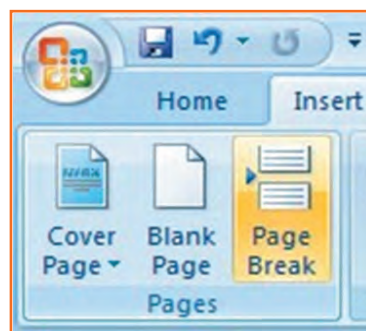
Fig.8.5.18: Inserting Page Break

8.5.13 Inserting a Cover Page

- **STEP 1:** From the insert Tab, select Cover Page, the cover page drop down menu will be displayed.

- **STEP 2:** Select from the pre-formatted options under Cover Page.

- **STEP 3:** To insert a blank page or a page break, position your insertion point at a desired location.

- **STEP 4:** Now, from the insert tab, select blank page or page break as shown in the image below.

Now, once the document is ready let's focusing on learning how to get the document in a hardcopy.
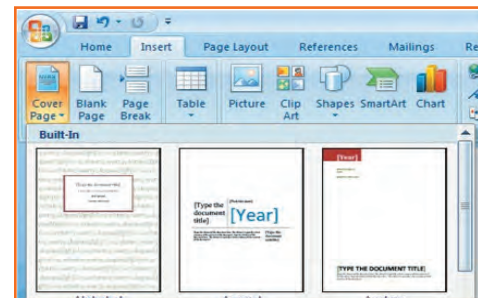
Fig.8.5.19: Inserting Cover Page

8.5.14 Printing the Word Document

- **STEP 1:** Click the 'Home' key, select 'Print', and then 'Print' again.

- **STEP 2:** Choose the printer you will be printing from (Black & White, or Color printer).

- **STEP 3:** Once you have selected the printer of your choice, reassure to check if you have selected the right and the complete document for printing.

- **STEP 4:** Once all above steps are performed, select 'OK' to print your work.

- **STEP 5:** Now that your document is ready and has been printed as well, let's see how can we close and exit this word document completely.
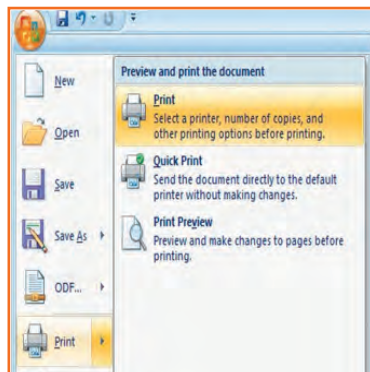
Fig.8.5.20: Printing the Word Document
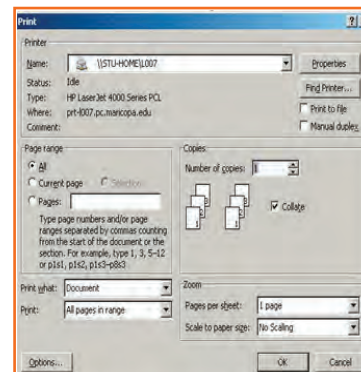
Fig.8.5.21: Print Dialog Box

8.5.15 Closing and Exiting Microsoft Word

It's always good to reassure that your word file has been saved before closing or exiting the word.

Note: Closing word would only close the current document however the word would remain open.

Exiting word would exit the program completely. (You may not have to follow this, it basically depends on what MS word you are having in the system).

Fig.8.5.22(a): Closing and Exiting Microsoft Word
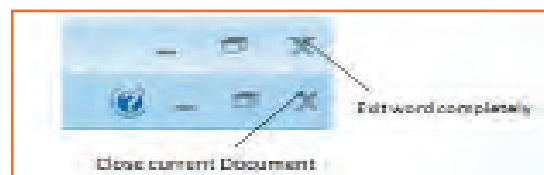
Fig.8.5.22(b): Closing and Exiting Microsoft Word

Exercise

1. What are things that MS word helps us with?

   ....

   ....

2. Give any two features to proof read a document?

   ....

   ....

3. You can insert a page break anywhere in the document, or you can specify where Microsoft Word positions automatic page breaks.

   a) True

   b) False

Notes

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UNIT 8.6: MS PowerPoint

Unit Objectives

At the end of the unit, you will be able to:

- Practice MS-Powerpoint.
- Make a new presentation.
- Format a slide as well

PowerPoint is the presentation graphics software in the Microsoft Office suite. PowerPoint has predefined layouts, themes, and templates to create dynamic and professional presentations.

8.6.1 Opening PowerPoint

To open PowerPoint in Windows, click on the:

STEP 1: Start button --> Programs --> Microsoft PowerPoint. *OR*

STEP 2: Double-click on the PowerPoint icon on the desktop.

When PowerPoint is opened, by default a blank Title slide appears as the first slide in your new presentation. However, to change the layout of an open slide, click on the Layout button in the Home tab.

Fig.8.6.1: PowerPoint Icon

Fig.8.6.2: Layouts in PowerPoint

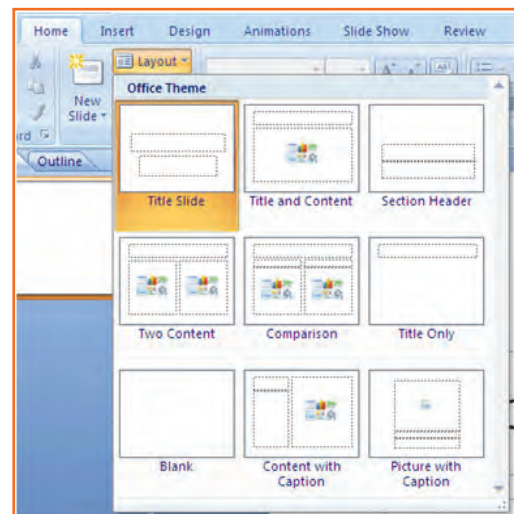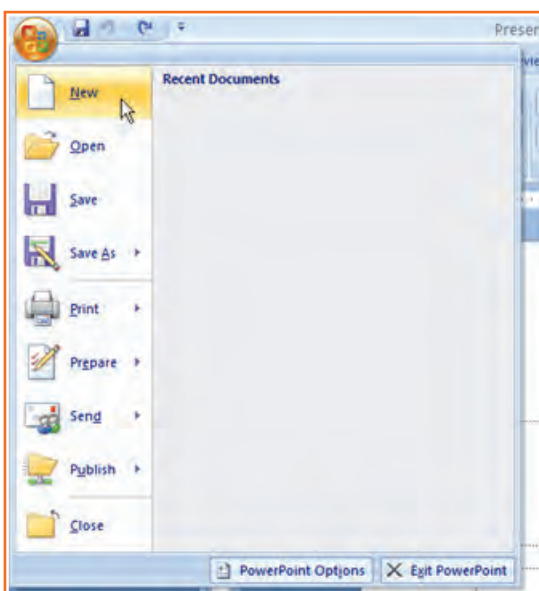*Fig.8.6.3: New Document in PowerPoint*

If the PowerPoint is already open, to begin a new presentation, click on the office button on the top left corner of the screen and choose New.

The New Presentation window can appear. Blank presentation is chosen by default. you wish to click create and a new presentation can open in the PowerPoint window.
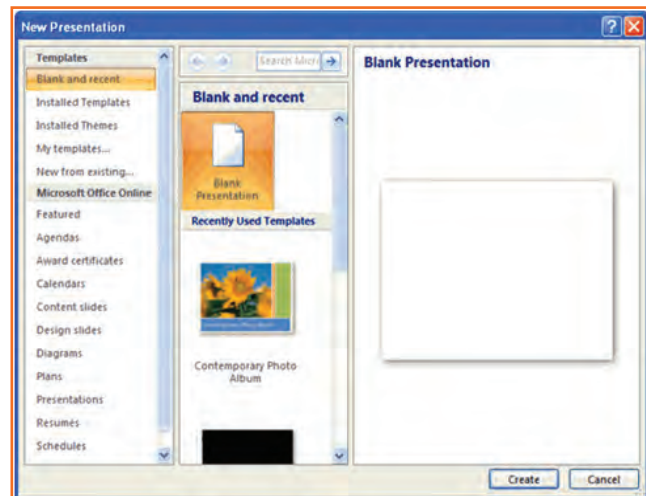
Fig.8.6.4: Create new PowerPoint

8.6.2 PowerPoint – Understanding the screen

- **Office Button:** It contains the main File Functions: New, Open, Save, Save as, Print, Print Preview, etc.

- **Ribbon Tabs:** Each Ribbon Tab displays a Ribbon that provides a set of Tool Groups. Click on the arrow to open a dialogue box with more options.

- **Command Tabs:** Office 2007 applications automatically open to the Home command tab, which contains formatting options needed to create a basic document. Specialized features can be accessed from other command tabs.

- **Slide and Outline Tabs:** The Slides tab shows thumbnail images of your slides, allowing you to rearrange, add, delete, hide slides and view set transitions as you work. The Outline tab shows the content of your slides, making it easy to rearrange your text.

- **Slide:** In this area you enter the content of your slides. Slides contain placeholders (enclosed by dotted borders) containing text, pictures, and charts.

- Notes Panel: This is where you can enter notes. If you wish to enter longer notes, you can go to the View tab and select Notes Page.

- **View Buttons:** These three buttons include:
  - » Normal View - shown here.
  - » Slide Sorter - This allows you to shuffle your slides.
  - » Slide Show - This shows the slides as viewed during presentation.

- **Zoom Slider:** This allows you to zoom in and out on the Slide Panel.

Fig.8.6.5: PowerPoint screen
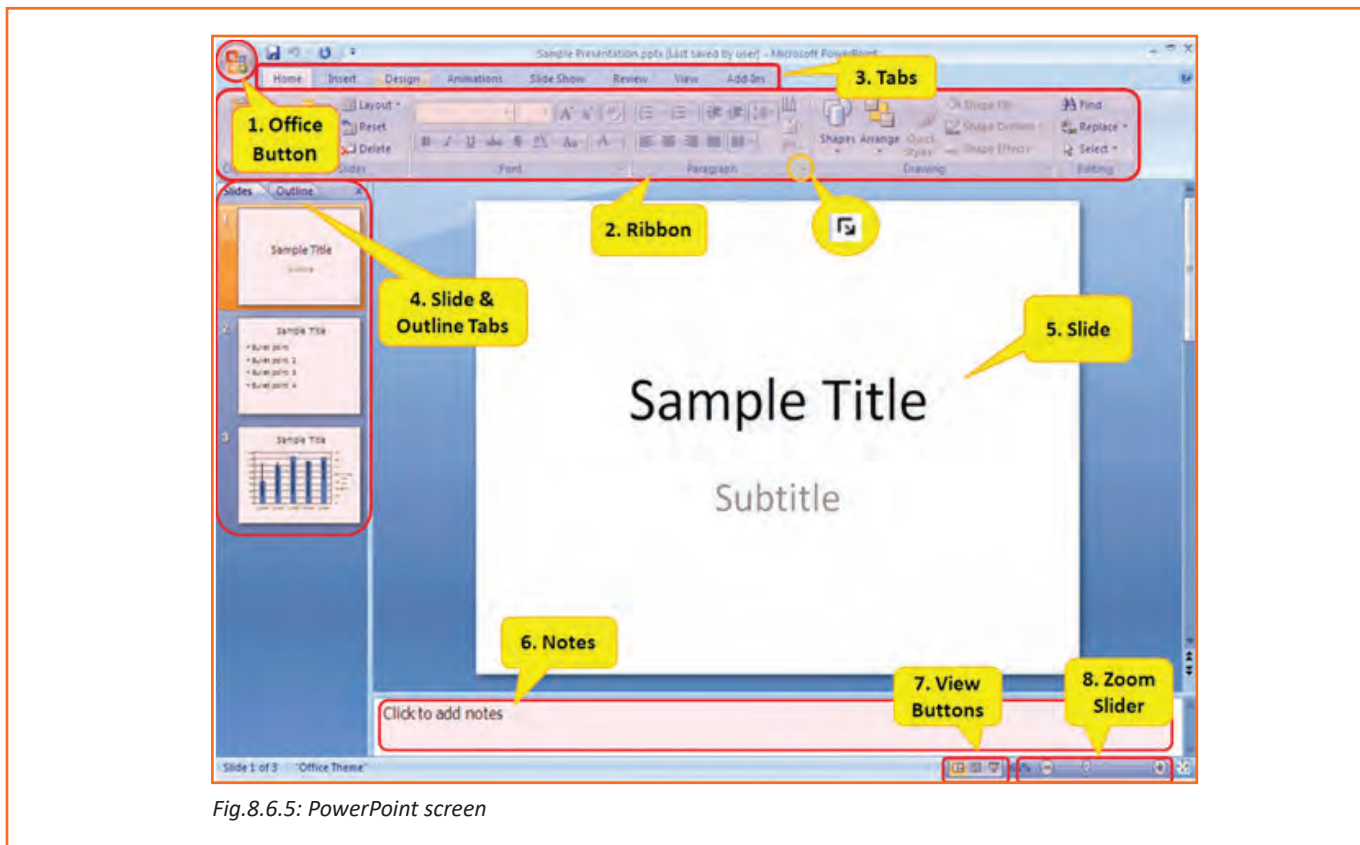
8.6.3 Saving a PowerPoint

- Click the *Save* button on the *Quick Access toolbar*.

OR

- Click the *Microsoft Office Button* , and then click *Save As*.

In the File name box, enter a new name for the presentation, or do nothing to accept the suggested file name.

In the Save as type list, select the file format that you want, and then click Save.
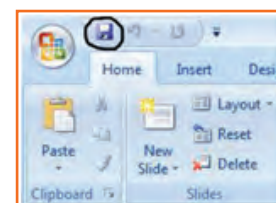
Fig.8.6.6: Save Icon

Fig.8.6.7: Save As Option

Fig.8.6.8: Save As Dialog Box

8.6.4 Working with Slides

Insert a New Slide

- **STEP 1:** Click the New Slide command in the Slides group on the Home tab. A blank slide will be inserted after your active slide.

- **STEP 2:** If you wish to choose the layout while creating your new slide, click the   on the New Slide button and choose a theme.

Fig.8.6.9: Insert new slide in PowerPoint

To insert a new slide using the Quick Menu, in the Slides panel right click the slide after which you want a new slide inserted and select New Slide.
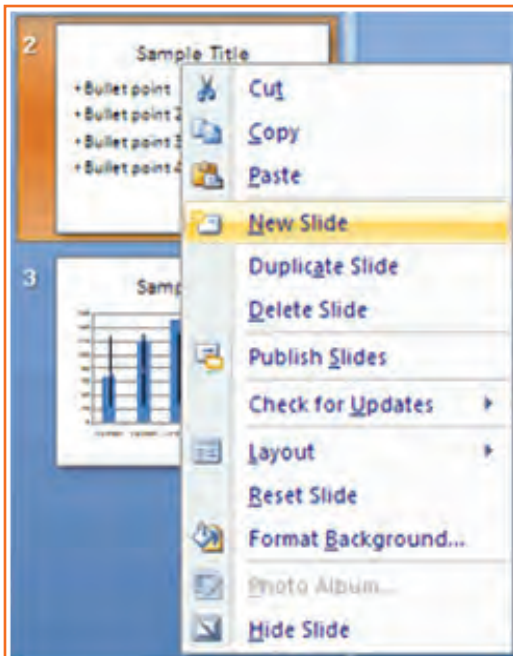
Fig.8.6.10: Insert new slide in PowerPoint

Copy and paste a slide

- **STEP 1:** Select the slide you want to copy.

- **STEP 2:** Click the Copy command on the Home tab.

- **STEP 3:** Click inside the Slides tab on the left task pane. A horizontal insertion point will appear.

- **STEP 4:** Move the insertion point to the location where you want the copy of the slide to appear.

- **STEP 5:** Click the Paste command on the Home tab. The copied slide will appear.

- **STEP 6:** You can use the keyboard shortcut Ctrl+C to copy the slide and Ctrl+V to paste it.
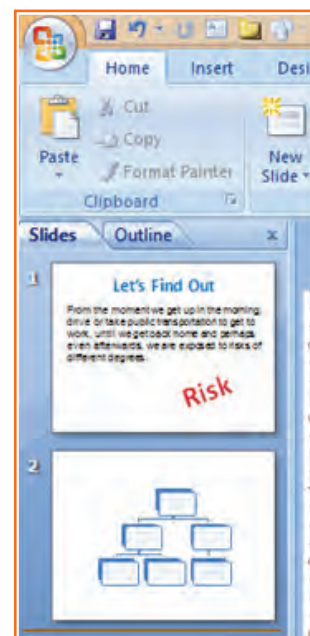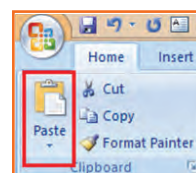
Fig.8.6.11: Copy paste of slide

Delete a slide

- **STEP 1:** Select the slide you want to delete and click the Delete command in the Slides group on the Home tab.

Move a slide

- **STEP 1:** On the Slides tab in the left task pane, select the slide you want to move.

- **STEP 2:** Click and drag the slide to a new location. The insertion point will appear.

- **STEP 3:** Release the mouse button.

- **STEP 4:** The slide will appear in the new location.
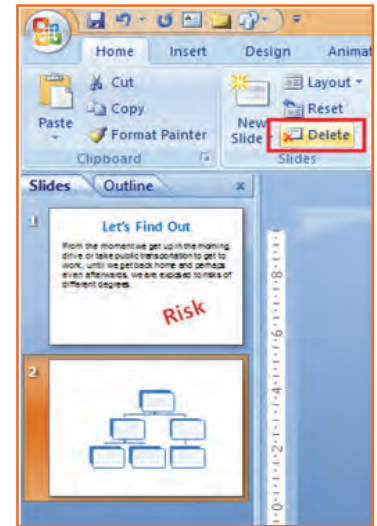
Fig.8.6.12: Delete a slide

8.6.5 View Tabs

Different views allow you to manage different aspects of your presentation.

- **STEP 1:** Normal View is the default view. It splits the window into Slide Frame, Notes, and the left frame where you can choose either Slides Thumbnails or Outline.

- **STEP 2:** Slide Sorter is thumbnails view of all the slides in the presentation. The slides are displayed horizontally and lets you see the big picture.

- **STEP 3:** Slide Show plays the presentation from the beginning with animation.
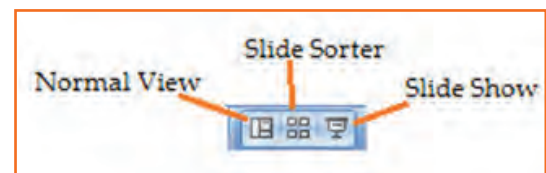
Fig.8.6.13: View Tabs

8.6.6 Animating Text and Images

In PowerPoint, you can add animation to text and objects to draw the audience's attention an add flair to your presentation.

- **STEP 1:** Select the object or text box you wish to animate.

- **STEP 2:** In the Animations tab under the Animations group, select an option from the Animate drop-down menu. As you hover your mouse over each choice PowerPoint will preview the effect on your slide.

NOTE: Remember that animations are applied only to the article or the text box selected . For adding animation across many slides you may need to add them to every.
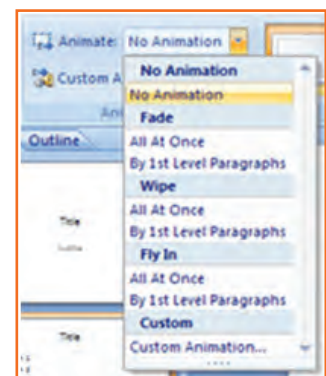
Fig.8.6.14: Animating Text and Images

To apply a custom animation effect:

- **STEP 1:** After you select the text or object on the slide you want to animate, select the Animations tab.

- **STEP 2:** Click Custom Animation in the Animations group. The Custom Animation task pane will appear on the right.

- **STEP 3:** Click Add Effect in the task pane to add an animation effect to the selected text or object.
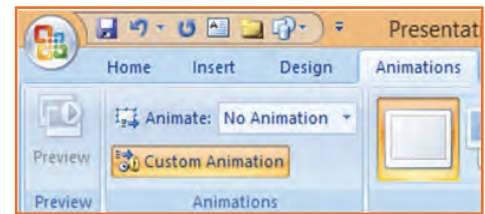
Fig.8.6.15: Adding Animation in PowerPoint
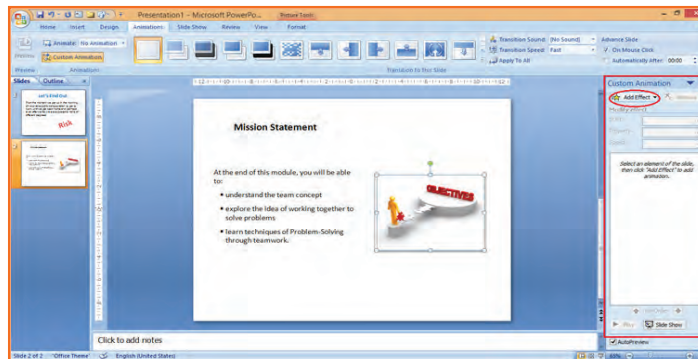
Fig.8.6.16: Animation in PowerPoint

- **STEP 4:** Select Entrance, Emphasis, Exit, or Motion Path to display a submenu of animation effects for the category.

- **STEP 5:** To customize the speed, properties and timing of your animation, on the Custom Animation Pane click on the effect you wish to modify.

- **STEP 6:** To modify an animation, use the options in the Modify: [Effect] section of the Custom Animation Pane. These options will change depending on the effect selected.

Hint: If the button on the Custom Animation Pane says "Change" instead of "Add Effect" click outside the object to deselect it and then click on it again.

8.6.7 Removing Animations

There are two methods:

1. Animations group (remove all at once):

   » Select the slide and then the object with the animation you would like to remove.

   » In the Animations tab under the Animations group click on the Animate pull-down menu and select No Animation.

2. Custom Animation Pane (remove one by one):

   » Select the slide with the animation you would like to remove.

   » If the Custom Animations pane is not visible, click on the Custom Animation button in the Animations group on the Animations tab.

   » In the Modify: [Effect] list select the animation to be removed.

   » Click Remove.

8.6.8 Working with Charts

A chart is a tool you can use to communicate your data graphically.

Chart elements

Let's familiarize with different chart element:

- **Titles:** There are two types of titles:
    - » Chart Title placed above the chart (default).
    - » Axes Titles placed besides the axes (The vertical axis is referred to as the Y axis, while the horizontal axis is referred to as the X axis.)
- **Legend:** The chart key, which displays captions (and/or color coding) to the series on the chart.
- **Data:** This is the range of cells (displayed in excel) that make up a chart. The chart is updated automatically whenever the information in these cells changes.

Inserting Charts

- **STEP 1:** Select the Insert tab.
- **STEP 2:** Click the Insert Chart command to open the Insert Chart dialog box.
- **STEP 3:** Click a chart to select it.
- **STEP 4:** The chart will appear on your slide, and Excel will open as a split screen with dummy data already filled in.
- **STEP 5:** You add your data and labels to the Excel spreadsheet and the chart will be automatically updated on your slide.
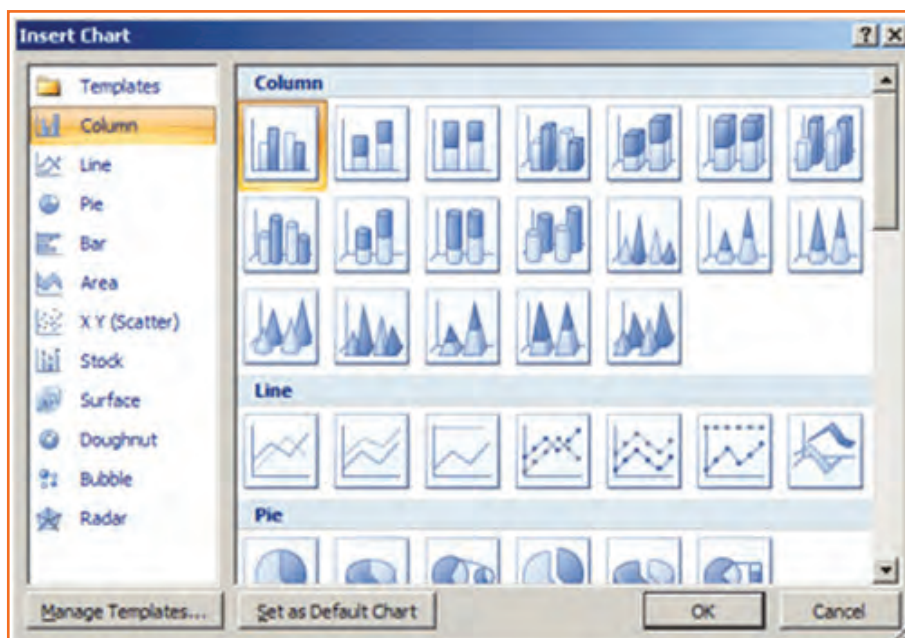
Fig.8.6.17: Inserting Charts

- **STEP 6:** When finished, click the Close Window in the upper right hand corner of Excel to close the worksheet.

Changing To a Different Chart

- **STEP 1:** You can change your present chart to a different format by right-click on the chart and select Change Series Chart Type. This opens the Change Chart Type dialog.

- **STEP 2:** Make a selection and press OK.

Edit source data

Fig.8.6.18: Edit source data

- **STEP 1:** Select the chart.

- **STEP 2:** Select the Design tab.

- **STEP 3:** Click the Edit Data command. An Excel spreadsheet with the current source data will appear.

- **STEP 4:** After you edit the data in the spreadsheet, the changes will appear on the slide.

- **STEP 5:** Close Excel without saving the spreadsheet.

Modifying the chart layout

Fig.8.6.19: Change Chart Type

- **STEP 1:** Select the chart.

- **STEP 2:** Click on the Design tab.

- **STEP 3:** Scroll through the options in the Chart Layout group, or click the More drop-down arrow to see all available chart layout options.

- **STEP 4:** Select a chart layout by clicking on it. The chart layout will change on the slide.
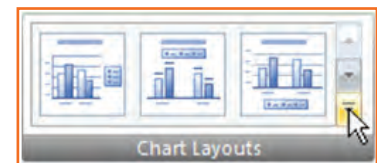
Fig.8.6.20: Chart Layouts

Modify specific areas of the chart layout

- **STEP 1:** Select the chart.
- **STEP 2:** Select the Layout tab.
- **STEP 3:** Locate the Labels group.

  » Chart Title: Add, remove, or re-position the chart title.

  » Axis Titles: Add, remove, or re-position the text used to label each axis.

  » Legend: Add, remove, or re-position the chart legend.

  » Data Labels: Click this command to display or hide data values next to each chart element.

  » Data Table: Adds a table summarizing your data to the chart.
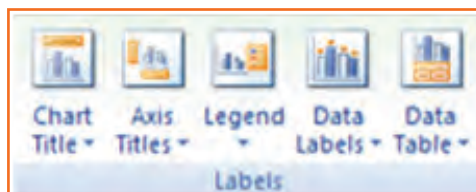
Fig.8.6.21: Modify Chart

Exercise

1. What does the office button in Power Point contain?

   ....

   ....

2. What is the Notes Panel?

   a) It's a new slide

   b) It's where you can enter notes on the slide

3. What are the three kind of 'view buttons'?

   ....

   ....

4. You can change your present chart to a different format by right-click on the chart and select Change Series Chart Type.

   a) True

   b) False

Notes

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UNIT 8.7: MS Excel

Unit Objectives

At the end of the unit, you will be able to:

- Work on MS-Excel
- Format cells and cell content
- Use formulas
- Make Charts and Pivot Table.

MS Excel stands for - Microsoft excel is one of the foremost common electronic spreadsheet applications supported by both mack and computer platforms. as with a paper spreadsheet, you'll be able to use excel to prepare your data into rows and columns and to perform mathematical calculations.

MS Excel helps in:

- Managing data online
- Creating visually persuasive charts, and thought-provoking graphs.
- Creating and expense reports.
- Building formulas and editing them.
- Balancing a checkbook.

Fig.8.7.1: MS Excel Icon

Thia tutorial teaches you how to create an Excel spreadsheet.

Before you start making spreadsheets in excel, you will need to line up your excel setting and become familiar with many key tasks and options like a way to minimize and maximize the Ribbon, configure the quick Access toolbar, switch page views, and access your excel choices.

8.7.1 Exploring the Excel Environment

The tabbed Ribbon menu system is however you navigate through excel and access the assorted excel commands. If you have used previous versions of excel, the Ribbon system replaces the traditional menus. on top of the Ribbon in the upper-left corner is the Microsoft office Button. From here, you'll access important options like New, Save, Save As, and Print. By default, the short Access Toolbar is pinned next to the Microsoft office Button and includes commands like Undo and Redo.

At the bottom-left space of the spreadsheet, you will notice worksheet tabs. By default, 3 worksheet tabs appear each time you create a new book. On the bottom-right space of the spreadsheet you will find page view commands, the zoom tool and the horizontal scrolling bar.
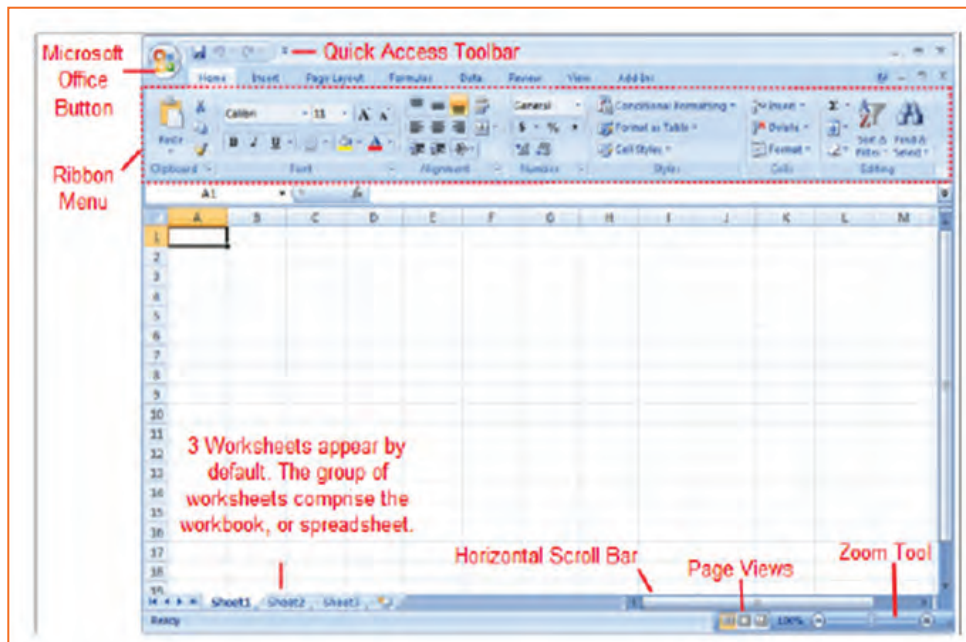
Fig.8.7.2: Excel screen

8.7.2 Zoom In and Out

- **STEP 1:** Locate the zoom bar in the bottom-right corner.

- **STEP 2:** Left-click the slider and drag it to the left to zoom out and right to zoom in.

To Scroll Horizontally in a Worksheet:

- **STEP 1:** Locate the horizontal scroll bar in the bottom-right corner.

- **STEP 2:** Left-click the bar and move it from left to right.
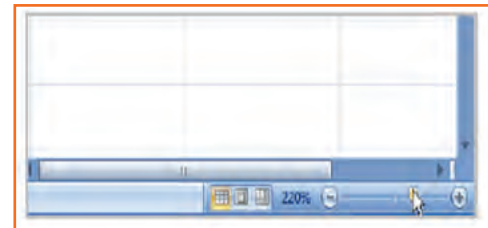
Fig.8.7.3: Zoom In and Out

8.7.3 Page Views

- **STEP 1:** Locate the Page View options in the bottom-right corner. The Page View options are Normal, Page Layout, and Page Break.

- **STEP 2:** Left-click an option to select it.
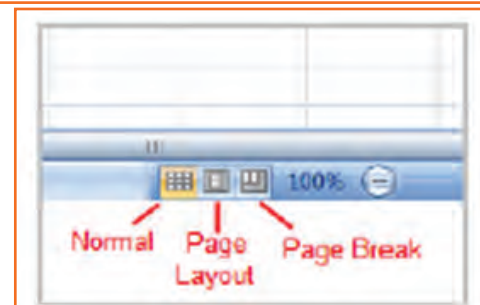
Fig.8.7.4: Page Views

8.7.4 Add Commands to the Quick Access Toolbar

- **STEP 1:** Click the arrow to the right of the Quick Access toolbar.

- **STEP 2:** Select the command you wish to add from the drop-down list. It will appear in the Quick Access toolbar.

The Save, Undo, and Redo commands appear by default in the Quick Access toolbar.

Fig.8.7.5: Quick Access Toolbar

Fig.8.7.6: The Microsoft Office Button

The Microsoft Office Button

The Microsoft office Button appears at the top of the stand out window. once you left-click the button, a menu appears. From this menu, you'll be able to produce a new spreadsheet, open existing files, save files in a type of ways and print. you'll be able to also add security features, send, publish and close files.

8.7.5 Change the Default Excel Options
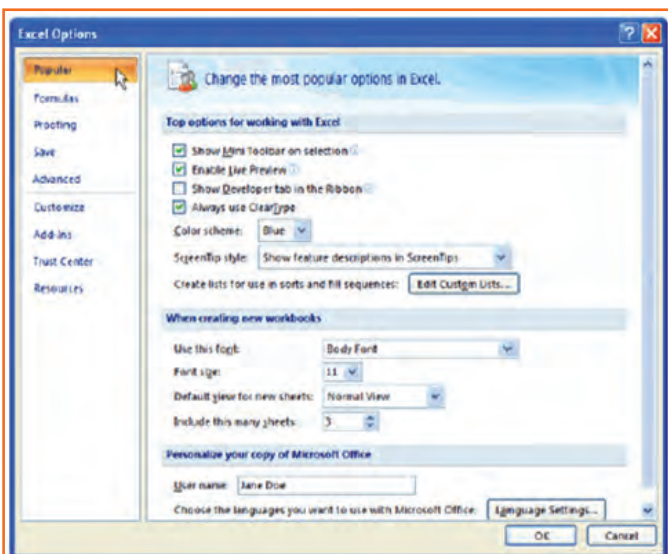
Fig.8.7.7: Default Excel Options

- **STEP 1:** Click the Excel Options button. A dialog box will appear.

- **STEP 2:** Select a category on the left to access different Excel options.

- **STEP 3:** Modify any of the default settings.

- **STEP 4:** Click OK.

You will have to be compelled to skills to insert text and numbers into excel workbooks to be ready to use it to calculate, analyze, and organize data. during this lesson, you will learn how to create a new workbook, insert and delete text, navigate a worksheet and save an excel workbook.

8.7.6 Create a New Blank Workbook

- **STEP 1:** Left-click the *Microsoft Office Button*.

- **STEP 2:** Select *New*. The New Workbook dialog box opens, and Blank Workbook is highlighted by default.

- **STEP 3:** Click *Create*. A new, blank workbook appears in the window.
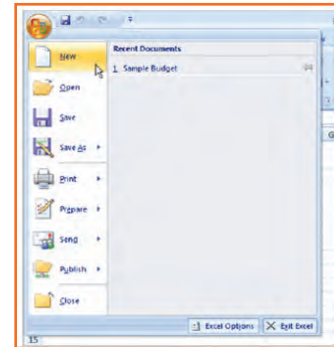
Fig.8.7.8: New Blank Workbook

8.7.7 Insert Text

- **STEP 1:** Left-click a cell to select it. Each rectangle in the worksheet is called a cell. As you select a cell, the cell address appears in the Name Box.

- **STEP 2:** Enter text into the cell using your keyboard. The text appears in the cell and in the formula bar.
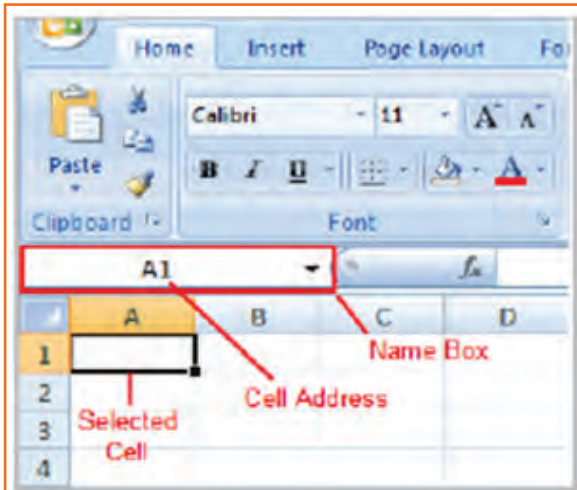
Fig.8.7.9(a): Different Areas on Worksheet
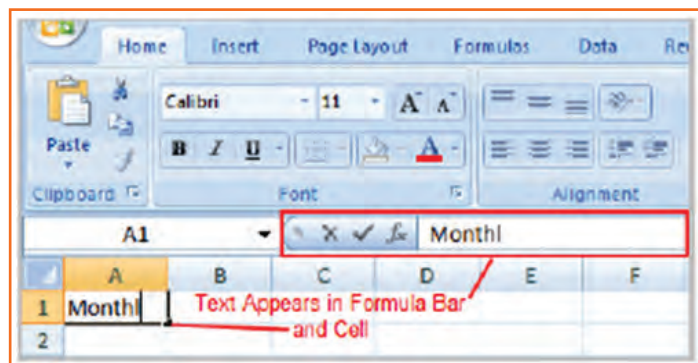
Fig.8.7.9(b): Different Areas on Worksheet

8.7.8 Cell Addresses

Each cell contains a name, or a cell address, based on the column and row it is in. for example, this cell is C3 since it is wherever column C and row 3 intersect.

You can also select multiple cells at the same time. a group of cells is known as a cell range. instead of a single cell address, you will refer to a cell range using the cell addresses of the first and last cells in the cell range, separated by a colon. as an example, a cell range that included cells A1, A2, A3, A4, and A5 would be written as A1:A5.
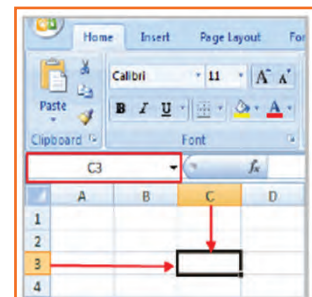
Fig.8.7.10: Cell Address

Edit or Delete Text

- **STEP 1:** Select the cell.

- **STEP 2:** Press the Backspace key on your keyboard to delete text and make a correction.

- **STEP 3:** Press the Delete key to delete the entire contents of a cell.

You can also make changes to and delete text from the formula bar. Just select the cell and place your insertion point in the formula bar.

8.7.9 Move across a Worksheet Using the Keyboard

- **STEP 1:** Press the Tab key to move to the right of the selected cell.

- **STEP 2:** Press the Shift key and then the Tab key to move to the left of the selected cell.

- **STEP 3:** Use the Page Up and Page Down keys to navigate the worksheet.

- **STEP 4:** Use the arrow keys.

To Save the Workbook:

- **STEP 1:** Left-click the Microsoft Office Button.

- **STEP 2:** Select Save or Save As.

- **STEP 3:** Save As allows you to name the file and choose a location to save the spreadsheet. Choose Save As if you'd like to save the file for the first time or if you'd like to save the file as a different name.

- Select Save if the file has already been named.

You can save a workbook in many ways, but the two commonest are as an excel workbook, that saves it with a 2007 file extension, and as an excel 97-2003 workbook, that saves the file in a compatible format therefore those who have earlier versions of excel can open the file.

When you open a new, blank workbook, the cells, columns, and rows are set to a default size. you do have the ability to alter the size of each, further as to insert new columns, rows, and cells as needed.

To Modify Column Width:

- **STEP 1:** Position the cursor over the column line in the column heading and a double arrow will appear.

- **STEP 2:** Left-click the mouse and drag the cursor to the right to increase the column width or to the left to decrease the column width.

- **STEP 3:** Release the mouse button.
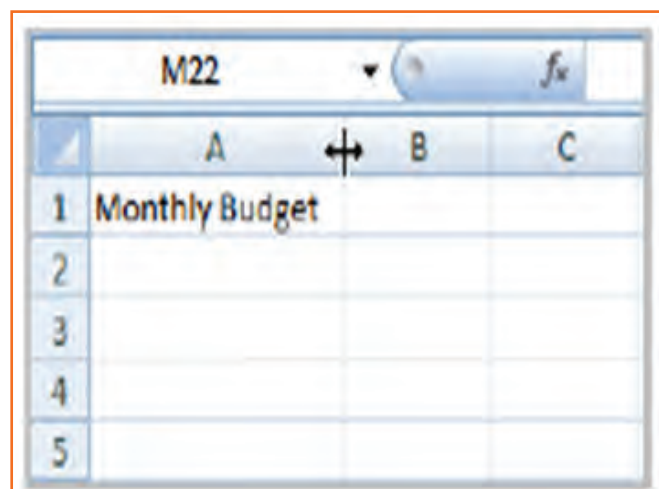
Fig.8.7.11: Modify Column Width

To Modify the Row Height:

- **STEP 1:** Position the cursor over the row line you want to modify, and a double arrow will appear.

- **STEP 2:** Left-click the mouse and drag the cursor upward to decrease the row height or downward to increase the row height.

- **STEP 3:** Release the mouse button.

To Insert Rows:

- **STEP 1:** Select the row below where you want the new row to appear.

- **STEP 2:** Click the Insert command in the Cells group on the Home tab. The row will appear.

- **STEP 3:** The new row always appears above the selected row.

Make sure that you} choose the complete row below where you wish the new row to appear and not just the cell. If you select simply the cell and then click Insert, only a new cell can appear.

To Insert Columns:

- **STEP 1:** Select the column to the right of where you want the column to appear.

- **STEP 2:** Click the Insert command in the Cells group on the Home tab. The column will appear.

The new column continually appears to the left of the selected column. for example, if you wish to insert a column between september and october, choose the october column and click on the Insert command.

Make sure that you select the complete column to the right of where you want the new column to appear and not just the cell. If you choose simply the cell and then click Insert, only a new cell can appear.

To Delete Rows and Columns:

- **STEP 1:** Select the row or column you'd like to delete.

- **STEP 2:** Click the Delete command in the Cells group on the Home tab.
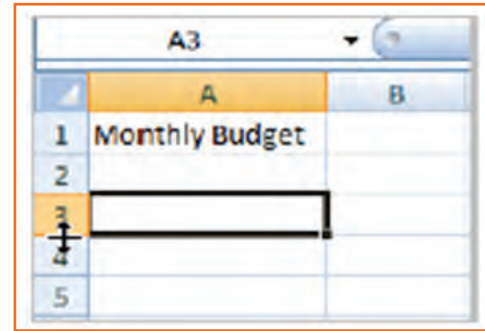
Fig.8.7.12: Modify the Row Height
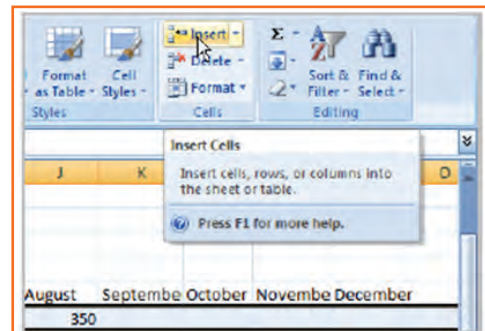
Fig.8.7.13: Insert Rows
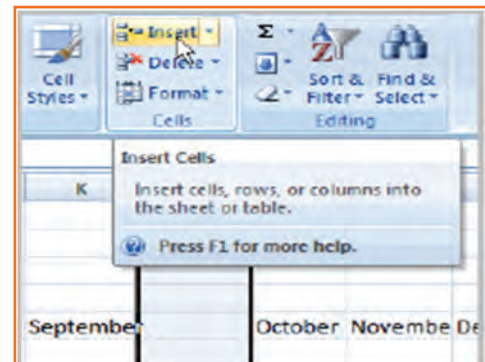
Fig.8.7.14: Insert Columns

8.7.10 Formatting

Once you have entered information into a spreadsheet, you will need to be able to format it.

To Format Text in Bold or Italics:

• **STEP 1:** Left-click a cell to select it or drag your cursor over the text in the formula bar to select it.

• **STEP 2:** Click the Bold or Italics command.

You can select entire columns and rows, or specific cells. to select the entire column, simply left-click the column heading, and the entire column can appear as selected. to select specific cells, simply left-click a cell and drag your mouse to select the opposite cells. Then, release the mouse button.
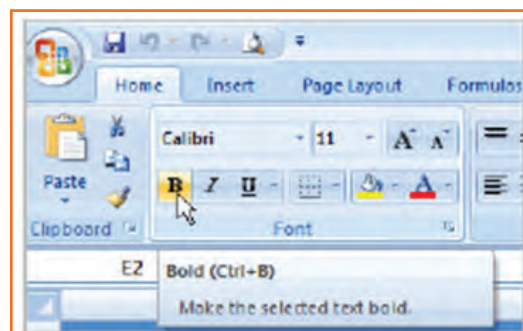
Fig.8.7.15: Format Text in Bold or Italics

To Format Text as Underlined:

• **STEP 1:** Select the cell or cells you want to format.

• **STEP 2:** Click the drop-down arrow next to the Underline command.

• **STEP 3:** Select the Single Underline or Double Underline option.
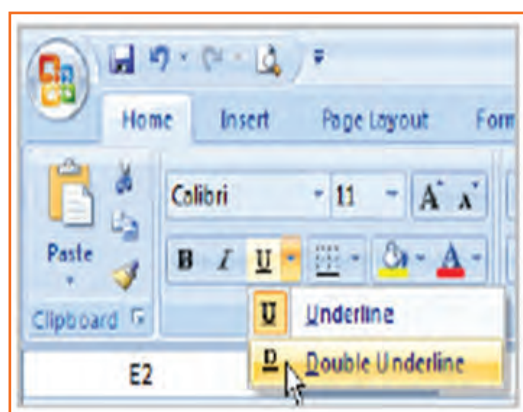
Fig.8.7.16: Format Text as Underlined

To Change the Font Style:

• **STEP 1:** Select the cell or cells you want to format.

• **STEP 2:** Left-click the drop-down arrow next to the Font Style box on the Home tab.

• **STEP 3:** Select a font style from the list.
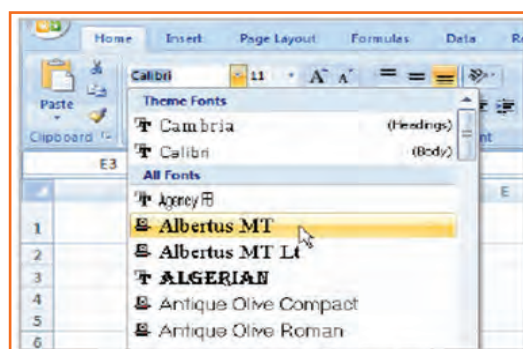
Fig.8.7.17: Change the Font Style

To Change the Font Size:

• **STEP 1:** Select the cell or cells you want to format.

• **STEP 2:** Left-click the drop-down arrow next to the Font Size box on the Home tab.

• **STEP 3:** Select a font size from the list.
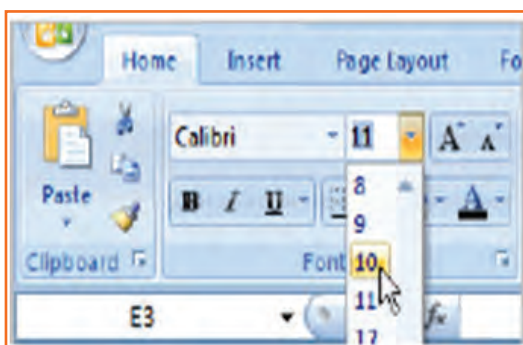
Fig.8.7.18: Change the Font Size

To Change the Text Color:

- **STEP 1:** Select the cell or cells you want to format.

- **STEP 2:** Left-click the drop-down arrow next to the Text Color command. A color palette will appear.

- **STEP 3:** Select a color from the palette.

OR

- **STEP 1:** Select More Colors. A dialog box will appear.

- **STEP 2:** Select a color.

- **STEP 3:** Click OK.
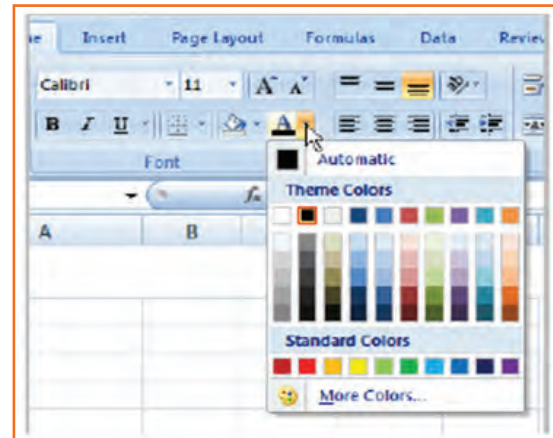
Fig.8.7.19: Change the Text Color

To Add a Border:

- **STEP 1:** Select the cell or cells you want to format.

- **STEP 2:** Click the drop-down arrow next to the Borders command on the Home tab. A menu will appear with border options.

- **STEP 3:** Left-click an option from the list to select it.

You can change the line style and color of the border.
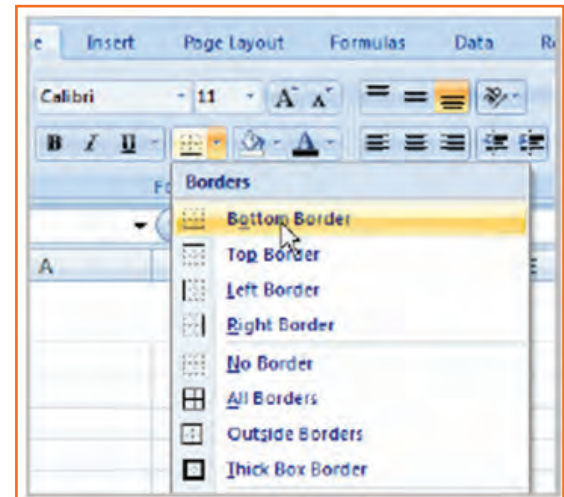
Fig.8.7.20: Add a Border

To Add a Fill Color:

- **STEP 1:** Select the cell or cells you want to format.

- **STEP 2:** Click the Fill command. A color palette will appear.

- **STEP 3:** Select a color.

OR

- **STEP 1:** Select More Colors. A dialog box will appear.

- **STEP 2:** Select a color.

- **STEP 3:** Click OK.

You can use the fill color feature to format columns and rows, and format a worksheet so that it is easier to read.
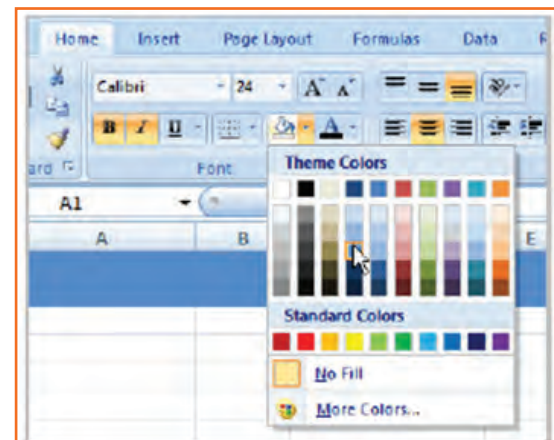
Fig.8.7.21: Add a Fill Color

To Format Numbers and Dates:

- **STEP 1:** Select the cell or cells you want to format.

- **STEP 2:** Left-click the drop-down arrow next to the Number Format box.

- **STEP 3:** Select one of the options for formatting numbers.

By default, the numbers appear in the General category, which means there is no special formatting.
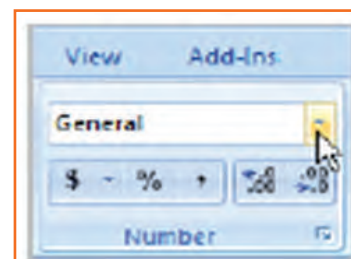
Fig.8.7.22: Format Numbers and Dates

8.7.11 Calculations and Analysis

Excel could be used to calculate and analyze numerical data; however, you need to know how to write formulas to maximize Excel's streangth. A formula is an equation perform a calculation using cell values in the worksheet.

To Create a Simple Formula that Adds Two Numbers:

- **STEP 1:** Click the cell where the formula will be defined (C5, for example).

- **STEP 2:** Type the equals sign (=) to let Excel know a formula is being defined.

- **STEP 3:** Type the first number to be added (e.g., 1500).

- **STEP 4:** Type the addition sign (+) to let Excel know that an add operation is to be performed.

- **STEP 5:** Type the second number to be added (e.g., 200).

- **STEP 6:** Press Enter or click the Enter button on the Formula bar to complete the formula.

Fig.8.7.23(a): Creating Formulas

To Create a Simple Formula that Adds the Contents of Two Cells:

- **STEP 1:** Click the cell where the answer will appear (C5, for example).

- **STEP 2:** Type the equals sign (=) to let Excel know a formula is being defined.

- **STEP 3:** Type the cell number that contains the first number to be added (C3, for example).

- **STEP 4:** Type the addition sign (+) to let Excel know that an add operation is to be performed.

- **STEP 5:** Type the cell address that contains the second number to be added (C4, for example).

- **STEP 6:** Press Enter or click the Enter button on the Formula bar to complete the formula.

Fig.8.7.23(b): Creating Formulas

Fig.8.7.23(c): Creating Formulas

To Copy and Paste Cell Contents:

• **STEP 1:** Select the cell or cells you wish to copy.

• **STEP 2:** Click the Copy command in the Clipboard group on the Home tab. The border of the selected cells will change appearance.

• **STEP 3:** Select the cell or cells where you want to paste the information.

• **STEP 4:** Click the Paste command. The copied information will now appear in the new cells.

To select more than one adjoining cell, left-click one of the cells, drag the cursor until all the cells are selected, and release the mouse button.

The copied cell will stay selected until you perform your next task, or you can double-click the cell to deselect it.

To Cut and Paste Cell Contents:

• **STEP 1:** Select the cell or cells you wish to cut.

• **STEP 2:** Click the Cut command in the Clipboard group on the Home tab. The border of the selected cells will change appearance.

• **STEP 3:** Select the cell or cells where you want to paste the information.

• **STEP 4:** Click the Paste command. The cut information will be removed from the original cells and now appear in the new cells.
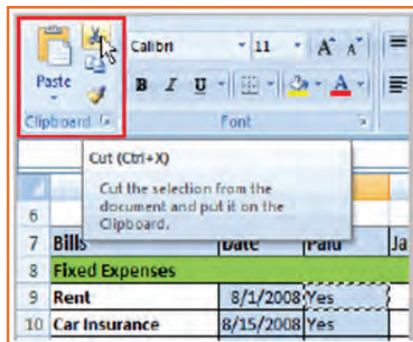
Fig.8.7.24(a): Cut and Paste Cell Contents
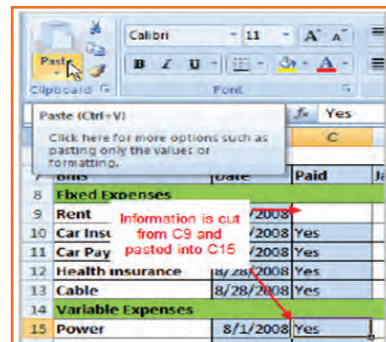
Fig.8.7.24(b): Cut and Paste Cell Contents

To View the Spreadsheet in Print Preview:

• **STEP 1:** Left-click the Microsoft Office Button.

• **STEP 2:** Select Print.

• **STEP 3:** Select Print Preview. The spreadsheet will appear in Print Preview view.

Click the Close Print Preview button to return to the Normal View.
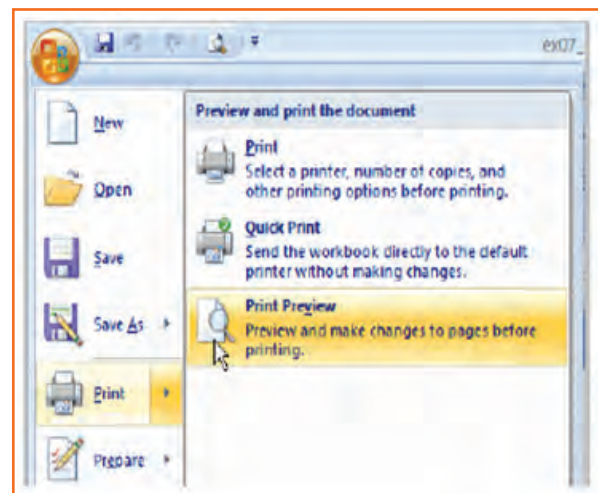
Fig.8.7.25(a): Print Preview Option

Exploring Print Preview:

If you are in Print Preview, you can use many of the same features that you can from the Ribbon; however, in Print Preview you can see how the spreadsheet will appear in hard form.

To Modify Margins, Column Width, or Row Height While in Print Preview:

- **STEP 1:** Click the Print Preview command on the Quick Access toolbar, or select Print Preview from the Microsoft Office Button menu. The spreadsheet opens in print preview mode.

- **STEP 2:** However your cursor over one of the black margin markers until a double arrow appears.

- **STEP 3:** Left-click and drag the marker to the desired location. The change will be reflected in the spreadsheet.
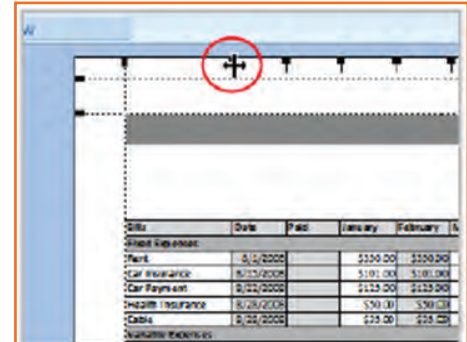
Fig.8.7.25(b): Print Preview Option

To Modify Margins:

- **STEP 1:** Select the Page Layout tab.

- **STEP 2:** Left-click the Margins command.

- **STEP 3:** Choose one of the predefined settings or enter custom margins.
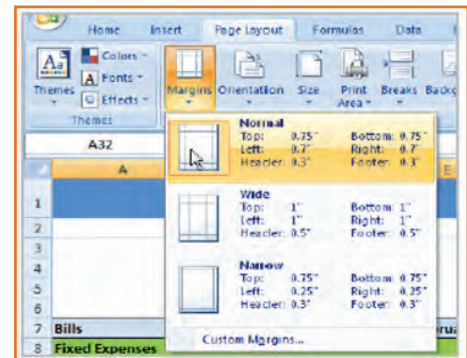
Fig.8.7.26: Modify Margins

8.7.12 Change Page Orientation

- **STEP 1:** Select the Page Layout tab.

- **STEP 2:** Left-click the Orientation command.

- **STEP 3:** Select either Portrait or Landscape.

Portrait gets the page oriented vertically, while Landscape orients the page horizontally.
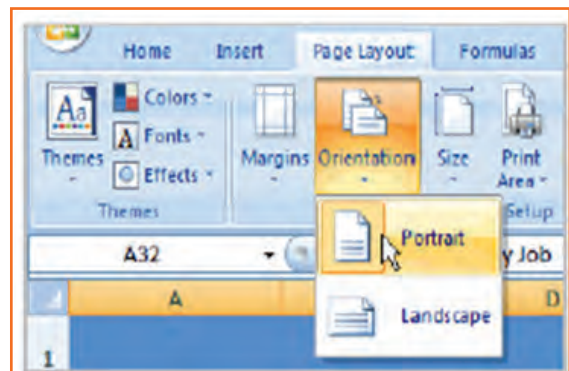
Fig.8.7.27: Page Orientation

To Change the Paper Size:

- **STEP 1:** Select the Page Layout tab.

- **STEP 2:** Click the Size command.

- **STEP 3:** Select a size option from the list.

To Print from the Microsoft Office Button:

- Left-click the Microsoft Office Button.

- Select Print. The Print dialog box appears.

- Select a printer if you wish to use a printer other than the default setting.

- Click Properties to change any necessary settings.

- Choose if you want to print specific pages, the whole worksheet, a selection, the active sheet or the complete workbook.

- Select the number of copies you'd like to print.

- Click OK.
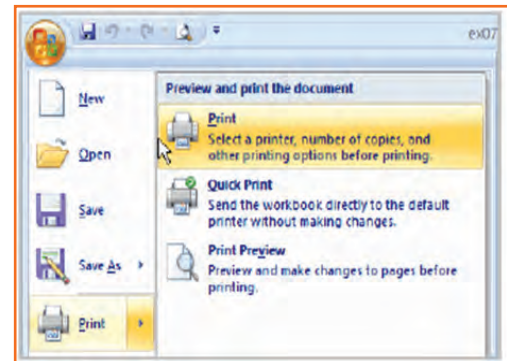
Fig.8.7.28: Print from the Microsoft Office Button

8.7.13 Excel's Different Functions

There are many different functions in Excel 2007. Some of the more common functions include:

Statistical Functions:

- SUM - Used to add a range of cells together.

- AVERAGE - This formula can calculate the average of a range of cells.

- COUNT - Used to count the number of chosen data in a range of cells.

- MAX - We can identify the largest number in a range of cells with it.

- MIN - Used to identify the smallest number in a range of cells.

Financial Functions:

- Interest Rates

- Loan Payments

- Depreciation Amounts

Date and Time functions:

- DATE - Converts a serial number to a day of the month.

- Day of Week.

- DAYS360.

- TIME - Returns the particular time.

- HOUR - Converts value to an hour.

- MINUTE - Converts value to a minute.

- TODAY - Returns value to today's date.

- MONTH - Converts value to a month.

- YEAR - Converts value to a year.

You don't have to memorize the functions but should have an idea of what each can do for you.

To Calculate the Sum of a Range of Data Using AutoSum:

- **STEP 1:** Select the Formulas tab.

- **STEP 2:** Locate the Function Library group. From here, you can access all the available functions.

- **STEP 3:** Select the cell where you want the function to appear. In this example, select G42.

- **STEP 4:** Select the drop-down arrow next to the AutoSum command.

- **STEP 5:** Select Sum. A formula will appear in the selected cell, G42.

- **STEP 6:** This formula, =SUM(G2:G41), is called a function. AutoSum command automatically selects the range of cells from G2 to G41, based on where you inserted the function. You can alter the cell range, if necessary.

- **STEP 7:** Press the Enter key or Enter button on the formula bar. The total will appear.
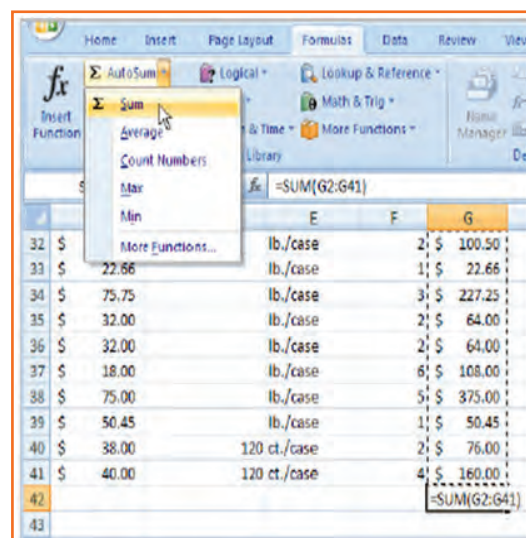
To Edit a Function:

- **STEP 1:** Select the cell where the function is defined.

- **STEP 2:** Insert the cursor in the formula bar.

- **STEP 3:** Edit the range by deleting and changing necessary cell numbers.

- **STEP 4:** Click the Enter icon.

Fig.8.7.29: Using AutoSum
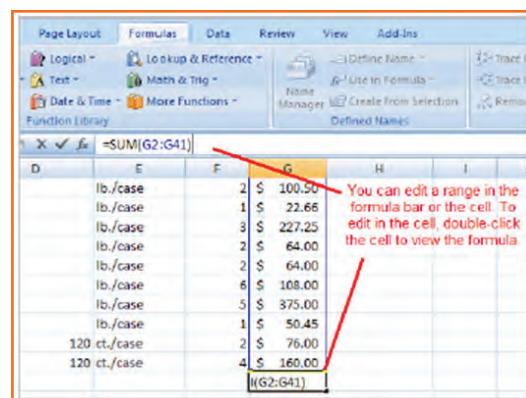
Fig.8.7.30: Edit a Function
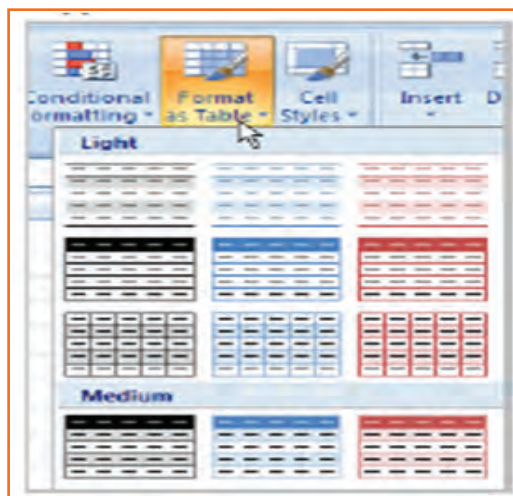
Fig.8.7.31: Format Information

To Format Information as a Table:

- **STEP 1:** Select any cell that contains information.

- **STEP 2:** Click the Format as Table command in the Styles group on the Home tab. A list of predefined tables will appear.

- **STEP 3:** Left-click a table style to select it.

- **STEP 4:** A dialog box will appear. Excel has automatically selected the cells for your table. The cells will appear selected in the spreadsheet, and the range will appear in the dialog box.

- **STEP 5:** Change the range listed in the field, if necessary.

- **STEP 6:** Verify the box is selected to indicate your table has headings, if it does. De-select this box if your table does not have column headings.

- **STEP 7:** Click OK. The table will appear formatted in the style you chose.
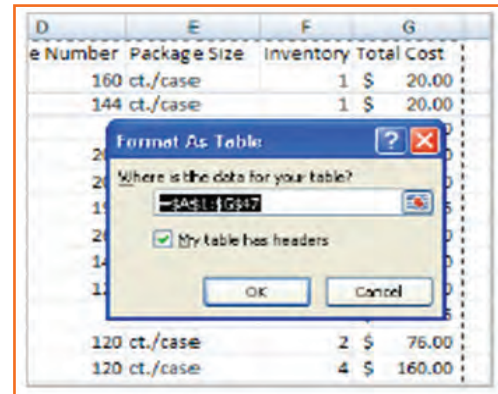
Fig.8.7.32: Format as Table

8.7.14 Aligning Text

Excel 2007 left-aligns text (labels) and right-aligns numbers (values). This makes data easier to read, but you do not have to use these defaults. Text and numbers can be defined as left-aligned, right-aligned, or centered in Excel.

To Align Text or Numbers in a Cell:

- **STEP 1:** Select a cell or range of cells.

- **STEP 2:** Click on either the Align Left, Center, or Align Right commands on the Home tab.

- **STEP 3:** The text or numbers in the cell(s) take on the selected alignment treatment.
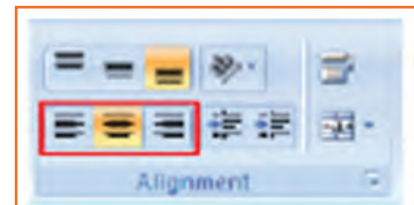
Fig.8.7.33: Align Text or Numbers

Left-click a column label to select the entire column or a row label to select an entire row.

Changing Vertical Cell Alignment:

You can also define vertical alignment of a cell. In Vertical alignment, information in a cell can be located at the top of the cell, middle of the cell, or bottom of the cell. The default is bottom.

To Change Vertical Alignment from the Alignment Group:

- **STEP 1:** Select a cell or range of cells.

- **STEP 2:** Click the Top Align, Center, or Bottom Align command.
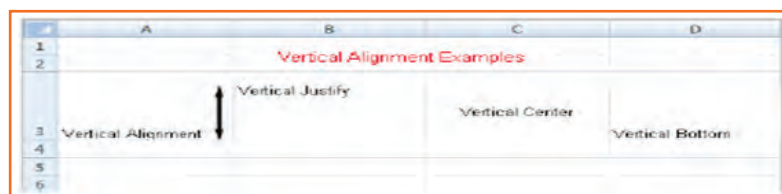
Fig.8.7.34: Vertical Cell Alignment

Changing Text Control:

- **STEP 1:** Text Control allows you to control the way Excel 2007 presents information in a cell.

- **STEP 2:** There are two common types of Text control: Wrapped Text and Merge Cells.
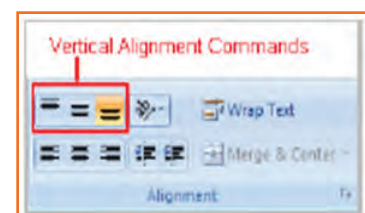
Fig.8.7.35: Text Control

- **STEP 3:** The Wrapped Text wraps the contents of a cell across several lines if it's too large than the column width. It increases the height of the cell as well.

- **STEP 4:** Merge Cells can also be applied by using the Merge and Center button on the Home tab.

To Change Text Control:

- **STEP 1:** Select a cell or range of cells.

- **STEP 2:** Select the Home tab.

- **STEP 3:** Click the Wrap Text command or the Merge and Center command.
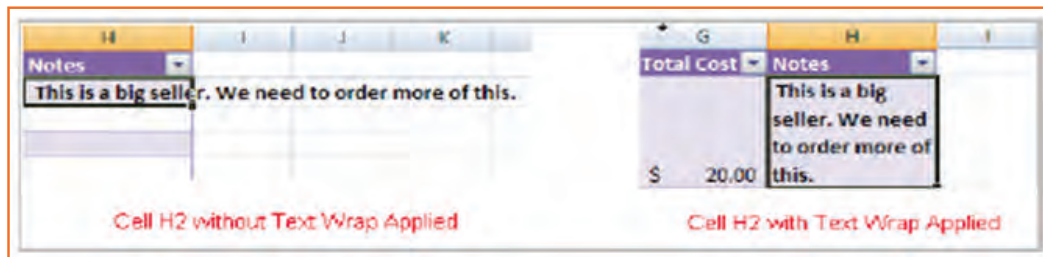
Fig.8.7.36: Text Control

To Name a Worksheet:

Right-click the sheet tab to select it.

- **STEP 1:** Choose Rename from the menu that appears. The text is highlighted by a black box.

- **STEP 2:** Type a new name for the worksheet.

- **STEP 3:** Click off the tab. The worksheet now assumes the descriptive name defined.
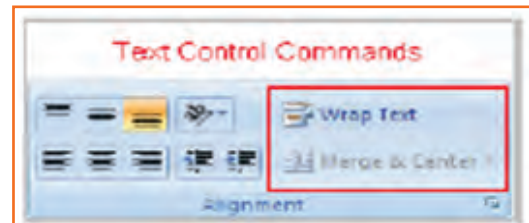
Fig.8.7.37: Wrap Text

To Insert a New Worksheet:
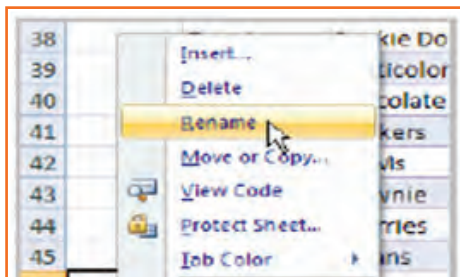
Fig.8.7.38(a): Name a Worksheet

Fig.8.7.38(b): Name a Worksheet

- **STEP 1:** Left-click on the Insert Worksheet icon. A new worksheet appears. It will be named Sheet 4, Sheet 5, or whatever the next sequential sheet number may be in the workbook.
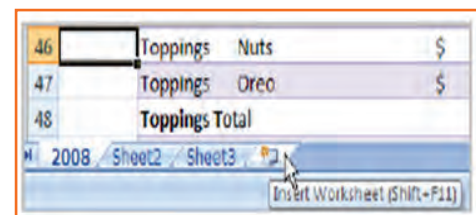
Fig.8.7.39: Insert a New Worksheet

To Delete One or More Worksheets:

- **STEP 1:** Click on the sheet(s) you want to delete.
- **STEP 2:** Right-click the sheet(s) and a menu appears.
- **STEP 3:** Select Delete.
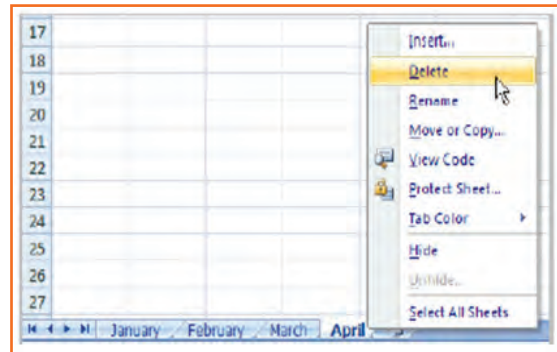
Fig.8.7.40: Delete One or More Worksheets

Exercise

1. What are the things that MS Excel helps in?

   ....

   ....

2. How does one Zoom out in MS Excel?

   ....

   ....

3. The Save, Undo, and Redo commands appear by default in the Quick Access toolbar.

   a) True

   b) False

4. What can the Microsoft Button help with?

   ....

   ....

5. Calculate the average range of cells is a statistical function in MS Excel?

   a) True

   b) False

6. What is a financial function in MS Excel?

   a) Adding the SUM of all cells

   b) Convert a serial number to a minute

   c) Calculate interest rates

UNIT 8.8: Internet Concepts

Unit Objectives

At the end of the unit, you will be able to:

• Understand internet concepts.

• Recognise the different types of URLs.

• Use MS-Outlook.

8.8.1 URL Concepts

The full form of url is Uniform Resource Locator. It is the worldwide address of documents and other resources on the world wide web. The URL is divided into two different elements. the primary part of the url is called a protocol identifier as it helps us distinguishing what protocol to use. The second part of the url is called a resource name and it indicates the ip address or the domain name where the resource is located. The protocol identifier and the resource name are separated by a colon and two forward slashes it is more clearly understood by looking in to the following example: the two URLs below purpose two different files at the domain pcwebopedia.com. Here the primary one specifies an executable file that should be fetched using the FTP protocol; the second specifies a web page that should be fetched using the HTTP protocol:

1. ftp://www.pcwebopedia.com/stuff.exe

2. http://www.pcwebopedia.com/index.html

8.8.1.1 Different Kinds of URLs

There is a wide range of URLs, as well as different terms to describe what a URL looks like. Let's have a better understanding of various URLs and their types with an example:

• **Messy:** Such URL has many distorted and jumbled numbers, letters on it that makes slight organizational sense i.e.

http://www.example.com/woeiruwoei909305820580.

• **Dynamic:** Dynamic URLs are the end result of database queries that provide content output based on the result of that query. The URL ends up looking quite mangled, alias "messy", which usually consist of the characters like: ?, &, %, +, =, $. Dynamic URLs are often found as part of consumer-driven websites: shopping, travel, or anything that requires changing answers for many different user queries.

• **Static:** A static URL is the opposite of a dynamic URL. The URL is "hard-wired" into the Web page's HTML coding. Static URL does not alter or adjust; it cannot be compromised; depending on what the user requests.

• **Obfuscated:** Obfuscated, or hidden, URLs are mostly used in phishing scams. Basically, a familiar URL is distorted in some way to make it seem legitimate. As soon as the user clicks on the obfuscated URL redirected to a malicious website.

There are a lot of clues and information that you can garnered from a simple URL, including:

- What kind of server the Web page is hosted on.
- What kind of organization the Web page belongs to.
- Where the Web page is located in the world.
- The names of the directories on the website.

By carefully looking at the different parts of any Web address, you can quickly determine quite a bit of useful information. In addition, by simply deleting parts of the URL, you can learn more about the website than what might be actually publicly accessible. For example:

- **http://www.widget.com/blog/music/:** This points to a resource online, and the URL tells you that yes, indeed, it does point to an online resource. Let's go further back.
- **http://www.widget.com/blog/:** By moving backwards in the URL from right to left, we can see that we're now at the blog section of this publication.
- **http://www.widget.com:** The home page of the website.

Of course, this is a very simple example. However, by dissecting complex URLs one step at a time, quite a bit of information can be uncovered.

8.8.2 How to create Your E-mail account (Outlook)

You can create a new or additional Outlook account by following the same account creation wizard. You can follow the steps listed below to configure your Microsoft Outlook Express email client to work with your email account:

- **STEP 1:** Open Outlook Express and select Tools E-mail Accounts from the main menu. The E-mail Accounts wizard will appear.
- **STEP 2:** Click Add a new e-mail account. Click Next.
- **STEP 3:** Select the server type. Most ISPs and webmail services use POP3 servers. Click Next.
- **STEP 4:** Enter your Name.
- **STEP 5:** Enter your E-mail Address.
- **STEP 6:** Enter the incoming mail server and outgoing mail server information you obtained from your ISP or webmail service.
- **STEP 7:** Enter your user name if it is different from the user name that automatically appears in the wizard form.
- **STEP 8:** Enter your password.
- **STEP 9:** Click Test Account Settings to test the information you entered in the wizard and confirm that it is valid.
- **STEP 10:** Click Next.
- **STEP 11:** Click Finish.

Note: *If you do not have an Outlook email account, you can select Microsoft Office Outlook from your computer's Start menu. The wizard will open, and you can follow the steps above to create an Outlook account.*

Fig.8.8.1: Creating E-mail Account in Outlook

Congratulations you have successfully configured your e-mail account!!

8.8.3 Sending an Email

The following page will make it easy for you to understand how easily and swiftly you can send an E-mail, just follow these simple steps and refer to the each image given below.
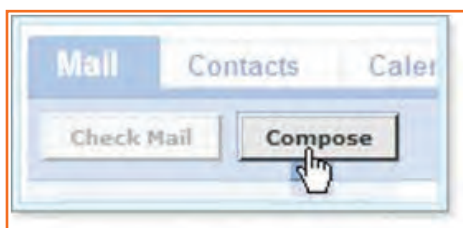
STEP 1: Open Outlook. Now click on Compose button.

STEP 2: As you click on the Compose button, a new page would open.
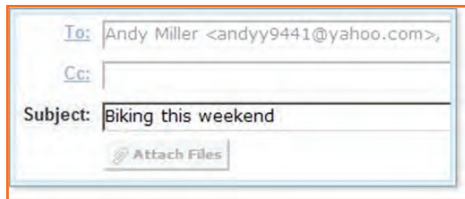
STEP 3: In the To box, (refer to the image below) type the email address of the person you want to send an e-mail to.
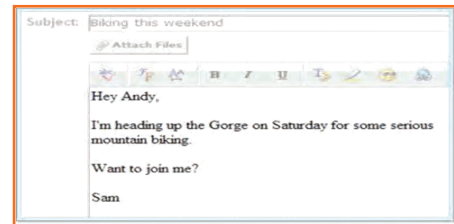
STEP 4: Now, In the Subject box as shown in the image; type the subject of the message, a few words to give the receiver an idea of what the email is all about.
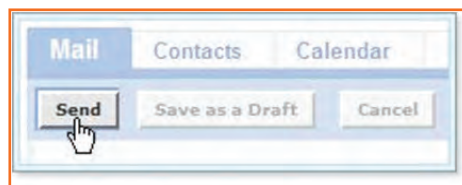
STEP 5: In the large box under the tools, compose the body of an email as shown in the image. Once the writing and addressing your email is done, click the Send button.

Mail has successfully sent your email to your wishing recipient.

8.8.4 Reading Emails

Outlook takes care of all email under mail folders. Initially, all of your incoming emails messages arrive in your Inbox folder (except suspected spam which goes directly into your Spam folder). To read an email message, open a mail folder and then click on email's subject.

- **STEP 1:** Select the Inbox in the navigation pane.

- **STEP 2:** If you see Inbox is in bold, it indicates that you have unread messages.

- **STEP 3:** The number of unread messages is indicated by the number to the right of the word Inbox in parentheses.

- **STEP 4:** Click a message in the inbox once, and Outlook will display it in the reading pane (if that feature is turned on).

- **STEP 5:** You need to double-click a message, to open the message in a new window.

NOTE: *Unread messages are display in bold textin order to make it easy for a reader to identify how many mails are new or still unread.*

Now, to open and read an email, click on email's subject (bold or not) in the Subject column and you will be able to read your email.

8.8.5 Replying E-mails

Often, it is seen that once the mail is read, viewer looks for the option of reverting to that email to the sender or to add more recipient. Well! This can be done in two separate ways with Outlook i.e. there are two options as given below:

- **Reply:** It allows you to respond to the sender only.

- **Reply all:** Reply all, allows responding to the sender and everyone else who received themessage. This includes all email addresses listed in the To box and the Cc box, except your own email address.

- Now, Open the your email and click the drop down arrow given at the Reply button, then opt for Reply to reply to the sender only or Reply All to reply to all recipients of the email message.
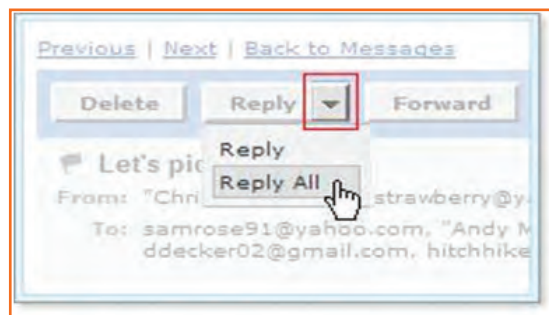
Fig.8.8.2: Replying E-mail

NOTE: *To reply to the sender only, you can also click the Reply button and not the arrow.*

- **STEP 1:** Click Reply on the Standard toolbar while viewing the message you want to reply to. Outlook will create a pre-addressed reply form to the email address the original email came from.
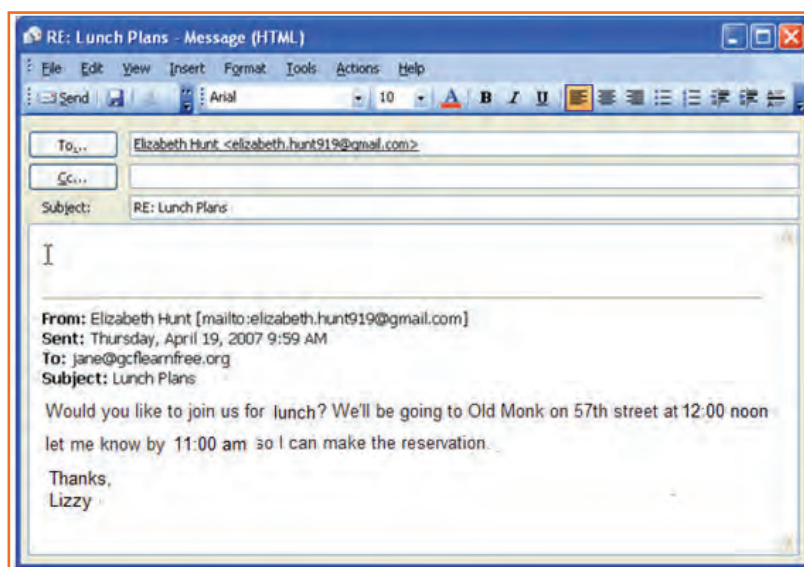
Fig.8.8.3: Composing Mail

- **STEP 2:** Enter text into the body of the form.

- **STEP 3:** Click the Send button when you're ready to send your email message.

Tip: Original email which you received from the sender will always be included when you are replying to the sender however, this original text, is editable, you can type your reply anywhere in the text box. In fact, some of the information or whole mail can be deleted in the original message. Different colors can be used (if required) to differentiate between your reply followed by the original text in the same image.

8.8.6 Receiving Email Attachments

You know you have received an email with an attachment when you see a paper clip (✐) next to the email's subject in the mail folder. Open the message to see what type of file is attached.

In a mail folder, click the subject of an email message that includes an attachment (the paper clip icon appears to the left of the subject).

When the message opens, a link to download the attachment appears in the message header, and if the attachment includes images, thumbnails appear at the bottom of the messages.
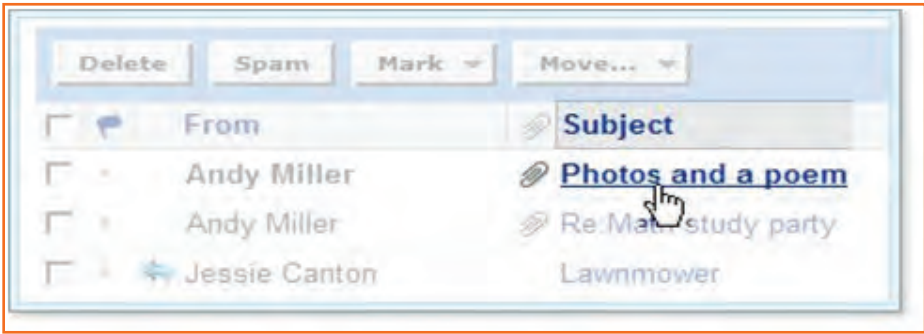
Fig.8.8.4: Receiving Email Attachments

8.8.7 Opening and Saving Attachments

When you click the link to an attachment, Outlook automatically uses AntiVirus™ installed on your system scan the file for viruses. Virus scanning can often "clean" a file that may have viruses, so that you can safely open and download the file onto your computer.

1.   Open the email message with the attachment.

2.   Click the file name or thumbnail to allow Outlook to scan the file.

Antivirus scans the attachment and displays the results above the message header.

•   If Norton Antivirus detects a virus, you can't download the file.

Fig.8.8.5: Click the file for Virus Scan

•   If Antivirus doesn't detect a virus, you can download the file.
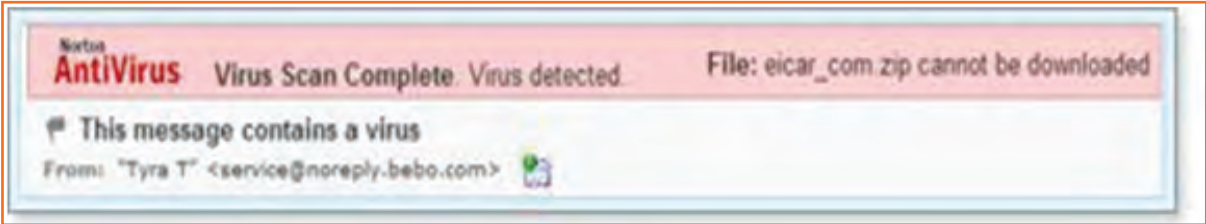
Fig.8.8.6: Antivirus Scan Status

- To download a virus-free attachment, click the Download File button.
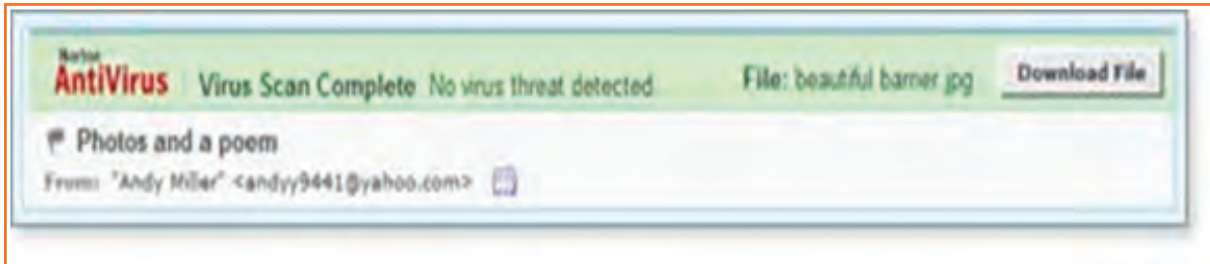
Fig.8.8.7: Click the Download File button

The File Download window prompts you to open or save the file. (The appearance of this window varies, depending on your operating system and other factors.)
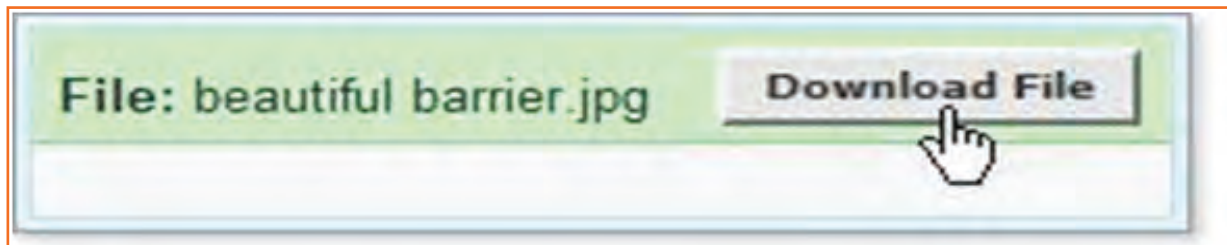
Fig.8.8.8: Click the Download File button

3. You can click the Open button to view the attached file in its original application (such as Microsoft Word or Acrobat Reader), or you can click the Save button to download the file and save it on your computer.

Tip: When you open a file without saving it, your browser automatically downloads it to a temporary location on your computer. When you close the file, your browser deletes the temporary file.

8.8.8 Sending Attachments with Outgoing Email Messages

You can send all types of files as attachments, including word processor or spreadsheet documents, audio files, image files (such as .bmp, .jpg, .gif), and more but not .exe (executable files).

Notes: With Outlook, effective email virus protection is automatic. Anti-virus software in Mail automatically detects and cleans viruses in incoming and outgoing email and attachments.

1. While composing a message, click the Attach Files button (You can attach files at any time before sending the message.). The Attach Files page opens.

2. Click the first Browse button.

   The Choose File or Open File window opens (depending on your operating system).

3. Locate the file you want to attach, select it, and click the Open or OK button.
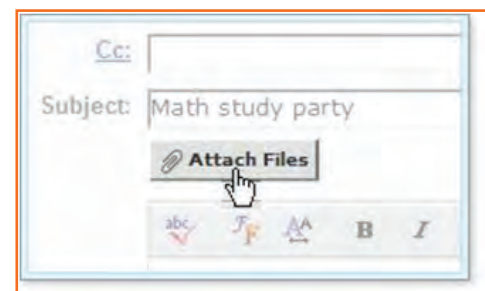
Fig.8.8.9: Attach a File

The selected file and its location appear in the first attachment box.

4. To attach more files, click the next Browse button, and repeat step 4.

Tips:

• You cannot attach the same file multiple times to the same email message.

Fig.8.8.10: Browse a File

• If you need more attachment boxes, click the Attach More Files link. Outlook adds another box.

5. You can attach one or more files up to a total combined size of 10 MB.

6. When all the files you want to send are listed, click the Attach Files button.

Tip: Antivirus™ automatically scans all outgoing email attachments andwill not let you attach an infected file.
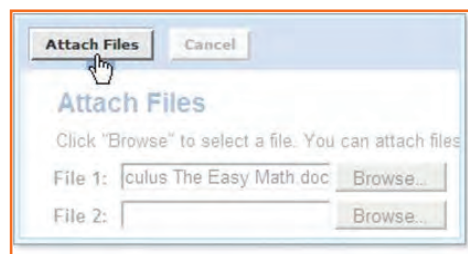
Fig.8.8.11: Attach a File

Progress bars display the process of scanning and attaching each file. When the process is complete, the Compose page opens with the attached file.
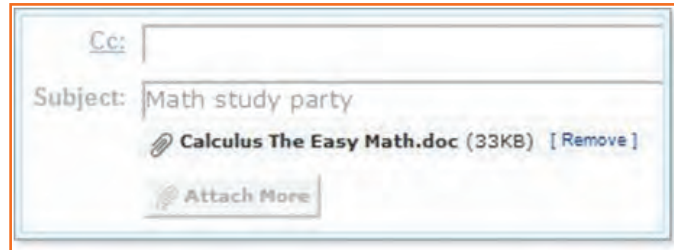
Fig.8.8.12: Attached File

Note: Though Outlook often displays attached photos within the messagesyou receive, it doesn't display the photos you attach while composing your message. Instead, it lists the photos in the attachments area. The photos may appear within the text of the message when your recipients receive it if their email applications support embedded photos.

Exercise

1. What is the full form of URL?

....

....

2. The second part of the URL is called a resource name and it indicates the IP address or the domain name where the resource is located.

    a) True

    b) False

3. Choose a URL example from the below list

    a) Messy

    b) Straight

    c) Constant

4. Initially all mails arrive in the inbox in outlook?

    a) True

    b) False

5. 'Reply' allows you to reply ONLY to the sender?

    a) True

    b) False

Notes

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9. First Aid and CPR

Unit 9.1 – First Aid and CPR

Key Learning Outcomes 💡

At the end of this unit, you will be able to:

1. Identify different methods of first aid.
2. Perform first aid.
3. Understand CPR.
4. Perform CPR in case of emergency.

UNIT 9.1: First Aid

Unit Objectives

At the end of this unit, you will be able to:
1. Apply first aid on an injured person.
2. Understand the procedures of doing CPR .

9.1.1 First Aid

First aid is the assistance given to any person suffering a sudden illness or injury, with care provided to preserve life, prevent the condition from worsening, and/or promote recovery. It includes initial intervention in a serious condition prior to professional medical help being available, such as performing CPR while awaiting an ambulance, as well as the complete treatment of minor conditions, such as applying a plaster to a cut. First aid is generally performed by the layperson, with many people trained in providing basic levels of first aid, and others willing to do so from acquired knowledge. Mental health first aid is an extension of the concept of first aid to cover mental health.

Fig.9.1.1: First aid Pyramid

There are many situations which may require first aid, and many countries have legislation, regulation, or guidance which specifies a minimum level of first aid provision in certain circumstances. This can include specific training or equipment to be available in the workplace (such as an Automated External Defibrillator), the provision of specialist first aid cover at public gatherings, or mandatory first aid training within schools. First aid, however, does not necessarily require any particular equipment or prior knowledge, and can involve improvisation with materials available at the time, often by untrained persons.

Vital Signs	Good	Poor
Heart Rate	60-100 beats per minute	Less than 60 or greater than 100 beats per minute
Respirations	14-16 breaths per minute	Less than 14 breaths per minute
Skin	Warm, pink and dry	Cool, pale and moist
Consciousness	Alert and orientated	Drowsy or unconscious

Fig.9.1.2: Vital Signs

Awareness	Assessment	Action	Aftercare
• Observe • Stop to Help	• Assess what is required to be done • Ask yourself, 'Can I do it?'	• Do what you can • Call for expert medical help • Take care of your and the bystander's safety	• Once you have assisted the victim, stay with him/her till expert care arrives

Fig.9.1.3: Four A's of First Aid

While delivering First Aid always remember:

- Prevent deterioration.

- Act swiftly, deliberately and confidently.

- Golden Hour – First 60 minutes following an accident .

- Platinum Period – First 15 minutes following an accident.

- Prevent shock and choking.

- Stop bleeding.

- Loosen victim's clothes.

- Regulate respiratory system.

- Avoid crowding/over-crowding.

- Arrange to take victim to safe place/hospital.

- Attend to emergencies first with ease and without fear.

- Do not overdo. Remember that the person giving first aid is not a doctor.

Injury	Symptom	Do's	Don'ts
Fracture	• Pain • Swelling • Visible bone	• Immobilise the affected part • Stabilise the affected part • Use a cloth as a sling • Use board as a sling • Carefully Transfer the victim on a stretcher	• Do not move the affected part • Do not wash or probe the injured area
Burns (see Degrees of Burn table)	• Redness of skin • Blistered skin • Injury marks • Headache/seizures	• In case of electrical burn, cut-off the power supply • In case of fire, put out fire with blanket/coat • Use water to douse the flames • Remove any jewellery from the affected area • Wash the burn with water	• Do not pull off any clothing stuck to the burnt skin • Do not place ice on the burn • Do not use cotton to cover the burn

Bleeding	• Bruises • Visible blood loss from body • Coughing blood • Wound/Injury marks • Unconsciousness due to blood loss • Dizziness • Pale skin	• Check victim's breathing • Elevate the wound above heart level • Apply direct pressure to the wound with a clean cloth or hands • Remove any visible objects from the wounds • Apply bandage once the bleeding stops	• Do not clean the wound from out to in direction • Do not apply too much pressure (not more than 15 mins) • Do not give water to the victim
Heat Stroke/Sun Stoke	• High body temperature • Headache • Hot and dry skin • Nausea/Vomiting • Unconsciousness	• Move the victim to a cool, shady place • Wet the victim's skin with a sponge • If possible apply ice packs to victim's neck, back and armpits • Remove any jewellery from the affected area • Wash the burn with water	• Do not let people crowd around the victim • Do not give any hot drinks to the victim
Unconsciousness	• No movement of limbs • No verbal response or gestures • Pale skin	• Loosen clothing around neck, waist and chest • Check for breathing • Place the victim's legs above the level of heart • If victim is not breathing, perform CPR	• Do not throw water or slap the victim • Do not force feed anything • Do not raise the head high as it may block the airway

Fig.9.1..4: First Aid for different types of injuries

1st Degree Burn	2nd Degree Burn	3rd Degree Burn	4th Degree Burn
Will recover itself in a few days. **Action Required:** Place under running water.	Serious but recovers in a few weeks. **Action Required:** Place clean wet cloth over the burnt area.	Very Serious and will require skin grafting. **Action Required:** Place a clean dry cloth over the burnt area.	Extremely Serious and requires many years with repeated plastic surgery and skin grafting, is life threatening. **Action Required:** Leave open and prevent infection.

Fig.9.1.5: Degree of Burns

9.1.2 Splints and Aids of Torso

A splint is a bandage that immobilizes a broken bone. Sometimes this is done by using rigid objects such as sticks or boards. For some injuries, however, this isn't possible and the only option is to tie the broken limb to the body.

9.1.2.1 Splints

While a splint is applied, the broken/dislocated bone should not be straightened. This may result in further injury and pain. Splint should be applied to the broken/dislocated bone the way it is.

When using rigid material

• Use long pieces to reach the joints that are beyond the broken/dislocated bone. For example, when splinting a forearm, the material should be of adequate length to touch the wrist as well as the elbow. This keeps the splint in place and prevents application of extra pressure on the wound.

• Always put padding between the rigid material and the body to keep the inured person comfortable.

• Knots should be tied between the rigid material and the body (in mid-air) whenever possible. This is to ensure that knots can be untied easily. If this is not possible, the knot should be tied over the rigid material.

• To splint the forearm, surround the break with rigid material and snugly bandage it to the arm with wide cloth strips. A newspaper or magazine, curled into a "U" shape, works very well.

Fig.9.1.6: Splint the Forearm

• Splint the wrist in the same way. The entire forearm should be immobilized.

Fig.9.1.7: splint the Wrist
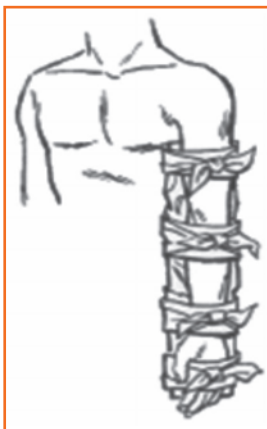
Fig.9.1.8: Splint the Elbow

• To splint the elbow, use enough rigid material to go from the armpit to the hand. The entire arm should be immobilized. Do not attempt to straighten or bend the elbow; splint it in position.

• To splint the upper leg, use long pieces of rigid material that will reach from the ankle to the armpit. Above the hips, tie long straps around the torso to hold the top of the splint in place.

Fig.9.1.9: Splint the Upper Leg

- To splint the lower leg, use rigid material long enough to go from the knee to the foot. The foot should be immobilized and unable to turn. Be sure to use lots of padding, especially around the ankle.

Fig.9.1.10: Splint the Lower Leg

9.1.3 CPR

Basic life support (BLS) is a level of medical care which is used for victims of life-threatening illnesses or injuries until they can be given full medical care at a hospital.

First aid is as easy as ABC – airway, breathing and CPR (cardiopulmonary resuscitation). In any situation, apply the DRSABCD Action Plan .

DRSABCD stands for:

- **Danger:** Always check the danger to you, bystanders and then the injured or ill person. Do not put yourself in danger while assisting others.

- **Response:** Is the person conscious? Do they respond when you talk to them, touch their hands or squeeze their shoulder?

- **Send for help:** Call ambulance.

- **Airway:** Is the person's airway clear? Is the person breathing? If the person is responding and is conscious with a clear airway, assess how you can help them with any injury.

  If the person is not responding and is unconscious, the airway needs to be

Fig.9.1.11: Basic life support chart

checked by opening the mouth and looking inside. If the mouth is clear, tilt the head gently back (by lifting their chin) and check for breathing. If the mouth is not clear, place the person on the side, open the mouth and clear the blockage and tilt the head back and check breathing.

- **Breathing:** Check for breathing by looking for chest movements (up and down). Listen by putting your ear near to their mouth and nose. Feel for breathing by putting your hand on the lower part of their chest. If the person is unconscious but breathing, turn them onto their side, carefully ensuring that you keep their head, neck and spine in alignment. Monitor their breathing until you hand over to the ambulance officers.

- **CPR (cardiopulmonary resuscitation):** If an adult is unconscious and not breathing, make sure they are flat on their back and then place the heel of one hand in the centre of their chest and your other hand on top. Press down firmly and Hand Embroidererothly (compressing to one third of their chest depth) 30 times. Give two breaths. To get the breath in, tilt their head back gently by lifting their chin. Pinch their nostrils closed, place your open mouth firmly over their open mouth and blow firmly into their mouth. Keep going with the 30 compressions and two breaths at the speed of approximately five repeats in two minutes until you hand over to the ambulance officers or another trained person, or until the person you are resuscitating responds.

- **Defibrillator:** For unconscious adults who are not breathing, an automated external defibrillator (AED) is applied. An AED is a machine that delivers an electrical shock to cancel any irregular heart beat (arrhythmia), in an effort get the normal heart beating to re-establish itself. Please ensure that a trained person is there to apply the AED. If the person responds to defibrillation, turn them onto their side and tilt their head to

maintain their airway.

1. **Airway**

   Once you have assessed the patient's level of consciousness, evaluate the patient's airway. Remember, if the patient is alert and talking, the airway is open. For a patient who is unresponsive, make sure that he or she is in a supine (face-up) position to effectively evaluate the airway. If the patient is face-down, you must roll the patient onto his or her back, taking care not to create or worsen an injury. If the patient is unresponsive and his or her airway is not open, you need to open the airway. Head-tilt/chin-lift technique can be used to open the airway.

   Head-tilt/chin-lift technique
   To perform the head-tilt/chin lift technique on an adult:

   - Press down on the forehead while pulling up on the bony part of the chin with two to three fingers of the other hand.

   - Tilt the head past a neutral position to open the airway while avoiding hyper extension of the neck.

2. **Cardiopulmonary resuscitation**

Fig.9.1.12: Airway

Cardiopulmonary resuscitation circulates blood that contains oxygen to the vital organs of a patient in cardiac arrest when the heart and breathing have stopped. It includes chest compressions and ventilations as well as the use of an automated external defibrillator.
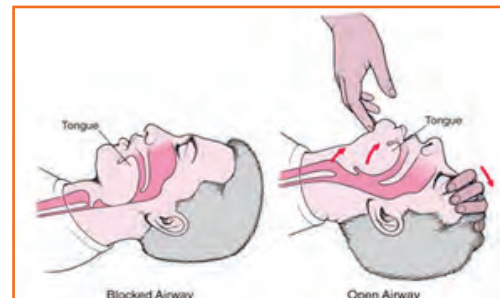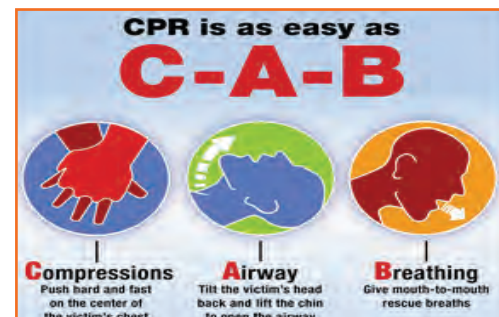
Fig.9.1.13: CAB

- **Compressions:** One component of CPR is chest compressions. To ensure optimal patient outcomes, high-quality CPR must be performed. You can ensure high-quality CPR by providing high-quality chest compressions, making sure that the:

  » Patient is on a firm, flat surface to allow for adequate compression. In a non- healthcare setting this would typically be on the floor or ground, while in a healthcare setting this may be on a stretcher or bed.

  » The chest is exposed to ensure proper hand placement and the ability to visualize chest recoil.

  » Hands are correctly positioned with the heel of one hand in the center of the chest on the lower half of sternum with the other hand on top. Most rescuers find that interlacing their fingers makes it easier to provide compressions while keeping the fingers off the chest.
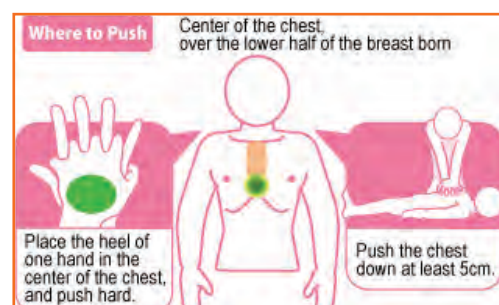
Fig.9.1.14: Compressions

» Arms are as straight as possible, with the shoulders directly over the hands to promote effective compressions. Locking elbows will help maintain straight arms.

» Compressions are given at the correct rate of at least 100 per minute to a maximum of 120 per minute, and at the proper depth of at least 2 inches for an adult to promote adequate circulation.

» The chest must be allowed to fully recoil between each compression to allow blood to flow back into the heart following the compression.

» For adult co-workers, CPR consists of 30 chest compressions followed by 2 ventilations.

- **Ventilations:** Ventilations supply oxygen to a patient who is not breathing. They may be given via several methods including:

Mouth-to-Mouth

- Open the airway past a neutral position using the head-tilt/chin-lift technique.

- Pinch the nose shut and make a complete seal over the patient's mouth with your mouth.

- Give ventilations by blowing into the patient's mouth. Ventilations should be given one at a time. Take a break between breaths by breaking the seal slightly between ventilations and then taking a breath before re-sealing over the mouth.

Pocket mask

CPR breathing barriers, such as pocket masks, create a barrier between your mouth and the patient's mouth and nose. This barrier can help to protect you from contact with a patient's blood, vomitus and saliva, and from breathing the air that the patient exhales.

- Assemble the mask and valve.

- Open the airway past the neutral position using the head-tilt/chin-lift technique from the patient's side when alone.

- Place the mask over the mouth and nose of the patient starting from the bridge of the nose, then place the bottom of the mask below the mouth to the chin (the mask should not extend past the chin).

- Seal the mask by placing the "webbing" between your index finger and thumb on the top of the mask above the valve while placing your remaining fingers on the side of the patient's face. With your other hand (the hand closest to the patient's chest), place your thumb along the base of the mask while placing your bent index finger under the patient's chin, lifting the face into the mask.

9.1.4 Performing CPR for an Adult

- **STEP 1:** **Check the scene for immediate danger:** Make sure you're not putting yourself in harm's way by administering CPR to someone unconscious. Do whatever is necessary to move yourself and the other person to safety.

- **STEP 2:** **Assess the victim's consciousness:** Gently tap his or her shoulder and ask "Are you OK?" in a loud, clear voice. If he or she responds agreement "Yeah" or such, CPR is not required. Instead, undertake basic first aid and take measures to prevent or treat shock, and assess whether you need to contact emergency services. If the victim does not respond, continue with the following steps.

- **STEP 3:** **Do not check for a pulse:** Unless you're a trained medical professional, odds are you'll spend too much valuable time looking for a pulse when you should be doing compressions.

- **STEP 4: Check for breathing:** Make sure that the airway is not blocked. If the mouth is closed, press with your thumb and forefinger on both cheeks at the end of the teeth and then look inside. Remove any visible obstacle that is in your reach but never push your fingers inside too far. Put your ear close to the victim's nose and mouth, and listen for slight breathing. If the victim is coughing or breathing normally, do not perform CPR.

- **STEP 5: Place the victim on his or her back:** Make sure he or she is lying as flat as possible-this will prevent injury while you're doing chest compressions. Tilt their head back by using your palm against their forehead and a push against their chin.

- **STEP 6:** Place the heel of one hand on the victim's breastbone, 2 finger-widths above the meeting area of the lower ribs, exactly in the middle of the chest.

- **STEP 7:** Place your second hand on top of the first hand, Palms-down, interlock the fingers of the second hand between the first.

- **STEP 8:** Position your body directly over your hands, so that your arms are straight and somewhat rigid. Don't flex the arms to push, but sort of lock your elbows, and use your upper body strength to push.

- **STEP 9:** Perform 30 chest compressions. Press down with both hands directly over the breastbone to perform a compression, which helps the heart beat. Chest compressions are more critical for correcting abnormal heart rhythms (ventricular fibrillation or pulseless ventricular tachycardia, heart rapidly quivering instead of beating). You should press down by about 2 inches (5 cm).

- **STEP 10:** Minimize pauses in chest compression that occur when changing providers or preparing for a shock. Attempt to limit interruptions to less than 10 seconds.

- **STEP 11:** Make sure the airway is open. Place your hand on the victim's forehead and two fingers on their chin and tilt the head back to open the airway. If you suspect a neck injury, pull the jaw forward rather than lifting the chin. If jaw thrust fails to open the airway, do a careful head tilt and chin lift. If there are no signs of life, place a breathing barrier (if available) over the victim's mouth.

- **STEP 12:** Give two rescue breaths (optional). If you are trained in CPR and totally confident, give two rescue breaths after your 30 chest compressions. If you've never done CPR before, or you're trained but rusty, stick with only chest compressions.

- **STEP 13:** Repeat the cycle of 30 chest compressions. If you're also doing rescue breaths, keep doing a cycle of 30 chest compressions, and then 2 rescue breaths; repeat the 30 compressions and 2 more breaths. You should do CPR for 2 minutes (5 cycles of compressions to breaths) before spend time checking for signs of life.

9.1.5 CPR Using AED

- **STEP 1:** Use an AED (automated external defibrillator). If an AED is available in the immediate area, use it as soon as possible to jump-start the victim's heart. Make sure there are no puddles or standing water in the immediate area.

- **STEP 2:** Fully expose the victim's chest. Remove any metal necklaces or underwire bras. Check for any body piercings, or evidence that the victim has a pacemaker or implantable cardioverter defibrillator (should be indicated by a medical bracelet) to avoid shocking too close to those spots. Make sure the chest is absolutely dry and the victim is not in a puddle. Note that, if the person has a lot of chest hair, you may need to shave it, if possible. Some AED kits come with razors for this purpose.

- **STEP 3:** Attach the sticky pads with electrodes to the victim's chest. Follow the instructions on the AED for placement. Move the pads at least 1 inch (2.5 cm) away from any metal piercings or implanted devices. Make sure no one is touching the person, when you apply the shock.

- **STEP 4:** Press analyse on the AED machine. If a shock is needed for the patient, the machine will notify you. If you do shock the victim, make sure no one is touching him or her.

- **STEP 5:** Do not remove pads from the victim and resume CPR for another 5 cycles before using the AED again. Stick on adhesive electrode pads are intended to be left in place.
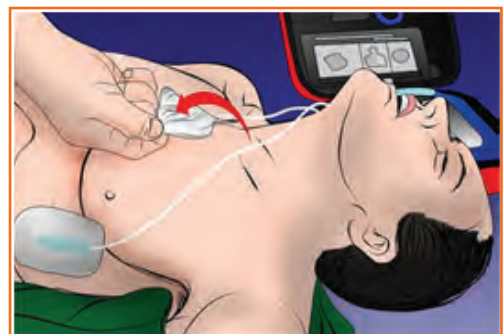
9.1.6 Chain of Survival

Chain of Survival is a sequential process for providing treatment to victims of SCA outside of a hospital setting. More people can survive SCA if the following steps occur in rapid succession:

- Cardiac arrest is immediately recognized and the emergency response system is activated

- Early cardiopulmonary resuscitation (CPR) is started with an emphasis on chest compression

- Rapid defibrillation occurs

- Effective advanced life support is begun

- Integrated post-cardiac arrest care is provided

- Quick execution of each step is critical because the chances of survival decrease 7 to 10 percent with each passing minute.

Notes

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10. Employability & Entrepreneurship Skills

Key Learning Outcomes

At the end of this unit, you will be able to:

1. Explain the meaning of health
2. List common health issues
3. Discuss tips to prevent common health issues
4. Explain the meaning of hygiene
5. Understand the purpose of Swacch Bharat Abhiyan
6. Explain the meaning of habit
7. Discuss ways to set up a safe work environment
8. Discuss critical safety habits to be followed by employees
9. Explain the importance of self-analysis
10. Understand motivation with the help of Maslow's Hierarchy of Needs
11. Discuss the meaning of achievement motivation
12. List the characteristics of entrepreneurs with achievement motivation
13. List the different factors that motivate you
14. Discuss how to maintain a positive attitude
15. Discuss the role of attitude in self-analysis
16. List your strengths and weaknesses
17. Discuss the qualities of honest people
18. Describe the importance of honesty in entrepreneurs
19. Discuss the elements of a strong work ethic
20. Discuss how to foster a good work ethic
21. List the characteristics of highly creative people
22. List the characteristics of highly innovative people
23. Discuss the benefits of time management
24. List the traits of effective time managers
25. Describe effective time management technique
26. Discuss the importance of anger management
27. Describe anger management strategies
28. Discuss tips for anger management
29. Discuss the causes of stress
30. Discuss the symptoms of stress
31. Discuss tips for stress management
32. Identify the basic parts of a computer
33. Identify the basic parts of a keyboard

34. Recall basic computer terminology

35. Recall basic computer terminology

36. Recall the functions of basic computer keys

37. Discuss the main applications of MS Office

38. Discuss the benefits of Microsoft Outlook

39. Discuss the different types of e-commerce

40. List the benefits of e-commerce for retailers and customers

41. Discuss how the Digital India campaign will help boost e-commerce in India

42. Explain how you will sell a product or service on an e-commerce platform

43. Discuss the importance of saving money

44. Discuss the benefits of saving money

45. Discuss the main types of bank accounts

46. Describe the process of opening a bank account

47. Differentiate between fixed and variable costs

48. Describe the main types of investment options

49. Describe the different types of insurance products

50. Describe the different types of taxes

51. Discuss the uses of online banking

52. Discuss the main types of electronic funds transfers

53. Discuss the steps to prepare for an interview

54. Discuss the steps to create an effective Resume

55. Discuss the most frequently asked interview questions

56. Discuss how to answer the most frequently asked interview questions

57. Discuss basic workplace terminology

58. Discuss the concept of entrepreneurship

59. Discuss the importance of entrepreneurship

60. Describe the characteristics of an entrepreneur

61. Describe the different types of enterprises

62. List the qualities of an effective leader

63. Discuss the benefits of effective leadership

64. List the traits of an effective team

65. Discuss the importance of listening effectively

66. Discuss how to listen effectively

67. Discuss the importance of speaking effectively

68. Discuss how to speak effectively

69. Discuss how to solve problems

70. List important problem solving traits

71. Discuss ways to assess problem solving skills

72. Discuss the importance of negotiation

73. Discuss how to negotiate

74. Discuss how to identify new business opportunities

75. Discuss how to identify business opportunities within your business

76. Understand the meaning of entrepreneur

77. Describe the different types of entrepreneurs

78. List the characteristics of entrepreneurs

79. Recall entrepreneur success stories

80. Discuss the entrepreneurial process

81. Describe the entrepreneurship ecosystem

82. Discuss the government's role in the entrepreneurship ecosystem

83. Discuss the current entrepreneurship ecosystem in India

84. Understand the purpose of the Make in India campaign

85. Discuss the relationship between entrepreneurship and risk appetite

86. Discuss the relationship between entrepreneurship and resilience

87. Describe the characteristics of a resilient entrepreneur

88. Discuss how to deal with failure

89. Discuss how market research is carried out

90. Describe the 4 Ps of marketing

91. Discuss the importance of idea generation

92. Recall basic business terminology

93. Discuss the need for CRM

94. Discuss the benefits of CRM

95. Discuss the need for networking

96. Discuss the benefits of networking

97. Understand the importance of setting goals

98. Differentiate between short-term, medium-term and long-term goals

99. Discuss how to write a business plan

100.   Explain the financial planning process

101.   Discuss ways to manage your risk

102.   Describe the procedure and formalities for applying for bank finance

103.   Discuss how to manage your own enterprise

104.   List important questions that every entrepreneur should ask before starting an enterprise

UNIT 10.1: Personal Strengths & Value Systems

Unit Objectives

At the end of this unit, you will be able to:

1. Explain the meaning of health
2. List common health issues
3. Discuss tips to prevent common health issues
4. Explain the meaning of hygiene
5. Understand the purpose of Swacch Bharat Abhiyan
6. Explain the meaning of habit
7. Discuss ways to set up a safe work environment
8. Discuss critical safety habits to be followed by employees
9. Explain the importance of self-analysis
10. Understand motivation with the help of Maslow's Hierarchy of Needs
11. Discuss the meaning of achievement motivation
12. List the characteristics of entrepreneurs with achievement motivation
13. List the different factors that motivate you
14. Discuss how to maintain a positive attitude
15. Discuss the role of attitude in self-analysis
16. List your strengths and weaknesses
17. Discuss the qualities of honest people
18. Describe the importance of honesty in entrepreneurs
19. Discuss the elements of a strong work ethic
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21. List the characteristics of highly creative people
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23. Discuss the benefits of time management
24. List the traits of effective time managers
25. Describe effective time management technique
26. Discuss the importance of anger management
27. Describe anger management strategies
28. Discuss tips for anger management
29. Discuss the causes of stress
30. Discuss the symptoms of stress
31. Discuss tips for stress management

10.1.1 Health, Habits, Hygiene: What is Health

As per the World Health Organization (WHO), health is a "State of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity." This means being healthy does not simply mean not being unhealthy – it also means you need to be at peace emotionally, and feel fit physically. For example, you cannot say you are healthy simply because you do not have any physical ailments like a cold or cough. You also need to think about whether you are feeling calm, relaxed and happy.

Common Health Issues

Some common health issues are:

• Allergies

• Asthma

• Skin Disorders

• Depression and Anxiety

• Diabetes

• Cough, Cold, Sore Throat

• Difficulty Sleeping

• Obesity

10.1.1.1 Tips to Prevent Health Issues

Taking measures to prevent ill health is always better than curing a disease or sickness. You can stay healthy by:

• Eating healthy foods like fruits, vegetables and nuts

• Cutting back on unhealthy and sugary foods

• Drinking enough water everyday

• Not smoking or drinking alcohol

• Exercising for at least 30 minutes a day, 4-5 times a week

• Taking vaccinations when required

• Practicing yoga exercises and meditation

How many of these health standards do you follow? Tick the ones that apply to you.

1. Get minimum 7-8 hours of sleep every night. ☐

2. Avoid checking email first thing in the morning and right before you go to bed at night. ☐

3. Don't skip meals – eat regular meals at correct meal times. ☐

4. Read a little bit every single day. ☐

5. Eat more home cooked food than junk food ☐

6. Stand more than you sit. ☐

7. Drink a glass of water first thing in the morning and have at least 8 glasses of water through the day. ☐

8. Go to the doctor and dentist for regular checkups. ☐
9. Exercise for 30 minutes at least 5 days a week. ☐
10. Avoid consuming lots of aerated beverages. ☐

10.1.1.2 What is Hygiene?

As per the World Health Organization (WHO), "Hygiene refers to conditions and practices that help to maintain health and prevent the spread of diseases." In other words, hygiene means ensuring that you do whatever is required to keep your surroundings clean, so that you reduce the chances of spreading germs and diseases.

For instance, think about the kitchen in your home. Good hygiene means ensuring that the kitchen is always spick and span, the food is put away, dishes are washed and dustbins are not overflowing with garbage. Doing all this will reduce the chances of attracting pests like rats or cockroaches, and prevent the growth of fungus and other bacteria, which could spread disease.

How many of these health standards do you follow? Tick the ones that apply to you.

1. Have a bath or shower every day with soap – and wash your hair with shampoo 2-3 times a week. ☐
2. Wear a fresh pair of clean undergarments every day. ☐
3. Brush your teeth in the morning and before going to bed. ☐
4. Cut your fingernails and toenails regularly. ☐
5. Wash your hands with soap after going to the toilet. ☐
6. Use an anti-perspirant deodorant on your underarms if you sweat a lot. ☐
7. Wash your hands with soap before cooking or eating. ☐
8. Stay home when you are sick, so other people don't catch what you have. ☐
9. Wash dirty clothes with laundry soap before wearing them again. ☐
10. Cover your nose with a tissue/your hand when coughing or sneezing. ☐

See how healthy and hygienic you are, by giving yourself 1 point for every ticked statement! Then take a look at what your score means.

Your Score

- **0-7/20:** You need to work a lot harder to stay fit and fine! Make it a point to practice good habits daily and see how much better you feel!

- **7-14/20:** Not bad, but there is scope for improvement! Try and add a few more good habits to your daily routine.

- **14-20/20:** Great job! Keep up the good work! Your body and mind thank you!

10.1.1.3 Swachh Bharat Abhiyan

We have already discussed the importance of following good hygiene and health practices for ourselves. But, it is not enough for us to be healthy and hygienic. We must also extend this standard to our homes, our immediate surroundings and to our country as a whole.

The 'Swachh Bharat Abhiyan' (Clean India Mission) launched by Prime Minister Shri Narendra Modi on 2nd October 2014, believes in doing exactly this. The aim of this mission is to clean the streets and roads of India and raise the overall level of cleanliness. Currently this mission covers 4,041 cities and towns across the country. Millions of our people have taken the pledge for a clean India. You should take the pledge too, and do everything possible to keep our country clean!

10.1.1.4 What are Habits?

A habit is a behaviour that is repeated frequently. All of us have good habits and bad habits. Keep in mind the phrase by John Dryden: "We first make our habits, and then our habits make us." This is why it is so important that you make good habits a way of life, and consciously avoid practicing bad habits.

Some good habits that you should make part of your daily routine are:

- Always having a positive attitude
- Making exercise a part of your daily routine
- Reading motivational and inspirational stories
- Smiling! Make it a habit to smile as often as possible
- Making time for family and friends
- Going to bed early and waking up early

Some bad habits that you should quit immediately are:

- Skipping breakfast
- Snacking frequently even when you are not hungry
- Eating too much fattening and sugary food
- Smoking, drinking alcohol and doing drugs
- Spending more money than you can afford
- Worrying about unimportant issues
- Staying up late and waking up late

10.1.1.5 Tips

- Following healthy and hygienic practices every day will make you feel good mentally and physically.
- Hygiene is two-thirds of health – so good hygiene will help you stay strong and healthy!

10.1.2 Safety: Tips to Design a Safe Workplace

Every employer is obligated to ensure that his workplace follows the highest possible safety protocol. When setting up a business, owners must make it a point to:

- Use ergonomically designed furniture and equipment to avoid stooping and twisting

- Provide mechanical aids to avoid lifting or carrying heavy objects

- Have protective equipment on hand for hazardous jobs

- Designate emergency exits and ensure they are easily accessible

- Set down health codes and ensure they are implemented

- Follow the practice of regular safety inspections in and around the workplace

- Ensure regular building inspections are conducted

- Get expert advice on workplace safety and follow it

10.1.2.1 Negotiable Employee Safety Habits

Every employer is obligated to ensure that his workplace follows the highest possible safety protocol. When setting up a business, owners must make it a point to:

- Immediately report unsafe conditions to a supervisor

- Recognize and report safety hazards that could lead to slips, trips and falls

- Report all injuries and accidents to a supervisor

- Wear the correct protective equipment when required

- Learn how to correctly use equipment provided for safety purposes

- Be aware of and avoid actions that could endanger other people

- Take rest breaks during the day and some time off from work during the week

10.1.2.2 Tips

- Be aware of what emergency number to call at the time of a workplace emergency

- Practice evacuation drills regularly to avoid chaotic evacuations

10.1.3 Self Analysis – Attitude, Achievement Motivation

To truly achieve your full potential, you need to take a deep look inside yourself and find out what kind of person you really are. This attempt to understand your personality is known as self-analysis. Assessing yourself in this manner will help you grow, and will also help you to identify areas within yourself that need to be further developed, changed or eliminated. You can better understand yourself by taking a deep look at what motivates you, what your attitude is like, and what your strengths and weaknesses are.

10.1.3.1 What is Motivation?

Very simply put, motivation is your reason for acting or behaving in a certain manner. It is important to understand that not everyone is motivated by the same desires – people are motivated by many, many different things. We can understand this better by looking at Maslow's Hierarchy of Needs.

10.1.3.2 Maslow's Hierarchy of Needs

Famous American psychologist Abraham Maslow wanted to understand what motivates people. He believed that people have five types of needs, ranging from very basic needs (called physiological needs) to more important needs that are required for self-growth (called self- actualization needs). Between the physiological and self-actualization needs are three other needs – safety needs, belongingness and love needs, and esteem needs. These needs are usually shown as a pyramid with five levels and are known as Maslow's Hierarchy of Needs.
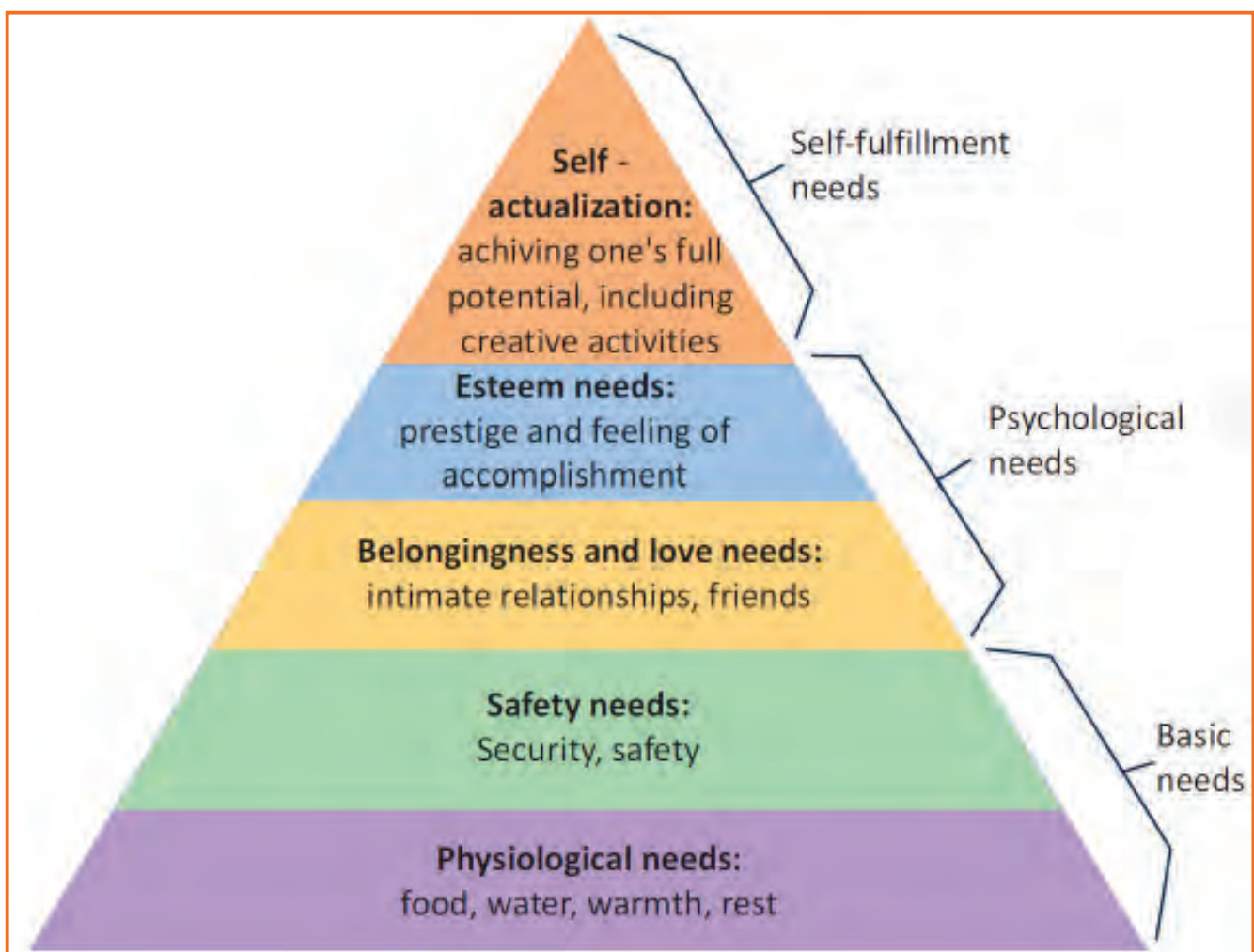
Fig.10.1.1: Maslow's Hierarchy of Needs

As you can see from the pyramid, the lowest level depicts the most basic needs. Maslow believed that our behaviour is motivated by our basic needs, until those needs are met. Once they are fulfilled, we move to the next level and are motived by the next level of needs. Let's understand this better with an example.

Rupa comes from a very poor family. She never has enough food, water, warmth or rest. According to Maslow, until Rupa is sure that she will get these basic needs, she will not even think about the next level of needs – her safety needs. But, once Rupa is confident that her basic needs will be met, she will move to the next level, and her behaviour will then be motivated by her need for security and safety. Once these new needs are met, Rupa will once again move to the next level, and be motivated by her need for relationships and friends. Once this need is satisfied, Rupa will then focus on the fourth level of needs – her esteem needs, after which she will move up to the fifth and last level of needs – the desire to achieve her full potential.

10.1.3.3 Understanding Achievement Motivation

We now know that people are motivated by basic, psychological and self-fulfillment needs. However, certain people are also motivated by the achievement of highly challenging accomplishments. This is known as Achievement Motivation, or 'need for achievement'.

The level of motivation achievement in a person differs from individual to individual. It is important that entrepreneurs have a high level of achievement motivation – a deep desire to accomplish something important and unique. It is equally important that they hire people who are also highly motivated by challenges and success.

What Motivates You?

What are the things that really motivate you? List down five things that really motivate you. Remember to answer honestly!

I am motivated by:

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Characteristics of Entrepreneurs with Achievement Motivation

- Entrepreneurs with achievement motivation can be described as follows:
- Unafraid to take risks for personal accomplishment
- Love being challenged Future-oriented Flexible and adaptive
- Value negative feedback more than positive feedback
- Very persistent when it comes to achieving goals
- Extremely courageous
- Highly creative and innovative
- Restless - constantly looking to achieve more
- Feel personally responsible for solving problems

Think about it:

- How many of these traits do you have?
- Can you think of entrepreneurs who display these traits?

10.1.3.4 How to Cultivate a Positive Attitude

The good news is attitude is a choice. So it is possible to improve, control and change our attitude, if we decide we want to! The following tips help foster a positive mindset:

- Remember that you control your attitude, not the other way around
- Devote at least 15 minutes a day towards reading, watching or listening to something positive
- Avoid negative people who only complain and stop complaining yourself
- Expand your vocabulary with positive words and delete negative phrases from your mind
- Be appreciative and focus on what's good in yourself, in your life, and in others
- Stop thinking of yourself as a victim and start being proactive
- Imagine yourself succeeding and achieving your goals

10.1.3.5 What is Attitude?

Now that we understand why motivation is so important for self-analysis, let's look at the role our attitude plays in better understanding ourselves. Attitude can be described as your tendency (positive or negative), to think and feel about someone or something. Attitude is the foundation for success in every aspect of life. Our attitude can be our best friend or our worst enemy. In other words:

"The only disability in life is a bad attitude."

When you start a business, you are sure to encounter a wide variety of emotions, from difficult times and failures to good times and successes. Your attitude is what will see you through the tough times and guide you towards success. Attitude is also infectious. It affects everyone around you, from your customers to your employees to your investors. A positive attitude helps build confidence in the workplace while a negative attitude is likely to result in the demotivation of your people.

10.1.3.6 What Are Your Strengths and Weaknesses

Another way to analyze yourself is by honestly identifying your strengths and weaknesses. This will help you use your strengths to your best advantage and reduce your weaknesses.

Note down all your strengths and weaknesses in the two columns below. Remember to be honest with yourself!

Strengths	Weaknesses

10.1.3.7 Tips

- Achievement motivation can be learned.
- Don't be afraid to make mistakes.
- Train yourself to finish what you start.
- Dream big.

10.1.4 Honesty & Work Ethics: What is Honesty?

Honesty is the quality of being fair and truthful. It means speaking and acting in a manner that inspires trust. A person who is described as honest is seen as truthful and sincere, and as someone who isn't deceitful or devious and doesn't steal or cheat. There are two dimensions of honesty – one is honesty in communication and the other is honesty in conduct.

Honesty is an extremely important trait because it results in peace of mind and builds relationships that are based on trust. Being dishonest, on the other hand, results in anxiety and leads to relationships full of distrust and conflict.

10.1.4.1 Qualities of Honest People

Honest individuals have certain distinct characteristics. Some common qualities among honest people are:

- They don't worry about what others think of them. They believe in being themselves – they don't bother about whether they are liked or disliked for their personalities.

- They stand up for their beliefs. They won't think twice about giving their honest opinion, even if they are aware that their point of view lies with the minority.

- They are think skinned. This means they are not affected by others judging them harshly for their honest opinions.

- They forge trusting, meaningful and healthy friendships. Honest people usually surround themselves with honest friends. They have faith that their friends will be truthful and upfront with them at all times.

They are trusted by their peers. They are seen as people who can be counted on for truthful and objective feedback and advice.

- **Honesty and employees:** When entrepreneurs build honest relationships with their employees, it leads to more transparency in the workplace, which results in higher work performance and better results.

- **Honesty and investors:** For entrepreneurs, being honest with investors means not only sharing strengths but also candidly disclosing current and potential weaknesses, problem areas and solution strategies. Keep in mind that investors have a lot of experience with startups and are aware that all new companies have problems. Claiming that everything is perfectly fine and running smoothly is a red flag for most investors.

- **Honesty with oneself:** The consequences of being dishonest with oneself can lead to dire results, especially in the case of entrepreneurs. For entrepreneurs to succeed, it is critical that they remain realistic about their situation at all times, and accurately judge every aspect of their enterprise for what it truly is.

10.1.4.2 Importance of Honesty in Entrepreneurs

One of the most important characteristics of entrepreneurs is honesty. When entrepreneurs are honest with their customers, employees and investors, it shows that they respect those that they work with. It is also important that entrepreneurs remain honest with themselves. Let's look at how being honest would lead to great benefits for entrepreneurs.

- **Honesty and customers:** When entrepreneurs are honest with their customers it leads to stronger relationships, which in turn results in business growth and a stronger customer network.

10.1.4.3 What are Work Ethics?

Being ethical in the workplace means displaying values like honesty, integrity and respect in all your decisions and communications. It means not displaying negative qualities like lying, cheating and stealing.

Workplace ethics play a big role in the profitability of a company. It is as crucial to an enterprise as high morale and teamwork. This is why most companies lay down specific workplace ethic guidelines that must compulsorily be followed by their employees. These guidelines are typically outlined in a company's employee handbook.

10.1.4.4 Elements of a Strong Work Ethic

An entrepreneur must display strong work ethics, as well as hire only those individuals who believe in and display the same level of ethical behavior in the workplace. Some elements of a strong work ethic are:

- **Professionalism:** This involves everything from how you present yourself in a corporate setting to the manner in which you treat others in the workplace.

- **Respectfulness:** This means remaining poised and diplomatic regardless of how stressful or volatile a situation is.

- **Dependability:** This means always keeping your word, whether it's arriving on time for a meeting or delivering work on time.

- **Dedication:** This means refusing to quit until the designated work is done, and completing the work at the highest possible level of excellence.

- **Determination:** This means embracing obstacles as challenges rather than letting them stop you, and pushing ahead with purpose and resilience to get the desired results.

- **Accountability:** This means taking responsibility for your actions and the consequences of your actions, and not making excuses for your mistakes.

- **Humility:** This means acknowledging everyone's efforts and had work, and sharing the credit for accomplishments.

10.1.4.5 How to Foster a Good Work Ethic

As an entrepreneur, it is important that you clearly define the kind of behaviour that you expect from each and every team member in the workplace. You should make it clear that you expect employees to display positive work ethics like:

- **Honesty:** All work assigned to a person should be done with complete honesty, without any deceit or lies.

- **Good attitude:** All team members should be optimistic, energetic, and positive.

- **Reliability:** Employees should show up where they are supposed to be, when they are supposed to be there.

- **Good work habits:** Employees should always be well groomed, never use inappropriate language, conduct themselves professionally at all times, etc.

- **Initiative:** Doing the bare minimum is not enough. Every team member needs to be proactive and show initiative.

- **Trustworthiness:** Trust is non-negotiable. If an employee cannot be trusted, it's time to let that employee go.

- **Respect:** Employees need to respect the company, the law, their work, their colleagues and themselves.

- **Integrity:** Each and every team member should be completely ethical and must display above board behaviour at all times.

- **Efficiency:** Efficient employees help a company grow while inefficient employees result in a waste of time and resources.

10.1.4.6 Tips

- Don't get angry when someone tells you the truth and you don't like what you hear.
- Always be willing to accept responsibility for your mistakes.

10.1.5 Creativity & Innovation

What is Creativity

Creativity means thinking outside the box. It means viewing things in new ways or from different perspectives, and then converting these ideas into reality. Creativity involves two parts: thinking and producing. Simply having an idea makes you imaginative, not creative. However, having an idea and acting on it makes you creative.

Characteristics of Highly Creative People

Some characteristics of creative people are:

- They are imaginative and playful
- They see issues from different angles
- They notice small details
- They have very little tolerance for boredom
- They detest rules and routine
- They love to daydream
- They are very curious

What is Innovation?

There are many different definitions of innovation. In simple terms, innovation means turning an idea into a solution that adds value. It can also mean adding value by implementing a new product, service or process, or significantly improving on an existing product, service or process.

Characteristics of Highly Innovative People

Some characteristics of highly innovative people are:

- They embrace doing things differently
- They don't believe in taking shortcuts
- They are not afraid to be unconventional
- They are highly proactive and persistent
- They are organized, cautious and risk-averse

10.1.5.1 Tips

- Take regular breaks from your creative work to recharge yourself and gain fresh perspective.
- Build prototypes frequently, test them out, get feedback, and make the required changes.

10.1.6 Time Management

Time management is the process organizing your time, and deciding how to allocate your time between different activities. Good time management is the difference between working smart (getting more done in less time) and working hard (working for more time to get more done).

Effective time management leads to an efficient work output, even when you are faced with tight deadlines and high pressure situations. On the other hand, not managing your time effectively results in inefficient output and increases stress and anxiety.

Benefits of Time Management

Time management can lead to huge benefits like:

- Greater productivity
- Higher efficiency
- Better professional reputation
- Reduced stress
- Higher chances for career advancement
- Greater opportunities to achieve goals

Not managing time effectively can result in undesirable consequences like:

- Missing deadlines
- Inefficient work output
- Substandard work quality
- Poor professional reputation
- Stalled career
- Increase in stress and anxiety

10.1.6.1 Traits of Effective Time Managers

Some traits of effective time managers are:
- They begin projects early They set daily objectives
- They modify plans if required, to achieve better results
- They are flexible and open-minded
- They inform people in advance if their help will be required
- They know how to say no
- They break tasks into steps with specific deadlines
- They continually review long term goals
- They think of alternate solutions if and when required
- They ask for help when required They create backup plans

10.1.6.2 Effective Time Management Techniques

You can manage your time better by putting into practice certain time management techniques. Some helpful tips are:

- **Plan out your day as well as plan for interruptions.** Give yourself at least 30 minutes to figure out your time plan. In your plan, schedule some time for interruptions.

- **Put up a "Do Not Disturb" sign** when you absolutely have to complete a certain amount of work.

- **Close your mind to all distractions.** Train yourself to ignore ringing phones, don't reply to chat messages and disconnect from social media sites.

- **Delegate your work.** This will not only help your work get done faster, but will also show you the unique skills and abilities of those around you.

- **Stop procrastinating.** Remind yourself that procrastination typically arises due to the fear of failure or the belief that you cannot do things as perfectly as you wish to do them.

- **Prioritize.** List each task to be completed in order of its urgency or importance level. Then focus on completing each task, one by one.

- **Maintain a log of your work activities.** Analyze the log to help you understand how efficient you are, and how much time is wasted every day.

- **Create time management goals** to reduce time wastage.

10.1.6.3 Tips

- Always complete the most important tasks first.
- Get at least 7 – 8 hours of sleep every day.
- Start your day early.
- Don't waste too much time on small, unimportant details.
- Set a time limit for every task that you will undertake.
- Give yourself some time to unwind between tasks.

10.1.7 Anger Management

Anger management is the process of:

1. Learning to recognize the signs that you, or someone else, is becoming angry

2. Taking the best course of action to calm down the situation in a positive way Anger management does not mean suppressing anger.

Importance of Anger Management

Anger is a perfectly normal human emotion. In fact, when managed the right way, anger can be considered a healthy emotion. However, if it is not kept in check, anger can make us act inappropriately and can lead to us saying or doing things that we will likely later regret.

Extreme anger can:

- **Hurt you physically:** It leads to heart disease, diabetes, a weakened immune system, insomnia, and high blood pressure.

- **Hurt you mentally:** It can cloud your thinking and lead to stress, depression and mental health issues.

- **Hurt your career:** It can result in alienating your colleagues, bosses, clients and lead to the loss of respect.

- **Hurt your relationships:** It makes it hard for your family and friends to trust you, be honest with you and feel comfortable around you.

This is why anger management, or managing anger appropriately, is so important.

10.1.7.1 Anger Management Strategies

Here are some strategies that can help you control your anger:

Strategy 1: Relaxation

Something as simple as breathing deeply and looking at relaxing images works wonders in calming down angry feelings. Try this simple breathing exercise:

- Take a deep breath from your diaphragm (don't breathe from your chest)

- Visualize your breath coming up from your stomach

- Keep repeating a calming word like 'relax' or 'take it easy' (remember to keep breathing deeply while repeating the word)

- Picture a relaxing moment (this can be from your memory or your imagination)

Follow this relaxation technique daily, especially when you realize that you're starting to feel angry.

Strategy 2: Cognitive Restructuring

Cognitive restructuring means changing the manner in which you think. Anger can make you curse, swear, exaggerate and act very dramatically. When this happens, force yourself to replace your angry thoughts with more logical ones. For instance, instead of thinking 'Everything is ruined' change your mindset and tell yourself 'It's not the end of the world and getting angry won't solve this'.

Strategy 3: Problem Solving

Getting angry about a problem that you cannot control is a perfectly natural response. Sometimes, try as you may, there may not be a solution to the difficulty you are faced with. In such cases, stop focusing on solving the problem, and instead focus on handling and facing the problem. Remind yourself that you will do your best to deal with the situation, but that you will not blame yourself if you don't get the solution you desire.

Strategy 4: Better Communication

When you're angry, it is very easy to jump to inaccurate conclusions. In this case, you need to force yourself to stop reacting, and think carefully about what you want to say, before saying it. Avoid saying the first thing that enters your head. Force yourself to listen carefully to what the other person is saying. Then think about the conversation before responding.

Strategy 5: Changing Your Environment

If you find that your environment is the cause of your anger, try and give yourself a break from your surroundings. Make an active decision to schedule some personal time for yourself, especially on days that are very hectic and stressful. Having even a brief amount of quiet or alone time is sure to help calm you down.

10.1.7.2 Tips for Anger Management

- The following tips will help you keep your anger in check:
- Take some time to collect your thoughts before you speak out in anger.
- Express the reason for your anger in an assertive, but non-confrontational manner once you have calmed down.
- Do some form of physical exercise like running or walking briskly when you feel yourself getting angry.
- Make short breaks part of your daily routine, especially during days that are stressful. Focus on how to solve a problem that's making you angry, rather than focusing on the fact that the problem is making you angry.

10.1.8 Stress Management

We say we are 'stressed' when we feel overloaded and unsure of our ability to deal with the pressures placed on us. Anything that challenges or threatens our well-being can be defined as a stress. It is important to note that stress can be good and bad. While good stress keeps us going, negative stress undermines our mental and physical health. This is why it is so important to manage negative stress effectively.

Causes of Stress

Stress can be caused by internal and external factors.

Internal causes of stress:

- Constant worry
- Rigid thinking
- Unrealistic expectations
- Pessimism
- Negative self-talk
- All in or all out attitude

External causes of stress:

- Major life changes
- Difficulties with relationships
- Having too much to do
- Difficulties at work or in school
- Financial difficulties
- Worrying about one's children and/or family

10.1.8.1 Symptoms of Stress

Stress can manifest itself in numerous ways. Take a look at the cognitive, emotional, physical and behavioral symptoms of stress.

Cognitive Symptoms	Emotional Symptoms
• Memory problems	• Depression
• Concentration issues	• Agitation
• Lack of judgement	• Irritability
• Pessimism	• Loneliness
• Anxiety	• Anxiety
• Constant worrying	• Anger

Physical Symptoms	Behavioral Symptoms
• Aches and pain	• Increase or decrease in appetite
• Diarrhea or constipation	• Over sleeping or not sleeping enough
• Nausea	• Withdrawing socially
• Dizziness	• Ignoring responsibilities
• Chest pain and/or rapid heartbeat	• Consumption of alcohol or cigarettes
• Frequent cold or flu like feelings	• Nervous habits like nail biting, pacing etc.

10.1.8.2 Tips Manage Stress

The following tips can help you manage your stress better:

• Note down the different ways in which you can handle the various sources of your stress.

• Remember that you cannot control everything, but you can control how you respond.

• Discuss your feelings, opinions and beliefs rather than reacting angrily, defensively or passively.

• Practice relaxation techniques like meditation, yoga or tai chi when you start feeling stressed.

• Devote a part of your day towards exercise.

• Eat healthy foods like fruits and vegetables. Avoid unhealthy foods especially those containing large amounts of sugar.

• Plan your day so that you can manage your time better, with less stress.

• Say no to people and things when required.

• Schedule time to pursue your hobbies and interests.

• Ensure you get at least 7-8 hours of sleep.

• Reduce your caffeine intake.

• Increase the time spent with family and friends.

UNIT 10.2: Digital Literacy: A Recap

Unit Objectives ⊚

At the end of this unit, you will be able to:

1. Identify the basic parts of a computer
2. Identify the basic parts of a keyboard
3. Recall basic computer terminology
4. Recall basic computer terminology
5. Recall the functions of basic computer keys
6. Discuss the main applications of MS Office
7. Discuss the benefits of Microsoft Outlook
8. Discuss the different types of e-commerce
9. List the benefits of e-commerce for retailers and customers
10. Discuss how the Digital India campaign will help boost e-commerce in India
11. Describe how you will sell a product or service on an e-commerce platform

10.2.1 Computer and Internet Basics
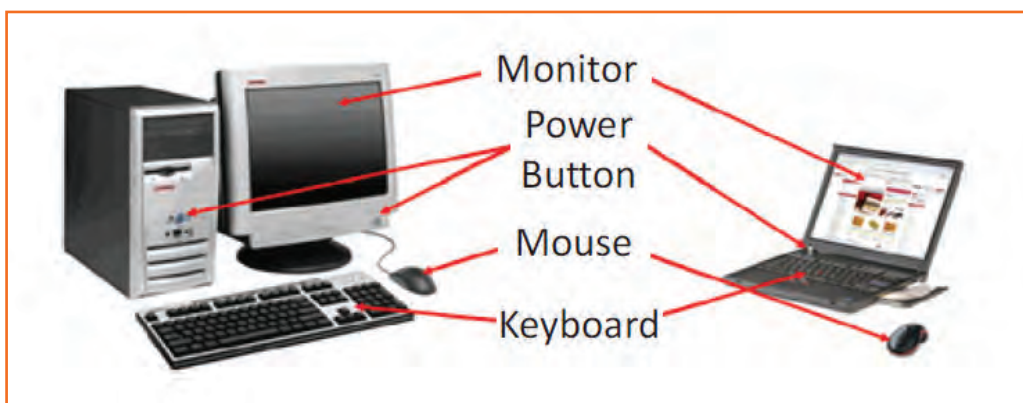
Fig.10.2.1: Parts of a computer

Fig.10.2.2: Parts of a Keyboard

10.2.1.1 Basic Parts of a Computer

1. **Central Processing Unit (CPU):** The brain of the computer. It interprets and carries out program instructions.

2. **Hard Drive:** A device that stores large amounts of data.

3. **Monitor:** The device that contains the computer screen where the information is visually displayed.

4. **Desktop:** The first screen displayed after the operating system loads.

5. **Background:** The image that fills the background of the desktop.

6. **Mouse:** A hand-held device used to point to items on the monitor.

7. **Speakers:** Devices that enable you to hear sound from the computer.

8. **Printer:** A device that converts output from a computer into printed paper documents.

9. **Icon:** A small picture or image that visually represents something on your computer.

10. **Cursor:** An arrow which indicates where you are positioned on the screen.

11. **Program Menu:** A list of programs on your computer that can be accessed from the Start menu.

12. **Taskbar:** The horizontal bar at the bottom of the computer screen that lists applications that are currently in use.

13. **Recycle Bin:** A temporary storage for deleted files.

10.2.1.2 Basic Internet Terms

- **The Internet:** Avast, international collection of computer networks that transfers information.

- **The World Wide Web:** A system that lets you access information on the Internet.

- **Website:** A location on the World Wide Web (and Internet) that contains information about a specific topic.

- **Homepage:** Provides information about a website and directs you to other pages on that website.

- **Link/Hyperlink:** A highlighted or underlined icon, graphic, or text that takes you to another file or object.

- **Web Address/URL:** The address for a website.

- **Address Box:** A box in the browser window where you can type in a web address.

10.2.1.3 Basic Computer Keys

- **Arrow Keys:** Press these keys to move your cursor.

- **Space bar:** Adds a space.

- **Enter/Return:** Moves your cursor to a new line.

- **Shift:** Press this key if you want to type a capital letter or the upper symbol of a key.

- **Caps Lock:** Press this key if you want all the letters you type to be capital letters. Press it again to revert back to typing lowercase letters.

- **Backspace:** Deletes everything to the left of your cursor.

10.2.1.4 Tips

- When visiting a .com address, there no need to type http:// or even www. Just type the name of the website and then press Ctrl + Enter. (Example: Type 'apple' and press Ctrl + Enter to go to www.apple.com)

- Press the Ctrl key and press the + or - to increase and decrease the size of text.

- Press F5 or Ctrl + R to refresh or reload a web page.

10.2.2 MS Office and Email

About MS Office

MS Office or Microsoft Office is a suite of computer programs developed by Microsoft. Although meant for all users, it offers different versions that cater specifically to students, home users and business users. All the programs are compatible with both, Windows and Macintosh.

Most Popular Office Products

Some of the most popular and universally used MS Office applications are:

1. **Microsoft Word:** Allows users to type text and add images to a document.

2. **Microsoft Excel:** Allows users to enter data into a spreadsheet and create calculations and graphs.

3. **Microsoft PowerPoint:** Allows users to add text, pictures and media and create slideshows and presentations.

4. **Microsoft Outlook:** Allows users to send and receive email.

5. **Microsoft OneNote:** Allows users to make drawings and notes with the feel of a pen on paper.

6. **Microsoft Access:** Allows users to store data over many tables.

Why Choose Microsoft Outlook

A popular email management choice especially in the workplace, Microsoft Outlook also includes an address book, notebook, web browser and calendar. Some major benefits of this program are:

- **Integrated search function:** You can use keywords to search for data across all Outlook programs.

- **Enhanced security:** Your email is safe from hackers, junk mail and phishing website email.

- **Email syncing:** Sync your mail with your calendar, contact list, notes in One Note and…your phone!

- **Offline access to email:** No Internet? No problem! Write emails offline and send them when you're connected again.

10.2.2.1 Tips

- Press Ctrl+R as a shortcut method to reply to email.

- Set your desktop notifications only for very important emails.

- Flag messages quickly by selecting messages and hitting the Insert key.

- Save frequently sent emails as a template to reuse again and again.

- Conveniently save important emails as files.

10.2.3 E-Commerce

What is E-Commerce

E-commerce is the buying or selling of goods and services, or the transmitting of money or data, electronically on the internet. E-Commerce is the short form for "electronic commerce."

Examples of E-Commerce:

• Online shopping Online auctions

• Online ticketing

• Electronic payments

• Internet banking

Types of E-Commerce

E-commerce can be classified based on the types of participants in the transaction. The main types of e-commerce are:

• **Business to Business (B2B):** Both the transacting parties are businesses.

• **Business to Consumer (B2C):** Businesses sell electronically to end-consumers.

• **Consumer to Consumer (C2C):** Consumers come together to buy, sell or trade items to other consumers.

• **Consumer-to-Business (C2B):** Consumers make products or services available for purchase to companies looking for exactly those services or products.

• **Business-to-Administration (B2A):** Online transactions conducted between companies and public administration.

• **Consumer-to-Administration (C2A):** Online transactions conducted between individuals and public administration.

10.2.3.1 Benefits of E-Commerce

The e-commerce business provides some benefits for retailers and customers.

Benefits for retailers:

• Establishes an online presence

• Reduces operational costs by removing overhead costs

• Increases brand awareness through the use of good keywords

• Increases sales by removing geographical and time constraints

Benefits for customers:

• Offers a wider range of choice than any physical store

• Enables goods and services to be purchased from remote locations

• Enables consumers to perform price comparisons

10.2.3.2 Digital India Campaign

Prime Minister Narendra Modi launched the Digital India campaign in 2015, with the objective of offering every citizen of India access to digital services, knowledge and information. The campaign aims to improve the country's online infrastructure and increase internet connectivity, thus boosting the e-commerce industry.

Currently, the majority of online transactions come from tier 2 and tier 3 cities. Once the Digital India campaign is in place, the government will deliver services through mobile connectivity, which will help deliver internet to remote corners of the country. This will help the e-commerce market to enter India's tier 4 towns and rural areas.

E-Commerce Activity

Choose a product or service that you want to sell online. Write a brief note explaining how you will use existing e-commerce platforms, or create a new e-commerce platform, to sell your product or service.

10.2.3.3 Tips

- Before launching your e-commerce platform, test everything.
- Pay close and personal attention to your social media.

UNIT 10.3: Money Matters

Unit Objectives

At the end of this unit, you will be able to:

1. Discuss the importance of saving money
2. Discuss the benefits of saving money
3. Discuss the main types of bank accounts
4. Describe the process of opening a bank account
5. Differentiate between fixed and variable costs
6. Describe the main types of investment options
7. Describe the different types of insurance products
8. Describe the different types of taxes
9. Discuss the uses of online banking
10. Discuss the main types of electronic funds transfers

10.3.1 Personal Finance – Why to Save

Importance of Saving

We all know that the future is unpredictable. You never know what will happen tomorrow, next week or next year. That's why saving money steadily through the years is so important. Saving money will help improve your **financial situation** over time. But more importantly, knowing that you have money stashed away for an emergency will give you peace of mind. Saving money also opens the door to many more options and possibilities.

Benefits of Saving

Inculcating the habit of saving leads to a vast number of benefits. Saving helps you:

- **Become financially independent:** When you have enough money saved up to feel secure you can start making your choices, from taking a vacation whenever you want, to switching careers or starting your own business.

- **Invest in yourself through education:** Through saving, you can earn enough to pay up for courses that will add to your professional experience and ultimately result in higher paying jobs.

- **Get out of debt:** Once you have saved enough as a reserve fund, you can use your savings to pay off debts like loans or bills that have accumulated over time.

- **Be prepared for surprise expenses:** Having money saved enables you to pay for unforeseen expenses like sudden car or house repairs, without feeling financially stressed.

- **Pay for emergencies:** Saving helps you deal with emergencies like sudden health issues or emergency trips without feeling financially burdened.

- **Afford large purchases and achieve major goals:** Saving diligently makes it possible to place down payments towards major purchases and goals, like buying a home or a car.

- **Retire:** The money you have saved over the years will keep you comfortable when you no longer have the income you would get from your job.

10.3.1.1 Tips

- Break your spending habit. Try not spending on one expensive item per week, and put the money that you would have spent into your savings.

- Decide that you will not buy anything on certain days or weeks and stick to your word.

10.3.2 Types of Bank Accounts

In India, banks offer four main types of bank accounts. These are:

1. Current Accounts
2. Savings Accounts
3. Recurring Deposit Accounts
4. Fixed Deposit Accounts

Current Accounts

Current accounts offer the most liquid deposits and thus, are best suited for businessmen and companies. As these accounts are not meant for investments and savings, there is no imposed limit on the number or amount of transactions that can be made on any given day. Current account holders are not paid any interest on the amounts held in their accounts. They are charged for certain services offered on such accounts.

Savings Accounts

Savings accounts are meant to promote savings, and are therefore the number one choice for salaried individuals, pensioners and students. While there is no restriction on the number and amount of deposits made, there are usually restrictions on the number and amount of withdrawals. Savings account holders are paid interest on their savings.

Recurring Deposit Accounts

Recurring Deposit accounts, also called RD accounts, are the accounts of choice for those who want to save an amount every month, but are unable to invest a large sum at one time. Such account holders deposit a small, fixed amount every month for a pre-determined period (minimum 6 months). Defaulting on a monthly payment results in the account holder being charged a penalty amount. The total amount is repaid with interest at the end of the specified period.

Fixed Deposit Accounts

Fixed Deposit accounts, also called FD accounts, are ideal for those who wish to deposit their savings for a long term in return for a high rate of interest. The rate of interest offered depends on the amount deposited and the time period, and also differs from bank to bank. In the case of an FD, a certain amount of money is deposited by the account holder for a fixed period of time. The money can be withdrawn when the period expires. If necessary, the depositor can break the fixed deposit prematurely. However, this usually attracts a penalty amount which also differs from bank to bank.

10.3.2.1 Opening a Bank Account

Opening a bank account is quite a simple process. Take a look at the steps to open an account of your own:

STEP 1: Fill in the Account Opening Form

This form requires you to provide the following information:

• Personal details (name, address, phone number, date of birth, gender, occupation, address)

• Method of receiving your account statement (hard copy/email)

• Details of your initial deposit (cash/cheque)

• Manner of operating your account (online/mobile banking/traditional via cheque, slip books) Ensure that you sign wherever required on the form.

STEP 2: Affix your Photograph

Stick a recent photograph of yourself in the allotted space on the form.

STEP 3: Provide your Know Your Customer (KYC) Details

KYC is a process that helps banks verify the identity and address of their customers. To open an account, every individual needs to submit certain approved documents with respect to photo identity (ID) and address proof. Some Officially Valid Documents (OVDs) are:

• Passport

• Driving License

• Voters' Identity Card

• PAN Card

• UIDAI (Aadhaar) Card

STEP 4: Submit All your Documents

Submit the completed Account Opening Form and KYC documents. Then wait until the forms are processed and your account has been opened!

10.3.2.2 Tips

• Select the right type of account.

• Fill in complete nomination details.

• Ask about fees.

• Understand the rules.

• Check for online banking – it's convenient!

• Keep an eye on your bank balance.

10.3.3 Costs: Fixed vs Variable

What are Fixed and Variable Costs

- Fixed costs and variable costs together make up a company's total cost. These are the two types of costs that companies have to bear when producing goods and services.

- A fixed cost does not change with the volume of goods or services a company produces. It always remains the same.

- A variable cost, on the other hand, increases and decreases depending on the volume of goods and services produced. In other words, it varies with the amount produced.

Differences Between Fixed and Variable Costs

Let's take a look at some of the main differences between fixed and variable costs:

Criteria	Fixed Costs	Variable Costs
Meaning	A cost that stays the same, regardless of the output produced.	A cost that changes when the
Nature	Time related.	Volume related.
Incurred	Incurred irrespective of units being produced.	Incurredonlywhenunitsareproduced.
Unit cost	Inversely proportional to the number of units produced.	Remains the same, per unit.
Examples	Depreciation, rent, salary, insurance, tax etc.	Materialconsumed, wages, commission on sales, packing expenses, etc.

10.3.3.1 Tips

- When trying to determine whether a cost is fixed or variable, simply ask the following question: Will the particular cost change if the company stopped its production activities? If the answer is no, then it is a fixed cost. If the answer is yes, then it is probably a variable cost.

10.3.4 Investment, Insurance and Taxes

Investment

Investment means that money is spent today with the aim of reaping financial gains at a future time. The main types of investment options are as follows:

- **Bonds:** Bonds are instruments used by public and private companies to raise large sums of money – too large to be borrowed from a bank. These bonds are then issued in the public market and are bought by lenders.

- **Stocks:** Stocks or equity are shares that are issued by companies and are bought by the general public.

- **Small Savings Schemes:** Small Savings Schemes are tools meant to save money in small amounts. Some popular schemes are the Employees Provident Fund, Sukanya Samriddhi Scheme and National Pension Scheme.

- **Mutual Funds:** Mutual Funds are professionally managed financial instruments that invest money in different securities on behalf of investors.

- **Fixed Deposits:** A fixed amount of money is kept aside with a financial institution for a fixed amount of time in return for interest on the money.

- **Real Estate:** Loans are taken from banks to purchase real estate, which is then leased or sold with the aim of making a profit on the appreciated property price.

- **Hedge Funds:** Hedge funds invest in both financial derivatives and/or publicly traded securities.

- **Private Equity:** Private Equity is trading in the shares of an operating company that is not publicly listed and whose shares are not available on the stock market.

- **Venture Capital:** Venture Capital involves investing substantial capital in a budding company in return for stocks in that company.

Insurance

There are two types of insurance:

1. Life Insurance
2. Non-Life or General Insurance.

Life Insurance Products

The main life insurance products are:

1. **Term Insurance:** This is the simplest and cheapest form of insurance. It offers financial protection for a specified tenure, say 15 to 20 years. In the case of your death, your family is paid the sum assured. In the case of your surviving the term, the insurer pays nothing.

2. **Endowment Policy:** This offers the dual benefit of insurance and investment. Part of the premium is allocated towards the sum assured, while the remaining premium gets invested in equity and debt. It pays a lump sum amount after the specified duration or on the death of the policyholder, whichever is earlier.

3. **Unit-Linked Insurance Plan (ULIP):** Here part of the premium is spent on the life cover, while the remaining amount is invested in equity and debt. It helps develop a regular saving habit.

4. **Money Back Life Insurance:** While the policyholder is alive, periodic payments of the partial survival benefits are made during the policy tenure. On the death of the insured, the insurance company pays the full sum assured along with survival benefits.

5. **Whole Life Insurance:** It offers the dual benefit of insurance and investment. It offers insurance cover for the whole life of the person or up to 100 years whichever is earlier.

General Insurance

General Insurance deals with all insurance covering assets like animals, agricultural crops, goods, factories, cars and so on.

General Insurance Products:

1. **Motor Insurance:** This can be divided into Four Wheeler Insurance and Two Wheeler Insurance.

2. **Health Insurance:** The main types of health insurance are individual health insurance, family floater health insurance, comprehensive health insurance and critical illness insurance.

3. **Travel Insurance:** This can be categorised into Individual Travel Policy, Family Travel Policy, Student Travel Insurance and Senior Citizen Health Insurance.

4. **Home Insurance:** This protects the house and its contents from risk.

5. **Marine Insurance:** This insurance covers goods, freight, cargo etc. against loss or damage during transit by rail, road, sea and/or air.

Taxes

There are two types of taxes:

1. Direct Taxes

2. Indirect Taxes.

Direct Tax

Direct taxes are levied directly on an entity or a person and are non-transferrable. Some examples of Direct Taxes are:

*   **Income Tax:** This tax is levied on your earning in a financial year. It is applicable to both, individuals and companies.

*   **Capital Gains Tax:** This tax is payable whenever you receive a sizable amount of money. It is usually of two types – short term capital gains from investments held for less than 36 months and long term capital gains from investments held for longer than 36 months.

*   **Securities Transaction Tax:** This tax is added to the price of a share. It is levied every time you buy or sell shares.

*   **Perquisite Tax:** This tax is levied is on perks that have been acquired by a company or used by an employee.

*   **Corporate Tax:** Corporate tax is paid by companies from the revenue they earn.

Indirect Tax

Indirect taxes are levied on goods or services. Some examples of Indirect Taxes are:

*   **Sales Tax:** Sales Tax is levied on the sale of a product.

*   **Service Tax:** Service Tax is added to services provided in India.

*   **Value Added Tax:** Value Added Tax is levied at the discretion of the state government. The tax is levied on goods sold in the state. The tax amount is decided by the state.

*   **Customs Duty & Octroi:** Customs Duty is a charge that is applied on purchases that are imported from another country. Octroi is levied on goods that cross state borders within India.

*   **Excise Duty:** Excise Duty is levied on all goods manufactured or produced in India.

10.3.4.1 Tips

*   Think about how quickly you need your money back and pick an investment option accordingly.

*   Ensure that you are buying the right type of insurance policy for yourself.

*   Remember, not paying taxes can result in penalties ranging from fines to imprisonment.

10.3.5 Online Banking, NEFT, RTGS etc

What is Online Banking

Internet or online banking allows account holders to access their account from a laptop at any location. In this way, instructions can be issued. To access an account, account holders simply need to use their unique customer ID number and password.

Internet banking can be used to:

• Find out an account balance

• Transfer amounts from one account to another

• Arrange for the issuance of cheques

• Instruct payments to be made

• Request for a cheque book

• Request for a statement of accounts

• Make a fixed deposit

Electronic Funds Transfers

Electronic funds transfer is a convenient way of transferring money from the comfort of one's own home, using integrated banking tools like internet and mobile banking.

Transferring funds via an electronic gateway is extremely convenient. With the help of online banking, you can choose to:

• Transfer funds into your own accounts of the same bank.

• Transfer funds into different accounts of the same bank.

• Transfer funds into accounts in different banks, using NEFT.

• Transfer funds into other bank accounts using RTGS.

• Transfer funds into various accounts using IMPS.

NEFT

NEFT stands for National Electronic Funds Transfer. This money transfer system allows you to electronically transfer funds from your respective bank accounts to any other account, either in the same bank or belonging to any other bank. NEFT can be used by individuals, firms and corporate organizations to transfer funds between accounts.

In order to transfer funds via NEFT, two things are required:

• A transferring bank

• A destination bank

Before you can transfer funds through NEFT, you will need to register the beneficiary who will be receiving the funds. In order to complete this registration, you will require the following

• Recipient's name

• Recipient's account number

• Recipient's bank's name

• Recipient's bank's IFSC code

RTGS

RTGS stands for Real Time Gross Settlement. This is a real time funds transfer system which enables you to transfer funds from one bank to another, in real time or on a gross basis. The transferred amount is immediately deducted from the account of one bank, and instantly credited to the other bank's account. The RTGS payment gateway is maintained by the Reserve Bank of India. The transactions between banks are made electronically.

RTGS can be used by individuals, companies and firms to transfer large sums of money. Before remitting funds through RTGS, you will need to add the beneficiary and his bank account details via your online banking account. In order to complete this registration, you will require the following information:

• Name of the beneficiary

• Beneficiary's account number

• Beneficiary's bank address

• Bank's IFSC code

IMPS

IMPS stands for Immediate Payment Service. This is a real-time, inter-bank, electronic funds transfer system used to transfer money instantly within banks across India. IMPS enables users to make instant electronic transfer payments using mobile phones through both, Mobile Banking and SMS. It can also be used through ATMs   and online banking. IMPS is available 24 hours a day and 7 days a week. The system features a secure transfer gateway and immediately confirms orders that have been fulfilled.

To transfer money through IMPS, the you need to:

• Register for IMPS with your bank

• Receive a Mobile Money Identifier (MMID) from the bank

• Receive a MPIN from the bank

Once you have both these, you can login or make a request through SMS to transfer a particular amount to a beneficiary.

For the beneficiary to receive the transferred money, he must:

• Link his mobile number with his respective account

• Receive the MMID from the bank

In order to initiate a money transfer through IMPS, you will need to enter the following information:

• The beneficiary's mobile number

• The beneficiary's MMID

• The transfer amount

• Your MPIN

As soon as money has been deducted from your account and credited into the beneficiary's account, you will be sent a confirmation SMS with a transaction reference number, for future reference.

10.3.5.1 Differences Between NEFT, RTGS & IMPS

Criteria	NEFT	RTGS	IMPS
Settlement	Done in batches	Real-time	Real-time
Full form	National Electronic Fund Transfer	Real Time Gross Settlement	Immediate Payment Service
Timings on Monday – Friday	8:00 am – 6:30 pm	9:00 am – 4:30 pm	24x7
Timings on Saturday	8:00 am – 1:00 pm	9:00 am – 1:30 pm	24x7
Minimum amount of money transfer limit	₹1	₹2 lacs	₹1
Maximum amount of money transfer limit	₹10 lacs	₹10 lacs per day	₹2 lacs
Maximum charges as per RBI	Upto 10,000 – ₹2.5 above 10,000 – 1 lac – ₹5 above 1 – 2 lacs – ₹15 above 2 – 5 lacs – ₹25 above 5 – 10 lacs – ₹25	above 2 – 5 lacs – ₹25 above 5 – 10 lacs – ₹50	Upto 10,000 – ₹5 above 10,000 – 1 lac – ₹5 above 1 – 2 lacs – ₹15

Fig.10.3.1: Differences Between NEFT, RTGS & IMPS

10.3.5.2 Tips

• Never click on any links in any e-mail message to access your online banking website.

• You will never be asked for your credit or debit card details while using online banking.

• Change your online banking password regularly.

UNIT 10.4: Preparing for Employment & Self Employment

Unit Objectives

At the end of this unit, you will be able to:

1. Discuss the steps to prepare for an interview
2. Discuss the steps to create an effective Resume
3. Discuss the most frequently asked interview questions
4. Discuss how to answer the most frequently asked interview questions
5. Discuss basic workplace terminology

10.4.1 Interview Preparation: How to Prepare for an Interview

The success of your getting the job that you want depends largely on how well your interview for that job goes. Therefore, before you go in for your interview, it is important that you prepare for it with a fair amount of research and planning. Take a look at the steps to follow in order to be well prepared for an interview:

1. **Research the organization that you are having the interview with.**

• Studying the company beforehand will help you be more prepared at the time of the interview. Your knowledge of the organization will help you answer questions at the time of the interview, and will leave you looking and feeling more confident. This is sure to make you stand out from other, not as well informed, candidates.

• Look for background information on the company. Ty and find an overview of the company and its industry profile.

• Visit the company website to get a good idea of what the company does. A company website offers a wealth of important information. Read and understand the company's mission statement. Pay attention to the company's products/services and client list. Read through any press releases to get an idea of the company's projected growth and stability.

• Note down any questions that you have after your research has been completed.

2. **Think about whether your skills and qualifications match the job requirements.**

• Carefully read through and analyze the job description.

• Make a note of the knowledge, skills and abilities required to fulfill the job requirements.

• Take a look at the organization hierarchy. Figure out where the position you are applying for fits into this hierarchy.

3. **Go through the most typical interview questions asked, and prepare your responses.**

• Remember, in most interviews a mix of resume-based, behavioral and case study questions are asked.

• Think about the kind of answers you would like to provide to typical questions asked in these three areas.

• Practice these answers until you can express them confidently and clearly.

4. **Plan your attire for the interview.**

• It is always safest to opt for formal business attire, unless expressly informed to dress in business casual (in

which case you should use your best judgement).

- Ensure that your clothes are clean and well-ironed. Pick neutral colours – nothing too bright or flashy.

- The shoes you wear should match your clothes, and should be clean and suitable for an interview.

- Remember, your aim is to leave everyone you meet with the impression that you are a professional and highly efficient person.

5. **Ensure that you have packed everything that you may require during the interview.**

- Carry a few copies of your resume. Use a good quality paper for your resume print outs.

- Always take along a notepad and a pen.

- Take along any information you may need to refer to, in order to fill out an application form.

- Carry a few samples of your work, if relevant.

6. **Remember the importance of non-verbal communication.**

- Practice projecting confidence. Remind yourself to smile and make eye contact. Practice giving a firm handshake.

- Keep in mind the importance of posture. Practice sitting up straight. Train yourself to stop nervous gestures like fidgeting and foot-tapping.

- Practice keeping your reactions in check. Remember, your facial expressions provide a good insight into your true feelings. Practice projecting a positive image.

7. **Make a list of questions to end the interview with.**

- Most interviews will end with the interviewer(s) asking if you have any questions. This is your chance to show that you have done your research and are interested in learning more about the company.

- If the interviewer does not ask you this question, you can inform him/her that you have some queries that you would like to discuss. This is the time for you to refer to the notes you made while studying the company.

- Some good questions to ask at this point are:
    - » What do you consider the most important criteria for success in this job?
    - » How will my performance be evaluated?
    - » What are the opportunities for advancement?
    - » What are the next steps in the hiring process?

- Remember, never ask for information that is easily available on the company website.

10.4.1.1 Tips

- Ask insightful and probing questions.

- When communicating, use effective forms of body language like smiling, making eye contact, and actively listening and nodding. Don't slouch, play with nearby items, fidget, chew gum, or mumble.

10.4.2 Preparing an Effective Resume

A resume is a formal document that lists a candidate's work experience, education and skills. A good resume gives a potential employer enough information to believe the applicant is worth interviewing. That's why it is so important to create a résumé that is effective. Take a look at the steps to create an effective resume:

STEP 1: Write the Address Section

The Address section occupies the top of your resume. It includes information like your name, address, phone number and e-mail address. Insert a bold line under the section to separate it from rest of your resume.

Example:

Jasmine Watts
Breach Candy, Mumbai — India
Contact No: +91 2223678270
Email: jasmine.watts@gmail.com

_____

STEP 2: Add the Profile Summary Section

This part of your resume should list your overall experiences, achievements, awards, certifications and strengths. You can make your summary as short as 2-3 bullet points or as long as 8-10 bullet points.

Example:

Profile Summary

- A Content Writer graduated from University of Strathclyde having 6 years of experience in writing website copy.

- Core expertise lies in content creation for e-learning courses, specifically for the K-12 segment.

STEP 3: Include Your Educational Qualifications

When listing your academic records, first list your highest degree. Then add the second highest qualification under the highest one and so on. To provide a clear and accurate picture of your educational background, it is critical that include information on your position, rank, percentage or CPI for every degree or certification that you have listed.

If you have done any certifications and trainings, you can add a Trainings & Certifications section under your Educational Qualifications section.

Example:

Educational Qualifications

- Masters in International Management (2007) from Columbia University with 8.8 CPI.

- Bachelor of Management Studies (2004) from Mumbai University with 87% marks.

- 10+2 with Math, Stats (2001) from Maharashtra Board with 91% marks.

- High School (1999) from Maharashtra Board with 93% marks.

STEP 4: **List Your Technical Skills**

When listing your technical skills, start with the skills that you are most confident about. Then add the skills that you do not have as good a command over. It is perfectly acceptable to include just one skill, if you feel that particular skill adds tremendous value to your résumé. If you do not have any technical skills, you can omit this step.

Example:

Technical Skills
- Flash
- Photoshop

STEP 5: **Insert Your Academic Project Experience**

List down all the important projects that you have worked on. Include the following information in this section:

Example:

- Project title
- Contribution
- Organization
- Description
- Platform used

Academic Projects
Project Title: Different Communication Skills
Organization: True Blue Solutions
Platform used: Articulate
Contribution: Content writing and graphic visualization
Description: Development of storyboards for corporate induction & training programs

STEP 6: **List Your Strengths**

This is where you list all your major strengths. This section should be in the form of a bulleted list.

Example:

Strengths
- Excellent oral, written and presentation skills
- Action-oriented and result-focused
- Great time management skills

STEP 7: **List Your Extracurricular Activities**

It is very important to show that you have diverse interests and that your life consists of more than academics. Including your extracurricular activities can give you an added edge over other candidates who have similar academic scores and project experiences. This section should be in the form of a bulleted list.

Example:

Extracurricular Activities

• Member of the Debate Club

• Played tennis at a national level

• Won first prize in the All India Camel Contest, 2010

STEP 8: **Write Your Personal Details**

The last section of your résumé must include the following personal information:

• Date of birth

• Gender & marital status

• Nationality

• Languages known

Example:

Personal Details

• Date of birth: 25th May, 1981

• Gender & marital status: Female, Single

• Nationality: Indian

• Languages known: English, Hindi, Tamil, French

10.4.2.1 Tips

• Keep your resume file name short, simple and informational.

• Make sure the resume is neat and free from typing errors.

• Always create your resume on plain white paper.

10.4.3 Interview FAQs

Take a look at some of the most frequently asked interview questions, and some helpful tips on how to answer them.

1. **Can you tell me a little about yourself?**

Tips to answer:

• Don't provide your full employment or personal history.

• Offer 2-3 specific experiences that you feel are most valuable and relevant.

• Conclude with how those experiences have made you perfect for this specific role.

2. **How did you hear about the position?**

Tips to answer:

• Tell the interviewer how you heard about the job – whether it was through a friend (name the friend), event or article (name them) or a job portal (say which one).

• Explain what excites you about the position and what in particular caught your eye about this role.

3. **What do you know about the company?**

Tips to answer:

• Don't recite the company's About Us page.

• Show that you understand and care about the company's goals.

• Explain why you believe in the company's mission and values.

4. **Why do you want this job?**

Tips to answer:

Show that you are passionate about the job.

Identify why the role is a great fit for you.

Explain why you love the company.

5. **Why should we hire you?**

• Tips to answer:

• Prove through your words that you can not only do the work, but can definitely deliver excellent results.

• Explain why you would be a great fit with the team and work culture.

• Explain why you should be chosen over any other candidate.

6. **What are your greatest professional strengths?**

Tips to answer:

• Be honest – share some of your real strengths, rather than give answers that you think sound good.

• Offer examples of specific strengths that are relevant to the position you are applying for.

• Provide examples of how you've demonstrated these strengths.

7. **What do you consider to be your weaknesses?**

Tips to answer:

• The purpose of this question is to gauge your self-awareness and honesty.

• Give an example of a trait that you struggle with, but that you're working on to improve.

8. **What are your salary requirements?**

Tips to answer:

• Do your research beforehand and find out the typical salary range for the job you are applying for.

• Figure out where you lie on the pay scale based on your experience, education, and skills.

• Be flexible. Tell the interviewer that you know your skills are valuable, but that you want the job and are willing to negotiate.

9. **What do you like to do outside of work?**

Tips to answer:

• The purpose of this question is to see if you will fit in with the company culture.

• Be honest – open up and share activities and hobbies that interest and excite you.

10. **If you were an animal, which one would you want to be?**

Tips to answer:

• The purpose of this question is to see if you are able to think on your feet.

• There's no wrong answer – but to make a great impression try to bring out your strengths or personality traits through your answer.

11. **What do you think we could do better or differently?**

Tips to answer:

• The purpose of this question is to see if you have done your research on the company, and to test whether you can think critically and come up with new ideas.

• Suggest new ideas. Show how your interests and expertise would help you execute these ideas.

12. **Do you have any questions for us?**

Tips to answer:

• Do not ask questions to which the answers can be easily found on the company website or through a quick online search.

• Ask intelligent questions that show your ability to think critically.

10.4.3.1 Tips

• Be honest and confident while answering.

• Use examples of your past experiences wherever possible to make your answers more impactful.

10.4.4 Work Readiness – Terms & Terminologies

Every employee should be well versed in the following terms:

• **Annual leave:** Paid vacation leave given by employers to employees.

• **Background Check**: A method used by employers to verify the accuracy of the information provided by potential candidates.

• **Benefits**: A part of an employee's compensation package.

• **Breaks**: Short periods of rest taken by employees during working hours.

• **Compensation Package:** The combination of salary and benefits that an employer provides to his/her employees.

• **Compensatory Time (Comp Time):** Time off in lieu of pay.

- **Contract Employee:** An employee who works for one organization that sells said employee's services to another company, either on a project or time basis.

- **Contract of Employment**: When an employee is offered work in exchange for wages or salary, and accepts the offer made by the employer, a contract of employment exists.

- **Corporate Culture:** The beliefs and values shared by all the members of a company, and imparted from one generation of employees to another.

- **Counter Offer/Counter Proposal**: A negotiation technique used by potential candidates to increase the amount of salary offered by a company.

- **Cover Letter**: A letter that accompanies a candidate's resume. It emphasizes the important points in the candidate's resume and provides real examples that prove the candidate's ability to perform the expected job role.

- **Curriculum Vitae (CV)/Resume:** A summary of a candidate's achievements, educational background, work experience, skills and strengths.

- **Declining Letter:** A letter sent by an employee to an employer, turning down the job offer made by the employer to the employee.

- **Deductions:** Amounts subtracted from an employee's pay and listed on the employee's pay slip.

- **Discrimination:** The act of treating one person not as favourably as another person.

- **Employee:** A person who works for another person in exchange for payment.

- **Employee Training:** A workshop or in-house training that an employee is asked to attend by his or her superior, for the benefit of the employer.

- **Employment Gaps**: Periods of unemployed time between jobs.

- **Fixed-Term Contract**: A contract of employment which gets terminated on an agreed-upon date.

- **Follow-Up**: The act of contacting a potential employer after a candidate has submitted his or her resume.

- **Freelancer/Consultant/Independent Contractor**: A person who works for him or herself and pitches for temporary jobs and projects with different employers.

- **Holiday**: Paid time-off from work.

- **Hourly Rate:** The amount of salary or wages paid for 60 minutes of work.

- **Internship**: A job opportunity offered by an employer to a potential employee, called an intern, to work at the employer's company for a fixed, limited time period.

- **Interview:** A conversation between a potential employee and a representative of an employer, in order to determine if the potential employee should be hired.

- **Job Application**: A form which asks for a candidate's information like the candidate's name, address, contact details and work experience. The purpose of a candidate submitting a job application, is to show that candidate's interest in working for a particular company.

- **Job Offer**: An offer of employment made by an employer to a potential employee.

- **Job Search Agent**: A program that enables candidates to search for employment opportunities by selecting criteria listed in the program, for job vacancies.

- **Lay Off:** A lay off occurs when an employee is temporarily let go from his or her job, due to the employer not having any work for that employee.

- **Leave**: Formal permission given to an employee, by his or her employer, to take a leave of absence from work.

- **Letter of Acceptance:** A letter given by an employer to an employee, confirming the offer of employment made by the employer, as well as the conditions of the offer.

- **Letter of Agreement:** A letter that outlines the terms of employment.

- **Letter of Recommendation**: A letter written for the purpose of validating the work skills of a person.

- **Maternity Leave**: Leave taken from work by women who are pregnant, or who have just given birth.

- **Mentor**: A person who is employed at a higher level than you, who offers you advice and guides you in your career.

- **Minimum wage**: The minimum wage amount paid on an hourly basis.

- **Notice**: An announcement made by an employee or an employer, stating that the employment contract will end on a particular date.

- **Offer of Employment:** An offer made by an employer to a prospective employee that contains important information pertaining to the job being offered, like the starting date, salary, working conditions etc.

- **Open-Ended Contract**: A contract of employment that continues till the employer or employee terminates it.

- **Overqualified**: A person who is not suited for a particular job because he or she has too many years of work experience, or a level of education that is much higher than required for the job, or is currently or was previously too highly paid.

- **Part-Time Worker:** An employee who works for fewer hours than the standard number of hours normally worked.

- **Paternity Leave:** Leave granted to a man who has recently become a father.

- **Recruiters/Headhunters/Executive Search Firms:** Professionals who are paid by employers to search for people to fill particular positions.

- **Resigning/Resignations:** When an employee formally informs his or her employer that he or she is quitting his or her job.

- **Self-Employed:** A person who has his or her own business and does not work in the capacity of an employee.

- **Time Sheet:** A form that is submitted to an employer, by an employee, that contains the number of hours worked every day by the employee.

UNIT 10.5: Understanding Entrepreneurship

Unit Objectives

At the end of this unit, you will be able to:

1. Discuss the concept of entrepreneurship
2. Discuss the importance of entrepreneurship
3. Describe the characteristics of an entrepreneur
4. Describe the different types of enterprises
5. List the qualities of an effective leader
6. Discuss the benefits of effective leadership
7. List the traits of an effective team
8. Discuss the importance of listening effectively
9. Discuss how to listen effectively
10. Discuss the importance of speaking effectively
11. Discuss how to speak effectively
12. Discuss how to solve problems
13. List important problem solving traits
14. Discuss ways to assess problem solving skills
15. Discuss the importance of negotiation
16. Discuss how to negotiate
17. Discuss how to identify new business opportunities
18. Discuss how to identify business opportunities within your business
19. Understand the meaning of entrepreneur
20. Describe the different types of entrepreneurs
21. List the characteristics of entrepreneurs
22. Recall entrepreneur success stories
23. Discuss the entrepreneurial process
24. Describe the entrepreneurship ecosystem
25. Discuss the government's role in the entrepreneurship ecosystem
26. Discuss the current entrepreneurship ecosystem in India
27. Understand the purpose of the Make in India campaign
28. Discuss the relationship between entrepreneurship and risk appetite
29. Discuss the relationship between entrepreneurship and resilience
30. Describe the characteristics of a resilient entrepreneur
31. Discuss how to deal with failure

10.5.1 Concept Introduction

Anyone who is determined to start a business, no matter what the risk, is an entrepreneur. Entrepreneurs run their own start-up, take responsibility for the financial risks and use creativity, innovation and vast reserves of self-motivation to achieve success. They dream big and are determined to do whatever it takes to turn their idea into a viable offering. The aim of an entrepreneur is to create an enterprise. The process of creating this enterprise is known as entrepreneurship.

10.5.1.1 Importance of Entrepreneurship

Entrepreneurship is very important for the following reasons:

1. It results in the creation of new organizations
2. It brings creativity into the marketplace
3. It leads to improved standards of living
4. It helps develop the economy of a country

10.5.1.2 Characteristics of Entrepreneurs

All successful entrepreneurs have certain characteristics in common.

They are all:

- Extremely passionate about their work
- Confident in themselves
- Disciplined and dedicated
- Motivated and driven
- Highly creative
- Visionaries
- Open-minded
- Decisive

Entrepreneurs also have a tendency to:

- Have a high risk tolerance
- Thoroughly plan everything
- Manage their money wisely
- Make their customers their priority
- Understand their offering and their market in detail
- Ask for advice from experts when required
- Know when to cut their losses

10.5.1.3 Examples of Famous Entrepreneurs

Some famous entrepreneurs are:

- Bill Gates (Founder of Microsoft)
- Steve Jobs (Co-founder of Apple)
- Mark Zuckerberg (Founder of Facebook)
- Pierre Omidyar (Founder of eBay)

10.5.1.4 Types of Enterprises

As an entrepreneur in India, you can own and run any of the following types of enterprises:

Sole Proprietorship

In a sole proprietorship, a single individual owns, manages and controls the enterprise. This type of business is the easiest to form with respect to legal formalities. The business and the owner have no separate legal existence. All profit belongs to the proprietor, as do all the losses- the liability of the entrepreneur is unlimited.

Partnership

A partnership firm is formed by two or more people. The owners of the enterprise are called partners. A partnership deed must be signed by all the partners. The firm and its partners have no separate legal existence. The profits are shared by the partners. With respect to losses, the liability of the partners is unlimited. A firm has a limited life span and must be dissolved when any one of the partners dies, retires, claims bankruptcy or goes insane.

Limited Liability Partnership (LLP)

In a Limited Liability Partnership or LLP, the partners of the firm enjoy perpetual existence as well as the advantage of limited liability. Each partner's liability is limited to their agreed contribution to the LLP. The partnership and its partners have a separate legal existence.

10.5.1.5 Tips

- Learn from others' failures.
- Be certain that this is what you want.
- Search for a problem to solve, rather than look for a problem to attach to your idea.

10.5.2 Leadership & Teamwork: Leadership and Leaders

Leadership means setting an example for others to follow. Setting a good example means t asking someone to do something that you wouldn't willingly want to do yourself. Leadership is about figuring out what to do in order to win as a team, and as a company.

Leaders believe in doing the right things. They also believe in helping others to do the right things. An effective leader is someone who:

- Creates an inspiring vision of the future.
- Motivates and inspires his team to pursue that vision.

10.5.2.1 Leadership Qualities That All Entrepreneurs Need

Building a successful enterprise is only possible if the entrepreneur in charge possesses excellent leadership qualities. Some critical leadership skills that every entrepreneur must have are:

1. **Pragmatism:** This means having the ability to highlight all obstacles and challenges, in order to resolve issues and reduce risks.

2. **Humility:** This means admitting to mistakes often and early, and being quick to take responsibility for your actions. Mistakes should be viewed as challenges to overcome, not opportunities to point blame.

3. **Flexibility:** It is critical for a good leader to be very flexible and quickly adapt to change. It is equally critical to know when to adapt and when not to.

4. **Authenticity:** This means showing both, your strengths and your weaknesses. It means being human and showing others that you are human.

5. **Reinvention:** This means refreshing or changing your leadership style when necessary. To do this, it's important to learn where your leadership gaps lie and find out what resources are required to close them.

6. **Awareness:** This means taking the time to recognize how others view you. It means understanding how your presence affects those around you.

10.5.2.2 Benefits of Effective Leadership

Effective leadership results in numerous benefits. Great leadership leads to the leader successfully:

- Gaining the loyalty and commitment of the team members

- Motivating the team to work towards achieving the company's goals and objectives

- Building morale and instilling confidence in the team members

- Fostering mutual understanding and team-spirit among team members

- Convincing team members about the need to change when a situation requires adaptability

10.5.2.3 Teamwork and Teams

Teamwork occurs when the people in a workplace combine their individual skills to pursue a common goal. Effective teams are made up of individuals who work together to achieve this common goal. A great team is one who holds themselves accountable for the end result.

10.5.2.4 Importance of Teamwork in Entrepreneurial Success

For an entrepreneurial leader, building an effective team is critical to the success of a venture. An entrepreneur must ensure that the team he builds possesses certain crucial qualities, traits and characteristics. An effective team is one which has:

1. **Unity of purpose:** All the team members should clearly understand and be equally committed to the purpose, vision and goals of the team.

2. **Great communication skills:** Team members should have the ability to express their concerns, ask questions and use diagrams, and charts to convey complex information.

3. **The ability to collaborate:** Every member should feel entitled to provide regular feedback on new ideas.

4. **Initiative:** The team should consist of proactive individuals. The members should have the enthusiasm to come up with new ideas, improve existing ideas, and conduct their own research.

5. **Visionary members:** The team should have the ability to anticipate problems and act on these potential problem before they turn into real problems.

6. **Great adaptability skills:** The team must believe that change is a positive force. Change should be seen as the chance to improve and try new things.

7. **Excellent organizational skills:** The team should have the ability to develop standard work processes, balance responsibilities, properly plan projects, and set in place methods to measure progress and ROI.

10.5.2.5 Tips

• Don't get too attached to your original idea. Allow it to evolve and change.

• Be aware of your weaknesses and build a team that will complement your shortfalls.

• Hiring the right people is not enough. You need to promote or incentivize your most talented people to keep them motivated.

• Earn your team's respect

10.5.3 Communication Skills

Listening is the ability to correctly receive and understand messages during the process of communication. Listening is critical for effective communication. Without effective listening skills, messages can easily be misunderstood. This results in a communication breakdown and can lead to the sender and the receiver of the message becoming frustrated or irritated.

It's very important to note that listening is not the same as hearing. Hearing just refers to sounds that you hear. Listening is a whole lot more than that. To listen, one requires focus. It means not only paying attention to the story, but also focusing on how the story is relayed, the way language and voice is used, and even how the speaker uses their body language. The ability to listen depends on how effectively one can perceive and understand both, verbal and non-verbal cues.

10.5.3.1 How to Listen Effectively

To listen effectively you should:

• Stop talking

• Stop interrupting

• Focus completely on what is being said

• Nod and use encouraging words and gestures

• Be open-minded

• Think about the speaker's perspective

- Be very, very patient
- Pay attention to the tone that is being used
- Pay attention to the speaker's gestures, facial expressions and eye movements
- Not try and rush the person
- Not let the speaker's mannerisms or habits irritate or distract you

10.5.3.2 How to Listen Effectively

How successfully a message gets conveyed depends entirely on how effectively you are able to get it through. An effective speaker is one who enunciates properly, pronounces words correctly, chooses the right words and speaks at a pace that is easily understandable. Besides this, the words spoken out loud need to match the gestures, tone and body language used.

What you say, and the tone in which you say it, results in numerous perceptions being formed. A person who speaks hesitantly may be perceived as having low self-esteem or lacking in knowledge of the discussed topic. Those with a quiet voice may very well be labelled as shy. And those who speak in commanding tones with high levels of clarity, are usually considered to be extremely confident. This makes speaking a very critical communication skill.

10.5.3.3 How to Speak Effectively

To speak effectively you should:

- Incorporate body language in your speech like eye contact, smiling, nodding, gesturing etc.
- Build a draft of your speech before actually making your speech.
- Ensure that all your emotions and feelings are under control.
- Pronounce your words distinctly with the correct pitch and intensity. Your speech should be crystal clear at all times.
- Use a pleasant and natural tone when speaking. Your audience should not feel like you are putting on an accent or being unnatural in any way.
- Use precise and specific words to drive your message home. Ambiguity should be avoided at all costs.
- Ensure that your speech has a logical flow.
- Be brief. Don't add any unnecessary information.
- Make a conscious effort to avoid irritating mannerisms like fidgeting, twitching etc.
- Choose your words carefully and use simple words that the majority of the audience will have no difficulty understanding.
- Use visual aids like slides or a whiteboard.
- Speak slowly so that your audience can easily understand what you're saying. However, be careful not to speak too slowly because this can come across as stiff, unprepared or even condescending.
- Remember to pause at the right moments.

10.5.3.4 Tips

- If you're finding it difficult to focus on what someone is saying, try repeating their words in your head.

- Always maintain eye contact with the person that you are communicating with, when speaking as well as listening. This conveys and also encourages interest in the conversation.

10.5.4 Problem Solving & Negotiation skills

As per The Concise Oxford Dictionary (1995), a problem is, "A doubtful or difficult matter requiring a solution"

All problems contain two elements:

1. Goals

2. Obstacles

The aim of problem solving is to recognize the obstacles and remove them in order to achieve the goals.

10.5.4.1 How to Solve Problems

Solving a problem requires a level of rational thinking. Here are some logical steps to follow when faced with an issue:

- **STEP 1:** Identify the problem

- **STEP 2:** Study the problem in detail

- **STEP 3:** List all possible solutions

- **STEP 4:** Select the best solution

- **STEP 5:** Implement the chosen solution

- **STEP 6:** Check that the problem has really been solved

10.5.4.2 Important Traits for Problem Solving

Highly developed problem solving skills are critical for both, business owners and their employees. The following personality traits play a big role in how effectively problems are solved:

- Being open minded

- Asking the right questions

- Being proactive

- Not panicking

- Having a positive attitude

- Focusing on the right problem

10.5.4.3 Important Traits for Problem Solving

As an entrepreneur, it would be a good idea to assess the level of problem solving skills of potential candidates before hiring them. Some ways to assess this skill are through:

- **Application forms:** Ask for proof of the candidate's problem solving skills in the application form.
- **Psychometric tests:** Give potential candidates logical reasoning and critical thinking tests and see how they fare.
- **Interviews:** Create hypothetical problematic situations or raise ethical questions and see how the candidates respond.
- **Technical questions:** Give candidates examples of real life problems and evaluate their thought process.

10.5.4.4 What is Negotiation?

Negotiation is a method used to settle differences. The aim of negotiation is to resolve differences through a compromise or agreement while avoiding disputes. Without negotiation, conflicts are likely to lead to resentment between people. Good negotiation skills help satisfy both parties and go a long way towards developing strong relationships.

Why Negotiate

Starting a business requires many, many negotiations. Some negotiations are small while others are critical enough to make or break a startup. Negotiation also plays a big role inside the workplace. As an entrepreneur, you need to know not only know how to negotiate yourself, but also how to train employees in the art of negotiation.

How to Negotiate

Take a look at some steps to help you negotiate:

STEP 1: Pre-Negotiation Preparation: Agree on where to meet to discuss the problem, decide who all will be present and set a time limit for the discussion.

STEP 2: Discuss the Problem: This involves asking questions, listening to the other side, putting your views forward and clarifying doubts.

STEP 3: Clarify the Objective: Ensure that both parties want to solve the same problem and reach the same goal.

STEP 4: Aim for a Win-Win Outcome: Try your best to be open minded when negotiating. Compromise and offer alternate solutions to reach an outcome where both parties win.

STEP 5: Clearly Define the Agreement: When an agreement has been reached, the details of the agreement should be crystal clear to both sides, with no scope for misunderstandings.

STEP 6: Implement the Agreed Upon Solution: Agree on a course of action to set the solution in motion.

10.5.4.5 Tips

- Know exactly what you want before you work towards getting it
- Give more importance to listening and thinking, than speaking
- Focus on building a relationship rather than winning

- Remember that your people skills will affect the outcome
- Know when to walk away – sometimes reaching an agreement may not be possible

10.5.5 Business Opportunities Identification

"The entrepreneur always searches for change, responds to it and exploits it as an opportunity."

Peter Drucker

The ability to identify business opportunities is an essential characteristic of an entrepreneur.

What is an Opportunity?

The word opportunity suggests a good chance or a favourable situation to do something offered by circumstances.

A business opportunity means a good or favourable change available to run a specific business in a given environment, at a given point of time.

Common Questions Faced by Entrepreneurs

A critical question that all entrepreneurs face is how to go about finding the business opportunity that is right for them.

Some common questions that entrepreneurs constantly think about are:

- Should the new enterprise introduce a new product or service based on an unmet need?
- Should the new enterprise select an existing product or service from one market and offer it in another where it may not be available?
- Should the enterprise be based on a tried and tested formula that has worked elsewhere?

It is therefore extremely important that entrepreneurs must learn how to identify new and existing business opportunities and evaluate their chances of success.

When is an Idea an Opportunity?

An idea is an opportunity when:

- It creates or adds value to a customer
- It solves a significant problem, removes a pain point or meets a demand
- Has a robust market and profit margin
- Is a good fit with the founder and management team at the right time and place

Factors to Consider When Looking for Opportunities

- Consider the following when looking for business opportunities:
- Economic trends Changes in funding
- Changing relationships between vendors, partners and suppliers
- Market trends
- Changes in political support
- Shift in target audience

Ways to Identify New Business Opportunities

• **Identify Market Inefficiencies:** When looking at a market, consider what inefficiencies are present in the market. Think about ways to correct these inefficiencies.

• **Remove Key Hassles:** Rather than create a new product or service, you can innovatively improve a product, service or process.

• **Create Something New:** Think about how you can create a new experience for customers, based on existing business models.

• **Pick a Growing Sector/Industry:** Research and find out which sectors or industries are growing and think about what opportunities you can tap in the same.

• **Think About Product Differentiation:** If you already have a product in mind, think about ways to set it apart from the existing ones.

Ways to Identify Business Opportunities Within Your Business

SWOT Analysis: An excellent way to identify opportunities inside your business is by creating a SWOT analysis. The acronym SWOT stands for strengths, weaknesses, opportunities, and threats. SWOT analysis framework:
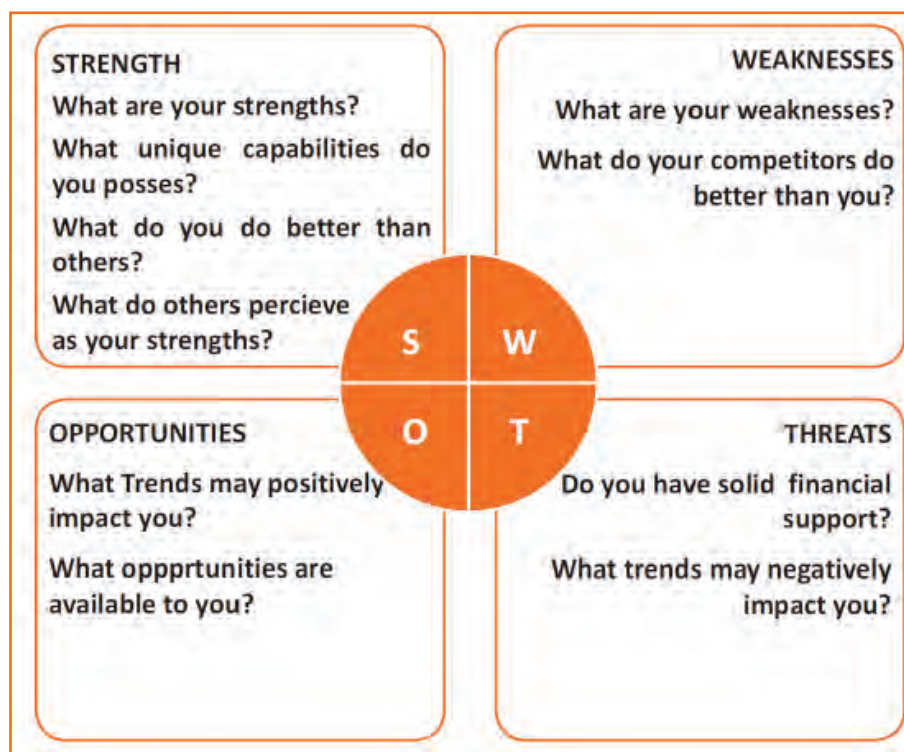
Fig.10.5.1: SWOT Analysis

Consider the following when looking for business opportunities:

By looking at yourself and your competitors using the SWOT framework, you can uncover opportunities that you can exploit, as well as manage and eliminate threats that could derail your success.

Establishing Your USP

Establish your USP and position yourself as different from your competitors. Identify why customers should buy from you and promote that reason.

Opportunity Analysis

Once you have identified an opportunity, you need to analyze it. To analyze an opportunity, you must:

- Focus on the idea
- Focus on the market of the idea
- Talk to industry leaders in the same space as the idea
- Talk to players in the same space as the idea

10.5.5.1 Tips

- Remember, opportunities are situational.
- Look for a proven track record.
- Avoid the latest craze.
- Love your idea.

10.5.6 Entrepreneurship Support Eco-System

An entrepreneur is a person who:

- Does not work for an employee
- Runs a small enterprise
- Assumes all the risks and rewards of the enterprise, idea, good or service

Types of Entrepreneurs

There are four main types of entrepreneurs:

1. **The Traditional Entrepreneur:** This type of entrepreneur usually has some kind of skill – they can be a carpenter, mechanic, cook etc. They have businesses that have been around for numerous years like restaurants, shops and carpenters. Typically, they gain plenty of experience in a particular industry before they begin their own business in a similar field.

2. **The Growth Potential Entrepreneur:** The desire of this type of entrepreneur is to start an enterprise that will grow, win many customers and make lots of money. Their ultimate aim is to eventually sell their enterprise for a nice profit. Such entrepreneurs usually have a science or technical background.

3. **The Project-Oriented Entrepreneur:** This type of entrepreneur generally has a background in the Arts or psychology. Their enterprises tend to be focus on something that they are very passionate about.

4. **The Lifestyle Entrepreneur:** This type of entrepreneur has usually worked as a teacher or a secretary. They are more interested in selling something that people will enjoy, rather than making lots of money.

Characteristics of an Entrepreneur

Successful entrepreneurs have the following characteristics:

- They are highly motivated

- They are creative and persuasive

- They are mentally prepared to handle each and every task

- They have excellent business skills – they know how to evaluate their cash flow, sales and revenue

- They are willing to take great risks

- They are very proactive – this means they are willing to do the work themselves, rather than wait for someone else to do it

- They have a vision – they are able to see the big picture

- They are flexible and open-minded

- They are good at making decisions

10.5.6.1 Entrepreneur Success Stories

Dhiru Bhai Ambani

Dhirubhai Ambani began his entrepreneurial career by selling "bhajias" to pilgrims in Mount Girnar on weekends. At 16, he moved to Yemen where he worked as a gas-station attendant, and as a clerk in an oil company. He returned to India with Rs. 50,000 and started a textile trading company. Reliance went on to become the first Indian company to raise money in global markets and the first Indian company to feature in Forbes 500 list.

Dr. Karsanbhai Patel

Karsanbhai Patel made detergent powder in the backyard of his house. He sold his product door-to-door and offered a money back guarantee with every pack that was sold. He charged Rs. 3 per kg when the cheapest detergent at that time was Rs.13 per kg. Dr. Patel eventually started Nirma which became a whole new segment in the Indian domestic detergent market.

10.5.6.2 The Entrepreneurial Process

Let's take a look at the stages of the entrepreneurial process.

- **Stage 1:** Idea Generation. The entrepreneurial process begins with an idea that has been thought of by the entrepreneur. The idea is a problem that has the potential to be solved.

- **Stage 2:** Germination or Recognition. In this stage a possible solution to the identified problem is thought of.

- **Stage 3:** Preparation or Rationalization. The problem is studied further and research is done to find out how others have tried to solve the same problem.

- **Stage 4:** Incubation or Fantasizing. This stage involves creative thinking for the purpose of coming up with more ideas. Less thought is given to the problem areas.

- **Stage 5:** Feasibility Study: The next step is the creation of a feasibility study to determine if the idea will make a profit and if it should be seen through.

- **Stage 6:** Illumination or Realization. This is when all uncertain areas suddenly become clear. The entrepreneur feels confident that his idea has merit.

- **Stage 7:** Verification or Validation. In this final stage, the idea is verified to see if it works and if it is useful.

Take a look at the diagram below to get a better idea of this process.
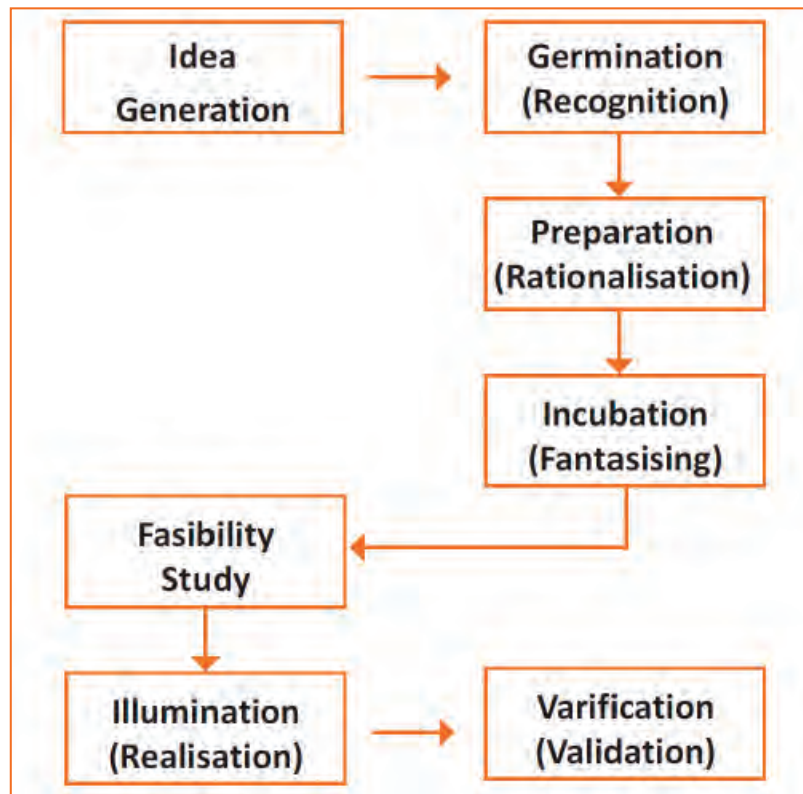
Fig.10.5.2: Stages of the entrepreneurial process

10.5.6.3 What is an Entrepreneur?

The entrepreneurship support ecosystem signifies the collective and complete nature of entrepreneurship. New companies emerge and flourish not only because of the courageous, visionary entrepreneurs who launch them, but they thrive as they are set in an environment or 'ecosystem' made of private and public participants. These players nurture and sustain the new ventures, facilitating the entrepreneurs' efforts.

An entrepreneurship ecosystem comprises of the following six domains:

1. **Favourable Culture:** This includes elements such as tolerance of risk and errors, valuable networking and positive social standing of the entrepreneur.

2. **Facilitating Policies & Leadership:** This includes regulatory framework incentives and existence of public research institutes.

3. **Financing Options:** Angel financing, venture capitalists and micro loans would be good examples of this.

4. **Human Capital:** This refers to trained and untrained labour, entrepreneurs and entrepreneurship training programmes, etc.

5. **Conducive Markets for Products & Services:** This refers to an existence or scope of existence of a market for the product/service.

6. **Institutional & Infrastructural Support:** This includes legal and financing advisers, telecommunications, digital and transportation infrastructure, and entrepreneurship networking programmes.

These domains indicate whether there is a strong entrepreneurship support ecosystem and what actions should the government put in place to further encourage this ecosystem. The six domains and their various elements have been graphically depicted.

Early Customers
- Early adopters for proof-of-concept
- Expertise in productizing
- Reference customer
- First reviews
- Distribution channels

Leadership
- Unequivocal support
- Social legitimacy
- Open door for advocate
- Entrepreneurship strategy
- urgency, crisis and challenge

Government
- Institutions
  e.g. Investment, support
- Financial support
  e.g. for R&D, jump start funds
  Regulatory framework
  incentives
  e.g. Tax benifits
- Research institutes
- Venture-friendly legislation
- e.g. Bankruptcy, contract enforcement, property rights, and labour

Networks
- Entrepreneure's networks
- Diaspora networks
- Multinational corporations

Financial Capital
- Micro-loans
- Angel investors, friends and family
- Zero-stage venture capital
- Venture capital funds
- Private equity
- Public capital markets
- Debt

Success Stories
- Visible successes
- Wealth generation for founders
- International reputation

Societal norms
- Tolerance of risk, mistakes, failure
- Innovation, creativity, experimentation
- Social status of entrepreneur
- Wealth creation
- Ambition, drive, hunger

Labour
- Skilled and unskilled
- Serial entrepreneures
- Later generation family

Non-Government Institution
- Entrepreneurship promotion in non-profits
- Business plan contests
- Conferences
- Entrepreneur- friendly association

Educational Institutions
- General degrees (professional and academic)
- Specific entrepreneurship training

Infrastructure
- Telecommunications
- Transportation & logistics
- Energy
- Zones, incubation centers, clusters

Support Professions
- Legal
- Accounting
- Investment bankers

Finance

Culture

Policy

Entrepreneurship

Supports

Market

Human Capital

Fig.10.5.3: Entrepreneurship support ecosystem

Every entrepreneurship support ecosystem is unique and all the elements of the ecosystem are interdependent. Although every region's entrepreneurship ecosystem can be broadly described by the above features, each ecosystem is the result of the hundred elements interacting in highly complex and particular ways.

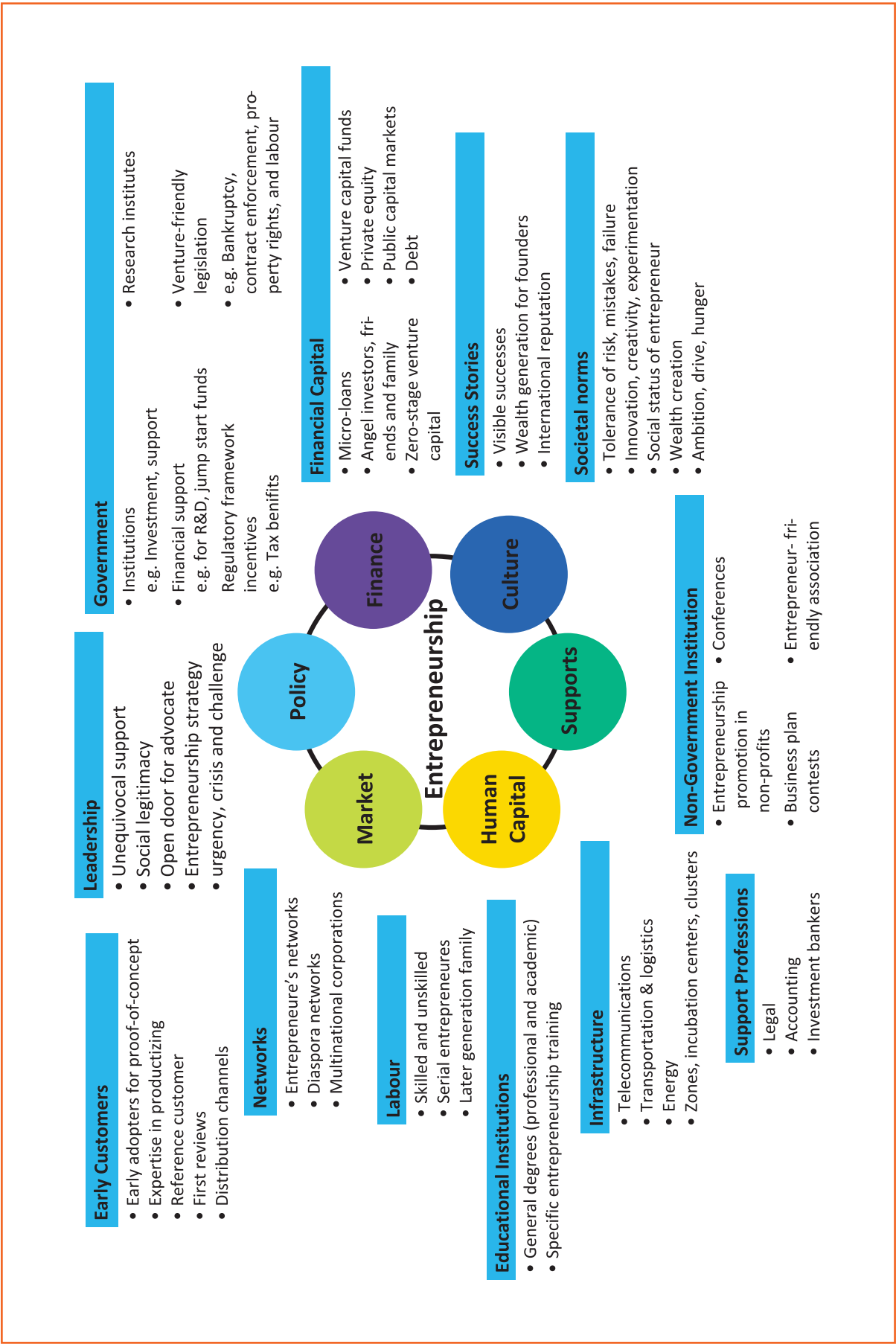Entrepreneurship ecosystems eventually become (largely) self-sustaining. When the six domains are resilient enough, they are mutually beneficial. At this point, government involvement can and should be significantly minimized. Public leaders do not need to invest a lot to sustain the ecosystem. It is imperative that the entrepreneurship ecosystem incentives are formulated to be self-liquidating, hence focusing on sustainability of the environment.

10.5.6.4 Government's Role in the Entrepreneurship Ecosystem

Encouraging new ventures is a major focus for policymakers. Governments across the world are recognizing that new businesses flourish in distinctive types of supportive environments. Policymakers should study the scenario and take into account the following points whilst they formulate policies and regulations that enable successful entrepreneurship support ecosystems.

• Policymakers should avoid regulations that discourage new entrants and work towards building efficient methods for business startups. Policies and regulations that favour existing, dominant firms over entrepreneurial ventures, restrict competition and obstruct entry for new companies.

• Instead of developing policies conceptually intended to correct market failures, policymakers should interact with entrepreneurs and understand the challenges faced by them. The feedback should be used to develop policies that incite idea exploration, product development and increased rates of deal flow.

• Entrepreneurial supporters should create a database that enables identifying who the participants in the ecosystem are and how they are connected. These ecosystem maps are useful tools in developing engagement strategies.

• Disruptions are unavoidable in economic and social life. However, it's important to note that economic disruption gives rise to entrepreneurial opportunities. Architects of the entrepreneurship ecosystems (entrepreneurs, mentors, policymakers and consumers,) should anticipate these dips, thus capitalizing on the opportunities they create.

The need for effective strategies to enable local entrepreneurship support ecosystems is a practical one. Better understanding of the actual ecosystems provides a framework within which policy makers can ask relevant questions, envisage more efficient approaches, and assess ensuing outcomes.

10.5.6.5 Snapshot of the Entrepreneurship Ecosystem in India

Entrepreneurship has earned a newfound respect in India. Many Indians, with exposure to the world of business, who traditionally would have opted for a job, are setting up their own ventures. Many elements of the entrepreneurship ecosystem are beginning to come together. For example, increase in venture capitalists, government schemes and incubators, academia industry linkages, and emerging clusters and support to rural economy. All these initiatives are effective but there is a need to scale up and enrich the ecosystem further in the following ways:

1. We need to review our attitude towards failures and accept them as learning experiences.

2. We must encourage the educated to become entrepreneurs and provide students in schools and colleges with entrepreneurship skills.

3. Universities, research labs and the government need to play the role of enablers in the entrepreneurship support ecosystem.

4. Policymakers need to focus on reducing the obstacles such as corruption, red tape and bureaucracy.

5. We need to improve our legal systems and court international venture capital firms and bring them to India.

6. We must devise policies and methods to reach the secondary and tertiary towns in India, where people do not have access to the same resources available in the cities.

Today, there is a huge opportunity in this country to introduce innovative solutions that are capable of scaling up, and collaborating within the ecosystem as well as enriching it.

10.5.6.6 Make in India Campaign

Every entrepreneur has certain needs. Some of their important needs are:

- To easily get loans
- To easily find investors
- To get tax exemptions
- To easily access resources and good infrastructure
- To enjoy a procedure that is free of hassles and is quick
- To be able to easily partner with other firms

The Make in India campaign, launched by Prime Minister Modi aims to satisfy all these needs of young, aspiring entrepreneurs. Its objective is to:

- Make investment easy
- Support new ideas
- Enhance skill development
- Safeguard the ideas of entrepreneurs
- Create state-of-the-art facilities for manufacturing goods

10.5.6.7 Tips

- Research the existing market, network with other entrepreneurs, venture capitalists, angel investors, and thoroughly review the policies in place to enable your entrepreneurship.
- Failure is a stepping stone and not the end of the road. Review yours and your peers' errors and correct them in your future venture.
- Be proactive in your ecosystem. Identify the key features of your ecosystem and enrich them to ensure self-sustainability of your entrepreneurship support ecosystem.

10.5.7 Risk Appetite & Resilience

Entrepreneurship and Risk

Entrepreneurs are inherently risk takers. They are path-makers not path-takers. Unlike a normal, cautious person, an entrepreneur would not think twice about quitting his job (his sole income) and taking a risk on himself and his idea.

An entrepreneur is aware that while pursuing his dreams, assumptions can be proven wrong and unforeseen events may arise. He knows that after dealing with numerous problems, success is still not guaranteed. Entrepreneurship is synonymous with the ability to take risks. This ability, called risk-appetite, is an entrepreneurial trait that is partly genetic and partly acquired.

What is Risk Appetite?

Risk appetite is defined as the extent to which a company is equipped to take risk, in order   to achieve its objectives. Essentially, it refers to the balance, struck by the company, between possible profits and the hazards caused by changes in the environment (economic ecosystem, policies, etc.). Taking on more risk may lead to higher rewards but have a high probability of losses as well. However, being too conservative may go against the company as it can miss out on good opportunities to grow and reach their objectives.

The levels of risk appetite can be broadly categorized as "low", "medium" and "high." The company's entrepreneur(s) have to evaluate all potential alternatives and select the option most likely to succeed. Companies have varying levels of risk appetites for different objectives. The levels depend on:

•   The type of industry

•   Market pressures

•   Company objectives

For example, a startup with a revolutionary concept will have a very high risk appetite. The startup can afford short term failures before it achieves longer term success. This type of appetite will not remain constant and will be adjusted to account for the present circumstances of the company.

Risk Appetite Statement

Companies have to define and articulate their risk appetite in sync with decisions made about their objectives and opportunities. The point of having a risk appetite statement is to have a framework that clearly states the acceptance and management of risk in business. It sets risk taking limits within the company. The risk appetite statement should convey the following:

•   The nature of risks the business faces.

•   Which risks the company is comfortable taking on and which risks are unacceptable.

•   How much risk to accept in all the risk categories.

•   The desired tradeoff between risk and reward.

•   Measures of risk and methods of examining and regulating risk exposures.

Entrepreneurship and Resilience

Entrepreneurs are characterized by a set of qualities known as resilience. These qualities play an especially large role in the early stages of developing an enterprise. Risk resilience is an extremely valuable characteristic as it is believed to protect entrepreneurs against the threat of challenges and changes in the business environment.

What is Entrepreneurial Resilience?

Resilience is used to describe individuals who have the ability to overcome setbacks related to their life and career

aspirations. A resilient person is someone who is capable of easily and quickly recovering from setbacks. For the entrepreneur, resilience is a critical trait. Entrepreneurial resilience can be enhanced in the following ways:

• By developing a professional network of coaches and mentors

• By accepting that change is a part of life

• By viewing obstacles as something that can be overcome

Characteristics of a Resilient Entrepreneur

The characteristics required to make an entrepreneur resilient enough to go the whole way in their business enterprise are:

• A strong internal sense of control

• Strong social connections

• Skill to learn from setbacks

• Ability to look at the bigger picture

• Ability to diversify and expand

• Survivor attitude

• Cash-flow conscious habits

• Attention to detail

10.5.7.1 Tips

• Cultivate a great network of clients, suppliers, peers, friends and family. This will not only help you promote your business, but will also help you learn, identify new opportunities and stay tuned to changes in the market.

• Don't dwell on setbacks. Focus on what the you need to do next to get moving again.

• While you should try and curtail expenses, ensure that it is not at the cost of your growth.

10.5.8 Success & Failures

Understanding Successes and Failures in Entrepreneurship

Shyam is a famous entrepreneur, known for his success story. But what most people don't know, is that Shyam failed numerous times before his enterprise became a success. Read his interview to get an idea of what entrepreneurship is really about, straight from an entrepreneur who has both, failed and succeeded.

Interviewer: Shyam, I have heard that entrepreneurs are great risk-takers who are never afraid of failing. Is this true?

Shyam: Ha ha, no of course it's not true! Most people believe that entrepreneurs need to   be fearlessly enthusiastic. But the truth is, fear is a very normal and valid human reaction, especially when you are planning to start your own business! In fact, my biggest fear was the fear of failing. The reality is, entrepreneurs fail as much as they succeed. The trick is to not allow the fear of failing to stop you from going ahead with your plans. Remember, failures are lessons for future success!

Interviewer: What, according to you, is the reason that entrepreneurs fail?

Shyam: Well, there is no one single reason why entrepreneurs fail. An entrepreneur can fail due to numerous reasons. You could fail because you have allowed your fear of failure to defeat you. You could fail because you are unwilling to delegate (distribute) work. As the saying goes, "You can do anything, but not everything!" You could fail because you gave up too easily – maybe you were not persistent enough. You could fail because you were focusing your energy on small, insignificant tasks and ignoring the tasks that were most important. Other reasons for failing are partnering with the wrong people, not being able to sell your product to the right customers at the right time at the right price… and many more reasons!

Interviewer: As an entrepreneur, how do you feel failure should be looked at?

Shyam: I believe we should all look at failure as an asset, rather than as something negative. The way I see it, if you have an idea, you should try to make it work, even if there is a chance that you will fail. That's because not trying is failure right there, anyway! And failure is not the worst thing that can happen. I think having regrets because of not trying, and wondering 'what if' is far worse than trying and actually failing.

Interviewer: How did you feel when you failed for the first time?

Shyam: I was completely heartbroken! It was a very painful experience. But the good news is, you do recover from the failure. And with every subsequent failure, the recovery process gets a lot easier. That's because you start to see each failure more as a lesson that will eventually help you succeed, rather than as an obstacle that you cannot overcome. You will start to realize that failure has many benefits.

Interviewer: Can you tell us about some of the benefits of failing?

Shyam: One of the benefits that I have experienced personally from failing is that the failure made me see things in a new light. It gave me answers that I didn't have before. Failure can make you a lot stronger. It also helps keep your ego in control.

Interviewer: What advice would you give entrepreneurs who are about to start their own enterprises?

Shyam: I would tell them to do their research and ensure that their product is something that is actually wanted by customers. I'd tell them to pick their partners and employees very wisely and cautiously. I'd tell them that it's very important to be aggressive – push and market your product as aggressively as possible. I would warn them that starting an enterprise is very expensive and that they should be prepared for a situation where they run out of money.

I would tell them to create long term goals and put a plan in action to achieve that goal. I would tell them to build a product that is truly unique. Be very careful and ensure that you are not copying another startup. Lastly, I'd tell them that it's very important that they find the right investors.

Interviewer: That's some really helpful advice, Shyam! I'm sure this will help all entrepreneurs to be more prepared before they begin their journey! Thank you for all your insight!

10.5.8.1 Tips

- Remember that nothing is impossible.
- Identify your mission and your purpose before you start.
- Plan your next steps – don't make decisions hastily.

UNIT 10.6: Preparing to be an Entrepreneur

Unit Objectives

At the end of this unit, you will be able to:

1. Discuss how market research is carried out
2. Describe the 4 Ps of marketing
3. Discuss the importance of idea generation
4. Recall basic business terminology
5. Discuss the need for CRM
6. Discuss the benefits of CRM
7. Discuss the need for networking
8. Discuss the benefits of networking
9. Understand the importance of setting goals
10. Differentiate between short-term, medium-term and long-term goals
11. Discuss how to write a business plan
12. Explain the financial planning process
13. Discuss ways to manage your risk
14. Describe the procedure and formalities for applying for bank finance
15. Discuss how to manage your own enterprise
16. List important questions that every entrepreneur should ask before starting an enterprise

10.6.1 Market Study / The 4 Ps of Marketing / Importance of an IDEA

Understanding Market Research

Market research is the process of gathering, analyzing and interpreting market information on a product or service that is being sold in that market. It also includes information on:

- Past, present and prospective customers
- Customer characteristics and spending habits
- The location and needs of the target market
- The overall industry
- Relevant competitors

Market research involves two types of data:

- Primary information. This is research collected by yourself or by someone hired by you.
- Secondary information. This is research that already exists and is out there for you to find and use.

Primary research

Primary research can be of two types:

- **Exploratory:** This is open-ended and usually involves detailed, unstructured interviews.
- **Specific:** This is precise and involves structured, formal interviews. Conducting specific research is the more expensive than conducting exploratory research.

Secondary research

Secondary research uses outside information. Some common secondary sources are:

- **Public sources:** These are usually free and have a lot of good information. Examples are government departments, business departments of public libraries etc.
- **Commercial sources:** These offer valuable information but usually require a fee to be paid. Examples are research and trade associations, banks and other financial institutions etc.
- **Educational institutions:** These offer a wealth of information. Examples are colleges, universities, technical institutes etc.

10.6.1.1 The 4 Ps of Marketing

The 4 Ps of marketing are:

1. Product,
2. Price,
3. Promotion and
4. Place.

Let's look at each of these 4 Ps in detail.

Product

A product can be:

- A tangible good
- An intangible service

Whatever your product is, it is critical that you have a clear understanding of what you are offering, and what its unique characteristics are, before you begin with the marketing process.

Some questions to ask yourself are:

- What does the customer want from the product/service?
- What needs does it satisfy?
- Are there any more features that can be added?
- Does it have any expensive and unnecessary features?
- How will customers use it?
- What should it be called?
- How is it different from similar products?

- How much will it cost to produce?

- Can it be sold at a profit?

Price

Once all the elements of Product have been established, the Price factor needs to be considered. The Price of a Product will depend on several factors such as profit margins, supply, demand and the marketing strategy.

Some questions to ask yourself are:

- What is the value of the product/service to customers?

- Do local products/services have established price points?

- Is the customer price sensitive?

- Should discounts be offered?

- How is your price compared to that of your competitors?

Promotion

Once you are certain about your Product and your Price, the next step is to look at ways to promote it. Some key elements of promotion are advertising, public relations, social media marketing, email marketing, search engine marketing, video marketing and more.

Some questions to ask yourself are:

- Where should you promote your product or service?

- What is the best medium to use to reach your target audience?

- When would be the best time to promote your product?

- How are your competitors promoting their products?

Place

According to most marketers, the basis of marketing is about offering the right product, at the right price, at the right place, at the right time. For this reason, selecting the best possible location is critical for converting prospective clients into actual clients.

Some questions to ask yourself are:

- Will your product or service be looked for in a physical store, online or both?

- What should you do to access the most appropriate distribution channels?

- Will you require a sales force?

- Where are your competitors offering their products or services?

- Should you follow in your competitors' footsteps?

- Should you do something different from your competitors?

Importance of an IDEA

Ideas are the foundation of progress. An idea can be small or ground-breaking, easy to accomplish or extremely complicated to implement. Whatever the case, the fact that it is an idea gives it merit. Without ideas, nothing is possible. Most people are afraid to speak out their ideas, out for fear of being ridiculed. However, if are an entrepreneur and want to remain competitive and innovative, you need to bring your ideas out into the light.

Some ways to do this are by:

- Establishing a culture of brainstorming where you invite all interested parties to contribute

- Discussing ideas out loud so that people can add their ideas, views, opinions to them

- Being open minded and not limiting your ideas, even if the idea who have seems ridiculous

- Not discarding ideas that you don't work on immediately, but instead making a note of them and shelving them so they can be revisited at a later date.

10.6.1.2 Tips

- Keep in mind that good ideas do not always have to be unique.

- Remember that timing plays a huge role in determining the success of your idea.

- Situations and circumstances will always change, so be flexible and adapt your idea accordingly.

10.6.2 Business Entity Concepts: Basic Business Terminology

If your aim is to start and run a business, it is crucial that you have a good understanding of basic business terms. Every entrepreneur should be well versed in the following terms:

- **Accounting:** A systematic method of recording and reporting financial transactions.

- **Accounts payable:** Money owed by a company to its creditors.

- **Accounts Receivable:** The amount a company is owed by its clients.

- **Assets:** The value of everything a company owns and uses to conduct its business.

- **Balance Sheet:** A snapshot of a company's assets, liabilities and owner's equity at a given moment.

- **Bottom Line:** The total amount a business has earned or lost at the end of a month.

- **Business:** An organization that operates with the aim of making a profit.

- **Business to Business (B2B):** A business that sells goods or services to another business.

- **Business to Consumer (B2C):** A business that sells goods or services directly to the end user.

- **Capital:** The money a business has in its accounts, assets and investments. The two main types of capital are debt and equity.

- **Cash Flow:** The overall movement of funds through a business each month, including income and expenses.

- **Cash Flow Statement:** A statement showing the money that entered and exited a business during a specific period of time.

- **Contract:** A formal agreement to do work for pay.

- **Depreciation:** The degrading value of an asset over time.

- **Expense:** The costs that a business incurs through its operations.

- **Finance:** The management and allocation of money and other assets.

- **Financial Report:** A comprehensive account of a business' transactions and expenses.

- **Fixed Cost:** A one-time expense.

- **Income Statement (Profit and Loss Statement):** Shows the profitability of a business during a period of time.

- **Liabilities:** The value of what a business owes to someone else.

- **Marketing:** The process of promoting, selling and distributing a product or service.

- **Net Income/Profit:** Revenues minus expenses.

- **Net Worth:** The total value of a business.

- **Payback Period:** The amount of time it takes to recover the initial investment of a business.

- **Profit Margin:** The ratio of profit, divided by revenue, displayed as a percentage.

- **Return on Investment (ROI):** The amount of money a business gets as return from an investment.

- **Revenue:** The total amount of income before expenses are subtracted.

- **Sales Prospect:** A potential customer.

- **Supplier:** A provider of supplies to a business.

- **Target Market:** A specific group of customers at which a company's products and services are aimed.

- **Valuation:** An estimate of the overall worth of the business.

- **Variable Cost:** Expenses that change in proportion to the activity of a business.

- **Working Capital:** Calculated as current assets minus current liabilities.

10.6.3 CRM & Networking

What is CRM?

CRM stands for Customer Relationship Management. Originally the expression Customer Relationship Management meant managing one's relationship with customers. However, today it refers to IT systems and software designed to help companies manage their relationships.

The Need for CRM

The better a company can manage its relationships with its customers, the higher the chances of the company's success. For any entrepreneur, the ability to successfully retain existing customers and expand the enterprise is paramount. This is why IT systems that focus on addressing the problems of dealing with customers on a daily basis are becoming more and more in demand.

Customer needs change over time, and technology can make it easier to understand what customers really want. This insight helps companies to be more responsive to the needs of their customers. It enables them to modify their business operations when required, so that their customers are always served in the best manner possible. Simply put, CRM helps companies recognize the value of their clients and enables them to capitalize on improved customer relations.

Benefits of CRM

CRM has a number of important benefits:

- It helps improve relations with existing customers which can lead to:

> » Increased sales

> » Identification of customer needs

> » Cross-selling of products

- It results in better marketing of one's products or services

- It enhances customer satisfaction and retention

- It improves profitability by identifying and focusing on the most profitable customers

10.6.3.1 What is Networking?

In business, networking means leveraging your business and personal connections in order to bring in a regular supply of new business. This marketing method is effective as well as low cost. It is a great way to develop sales opportunities and contacts. Networking can be based on referrals and introductions, or can take place via phone, email, and social and business networking websites.

The Need for Networking

Networking is an essential personal skill for business people, but it is even more important for entrepreneurs. The process of networking has its roots in relationship building. Networking results in greater communication and a stronger presence in the entrepreneurial ecosystem. This helps build strong relationships with other entrepreneurs.

Business networking events held across the globe play a huge role in connecting like-minded entrepreneurs who share the same fundamental beliefs in communication, exchanging ideas and converting ideas into realities. Such networking events also play a crucial role in connecting entrepreneurs with potential investors. Entrepreneurs may have vastly different experiences and backgrounds but they all have a common goal in mind – they all seek connection, inspiration, advice, opportunities and mentors. Networking offers them a platform to do just that. Benefits of Networking

Networking offers numerous benefits for entrepreneurs. Some of the major benefits are:

- Getting high quality leads

- Increased business opportunities

- Good source of relevant connections

- Advice from like-minded entrepreneurs

- Gaining visibility and raising your profile

- Meeting positive and enthusiastic people

- Increased self-confidence

- Satisfaction from helping others

- Building strong and lasting friendships

10.6.3.2 Tips

- Use social media interactions to identify needs and gather feedback.

- When networking, ask open-ended questions rather than yes/no type questions.

10.6.4 Business Plan: Why Set Goals

Setting goals is important because it gives you long-term vision and short-term motivation. Goals can be short term, medium term and long term.

Short-Term Goals

- These are specific goals for the immediate future. Example: Repairing a machine that has failed. Medium-Term Goals

- These goals are built on your short term goals.

- They do not need to be as specific as your short term goals.

Example: Arranging for a service contract to ensure that your machines don't fail again.

Long-Term Goals

These goals require time and planning. They usually take a year or more to achieve.

Example: Planning your expenses so you can buy new machinery

Why Create a Business Plan

A business plan is a tool for understanding how your business is put together. It can be used to monitor progress, foster accountable and control the fate of the business. It usually offers a 3-5 year projection and outlines the plan that the company intends to follow to grow its revenues. A business plan is also a very important tool for getting the interest of key employees or future investors.

A business plan typically comprises of eight elements.

10.6.4.1 Elements of a Business Plan

Executive Summary

The executive summary follows the title page. The summary should clearly state your desires as the business owner in a short and businesslike way. It is an overview of your business and your plans. Ideally this should not be more than 1-2 pages.

Your Executive Summary should include:

- **The Mission Statement:** Explain what your business is all about.

  Example: Nike's Mission Statement

  Nike's mission statement is "To bring inspiration and innovation to every athlete in the world."

- **Company Information:** Provide information like when your business was formed, the names and roles of the founders, the number of employees, your business location(s) etc.

- **Growth Highlights:** Mention examples of company growth. Use graphs and charts where possible.

- **Your Products/Services:** Describe the products or services provided.

- **Financial Information:** Provide details on current bank and investors.

- **Summarize future plans:** Describe where you see your business in the future.

Business Description

The second section of your business plan needs to provide a detailed review of the different elements of your business. This will help potential investors to correctly understand your business goal and the uniqueness of your offering.

Your Business Description should include:

- A description of the nature of your business

- The market needs that you are aiming to satisfy

- The ways in which your products and services meet these needs

- The specific consumers and organizations that you intend to serve

- Your specific competitive advantages

Market Analysis

The market analysis section usually follows the business description. The aim of this section is to showcase your industry and market knowledge. This is also the section where you should lay down your research findings and conclusions.

Your Market Analysis should include:

- Your industry description and outlook

- Information on your target market

- The needs and demographics of your target audience

- The size of your target market

- The amount of market share you want to capture

- Your pricing structure

- Your competitive analysis

- Any regulatory requirements

Organization & Management

This section should come immediately after the Market Analysis. Your Organization & Management section should include:

- Your company's organizational structure

- Details of your company's ownership

- Details of your management team

- Qualifications of your board of directors

- Detailed descriptions of each division/department and its function

- The salary and benefits package that you offer your people

- The incentives that you offer

Service or Product Line

The next section is the service or product line section. This is where you describe your service or product, and stress on their benefits to potential and current customers. Explain in detail why your product of choice will fulfill the needs of your target audience.

Your Service or Product Line section should include:

- A description of your product/service

- A description of your product or service's life cycle

- A list of any copyright or patent filings

- A description of any R&D activities that you are involved in or planning

Marketing & Sales

Once the Service or Product Line section of your plan has been completed, you should start on the description of the marketing and sales management strategy for your business.

Your Marketing section should include the following strategies:

- **Market penetration strategy:** This strategy focuses on selling your existing products or services in existing markets, in order to increase your market share.

- **Growth strategy:** This strategy focuses on increasing the amount of market share, even if it reduces earnings in the short-term.

- **Channels of distribution strategy:** These can be wholesalers, retailers, distributers and even the internet.

- **Communication strategy:** These can be written strategies (e-mail, text, chat), oral strategies (phone calls, video chats, face-to-face conversations), non-verbal strategies (body language, facial expressions, tone of voice) and visual strategies (signs, webpages, illustrations).

Your Sales section should include the following information:

- **A salesforce strategy:** This strategy focuses on increasing the revenue of the enterprise.

- A breakdown of your sales activities: **This means detailing out how you intend to sell your products or ser**vices – will you sell it offline or online, how many units do you intend to sell, what price do you plan to sell each unit at, etc.

Funding Request

This section is specifically for those who require funding for their venture. The Funding Request section should include the following information:

- How much funding you currently require.

- How much funding you will require over the next five years. This will depend on your long- term goals.

- The type of funding you want and how you plan to use it. Do you want funding that can be used only for a specific purpose, or funding that can be used for any kind of requirement?

- Strategic plans for the future. This will involve detailing out your long-term plans – what these plans are and how much money you will require to put these plans in motions.

- Historical and prospective financial information. This can be done by creating and maintaining all your financial records, right from the moment your enterprise started, to the present day. Documents required for this are your balance sheet which contains details of your company's assets and liabilities, your income statement which lists your company's revenues, expenses and net income for the year, your tax returns (usually for the last three years) and your cash flow budget which lists the cash that came in, the cash that went out and states whether you had a cash deficit (negative balance) or surplus (positive balance) at the end of each month.

Financial Planning

Before you begin building your enterprise, you need to plan your finances. Take a look at the steps for financial planning:

- **STEP 1:** Create a financial plan. This should include your goals, strategies and timelines for accomplishing these goals.

- **STEP 2:** Organize all your important financial documents. Maintain a file to hold your investment details, bank statements, tax papers, credit card bills, insurance papers and any other financial records.

- **STEP 3:** Calculate your net worth. This means figure out what you own (assets like your house, bank accounts, investments etc.), and then subtract what you owe (liabilities like loans, pending credit card amounts etc.) the amount you are left with is your net worth.

- **STEP 4:** Make a spending plan. This means write down in detail where your money will come from, and where it will go.

- **STEP 5:** Build an emergency fund. A good emergency fund contains enough money to cover at least 6 months' worth of expenses.

- **STEP 6:** Set up your insurance. Insurance provides long term financial security and protects you against risk.

Risk Management

As an entrepreneur, it is critical that you evaluate the risks involved with the type of enterprise that you want to start, before you begin setting up your company. Once you have identified potential risks, you can take steps to reduce them. Some ways to manage risks are:

- Research similar business and find out about their risks and how they were minimized.

- Evaluate current market trends and find out if similar products or services that launched a while ago are still being well received by the public.

- Think about whether you really have the required expertise to launch your product or service.

- Examine your finances and see if you have enough income to start your enterprise.

- Be aware of the current state of the economy, consider how the economy may change over time, and think about how your enterprise will be affected by any of those changes.

- Create a detailed business plan.

10.6.4.2 Tips

- Ensure all the important elements are covered in your plan.
- Scrutinize the numbers thoroughly.
- Be concise and realistic.
- Be conservative in your approach and your projections.
- Use visuals like charts, graphs and images wherever possible.

10.6.5 Procedure and Formalities for Bank Finance

The Need for Bank Finance

For entrepreneurs, one of the most difficult challenges faced involves securing funds for startups. With numerous funding options available, entrepreneurs need to take a close look at which funding methodology works best for them. In India, banks are one of the largest funders of startups, offering funding to thousands of startups every year.

10.6.5.1 What Information Should Entrepreneurs Offer Banks for Funding

When approaching a bank, entrepreneurs must have a clear idea of the different criteria that banks use to screen, rate and process loan applications. Entrepreneurs must also be aware of the importance of providing banks with accurate and correct information. It is now easier than ever for financial institutions to track any default behaviour of loan applicants. Entrepreneurs looking for funding from banks must provide banks with information relating to their general credentials, **financial situation** and guarantees or collaterals that can be offered.

General Credentials

This is where you, as an entrepreneur, provide the bank with background information on yourself. Such information includes:

- **Letter(s) of Introduction:** This letter should be written by a respected business person who knows you well enough to introduce you. The aim of this letter is set across your achievements and vouch for your character and integrity.

- **Your Profile:** This is basically your resume. You need to give the bank a good idea of your educational achievements, professional training, qualifications, employment record and achievements.

- **Business Brochure:** A business brochure typically provides information on company products, clients, how long the business has been running for etc.

- **Bank and Other References:** If you have an account with another bank, providing those bank references is a good idea.

- **Proof of Company Ownership or Registration:** In some cases, you may need to provide the bank with proof of company ownership and registration. A list of assets and liabilities may also be required.

Financial Situation

Banks will expect current financial information on your enterprise. The standard financial reports you should be prepared with are:

- Balance Sheet
- Profit-and-Loss Account
- Cash-Flow Statement
- Projected Sales and Revenues
- Business Plan
- Feasibility Study

Guarantees or Collaterals

Usually banks will refuse to grant you a loan without security. You can offer assets which the bank can seize and sell off if you do not repay the loan. Fixed assets like machinery, equipment, vehicles etc. are also considered to be security for loans.

10.6.5.2 The Lending Criteria of Banks

Your request for funding will have a higher chance of success if you can satisfy the following lending criteria:

- Good cash flow
- Adequate shareholders' funds
- Adequate security

- Experience in business
- Good reputation

The Procedure

To apply for funding the following procedure will need to be followed.

- Submit your application form and all other required documents to the bank.
- The bank will carefully assess your credit worthiness and assign ratings by analyzing your business information with respect to parameters like management, financial, operational and industry information as well as past loan performance.
- The bank will make a decision as to whether or not you should be given funding.

10.6.5.3 Tips

- Get advice on funding options from experienced bankers.
- Be cautious and avoid borrowing more than you need, for longer than you need, at an interest rate that is higher than you are comfortable with.

10.6.6 Enterprise Management - An Overview

To manage your enterprise effectively you need to look at many different aspects, right from managing the day-to-day activities to figuring out how to handle a large scale event. Let's take a look at some simple steps to manage your company effectively.

STEP 1: Use your leadership skills and ask for advice when required.

Let's take the example of Ramu, an entrepreneur who has recently started his own enterprise. Ramu has good leadership skills – he is honest, communicates well, knows how to delegate work etc. These leadership skills definitely help Ramu in the management of his enterprise. However, sometimes Ramu comes across situations that he is unsure how to handle. What should Ramu do in this case? One solution is for him to find a more experienced manager who is willing to mentor him. Another solution is for Ramu to use his networking skills so that he can connect with managers from other organizations, who can give him advice on how to handle such situations.

STEP 2: Divide your work amongst others – realize that you cannot handle everything yourself.

Even the most skilled manager in the world will not be able to manage every single task that an enterprise will demand of him. A smart manager needs to realize that the key to managing his enterprise lies in his dividing all his work between those around him. This is known as delegation. However, delegating is not enough. A manager must delegate effectively if he wants to see results. This is important because delegating, when done incorrectly, can result in you creating even more work for yourself. To delegate effectively, you can start by making two lists. One list should contain the things that you know you need to handle yourself. The second list should contain the things that you are confident can be given to others to manage and handle. Besides incorrect delegation, another issue that may arise is over-delegation. This means giving away too many of your tasks to others. The problem with this is, the more tasks you delegate, the more time you will spend tracking and monitoring the work progress of those you have handed the tasks to. This will leave you with very little time to finish your own work.

STEP 3: Hire the right people for the job.

Hiring the right people goes a long way towards effectively managing your enterprise. To hire the best people suited for the job, you need to be very careful with your interview process. You should ask potential candidates the right questions and evaluate their answers carefully. Carrying out background checks is always a good practice. Running a credit check is also a good idea, especially if the people you are planning to hire will be handling your money. Create a detailed job description for each role that you want filled and ensure that all candidates have a clear and correct understanding of the job description. You should also have an employee manual in place, where you put down every expectation that you have from your employees. All these actions will help ensure that the right people are approached for running your enterprise.

STEP 4: Motivate your employees and train them well.

Your enterprise can only be managed effectively if your employees are motivated to work hard for your enterprise. Part of being motivated involves your employees believing in the vision and mission of your enterprise and genuinely wanting to make efforts towards pursuing the same. You can motivate your employees with recognition, bonuses and rewards for achievements. You can also motivate them by telling them about how their efforts have led to the company's success. This will help them feel pride and give them a sense of responsibility that will increase their motivation.

Besides motivating your people, your employees should be constantly trained in new practices and technologies. Remember, training is not a one-time effort. It is a consistent effort that needs to be carried out regularly.

STEP 5: Train your people to handle your customers well.

Your employees need to be well-versed in the art of customer management. This means they should be able to understand what their customers want, and also know how to satisfy their needs. For them to truly understand this, they need to see how you deal effectively with customers. This is called leading by example. Show them how you sincerely listen to your clients and the efforts that you put into understand their requirements. Let them listen to the type of questions that you ask your clients so they understand which questions are appropriate.

STEP 6: Market your enterprise effectively.

Use all your skills and the skills of your employees to market your enterprise in an effective manner. You can also hire a marketing agency if you feel you need help in this area.

Now that you know what is required to run your enterprise effectively, put these steps into play, and see how much easier managing your enterprise becomes!

10.6.6.1 Tips

- Get advice on funding options from experienced bankers.
- Be cautious and avoid borrowing more than you need, for longer than you need, at an interest rate that is higher than you are comfortable with.

10.6.7 Considering Entrepreneurship

Questions to Ask Yourself Before Considering Entrepreneurship

- Why am I starting a business?
- What problem am I solving?

- Have others attempted to solve this problem before? Did they succeed or fail?

- Do I have a mentor1 or industry expert that I can call on?

- Who is my ideal customer2?

- Who are my competitors3?

- What makes my business idea different from other business ideas?

- What are the key features of my product or service?

- Have I done a SWOT4 analysis?

- What is the size of the market that will buy my product or service?

- What would it take to build a minimum viable product5 to test the market?

- How much money do I need to get started?

- Will I need to get a loan?

- How soon will my products or services be available?

- When will I break even6 or make a profit?

- How will those who invest in my idea make a profit?

- How should I set up the legal structure7 of my business?

- What taxes will I need to pay?

- What kind of insurance9 will I need?

- Have I reached out to potential customers for feedback

10.6.7.1 Tips

- It is very important to validate your business ideas before you invest significant time, money and resources into it.

- The more questions you ask yourself, the more prepared you will be to handle to highs and lows of starting an enterprise.

Footnotes:

1. A mentor is a trusted and experienced person who is willing to coach and guide you.

2. A customer is someone who buys goods and/or services.

3. A competitor is a person or company that sells products and/or services similar to your products and/or services.

4. SWOT stands for Strengths, Weaknesses, Opportunities and Threats. To conduct a SWOT analysis of your company, you need to list down all the strengths and weaknesses of your company, the opportunities that are present for your company and the threats faced by your company.

5. A minimum viable product is a product that has the fewest possible features, that can be sold to customers, for the purpose of getting feedback from customers on the product.

6. A company is said to break even when the profits of the company are equal to the costs.

7. The legal structure could be a sole proprietorship, partnership or limited liability partnership.

8. There are two types of taxes – direct taxes payable by a person or a company, or indirect taxes charged on goods and/or services.

9. There are two types of insurance – life insurance and general insurance. Life insurance covers human life while general insurance covers assets like animals, goods, cars etc.

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