Course Material for

Apparel - Sewing Machine Operator

Participant’s Guide

Sponsored by the

Maulana Azad National Academy for Skills (MANAS)
Foreword

LabourNet is a social enterprise that creates sustainable benefits for workers in the informal sector by taking an end to end solution focused on plugging gaps in the ecosystem to the market to address all the challenges faced by the unorganized sector workforce today. LabourNet actively solicits workers and register them onto our central database. The current skill level of the registered worker is assessed, and then industry relevant training and certification are provided to these registered workers to upgrade their skill level. The training is delivered through a unique onsite/ class room model.

This course on Tailoring is designed to clearly define the course delivery to ensure uniform and effective training at all the locations. The focus was also to increase the practical training, reducing the theory to the bare minimum to support the practical work.
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Course Details

<table>
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<tr>
<th>Course Name</th>
<th>Tailoring</th>
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This course is designed for imparting the knowledge and basic skills to take up entry level job in Tailoring in Textiles & Apparel sector. All the activities carried out by a Tailor are covered in this course. Upon successful completion of this course the candidate will be eligible to perform Tailoring activities covered in this course.

The training is imparted more through practical work keeping the theory to the minimum. Course material consists of Trainers Guide for trainer to deliver the training, Participant guide for participants to follow the training delivery and assimilate the theory and practical aspects of the trade and AG to carry out assessment during the course and at the end of the course.

By completing this course Participants will become familiar with the hand sewing, machine sewing, measurement, shaping, patterns, garment making and estimation of materials necessary for Tailoring. Students will also learn and demonstrate the safe use of parts and equipment.

**Further Learning Opportunities:**

Upon successful completion of this course the candidate will be eligible for attending advanced courses on Tailoring.
1. Key Competencies

Upon successful completion, the Learners will be able to:

1. Carry out hand Sewing and machine Sewing
2. Take measurements
3. Create patterns
4. Stitch garments for kids
5. Stitch Garments for woman
6. Estimate materials and costing for stitching of documents

<table>
<thead>
<tr>
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<tr>
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<td>Hours Per</td>
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<td>Day (hrs.)</td>
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Eligibility Criteria

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## 2. Module wise duration

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<tr>
<td>2</td>
<td>Introduction to hand sewing</td>
<td>2 hrs</td>
<td>1 hr</td>
<td>3 hrs 15 mins</td>
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<tr>
<td>3</td>
<td>Introduction to machine sewing</td>
<td>2 hrs</td>
<td>1 hr</td>
<td>3 hrs 15 mins</td>
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<tr>
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<td>Techniques of Measurement and Shaping</td>
<td>3 hrs</td>
<td>2 hrs</td>
<td>5 hrs 15 mins</td>
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<td>9</td>
<td>Estimate of Materials &amp; Costing of Finished Products</td>
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3. General Instructions for Trainee

1. During training all trainees are expected to conduct themselves as per norms and regulations.

2. Trainees should maintain punctuality in respect of attendance.

3. Trainee should be in the class before the training scheduled time.

4. No leave will be granted to the trainees during training session, except under emergent circumstances.

5. Trainees must put their mobile phone in “Switch Off / Silent” mode during training session inside Theoretical class room and as well as in Practical Lab.

6. Make sure you are neatly attired and presentable at all times.

7. Be attentive in classroom, especially when trainer demonstrates a task/process/work.

8. Always participate in discussion and activities.

9. Always take safety measures and necessary precautions while doing any practical using equipment and tools.

10. Always make appropriate notes, space is provided for the same at the end of each module.

11. Do not hesitate to ask any doubts and questions. Our trainer will help and support you in best possible way.

12. Revise and practice as many times as possible.

13. In case of any clarification, Training Section may be contacted during working hours on working days.

Assessment: At the end of the module the trainer should administer test provided by the assessment team consisting of MCQ as described in the Assessment Guide

Resources:

- Pen
- Instructor
- Practical resources provided by instructor and training center.
Participant Hand Book
Module 1 - Orientation and Introduction of Common tools and Workshop rules

Module Overview

This module will introduce Tailoring trade to the Participants. Tailoring refers to all the activities involved in creating a finished garment from the beginning to the end. Commonly used tools in tailoring are covered in this module apart from parts of sewing machines functions of sewing machines & maintenance.

Module Objectives

- To make trainee to get an initial idea of tailoring and understand the types of tools and machine that they will be required to handle.

Module Design

<table>
<thead>
<tr>
<th>Topic no.</th>
<th>Session Topics</th>
<th>Method</th>
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<th>Tools/Equipment/Props</th>
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<tr>
<td>1.</td>
<td>Development of an idea of tailoring</td>
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<td>PPT/Flipchart, learner cards, images</td>
</tr>
<tr>
<td>2.</td>
<td>Types of tools and their care and storage</td>
<td>Theory</td>
<td>1 hr</td>
<td>PPT/Flipchart, learner cards, images</td>
</tr>
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<td>3.</td>
<td>Types of sewing machines, its parts and functions and maintenance</td>
<td>Theory</td>
<td>1 hr</td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3 hrs</td>
<td></td>
</tr>
</tbody>
</table>
Session Plan

Session Objectives

(Key learning outcome)

At the end of the session,

- The trainee will have basic understanding of tailoring.
- The trainee will understand the function/use of various tailoring tools and their maintenance.
- The trainee will know the parts and maintenance of sewing machines.

Underpinning Knowledge/ Theory/ Principle

(Theoretical concept on which the learning is based)

- The trainee will have limited knowledge of Tailoring.

Duration

<table>
<thead>
<tr>
<th>Topic No.</th>
<th>Topic</th>
<th>Duration</th>
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<tr>
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<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>3 hrs</td>
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</tbody>
</table>
Instructions to the Trainee

- Speak freely and introduce yourself to the trainer.
- The Trainee should be attentive in the class and understand the role of Tailor.
- The Trainee should be attentive in the class and understand the different tools and their maintenance.
- Trainee should concentrate on learning the parts of the sewing machine and maintenance.
- Take part in discussion and make notes.
- Maintain discipline.

Slide No.2-24

**Orientation and Introduction of Common tools and Workshop rules**

**1.1. Development of an idea of tailoring**

Tailoring refers to all the activities involved in creating a finished garment from the beginning to the end.

This includes measurements of the person for whom the garment is being made, cutting the fabric, stitching it, adding any designs and embroideries as desired, pressing it and ensuring a perfect fit at the end.

It is both a science and art.
Activity 1:

**Objective:** To introduce the course outline/overview to the participant, to make participant comfortable and to encourage them to undertake the complete course.

**Methodology:** Ice-Breaker Activity – Group Activity and discussion.

Each participant will be asked to introduce the person sitting next to him/her.

This will include the following: Name, place, hobbies.

Activity 2:

**Objective:** The trainer will introduce the topic on Introduction of tailoring to the participants.

**Methodology:** Presentation using PPT/Learning Cards /Flip Chart

Initially trainer will brief the participants about tailoring, and then he will describe the commonly used tools in tailoring and give guidelines on care and storage of the tools. On completion of initial briefing the trainees and trainer will interact and discuss on the basic concepts of tailoring.

**Materials Required:** PPT /Flipchart, images, learner cards, Sewing box, hand and machine sewing needle, sewing threads, pins, cutting tools, measuring tools, marking tools, ironing tools, miscellaneous tools, scissors and Sewing Machine.

**Outcome:** Trainee will acquire knowledge of Tailoring trade and will be able to identify various tools and machine used for tailoring.
Module 1 – Orientation and Introduction to Common tools and Work Shop Rules

1.1 Development of an idea of tailoring

Tailoring refers to all the activities involved in creating a finished garment from the beginning to the end. This includes measurements of the person for who the garment is being made, cutting the fabric, stitching it, adding any designs and embroideries as desired, pressing it and ensuring a perfect fit at the end. Tailoring requires an eye for design, knowledge of how to select and use the correct tools for stitching, both by hand and by machines, knowledge of different kinds of fabrics and the care required while stitching them, and also how to take correct measurements to ensure a perfect fit. It is both a science and art.

A good tailor is always in demand. But as in any other trade, to become good and recognised requires knowledge, practise and patience. If you can master the skill and have patience, you can start your own business and slowly become economically independent.

1.2 Types of tools and their care and storage

Just like any other trade tailoring also has its own tools and equipment. These are needed to make tailoring easier and more precise. Many of you may think that a sewing machine, threads and needles are all you need for creating a garment. But that is not true. In this section we will learn about the many different tools that are available for your use, what are their various purposes and how to take care of them.

Types of tools:

Tailoring tools can be classified into several categories. These are:

a) Sewing and Embroidery tools
b) Cutting tools
c) Measuring tools
d) Marking tools
e) Ironing tools
f) Miscellaneous tools

Now we will discuss each of these in details and also see some pictures of each of them.

a) Sewing and Embroidery tools
a. Sewing machines- this will be discussed in greater detail later
b. **Sewing box**- this is a very important tool because this will keep all the smaller tools in one place and prevent them from getting spoilt or lost. Typically you will put things like thimbles, bodkins, buttons, small scissors, various feet of the sewing machine, needles, some odd threads, in this box. It is not important that this should be a fancy box or even just one single box. The important thing is to organize your everyday use equipment in an easy to store box where you will be able to find things quickly and also keep them safe.

c. **Hand sewing needles**-When choosing a needle it's best to consider the type of fabric you'll be using. In general, the lighter your fabric, the thinner the needle you'll want to use with it. If you're unsure of the best needle, just try passing a few different-sized needles through an inconspicuous place on the fabric. Which one passes through most easily? Which one leaves the smallest hole in the fabric? After trying several needles you will be able to select the most appropriate ones. With practise you will be able to select a needle more and more easily.

The various and most common types of hand sewing needles are:

i. **Sharps**- These are the most commonly used ones with a sharp point and medium length. They have a rounded eye for threading and come in a variety of thickness and lengths. 1 being the longest and thickest and 10 being the shortest and thinnest

ii. **Ball point needles**- These have rounded edges, come in sizes 5-10 and have a rounded edge that makes them ideal for woollen fabrics

iii. **Embroidery or Crewel needles**- These are a lot like the Sharp needles except that they have a larger eye to allow different kinds of threads to pass through. They also come in sizes 1-10.

Milliner’s needles, Tapestry, Quilting and Chenille are some of the other hand sewing needles that are more specialised.

d. **Machine sewing needles**- These are designed to fit with the specific brand and type of sewing machine. Just as in the hand sewing needles, the length, thickness and weight will depend on the type of fabric you are stitching and the thread you will be using. Today there are many highly specialised needles available in the market but for our purpose here we need not get into those details. We will cover needles in greater length in another session.

**Tip**- As far as possible, always start with a fresh, new needle for every sewing project. If a stitching problem occurs first check the needle. A dull or burred needle can cause snags and puckering.
e. **Sewing threads**- Before selecting a thread it is important to determine the kind of sewing you are going to undertake. Is it a simple stitching job or is it decorative work? Also the kind of fabric will determine your choice of thread. Always remember to purchase quality threads. Broadly the various kinds of threads are:

i. **Cotton**
ii. **Nylon or Rayon** (including Invisible thread)
iii. **Silk**
iv. **Wool**
v. **Metallic**
vi. **Bobbin or thread for machine stitching**
vii. **Designer threads that are created using a mix of different materials for very specialised stitching**

f. **Pins**- Before you start stitching a garment, you need to use pins to mark and hold things such as hemlines, tucks etc. Just like needles, pins also come in a variety of sizes and points. It is advisable to use **Silk** or stainless steel pins. The most common type of pin is called the **Dressmaker** and is suitable for most fabrics. The **Ball point** tip pin is used for fine knits and the **Silk**, a very slender pin with sharp edge, is used for silks and other delicate fabrics. Good pinning ensures you are able to keep the correct shape and size of the garment while stitching.

g. **Thimbles**- These are a protective covering for your finger tips, to be worn while stitching and working on fabrics. Thimbles protect against pin pricks and also help the tailors to push the needle through without damaging the finger tip. A good thimble will make you more efficient when sewing with your hands especially when using sharp needles or sewing on a thick fabric that requires you to push the needle with your finger.

h. **Embroidery frames**- These are used to stretch a part or the whole fabric to work on it for embellishments such as embroidery, zardozi work etc. For stretching only a part of the fabric, typically round frames are used and if both hands need to be free to work on the fabric, then free standing frames are used. Typically frames are made of steel or wood or even plastic.

i. **Bodkin**- This is a flat needle with a blunt end and a large eye for threading elastic or tape.

j. **Stiletto**- It is a long sharp object that is used to make holes in garments and other materials for e.g. making holes in belts.
b) Cutting tools
a. Bent handle shears- ranging in length from 7”-10” these scissors are especially designed for cutting large fabrics on a table e.g. when cutting for a kurta or a baby suit after you have made the markings. Their angled blade and handle make it easy to cut at an angle. Care should be taken to not use these for any other purpose and should be used only to cut fabric.

b. General purpose shears- These are more general purpose scissors and should be used to cut paper, leather, snip thread etc.

c. Sewing scissors/ Tailor’s scissors/Trimmers- These range in length from 5”-7”. The blades in these are tapered and one blade has a sharp edge while the other is rounded to allow you to cut without damaging the fabric. These are used to cut threads, embellishments from the cloth.

d. Embroidery scissors- These scissors are generally smaller and are used for notching, trimming and snipping delicate embroidered areas. The small size allows the user to cut exactly.

e. Machine embroidery scissors- These come with a unique shaped handle that is bent to one side at an angle. This enables the user to cut the cloth comfortable even though the cloth is still on the machine
f. **Thread nippers and clippers** - These are cutters with a spring attached to them. They may or may not have a handle and are used for cutting trailing threads and seems.

g. **Pinking shears** - These scissors have a serrated, jagged or saw tooth blade that allows it to cut a zigzag edge. These are used to cut seems so that they do not ravel or open up easily and do not bulk up.

h. **Button hole scissors** – These are designed to give a cut of a precise length which is the length required for the button hole. Between the two blades there is an adjustable screw, this can be adjusted to get the desired cut length. The screw limits the cut size thereby preventing a cut onto the stitch side of the garment.

c) **Measuring tools**

a. **Tape Measure** - The most commonly used of all measuring tools, this is generally made of plastic and has a metal tip at both ends to prevent it from fraying. The markings on one side are in inches and on the other side are in centimetres. When starting out in
tailoring it is advisable to invest in a new tape measure as old ones maybe stretched or frayed. These are useful for taking body measurements and for quick comparison of body and garment measurements.

b. **Clear ruler** - These are generally made of clear plastic or acrylic and will have markings in both inches and centimetres. Typically there is a short one and a long one. They are used to make markings on the cloth for cutting and even to mark parallel lines.

c. **Sewing gauge** - The sewing gauge serves many uses for the home sewer in measuring and marking. It helps in creating precise hem widths, tucks & pleats, scallops & circles, spacing buttons & buttonholes. For hem widths turn up inside of the garment on the hemline desired. Use the sewing gauge to determine the correct length. For tucks and pleats adjust the slider to any desired width. To draw scallops & circles do the following - The sewing gauge has a hole in the end of the ruler and also in the nylon slider. Place a pin in the hole at the end of the ruler and then put your marking pencil in the hole on the nylon slider half the size of desired scallop. Pivot to make scallops. For spacing buttons & buttonholes simply slide the slider at the desired equal length intervals and mark.

d. **Chalk skirt hem marker** - It is a handy tool which allows you to mark hemlines on skirts or other skirt style garments accurately. It comes with a stand and a bulb that dispenses a chalk marking. Just adjust the stand to the desired length and mark all around the cloth by squeezing the bulb.

e. **L-Square** - It is an “L” shaped ruler that is used to draw lines at right angles when transferring patterns on to the fabric. It has one arm which is longer than the other with each measuring 24” and 14” respectively. It is also essential when checking to see if the fabric is straight.

d) **Marking tools**

a. **Tailors chalk** - This is an essential tool when drafting the pattern onto the fabric. Test the chalk to ensure it does not leave a permanent stain and can be rubbed off. If you do not have a chalk handy a simple white soap will also do the job most of the time. The markings of soap however will go off only when sponged or washed. Always keep your chalk wrapped in paper or in a container so that it does not leave unnecessary markings and also does not get dirty. Tailor’s chalk is available also as a pencil, in rectangular and triangle shapes and comes in many colors.
b. **Tracing wheel and tracing paper**- in addition to marking out the measurements on to a fabric, sometimes you may need to transfer a pattern on to a fabric. For example if you want to make a baby frock and add some cloth flowers on it, you can trace the flowers on to a tracing paper and then using a tracing wheel press that pattern onto the fabric from which you want to cut the flowers. The tracing wheel is nothing but a small wheel with a handle and the wheel has a smooth or a jagged edge. When moved over the tracing paper it leaves a clear impression on the fabric below. You can then cut or stitch or embroider along these lines. The lines will go away on ironing or slowly.

**e) Ironing tools**

*a.* **Iron**- Most of you will be quite familiar with this tool. The electric iron, from a simple non-steam, non-automatic, to a heavy steam iron with auto shut-off, is quite common in our towns and cities. In villages and in many laundries they still use the old style coal iron. But if you are going to get into serious tailoring it is advisable to get at least a basic electric iron. You will be using it both for pressing-that is setting seams and hems etc.- and ironing- that is taking wrinkles out of a finished garment to make it look good. Weight, type of sole plate and the amount of steam an iron gives are the main features to consider. Good irons will be heavier with very advanced sole plates that are made of non-stick materiel.

*b.* **Ironing board**- As the name suggests this is a stand or a board on which the cloth is placed for ironing. These days you get very nice foldable stands in the market, which can be packed away when not in use. If however you do not have a board you can use some other heat resistant surface like heavy wood and drape a heavy linen cloth on it. Whatever you use make sure it is flat, free of sharp nails and is heat resistant. Otherwise you are likely to tear or burn the cloth and spoil the iron.

*c.* **Press cloth**- It is not advisable to use an iron directly on some fabrics like wool or flannel. And even silk can get markings if ironed too hot. For this it is advisable to use a cotton cloth that has high heat resistance and no pattern. A press cloth should be washed to ensure colour fastness and no shrinkage. Do not use polyester or polyester blend cloth as press cloth as they have very little heat resistance.

*d.* **Ironing pad**- This is a smaller ironing board with a tapered edge to set difficult corners and sleeves etc. it is well padded and you can mount the garment on the tapered edge to iron it.
f) Miscellaneous tools

a. Loop turner- This is a clever tool that allows you to easily turn a sewn tube of fabric inside out. When sewing a long strap or a belt you will typically mark and sew on the back side. When you are finished a loop tuner will help you to turn it the right side out. As seen in the picture it has a ring for holding at one end and a hook and a latch at the other end. Just hold the loop tuner from the ring and insert it into the sewn cloth much like when putting tape in a salwar. Then force the sharp hook to go through the cloth and then close the latch. Now as you pull back on the loop turner the right side comes out.

![Loop Turner Image]

b. Seam ripper- This is another handy tool which makes you more efficient. When you need to open up or rip out some stitches, this tool has a sharp edged hook that lets you do so easily and neatly.

![Seam Ripper Image]

c. Awl- Different craftsmen use different kinds of Awls but for tailors it is used to make holes right on a thick fabric or leather. In order to make small round holes on leather and other materials, simply push the tool right through the material. With the aid of its pointed rod, it functions like a hole punch, which prepares the leather for the process of stitching. This is usually done when making bags, belts and gloves.

d. Orange stick- As the name implies it is a long stick whose corner can be inserted into seams, collars and straps to give them a correct shape and to ensure no fabrics are bunched up.

e. Cutting table- Before you start your work as a tailoress it is important to have a table at a convenient height to draft, measure and cut the fabric. A table with a good
height will help save your back from getting hurt and will make it comfortable for you to do your work.

1.2.2 Care and storage of tools

Here are some tips on how to take care of your tools:

a. Never use your fabric cutting scissors to cut any other materiel
b. Always wipe the scissors clean after cutting to remove lint etc. with a dry soft cloth
c. Occasionally oil the screw on your scissor to ensure it is not getting stuck
d. Get them professionally sharpened once a year or so
e. Store them in a box in a dry place
f. Keep all stitching tools out of the reach of children
g. Fold away things like ironing stands, pads and cloth after use so that they stay clean and out of the way
h. Always put pins on a pin cushion or in a box
i. Always insert needles through a piece of paper to make it easier to retrieve them
j. Always roll your threads up so that they do not get entangled
k. Store your professional iron carefully and keep the plate clean

1.3 Types of sewing machines its parts, functions and maintenance

There is a wide variety of sewing machines available in the market today. They range from the simple hand operated sewing machines many of you probably have in your homes from the time of your mother or even before, to those operated by a foot pedal and those run by electricity. These are all mostly for domestic use. For industrial use today there are machines available that are fully automatic and computer driven and can sew patterns neatly and very quickly. But for the purposes of this course we will focus on the simple home sewing machine which is either hand operated or foot pedal driven.

In this section we will learn about the various parts of a sewing machine, how to use it correctly and how to ensure its basic maintenance so that it can continue to serve you well.

Parts of a sewing machine and their functions:

Knowing and understanding the function of the different parts of the simple home sewing machine will be critical if you want to be a good tailor. It is the most critical tool you will use.

Look at this figure and match the parts marked from 1-17 to the parts you can see on the machine here in front of you or one at your home. We will go through them one by one.
a. **Spool pin** - This is short slender pin on top of the main bridge of the sewing machine. This is where you mount the reel of the thread with which you wish to sew.

b. **Thread guide** - It holds the thread in place from the spool pin to the needle.

c. **Tension disc** – These are two discs attached together and connected to a spring and a nut. Before putting the thread into the needle, it is put through this to ensure it is tight and straight and hence feeds smoothly into the needle for sewing. The spring and nut mechanism is used to increase or decrease the pressure of the tautness or the tension of the thread.

d. **Take up lever** - The thread goes through this as well before being put into the needle. As the name suggests it takes the thread and the stitching foot “up”. You must always take the thread up before putting the cloth in or taking it out. This ensures that needles don’t break and that there are no snags and tears in the cloth.
e. **Needle bar**- This is a rod with a clamp that holds the needle and is connected to the motor. This is what moves the needle up and down through the cloth.

f. **Bobbin case**- A bobbin is the thread holder that feeds the stitching underneath the fabric on a sewing machine. It can hold either the same colour thread as the top stitch or a different colour for fancy projects. The bobbin thread stitches will remain on the bottom side of the sewing fabric and are usually only seen when the item is turned inside-out. Some bobbins come with pre-filled threads and need only be inserted into the machine and the thread pulled out. Note that bobbin cases are not interchangeable across different models of sewing machines and for best results regularly clean your bobbin case to remove any lint or lose thread strands.

g. **Presser foot**- This is the foot like part that holds the cloth down while stitching. Typically the needle will run up and down in the notch in the Presser foot.

h. **Presser foot lifter**- As the name implies this is what moves the Presser foot up and down as needed. Always lift the Presser foot before paying down the cloth or removing it from the sewing machine.

i. **Stitch regulator**- The stitch regulator is a lever that helps control the number of stitches per inch. It does this by controlling the distance the feed dog works. The numerals on the lever roughly indicate the number of stitches per inch.
j. **Bobbin winder** - This is an attachment to the machine that helps wind the cloth into the bobbin. It is always good to have a spare bobbin refurbished and ready so that your stitching project is not stopped suddenly. You need to insert the empty bobbin into the winder and move the hand fly wheel to get the mechanism working.

k. **Fly wheel** - This is the wheel that is moved either by hand or foot pedal or by a belt connected to an electric motor. This is what creates the motion that results in the stitching action.

l. **Clutch or Thumbscrew** - It is the centre part of the fly wheel and can be screwed or unscrewed to take out the flywheel.

m. **Slide plate** - The sewing machine slide plate provides access to the bobbin area of a sewing machine and protects the bobbin area from thread and fabric being caught in its moving parts. Most slide plates have button or a lever to release them from their place.

n. **Needle plate or Throat plate** - It is a circular disc with slots to allow the needle to pass through. It lies adjacent to the slide plate.

o. **Feed dog** - Feed dogs are the critical component of a "drop feed" sewing machine. A set of feed dogs typically resembles two or three short, thin metal bars, crosscut with
diagonal teeth, which move back and forth in slots in a sewing machine's needle plate. Their purpose is to pull ("feed") the fabric through the machine, in discrete steps, in-between stitches. It is also called a "four-motion feed", in reference to the four movements the dogs perform during one full stitch: up into the fabric, back to pull the fabric along to the next stitch, down out of the fabric and below the needle plate, and then forward to return to the starting position. Virtually all drop-feed sewing machines can vary their stitch length; this is typically controlled by a lever or dial on the front of the machine. They are usually also capable of pulling the fabric backwards, to form a backstitch.

p. **Face plate**- It is a plate or a set of covers that covers the area of the needle bar, presser bar and take up lever. It can be opened up to service and do regular maintenance of the parts behind it.

q. **Spool pin for bobbin winding**- This is a pin on which the spool of bobbin thread is placed for winding a bobbin.
Maintenance of a sewing machine:

Sewing machines generally require only the basic maintenance of cleaning, oiling, and lubricating. When you have trouble with your sewing machine, a good rule to follow is "Clean it first." Many problems are caused by dust, lint or thread ends that have collected on the working parts of the machine.

Simply brushing lint and dust from the machine each time it is used is a good way to prevent many problems. Use a soft nylon brush that you can buy in the market or a narrow paint brush to dust away lint in the bobbin case, under the needle plate, and around the feed dog. A needle or tweezers can be used to remove pieces of thread or lint that cannot be brushed away. In time, lint and dust that are allowed to accumulate in a sewing machine can become soaked with oil and/or lubricant and interfere with the operation of the machine.

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You need the following equipment and supplies for the job:

a. Pan for soaking parts in cleaning fluid
b. Small screw driver
c. Large screw driver
d. Small oil can (clean) for cleaning fluid
e. Cleaning brush (narrow, nylon)
f. Small pocket knife
g. Long needle or small crochet hook
h. Tweezers
i. Cleaning cloths
j. Fabric to test stitching
k. Can of sewing machine oil
l. Tube of sewing machine lubricant
Simple steps to follow for a basic machine cleaning

Before you begin, protect the floor and table top with some newspapers. A good floor or table lamp to light the work area from over your left shoulder will be helpful. A flashlight is also helpful in adding light in hard to see areas.

As you clean the machine, it is best to clean one area at a time. Remove only the parts that are involved and be sure to note where each part is from, its position, and which side is top. When removing parts, remember that "left is loose and right is tight" on practically all screws and bolts. Here are simple steps to follow next:

a. First, remove the needle, presser foot, slide plate, throat plate, bobbin case, and the face plate (if it comes off). Put them in the pan and cover with cleaning fluid. Set aside to soak while cleaning other areas.

b. Now, it is time to begin work to clean the machine head. With a sharp pointed tool, clean out all oil holes.

c. Then, with your hand, turn the hand-wheel to run the machine. At the same time, squirt cleaning fluid into all the oil holes, on all bearings and on all other places where one part rubs against or turns within another.

d. If possible remove the Bobbin case to clean all lint and lose thread bits. If the machine begins to run hard, it is a sign that dirt or lint has jammed inside a bearing. Continue running the machine and flushing with cleaning fluid until the dirt and gummed oil are washed from the bearing. When the machine runs easily again, tip the head and flush the parts underneath the machine—all oil holes, bearing and places that rub against or within another. Continue running the machine by hand until it functions smoothly.

e. To remove any remaining dirt and oil, dip a cloth or brush in cleaning fluid and scrub all parts of machine that can be reached.
f. Use a needle, knife or other pointed instrument to dig or scrap away any remaining gummed dirt or lint in the feed dog, around the bobbin case, and in other areas.
g. Pull a thread under the tension of the bobbin to remove dirt.
h. Pull a piece of cloth soaked in cleaning fluid back and forth between the discs of the upper tension to clean it. Repeat with a dry cloth to be sure no lint or thread is caught between them.
In addition to general cleaning, remember that there are three areas that always need special attention. They include the hand-wheel bearing and the clutch assembly, the needle-bar and presser foot, and the hook and bobbin areas assembly.

Oiling and lubricating a machine:

When doing a complete service and lubrication allow the machine to stand overnight so excess cleaning fluid can evaporate before oiling and lubricating it. Do not oil the tension discs, the hand-wheel release or the belts and rubber rings on any machine.

Squirt a little oil in all the designated holes and on all parts that rub against or within another. To distribute the oil run the machine a little so that it gets into all the bearings.

For regular lubrication, one drop of oil on each bearing and in each oil hole is enough. It is a good practice to oil the machine after each day's work or after 8 to 10 hours of use. Even if you do not use your machine often, oil it occasionally to keep the oil from drying and becoming thick and dirty inside.

Use a lubricant only if the machine requires it and that too only in the areas suggested. After oiling and lubricating the machine, wipe away excess oil and reassemble the machine carefully making sure you put each part back in its correct place.

Safety:

1) Always wipe the scissors clean after cutting to remove lint etc. with a dry soft cloth

2) Fabric cutting scissors should not be used to cut any other material.

3) Workers should use only quality tools that are sharp and in good condition.

4) Sharp edged tools should be stored in a tool box with the sharp edges suitably covered.

5) The safe way to work with a sharp or cutting tool is to concentrate on the task at hand.

6) Maintaining cutting equipment ensures a smooth cut and better handling. A sharp knife will ensure a smooth cut while a knife with a dull edge has a greater risk of slipping off the material and causing harm.
7) Use a needle, knife or other pointed instrument to dig or scrap away any remaining gummed dirt or lint in the feed dog, around the bobbin case, and in other areas.

8) To remove any remaining dirt and oil, dip a cloth or brush in cleaning fluid and scrub all parts of machine that can be reached.

9) Always wear proper PPE during cleaning of sewing machine.

WPS (Workplace Skills)

1. He/she should be able to read labels on spools of thread to check the colour and code numbers and read labels on bolts of lining material.

2. He/she should be able to read and write, count, round off, add or subtract, multiply or dived whole numbers.

3. He/she should be able to discuss sewing machine breakdowns with mechanics.

Health

1. Operate the sewing machine as per the manufactures guidelines.

2. Wear proper PPE during cleaning/maintenance of sewing machine.

Hygiene

1. Keep work area clean and tidy.

2. Keeping all tools in good condition at specified locations for easy access and location of tools.

3. After completing the work remove all waste clothes from the working area.
Points to remember:

- **Types of tools:**
  Tailoring tools can be classified into several categories. These are: Sewing and Embroidery tools, Cutting tools, Measuring tools, Marking tools, Ironing tools and Miscellaneous tools.

1. **Sewing and Embroidery tools** - Sewing machines, Sewing box, Hand sewing needles, Sharps, Ball point needles, Embroidery or Crewel needles, Machine sewing needles, Sewing threads, Pins, Thimbles, Embroidery frames, Bodkin and Stiletto.

2. **Cutting tools** - Bent handle shears, General purpose shears, Sewing scissors/ Tailor’s scissors/ Trimmers, Embroidery scissors, Machine embroidery scissors, Thread nippers and clippers, Pinking shears and Button hole scissors.


4. **Marking tools** - Tailors chalk, Tracing wheel and tracing paper.

5. **Ironing tools** - Iron, Ironing board, Press cloth and Ironing pad.

6. **Miscellaneous tools** - Loop turner, Seam ripper, Awl, Orange stick and Cutting table.

- **Parts of a sewing machine:** Spool pin, Thread guide, Tension disc, Take up lever, Needle bar, Bobbin case, Presser foot, Presser foot lifter, Stitch regulator, Bobbin winder, Fly wheel, Clutch or Thumbscrew, Slide plate, Needle plate or Throat plate, Feed dog, Face plate, Spool pin for bobbin winding.

- **Maintenance and storage of tools:**
  - Never use your fabric cutting scissors to cut any other materiel.
  - It is time to begin work to clean the machine head. With a sharp pointed tool, clean out all oil holes.
  - Always wipe the scissors clean after cutting to remove lint etc. with a dry soft cloth.
  - Occasionally oil the screw on your scissor to ensure it is not getting stuck.
  - Squirt a little oil in all the designated holes and on all parts that rub against or within another. To distribute the oil run the machine a little so that it gets into all the bearings.
  - To remove any remaining dirt and oil, dip a cloth or brush in cleaning fluid and scrub all parts of machine that can be reached.
NOTES

Use the blank space provided below to make important notes based on your understanding of the topics

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Exercise sheet:

1. What does the below picture depict and name the cutting tools.

2. Find the correct one related to Sewing threads.
   a. Cutting tools  b. Sewing box  c. Nylon or Rayon

3. Oral exercise to analyze the trainee:
   Tell the Parts of a sewing machine given fig. shows
# FEEDBACK SHEET

Dear Participant, we request you to provide us with open feedback to make this training process more effective. We shall really appreciate your time in filling up this form.

<table>
<thead>
<tr>
<th>PARAMETERS</th>
<th>RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>S.No.</strong></td>
<td><strong>TRAINER</strong></td>
</tr>
<tr>
<td>1 How well did the trainer interact with the trainees?</td>
<td>☺ ☺ ☺ ☺ ☻ ☻</td>
</tr>
<tr>
<td>2 How well did the trainer clarify the doubts?</td>
<td>☺ ☺ ☺ ☻ ☻ ☻</td>
</tr>
<tr>
<td>3 Was language used by the trainer simple and clear?</td>
<td>☺ ☺ ☻ ☻ ☻ ☻</td>
</tr>
<tr>
<td>4 Did you find the trainer knowledgeable?</td>
<td>☺ ☺ ☻ ☻ ☻ ☻</td>
</tr>
<tr>
<td>5 How friendly was the trainer?</td>
<td>☺ ☺ ☻ ☻ ☻</td>
</tr>
<tr>
<td>6 How successful was he in making session lively?</td>
<td>☺ ☻ ☻ ☻ ☻ ☻</td>
</tr>
<tr>
<td><strong>CONTENT</strong></td>
<td></td>
</tr>
<tr>
<td>7 How good was the learning material?</td>
<td>☺ ☻ ☻ ☽ ☽ ☽</td>
</tr>
<tr>
<td>8 How well is it related to application at work?</td>
<td>☺ ☻ ☻ ☽ ☽ ☽</td>
</tr>
<tr>
<td>9 Was it easy and clear to understand?</td>
<td>☻ ☻ ☻ ☽ ☽ ☽</td>
</tr>
<tr>
<td><strong>FACILITY</strong></td>
<td></td>
</tr>
<tr>
<td>10 Was the place of learning comfortable and safe?</td>
<td>☺ ☻ ☻ ☽ ☽ ☽</td>
</tr>
<tr>
<td>11 Was the place of learning clean and hygienic?</td>
<td>☺ ☻ ☻ ☽ ☽ ☽</td>
</tr>
<tr>
<td>12 Did the place of learning has good quality of basic amenities?</td>
<td>☻ ☻ ☻ ☽ ☽ ☽</td>
</tr>
<tr>
<td><strong>PROGRAMME</strong></td>
<td></td>
</tr>
<tr>
<td>13 How useful did you find the training and do you think it has increased your skills and knowledge?</td>
<td>☺ ☺ ☽ ☽ ☽ ☽</td>
</tr>
<tr>
<td>14 How well did it help to improve your attitude towards learning and eagerness to learn more?</td>
<td>☻ ☻ ☽ ☽ ☽ ☽</td>
</tr>
<tr>
<td>15 How was the overall effectiveness of the training?</td>
<td>☻ ☻ ☻ ☽ ☽ ☽</td>
</tr>
<tr>
<td><strong>REMARKS:</strong></td>
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LabourNet

VER1.00
Module 2- Introduction to hand sewing

Module Overview

This module covers introduction to hand sewing. It describes the various types of threads, stitches and application of their usage. It explains some common sense rules to follow for hand sewing.

Module Objectives

- To make trainee to learn techniques in handling needles tools and rules while hand sewing.

Module Design

<table>
<thead>
<tr>
<th>Topic no.</th>
<th>Session Topics</th>
<th>Method</th>
<th>Duration</th>
<th>Tools/Equipment/Props</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Types of threads their size and application</td>
<td>Theory</td>
<td>1 hr</td>
<td>PPT/Flipchart, video, learning cards, images, cotton, polyester, rayon, nylon and heavy duty threads</td>
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<tr>
<td>2.</td>
<td>Types of stitches</td>
<td>Theory</td>
<td>30 mins</td>
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<tr>
<td>3.</td>
<td>Materials used</td>
<td>Theory</td>
<td>30 mins</td>
<td>PPT/Flipchart, video, learning cards, images</td>
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<tr>
<td>4.</td>
<td>Hand tools</td>
<td>Practical</td>
<td>1 hr</td>
<td>PPT/Flipchart, video, learning cards, images, sewing box, hand sewing threads and needles, measuring and marking tools, pins, tracing paper, sewing frames etc</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td>3 hrs</td>
</tr>
</tbody>
</table>
**Session Plan**

**Session Objectives**

(Key learning outcome)

At the end of the session,

- The trainee will understand the techniques in handling needles.
- The trainee will know the tools and rules for hand sewing.
- The trainee will be aware of the materials used in Hand Stitching and understand how to do Hand Sewing.

**Underpinning Knowledge/ Theory/ Principle**

(Theoretical concept on which the learning is based)

- The trainee will have knowledge on the general concept of Tailoring, types of tools and maintenance of sewing machines.

**Duration**

<table>
<thead>
<tr>
<th>Topic No.</th>
<th>Topic</th>
<th>Duration</th>
<th>Demo/ Practical</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Types of threads their size and application</td>
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<td>-</td>
</tr>
<tr>
<td>2.</td>
<td>Types of stitches</td>
<td>30 mins</td>
<td>-</td>
</tr>
<tr>
<td>3.</td>
<td>Materials used</td>
<td>30 mins</td>
<td>-</td>
</tr>
<tr>
<td>4.</td>
<td>Hand tools</td>
<td></td>
<td>1 hr</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>2 hrs</td>
<td>1 hr</td>
</tr>
</tbody>
</table>

**Instructions to the Trainee**

- Take part in discussion and make notes.
- Trainee should take notes and ask questions whenever they have any doubts.
- Maintain discipline.
2. Introduction to hand sewing

As the name suggest this refers to stitching that is done by hand as vs. doing it using a sewing machine.

Hand sewing can be both for stitching a piece of cloth and for embellishments such as embroidery, button holes etc.

In this module we will learn about the different threads that are available for hand sewing, the kinds stitches you can use, the tools that you need for sewing and specific materials required for certain kind of stitches.

Activity

Objective: The trainer will discuss the topic on Introduction to Hand sewing to the participants.

Methodology:

Trainer will present the various types of threads, stitches and tools used in hand sewing using PowerPoint Presentation and should show display the tools.

Trainer will demonstrate on how to operate or use each tool and proper rules for hand sewing. On completion of demonstration, Trainer will initiate the group discussion for further understanding on the subject and will provide clarification if anyone has a doubt.

Trainer will educate the trainee on safety measures which are required before starting the process. The trainees are allowed to use or operate equipments only under trainer’s supervision.

Materials Required: PPT /Flipchart, video, learning cards, trainer guide, participant hand book, Picture Cards, cotton, polyester, rayon, nylon, heavy duty, silk and wool
threads, sewing box, hand sewing threads and needles, measuring and marking tools, pins, tracing paper, sewing frames etc.

**Outcome:** Trainees will come to know the techniques in handling needles tools and rules for hand sewing.
Module 2-Introduction to hand sewing

As the name suggest this refers to stitching that is done by hand as vs. doing it using a sewing machine. Hand sewing can be both for stitching a piece of cloth and for embellishments such as embroidery, button holes etc. In this module we will learn about the different threads that are available for hand sewing, the kinds of stitches you can use, the tools that you need for hand sewing and specific materials required for certain kind of stitches.

2.1 Types of threads used for hand sewing

There is a wide variety of threads available in the market today ranging from the simple cotton thread in white to designer threads which have a combination of cotton and polyester and are dyed in variegated colours. The type you use will depend on the project at hand and also to some extent on your budget. But it is important to remember that cheap thread is cheap thread and may not give you the quality that you desire. There are some well-known companies selling threads such as Anchor, Coats. Try to go with national brands that have certain well managed standards. Here are the kinds of threads most commonly used for hand sewing and their respective application

a. Cotton thread- This is found most commonly in stitching supply shops and is suitable for most kind of simple sewing such as seams, hems. However simple cotton thread cannot be used for fabric that has a lot of give or stretch ability because it will snap if stretched too much. Most common type of cotton thread is mercerised which means it has a coating that allows it to get dyed easily so that the stitching can match the fabric and also so that it can be sold in a variety of colours and shades. Within cotton the various types of threads are:

1. All-purpose cotton - medium thickness cotton (size 50) is suitable for sewing a wide range of projects using lightweight to medium cotton, linen and rayon fabrics.
2. Stranded cotton - this is made of six strands that have been woven together loosely. These are usually used in embroidery and are often best unwound prior to use or the end result will be too thick, although with wider weave fabrics, using all strands can sometimes be very effective.
3. Cotton perlé - this thread cannot be divided and is used in embroidery projects to produce a neat sheen.
4. Cotton à border - embroidery cotton in varying weights. It has a smooth quality.
5. Tatting thread - not a separate thread as such, but the type of cotton required for tatting is very specialized. It should be highly mercerized and tightly twisted, so that it is very firm and smooth.
6. Flower thread - this has a matte sheen and is soft. This thread is ideal for embroidery projects that require a rustic, old-fashioned look, particularly samplers on fine line. It is only suitable for fabric with a small count.  
7. Quilting thread - this is all-cotton thread that is coated for ease of movement through quilt fabric and batting. Obviously, this is ideal for quilting projects.

b. Polyester threads- These are suitable for both hand and machine sewing projects where the fabric has a lot of give. This thread is suitable for fabrics with stretch in them and is especially good for woven synthetics, knits and stretch fabrics. The appearance of this thread will be waxy or shiny, not matte like plain cotton. The different kinds of Polyester threads are:

1. All-purpose thread - this is cotton-wrapped polyester thread and is widely available for sewing. This is suitable for using with most fabrics and is cheap and easily obtainable. It is not, however, a good thread to use for embroidery projects.  
2. Invisible thread - this is similar to fishing line. It's strong and it's invisible, making it ideal for projects where you need the sewing to be strongly kept in place and hidden at the same time.

c. Heavy duty-Heavy duty thread is ideal for heavy duty fabrics, such as those used in soft furnishings like upholstery and window dressings, vinyl, and coat fabrics. This is usually around size 40 and can be made from polyester, cotton-wrapped polyester, or cotton.

d. Rayon threads-Rayon embroidery thread works well to create flat stitches where cotton embroidery thread might stand too high.

e. Nylon threads-This is a strong thread that is suitable for using on light to medium weight synthetic fabrics. It is a fine thread that can pass easily through the fabric without damaging it.

f. Silk threads-Silk is an excellent thread for hand sewing because it is strong, flexible and does the least amount of damage to the cloth when passing through it. It is ideal for sewing on silk and wool, and for basting all fabrics. The various kinds of silk threads available are

1. Silk floss - this thread has a high sheen. It is also known as Japanese silk. It comes untwisted and can be used as it is, or divided to make even finer stitches. This thread is suitable for embroidery projects and for using on silk fabric projects. Although strong, it
is delicate to work with, so it is vital to have trimmed fingernails to avoid catching and tearing.

2. Twisted silk - this thread consists of several strands of silk twisted together; again it is ideal for embroidery and can be used as it is, or separated into smaller threads.
3. Stranded silk - these threads have a sparkling look and can be separated into strands for sewing in embroidery projects.
4. Silk ribbon - silk ribbon is used for silk ribbon embroidery, both as projects in their own right, and for decorative projects such as on handbags, tops, skirts, etc. and for hair accessories.

g. **Wool threads**- Wool threads tend to be used for embroidery projects and for making the seams of blankets by using blanket stitch. Wool threads work best with heavy fabrics, such as wool, or canvas. The various types of wool fabrics are:

1. Persian wool - Persian wool consists of three strands. You can use the three strands together or separate the threads to use singly. Whether or not you separate the threads will depend on the project and the thickness of the fabric being sewn.
2. Tapestry wool - this wool is not as thick as the Persian wool. It is not dividable.
3. Crewel wool - this is the finest of the wool threads. It is ideal for crewel embroidery projects. While it is fine, you can weave it into a thicker thread by twisting with more threads.

### 2.2 Types of stitches

Before the sewing machine was invented all garment making was done by hand and even today as a tailor you will be using many types of hand stitches in the process of making a piece of clothing. In this section we will learn about the most commonly used types of tailoring and decorative stitches.

*a. Tailoring stitches* -Since our focus here is on tailoring let us begin by talking of stitches used for tailoring. Here are some examples of the most basic stitches that you will use when preparing the garment for stitching, actually stitching it, adding special features such as laces, trims and button holes etc. and then finishing the garment, especially seams, edgings etc. The manual sewing machine requires special skills to execute different kinds of stitches but most modern machines come with pre fed stitch styles that the computer helps to control and create. Most stitches below can be done both by hand and by sewing machine using different needles etc.

1. **The straight stitch or lock stitch** is the easiest stitch and can be done on any sewing machine. The stitches are made in a straight line and are done using a single thread when done by hand. When executed by a machine two threads are used—one from the bottom bobbin and one from the top thread spool. This makes the stitch stronger.
2. The buttonhole stitch is a very important stitch and involves stitching all along the edges of a hole in the cloth. When done by hand it looks like what you see in the figure below and can be a little tedious though it becomes easier with experience. However when executed by a machine it is much easier. Setting is the modern electrical machines allow them to automatically stitch around a hole inside the fabric to seal the edges for buttons.

3. The serge stitch is also known as the overcast stitch or whip stitch. The serge stitch is used to bind the edges of fabric using a serger sewing machine. The serger uses a stitch similar to crochet so that the fabric at the seams does not fray. Most professionally sewn seams are serged.

4. The basting stitch is a sewing stitch that uses long stitches to hold fabric together temporarily. Usually this is done by hand, but when a machine does it, it is much faster. The basting stitch is used to temporarily hold slippery materials together so they can be easily sewn using a machine.
5. Just like the serger the blanket stitch is used to sew edges of fabrics. However unlike in a serger the thread runs over the edge of the fabric using only one thread if done by hand. Half of the stitch is present inside the fabric, but the other half runs along the very edge of the fabric in a looping pattern.

6. Darning refers to repairing a tear in the fabric. Sometimes a piece of cloth can be repaired by patching it but where it is not possible to do so darning with thread is required. The darning stitch sews a criss-cross pattern of stitches across a hole or tears in a fabric simulating the weave pattern originally used to make the cloth.

7. The zigzag stitch weaves a zigzag pattern over the material. The zigzag stitch is sturdier than the common straight stitch and in addition to being used for decorative patters it is also used to sew on thicker cloth, polyesters and elastics because it allows stretchability in the fabric. The zigzag can be short and long depending on the preference of the sewer and the need of the pattern.

b. Embroidery stitches- there are innumerable styles of embroidery or decorative stitches that are done either by hand or by pre-programmed settings on the new computerised. Broadly these can be divided into three categories- flat, loop or knotted. Some of the most common stitches are explained below.

1. Satin stitch- In sewing and embroidery, a satin stitch or damask stitch is a series of flat stitches that are used to completely cover a section of the background fabric. Satin stitch is traditionally done by hand and in the newer machines there is a setting for a
stain stitch, but even on a standard machine it can be executed using a zigzag setting or a special satin stitch foot. The edges of the satin stitch can be tricky and difficult to keep neat. The trick for that is to use a back, split or chain stitch before the entire shape including the outline is covered with satin stitch.

2. Chain stitch- This is primarily an embroidery stitch and executed by hand. It can be used to execute curved lines. In this the stitches are connected together as a series of loops.

3. French knots- is a complex stitch but can be mastered with practise. It is used to create embellishments such as flowers and fruits in an embroidery pattern. Some people use it even to fill a pattern completely. Here the thread is wrapped around the needle 2-3 times then the resulting loops are pulled down flat on to the cloth and with the same thread stitched back into the cloth and secured.

4. Back stitch- It is a variation of the straight stitch, but as you can see in the image below the bottom half of the stitch (the one on the wrong side of the fabric) forms a longer stitch than the top, in many ways making it stronger than the simple straight stitch. It can be used to roughly hold fabrics together when sewing. When using it for embroidery it is used most commonly for outlining because it is simple and easy to work into a curved line.
5. Lazy daisy- The lazy daisy is similar to a Chain Stitch. This is commonly used for small leaves or petals and consists of a tear drop shape with a little stitch on the loop to hold it fast. The only difference between the two stitches is the lazy daisy creates a stand-alone stitch of it's own, while the chain stitch loops into the next stitch. It can also be used for filling. For this you create a large lazy daisy on the outside and then fill it with one lazy daisy inside another- repeating till the whole area looks filled.

6. Fish bone- The fishbone stitch is done with a plaited centre that's perfect for embroidering leaves, feathers, or wings. The stitches cross slightly at the centre and the resulting plaited effect forms the central rib.

7. Cross stitch- This is a simple “X” shaped stitch that is used mostly on a kind of fabric called the Aida. It is created by sewing two equal sized criss- crossed lines in opposing direction. This is an easily countable even weave fabric and hence the cross stitch works best on it. Patterns in cross stitch consist mostly of a series of counted and tiled stitches in different colours. A back stitch is used sometimes to then finish off the
borders. A tip for ensuring a neat look to your cross stitch pattern is to make sure you always create the first stitch of the cross stitch in the same direction i.e. if you create the first stitch by making the first line from left to right and then the next line from right to left, follow that sequence throughout. Your pattern will look very professional.

2.3 Tools used for hand sewing
In module 1 we have already gone into great detail about the various tools you will use for sewing. To recap the tools you will use most commonly for hand sewing are:

a. Sewing box
b. Hand sewing threads (already covered in great detail in a previous section of this module)
c. Hand sewing needles (will be covered in great detail in module 3)
d. Scissors for cutting thread
e. Measuring and marking tools
f. Pins and pin cushion
g. Stiletto for a time when you will need to make holes by hand
h. Tracing paper and tracing wheel
i. Seam ripper for when you want to undo and start something afresh
j. Bodkin
k. Thimble
l. Sewing frames to stretch the fabric if needed
m. Patterns and pattern guides for embroidery- these can be created by you from scratch, taken from a book by tracing or purchased. A well prepared pattern will ensure that you get a balanced and neat result. In case of stitches like cross stitch, you will need a large enough pattern guide to be able to count the number of stitches per area.

2.4 Hand Tools
In general it can be said that it is easier to sew lighter and thinner fabrics by hand but hand sewing is not limited to any specific type of materiel or fabric. It refers merely to
the fact that you use your hands to do the job of stitching as vs. using a machine. With the right needle and thread you can hand sew almost any material. The same is with most embroidery stitches too. They can be performed on almost any fabric though making very fine stitch types on thicker and coarser fabrics will be not advised. Here are some common sense rules to follow for hand sewing:

a. Best done with lighter and thinner materials
b. Avoid fine stitches like satin stitch etc. on coarse linen, leathers or knits and wools which are either too tiring to work on or have too much stretch in them to accurately control the fabric while sewing with hand
c. For certain stitches like the various kinds of cross-stitch you will need a specialised material called Aida that has clearly measurable sections.
d. Use silks for very fine embroidery because the cloth will add to the richness of your handi-work
Points to remember:

- Hand sewing can be both for stitching a piece of cloth and for embellishments such as embroidery, button holes etc.
- Types of threads used for hand sewing:
  1. Cotton thread- All-purpose cotton, Stranded cotton, Cotonperlé, Coton à border, Tatting thread, Flower thread and Quilting thread.
  2. Polyester threads- All-purpose thread and Invisible thread.
  3. Heavy duty
  4. Rayon threads
  5. Nylon threads
  6. Silk threads- Silk floss, Twisted silk, Stranded silk and Silk ribbon.
- Types of stitches.
  1. Tailoring stitches- straight stitch or lock stitch, buttonhole stitch, serge stitch, basting stitch, blanket stitch and zigzag stitch.
  2. Embroidery stitches- Satin stitch, Chain stitch, French knots, Back stitch, Lazy daisy, Fish bone and Cross stitch.
- Tools used for hand sewing-Sewing box, Hand sewing threads, Hand sewing needles, Scissors for cutting thread, Measuring and marking tools, Pins and pin cushion, Stiletto for a time when you will need to make holes by hand, Seam ripper for when you want to undo and start something afresh, Bodkin, Thimble, Sewing frames to stretch the fabric if needed and Patterns and pattern guides for embroidery.

- Some general rules to follow hand sewing
  1. Best done with lighter and thinner materials.
  2. For certain stitches like the various kinds of cross-stitch you will need a specialised material called Aida that has clearly measurable sections.
  3. Use silks for very fine embroidery because the cloth will add to the richness of your handi-work
NOTES

*Use the blank space provided below to make important notes based on your understanding of the topics*

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Exercise sheet
1. The participants will be distributed with a picture of different stitches and ask them to identify the name of stitches related to Tailoring.

2. Oral exercise to analyze the trainee
   a. What are the types of threads used in hand sewing.
   b. What are the various types of decorative stitches used in tailoring?
   c. What are the Tools used for hand sewing
Dear Participant, we request you to provide us with open feedback to make this training process more effective. We shall really appreciate your time in filling up this form.

### FEEDBACK SHEET

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Parameters</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>How well did the trainer interact with the trainees?</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>How well did the trainer clarify the doubts?</td>
<td></td>
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<tr>
<td>3</td>
<td>Was language used by the trainer simple and clear?</td>
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<tr>
<td>4</td>
<td>Did you find the trainer knowledgeable?</td>
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<tr>
<td>5</td>
<td>How friendly was the trainer?</td>
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<td>6</td>
<td>How successful was he in making session lively?</td>
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<td>7</td>
<td>How good was the learning material?</td>
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<td>8</td>
<td>How well is it related to application at work?</td>
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<td>9</td>
<td>Was it easy and clear to understand?</td>
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<td>10</td>
<td>Was the place of learning comfortable and safe?</td>
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<td>11</td>
<td>Was the place of learning clean and hygienic?</td>
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<td>12</td>
<td>Did the place of learning has good quality of basic amenities?</td>
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<td>13</td>
<td>How useful did you find the training and do you think it has increased your skills and knowledge?</td>
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<tr>
<td>14</td>
<td>How well did it help to improve your attitude towards learning and eagerness to learn more?</td>
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<tr>
<td>15</td>
<td>How was the overall effectiveness of the training?</td>
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**REMARKS:**
Module 3- Introduction to machine sewing

Module Overview

This module covers the commonly used stitches for machine and hand sewing and embroidery or decorative work. Selection of appropriate stitch for the fabric, management of thread tension and repairs for maintaining the sewing machine are also covered in this module.

Module Objectives

- To make trainee to learn selection of appropriate stitch for different fabrics, Management of thread tension, types of needles and their uses, maintain the sewing machine.

Module Design

<table>
<thead>
<tr>
<th>Topic no.</th>
<th>Session Topics</th>
<th>Method</th>
<th>Duration</th>
<th>Tools/Equipment/Props</th>
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<tbody>
<tr>
<td>1.</td>
<td>Types of stitches according to materials</td>
<td>Theory and practical</td>
<td>1 hr</td>
<td>PPT/Flipchart, video, learning cards, images, specimen, cloth, needle, threads</td>
</tr>
<tr>
<td>2.</td>
<td>Adjusting thread tension for balanced stitching</td>
<td>Theory</td>
<td>30 mins</td>
<td>PPT/Flipchart, video, learning cards, images, specimen, cloth, needle, threads</td>
</tr>
<tr>
<td>3.</td>
<td>An overview on choice of needle</td>
<td>Theory</td>
<td>30 mins</td>
<td>PPT/Flipchart, video, learning cards, images, specimen, cloth, needle, threads</td>
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<tr>
<td>4.</td>
<td>Other minor problems, adjustments and repairs</td>
<td>Practical</td>
<td>1 hr</td>
<td>PPT/Flipchart, video, learning cards, images, specimen, cloth, needle, threads</td>
</tr>
</tbody>
</table>

**TOTAL** | 3 hrs
Session Plan

Session Objectives

(Key learning outcome)

At the end of the session,

- The trainee will be aware of the selection of appropriate stitch for different fabrics.
- The trainee will know how to manage thread tension.
- The trainee will understand the types of needles and their uses.
- The trainee will understand maintenance of the sewing machine.

Underpinning Knowledge/ Theory/ Principle

(Theoretical concept on which the learning is based)

- The trainee has knowledge of Tailoring.
- The trainee is aware of the techniques of handling needles tools and rules for hand sewing.

Duration

<table>
<thead>
<tr>
<th>Topic No.</th>
<th>Topic</th>
<th>Duration</th>
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<tbody>
<tr>
<td></td>
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<td>Theory</td>
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<tr>
<td>1.</td>
<td>Types of stitches according to materials</td>
<td>30 mins</td>
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<tr>
<td>2.</td>
<td>Adjusting thread tension for balanced stitching</td>
<td>30 mins</td>
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<tr>
<td>3.</td>
<td>An overview on choice of needle</td>
<td>30 mins</td>
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<tr>
<td>4.</td>
<td>Other minor problems, adjustments and repairs</td>
<td>30 mins</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td><strong>2 hrs</strong></td>
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</table>
Instructions to the Trainee

- The trainee should be attentive, watch the demonstration and learn the selection of appropriate stitch for different fabrics.
- Trainee should learn how to manage the thread tension.
- Trainee should learn about the types of needles and maintenance of the sewing machine.
- Take part in discussion and make notes.
- Trainee should take notes and ask questions whenever they have any doubts.
- Maintain discipline.

Slide No.33-37

3. Introduction to machine sewing

Selecting the appropriate stitch for the fabric

- **Cottons**
  - Easiest fabric to work with.
  - Straight stitch is most commonly and in professional garments.

- **Knits and woollens**
  - These require a lockstitch, an over lock or a cover seam.

- **Silks**
  - Best to use smaller stitches with them.
  - Hold the fabric firmly in front and behind the needle.

- **Polysters and elastics**
  - Use a zigzag stitch with these to ensure that the elasticity is maintained.
Activity

**Objective:** The trainer will discuss the topic on machine sewing to the participants.

**Methodology:**

Trainer will explain the different types of stitches and needles used in machine sewing using PPT and should show each tool. Trainer will demonstrate how to operate or use each tool, adjust thread tension for balanced stitching and selection of appropriate stitch for different fabrics, types of needles commonly used. The trainees are allowed to use or operate equipments only under trainer’s supervision.

On completion of training the trainees and trainer will interact and discuss on the sewing machine.

**Materials Required:** PPT /Flipchart, video, learning cards, cloth, needle, threads, Materials and Tools for demo and practical.

**Outcome:** The trainee will be aware of selection of appropriate stitch for different fabrics, management of thread tension, types of needles and their uses, maintain the sewing machine.
Module 3- Introduction to machine sewing

3.1 Types of stitches according to materials.

In module 2 we learnt about the most commonly used stitches for machine and hand sewing including those used exclusively for embroidery or decorative work. Here is a little more detail on what kind of a stitch is needed when sewing different kinds of fabrics. The need for different stitches arises because different fabrics have different weights, stretch ability, different weave etc. in order to minimize damage to the fabric and to ensure it stays secure you must select the most appropriate stitch.

a. **Cottons**- are the easiest fabric to work with. You can use almost any kind of stitch when working to create a garment with them. A straight stitch is most commonly and in professional garments the edge maybe completed using a serger. If the cotton is very heavy use longer stitches and you may choose to do even a double seam.

b. **Knits and woollens**- these require a lockstitch, an over lock or a cover seam. The important thing is to ensure that the ends of the fabric are tightly secured so that they do not come apart and unravel. When stitching you can use a simple straight stitch.

c. **Silks**- As all of us know silks are very delicate, so it is best to use smaller stitches with them and also when stitching it is important to hold the fabric firmly in front and behind the needle. This will ensure that it does not curl up or pucker.

d. **Polyesters and elastics**- It is recommended to use a zigzag stitch with these to ensure that the elasticity is maintained and there is room for movement. It is important to secure the edges of these materials just like you do for knits.

3.2 Managing thread tension

**Kinds of thread tensions and common problems**

Managing the thread tension on your machine is very important to ensure a neat stitch. To begin with let us understand what the two types of tensions are:

a. **Upper tension**- This is the tightness or the tautness of the thread that feeds from your thread spool, tension discs and thread guide into your needle. On new machines there is a tension dial that lets you adjust the tension of the tension discs by moving it and in older machines there is a screw that lets you adjust the pressure that the two discs exert on the thread passing between them. It is important to note that different tensions will be required for different threads. The thicker the thread the lesser the tension or pressure or squeezing required.
b. **Lower tension** - this refers to the tension exerted by the bobbin case on the bobbin thread being released through it. There is a screw on the bobbin case that allows you to increase or decrease the tension on the thread.

It is a good thumb rule to check the stitching on a spare scrap piece of cloth whenever you use a new thread with a significantly different thickness, either in the bobbin or main spool. If the tensions are messed up it will result in an incorrect stitch. The two main problems and their causes are as follows:

a. If the bobbin tension is too loose or the top tension too tight in comparison then the bobbin thread will show on the right side of the cloth

b. If the upper tension is too loose or the bobbin tension too high in comparison it will result in the stitching thread showing up on the wrong side of the cloth

The two must be balanced to get an equal and even stitching. Puckering of cloth is a common result of wrong tension settings.
How to correct the problem.

It is a function of trying on different tensions. Try to avoid touching the bobbin tension and try to see if you can fix the problem with just the upper tension adjustment. This will be a temporary adjustment. For a general tension management work with a bobbin thread and a stitching thread and a cloth of the kind you are most likely to use. Then thread the needle and the bobbin and run a sample stitch and see if the stitches come okay. Adjust both tensions till you get an even stitch. Once this is perfected, you need only make minor adjustments every time you change a thread.

Also note that many times when you get an incorrect stitch the trouble may not be just with the thread tension. You may have done any of the following:

a. Used the bobbin spindle instead of the thread spindle thus affecting the thread feeding
b. Not threaded the thread correctly through the thread guides
c. Not have ensured that the pressure foot is all the way down before threading
d. Also lint and dirt in the bobbin chamber or between the tension discs can affect the tension. So cleaning these out first is always a good idea. If you still face a problem check to see the condition of your needle. Damaged needles also result in problems. With experience you will see that different fabrics need different needles and needle plates and threads to ensure correct stitches and prevent damage.

3.3 An overview of choice of needles
There are several factors that will determine your choice of needle. Primarily these are:

e. Kind of stitch you are going to use
f. The kind of fabric you are going to use
g. The kind of thread you are going to use
h. The needle system of your machine
Different parts of a needle:

Even though it looks really simple, a needle is a complex piece of sewing equipment and has several parts that will vary across different types of needles to give you optimal stitching experience. Here are the different parts of a needle:

a. **Shank**- Top of needle that inserts into machine; most often has round front and flat back, which seats needle in right position.

b. **Shaft**- Body of needle below shank. Shaft thickness determines needle size.

c. **Front groove**- Slit above needle eye, should be large enough to "cradle" thread for smooth stitches.

d. **Point**- Needle tip that penetrates fabric to pass thread to bobbin-hook and form stitch. Shape of point varies among needle types.

e. **Scarf**- Indentation at back of needle. A long scarf helps eliminate skipped stitches by allowing bobbin hook to loop thread more easily. A shorter scarf requires a more perfectly timed machine.

f. **Eye**- Hole in end of needle through which thread passes. Needle size and type determine size and shape of eye.

Different types of needles and understanding the needle numbering system:

Needles have two varying features- their shape and also their weight. The chart below shows the two most commonly used numbering system for needles. Larger the number of the needle, heavier and thicker the needle.
To understand the different shapes of needles here are some standard needles and details on their shape and the kind of fabric they are most suitable for:

a. **Universal needle**- As the name suggests it is the safest needle for almost all types of fabrics. They are available in a wide range of sizes from 60/8 to 120/19. They have a slightly rounded tip and a very long scarf to allow the fabric to travel easily. They can be used for synthetics, cottons or wools.

b. **Ball-point and stretch needles**- This needle has a more rounded tip and works best on heavier cottons and knits. Since it works by going through the fibres rather than piercing the fabric they can be used for materials like lycra or spandex. These are available in sizes ranging from 70/10 to 100/16.

c. **Microtex and sharp needles**- As the name suggests these needles work by piercing the fabric. That is why they have a sharp edge. They are used when precise stitching is required e.g. for edges and pin tucks and are used on silks, heirloom delicate fabrics, synthetic leather or finely woven fabrics. They will not unravel the fabric. They are available in sizes ranging from 60/8 to 90/14 (which means they are never too thick or heavy)

d. **Leather needle**- as the name suggests is used for stitching natural leather (it is not to be used for synthetic leather) it has a head which is like an arrow head and it works by cutting through the leather. It can be also used for very heavy faux leather and heavy non-woven fabrics. Since it leaves a permanent cut it is to be sued with great care and accuracy and should not be used on wool or silk. Those fabrics will unravel. These are available in sizes ranging from 80/12 to 110/18.

e. **Denim or Jean needle**- Used for denims and very heavy fabrics such as canvas. These needles need to be weighty and pierce through the fabric so they have a very
sharp tip and a heavy thick scarf to give them weight. They eye is large to allow the use of thick threads. They are available in sizes 80/12-110/18 so as you can see they are never very fine.

f. **Metallic needle**- you may not be using it very often but it is a highly specialised needle used for metallic threads. It has a very large eye to allow metallic threads to pass through and comes generally only in one size 80/12.

g. **Self-threading needles**- As the name suggests they are designed to allow easy threading. They have a slot on one side of the to allow the thread to be slipped into the eye. Ranging in size from 80/12 to 90/14 and is more of a general purpose needle

h. **Machine embroidery needles**- These come with a large eye and a large scarf that prevents the thread from shredding or breaking. These are best used when you are using speciality embroidery threads or synthetic threads. Sizes range from 70/10 to 90/14.

3.4 Other minor problems, adjustments and repairs
There are some common problems that every sewer faces. Generally these can be easily resolved. However that will require you to have at least a basic knowledge of the moving parts of your machine, their functions and relation to each other. Here is a handy list for you:

a. **Tension will not change even when the tension disc screw is moved**- most of the time this happens when there is lint or grime stuck between the tension discs.

b. **The top thread keeps breaking**- This could be because of a damaged bobbin hook or rough edges on the needle plate. You can use an emery board to polish the edges of the needle plate but be careful about changing the shape of the hook tip. Another reason could be that the top thread tension is too high.

c. **Needle keeps breaking**- This could be because the top tension is too high or the needle is too small for the fabric you are using. The other reason is that the hook timing is off. To check this insert a new needle and move the fly wheel slowly. Check to see that the needle tip is not rubbing against the hook as it comes up to engage the thread.

d. **The bobbin thread is not getting picked up by the top thread**- The bobbin hook is what catches the top thread from the needle and intertwines it with the bobbin thread to form a stitch. If the needle is missing the hook because the timing is off or because the needle point is blunt or bent then the bobbin thread will not get picked up by
the top thread. If the needle is not attached properly then too this can happen. You must make sure that the flat side of the needle is inserted to face the hook.

e. **The fabric does not feed properly**- There are several reasons this is happening. The feed dogs maybe dirty and are not able to come up out of the plate to catch the cloth. The press foot may not be exerting enough downward pressure to help move the fabric forward. Even rough edges of the needle plate can catch the fabric and prevent it from moving forward. Check for all these aspects and you will very likely find a solution.

**Basic machine operation tips:**

a. Always be sure the machine is oiled, that it is properly threaded, and that the bobbin is lint-free before starting to sew.

b. Use a needle size suitable for the fabric and thread weight. Be sure the needle is the correct length, straight and sharp. Change needles frequently when sewing synthetic fabrics. Ball-point needles help prevent damage to knit fabrics.

c. Use the same thread in the bobbin as on the spool unless for special effect.

d. Pull the bobbin thread through the needle hole in the needle plate before starting to stitch.

e. As you start to stitch, place both threads under the presser foot and hold them to the back of the machine.

f. Turn the hand wheel toward you to start the stitching, if needed.

g. Start and stop the machine with the needle and thread take-up lever in their highest position.

h. Once the tension on the upper thread and bobbin thread are balanced, change only the upper thread tension for slight variation as needed.

i. To turn a corner, stop the machine while the needle is still in the fabric. Raise the pressure foot and turn the fabric, using the needle as a pivot point. Lower the pressure foot and resume sewing.

j. Protect your clean sewing from machine dust and grime between sewing projects by covering it or putting it inside the sewing cabinet or machine case.
Points to remember:

- Types of stitches according to materials - Cottons, Knits and woollens, Silks and Polyesters and elastics.
- Managing thread tension - Managing the thread tension on your machine is very important to ensure a neat stitch.
- Kinds of thread tensions - Upper tension and Lower tension.
- There are several factors that will determine your choice of needle. Primarily these are:
  1. Kind of stitch you are going to use
  2. The kind of fabric you are going to use
  3. The kind of thread you are going to use
  4. The needle system of your machine
- Different parts of a needle - Shank, Shaft, Front groove, Point, Scarf and Eye.
- Different types of needles - Universal needle, Ball-point and stretch needles, Microbe and sharp needles, Leather needle, Denim or Jean needle, Metallic needle, Self-threading needles and Machine embroidery needles.
- There are some common problems that every sewer faces:
  1. Tension will not change even when the tension disc screw is moved.
  2. The top thread keeps breaking.
  3. Needle keeps breaking.
  4. The bobbin thread is not getting picked up by the top thread.
  5. The fabric does not feed properly.

- Basic machine operation tips:
  1. Always be sure the machine is oiled, that it is properly threaded, and that the bobbin is lint-free before starting to sew.
  2. Use a needle size suitable for the fabric and thread weight. Be sure the needle is the correct length, straight and sharp.
  3. Use the same thread in the bobbin as on the spool unless for special effect.
  4. Turn the hand wheel toward you to start the stitching, if needed.
  5. Start and stop the machine with the needle and thread take-up lever in their highest position.
NOTES

Use the blank space provided below to make important notes based on your understanding of the topics

________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
Exercise sheet

1. Oral exercise to analyze the trainee
   
a. List out the different Kinds of thread tensions and How to correct the problem.
   
b. Short note on basic machine operation.
   
c. What are the several factors are to be used in choosing the needle.

2. The participants will be distributed with a picture of needles and ask them to identify the names related to tailoring.
#### FEEDBACK SHEET

Dear Participant, we request you to provide us with open feedback to make this training process more effective. We shall really appreciate your time in filling up this form.

**PARAMETERS**

<table>
<thead>
<tr>
<th>S.No.</th>
<th>TRAINER</th>
<th>RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>How well did the trainer interact with the trainees?</td>
<td>☺☻☻☻☻☻☻☻☻☻ ≤ 3.5</td>
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<tr>
<td>2</td>
<td>How well did the trainer clarify the doubts?</td>
<td>☻☻☻☻☻☻☻☻☻ ≤ 3.5</td>
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<tr>
<td>3</td>
<td>Was language used by the trainer simple and clear?</td>
<td>☻☻☻☻☻☻ ≤ 3.5</td>
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<tr>
<td>4</td>
<td>Did you find the trainer knowledgeable?</td>
<td>☻☻☻☻☻ ≤ 3.5</td>
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<tr>
<td>5</td>
<td>How friendly was the trainer?</td>
<td>☻☻☻☻ ≤ 3.5</td>
</tr>
<tr>
<td>6</td>
<td>How successful was he in making session lively?</td>
<td>☻☻☻ ≤ 3.5</td>
</tr>
<tr>
<td>7</td>
<td>How good was the learning material?</td>
<td>☻☻☻ ≤ 3.5</td>
</tr>
<tr>
<td>8</td>
<td>How well is it related to application at work?</td>
<td>☻☻ ≤ 3.5</td>
</tr>
<tr>
<td>9</td>
<td>Was it easy and clear to understand?</td>
<td>☻ ≤ 3.5</td>
</tr>
<tr>
<td>10</td>
<td>Was the place of learning comfortable and safe?</td>
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<tr>
<td>11</td>
<td>Was the place of learning clean and hygienic?</td>
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<tr>
<td>12</td>
<td>Did the place of learning have good quality of basic amenities?</td>
<td>☻☻ ≥ 3.5</td>
</tr>
<tr>
<td>13</td>
<td>How useful did you find the training and do you think it has increased your skills and knowledge?</td>
<td>☻☻☻ ≤ 3.5</td>
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<tr>
<td>14</td>
<td>How well did it help to improve your attitude towards learning and eagerness to learn more?</td>
<td>☻☻ ≤ 3.5</td>
</tr>
<tr>
<td>15</td>
<td>How was the overall effectiveness of the training?</td>
<td>☻☻ ≤ 3.5</td>
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</table>

**REMARKS:**

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**LabourNet**

VER1.00
Module 4- Techniques of Measurement and Shaping

Module Overview

This module explains the techniques of measurement to be followed according to the body structure. Common tailoring terms, accurate measurement, standards size charts, different shaping techniques like tucks, darts and pleats.

Module Objectives

- To learn best practices for accurate measurement, common tailoring terms, measurement techniques for adults and kids, types of pleats gathers and darts.

Module Design

<table>
<thead>
<tr>
<th>Topic no.</th>
<th>Session Topics</th>
<th>Method</th>
<th>Duration</th>
<th>Tools/Equipment/Props</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Information on body structure &amp; best practices for accurate measurement</td>
<td>Theory and practical</td>
<td>1 hr</td>
<td>PPT/Flipchart, learning cards, images, cue cards</td>
</tr>
<tr>
<td>2.</td>
<td>Common tailoring terms</td>
<td>Theory and practical</td>
<td>1 hr</td>
<td>PPT/Flipchart, learning cards, images, cue cards</td>
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<td>3.</td>
<td>Common measurements, standard size charts</td>
<td>Theory and practical</td>
<td>1 hr30 mins</td>
<td>PPT/Flipchart, learning cards, images, cue cards</td>
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<tr>
<td>4.</td>
<td>Shaping Techniques (Tucks, Darts and Pleats)</td>
<td>Theory and practical</td>
<td>1 hr30 mins</td>
<td>PPT/Flipchart, learning cards, images, cue cards</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>5 hrs</strong></td>
<td></td>
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</tbody>
</table>
Session Plan

Session Objectives

(Key learning outcome)

At the end of the session,

- The trainee will be aware of best practices for accurate measurement and common tailoring terms.
- The trainee will be able to understand the standard measurement techniques for adults and kids.
- The trainee will know the types of pleats gathers and darts.

Underpinning Knowledge/ Theory/ Principle

(Theoretical concept on which the learning is based)

- The trainee has knowledge of Tailoring.
- The trainee is aware of the techniques in handling needles tools and rules for hand sewing.
- Trainee is aware of the appropriate stitch for different fabrics, manage the thread tension, types of needles and their uses, and maintain the sewing machine.

Duration

<table>
<thead>
<tr>
<th>Topic No.</th>
<th>Topic</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Theory</td>
</tr>
<tr>
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<td>Information on body structure &amp; best practices for accurate measurement</td>
<td>30 mins</td>
</tr>
<tr>
<td>2.</td>
<td>Common tailoring terms</td>
<td>30 mins</td>
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<tr>
<td>3.</td>
<td>Common measurements, standard size charts</td>
<td>1 hr</td>
</tr>
<tr>
<td>4.</td>
<td>Shaping Techniques (Tucks, Darts and Pleats)</td>
<td>1 hr</td>
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<tr>
<td></td>
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<td>Demo/Practical</td>
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<tr>
<td></td>
<td></td>
<td>30 mins</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30 mins</td>
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<td>3 hrs</td>
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<td>2 hr</td>
</tr>
</tbody>
</table>
Instructions to the Trainee

- The trainee should learn the methods for accurate measurement and the standards measurement charts.
- Trainee should learn the common tailoring terms and different shaping techniques and demonstrate the trainees to practice it.
- Take part in discussion and make notes.
- Trainee should take notes and ask questions whenever they have any doubts.
- Maintain discipline.

Slide No.38-50

**4. Techniques of measurement and shaping**

4.1.1 Information on body structure & best practices for accurate measurement

**How to measure accurately??**

a. Visually body is divided into two parts - above the waist and below the waist.

b. There are two types of measurements - vertical and horizontal.

c. The person should stand in an upright posture with no slouching at the shoulder and the legs straight.

d. The person being measured should be wearing a relatively well-fitted garment.

Activity
Objective: The trainer will discuss the topic on Techniques of Measurement and Shaping to the participants.

Methodology:

Trainer will explain the techniques on accurate measurement, common tailoring terms, and measurement techniques for adults and kids, types of pleats gathers and darts using PPT and will demonstrate the same. On completion of the topic, trainees and trainer will interact and discuss on the Common standards measurement charts and different shaping techniques.

Participant will be divided in 6 groups and provide the chart, paper and pen to each group, where they can practice to take accurate measurement for the tailoring terms and apply different shaping techniques. Trainer will educate the trainee on safety practices which are required before starting the process.

Materials Required: PPT /Flipchart, learning cards, images, cue cards, chart, paper, pen, Materials and Tools for demo and practical.

Outcome: Trainees will come to know about the accurate measurement, common tailoring terms, and measurement techniques for adults and kids, types of pleats gathers and darts.
Module 4 - Techniques of measurement and shaping

4.1 Information on body structure & best practices for accurate measurement

Before starting work on a garment it is most essential that measurements be taken of the person for who the garment is being stitched. This will help you make a well fitted garment and will save time by ensuring minimal alterations are required later.

Measuring a person is not very simple. Certain things have to be kept in mind while measuring and it is with practise that you will perfect the art of measurement. Given below are some basic tips on how to prepare for measuring, how to measure.

a. Visually the body is divided into two parts - above the waist and below the waist. To demarcate that tie a tape around the curvature of the person’s waist. This will allow you to take other measurements accurately
b. There are two types of measurements - vertical and horizontal.
c. Ensure that the person is standing in an upright posture with no slouching at the shoulder and the legs are also straight
d. The person being measured should be wearing a relatively well-fitted garment so that you can make out various points on their body correctly
e. If the person being measured is wearing very bulky clothes your measurements will have unnecessary extra inches in them.
f. For body measurements a measuring tape should be used and it is important to keep a pen and paper handy.
g. Make sure the measuring tape is not frayed or stretched. The long metal end of the tape is used for taking vertical measurements and the rounded metal end is used for taking horizontal measurements
h. When you take the measurements write them down in a way that you will be able to understand them later
i. In India typically we measure the person in inches.
j. Remember that the measurements you take will not be the final measurements for drawing on the cloth or cutting the pattern. You will be adding a few inches to each of the measurements depending on certain standard rules and also the requirement of the individual
k. As a good tailor always keep the comfort and wish of the client in mind, ask them to point out certain aspects like where they tie their salwar or pant, how lose do they like the chest and waist to be. You can also ask the length of the kurta or the top you are stitching. You can also get input on what neckline and sleeve length they require and measure accordingly.
1. Also remember that when taking measurements for a male or a female it will differ slightly.

m. When measuring lengths, make sure the measuring tape is perpendicular to the floor. When measuring widths around your body, make sure the measuring tape is parallel to the floor. When measuring around your body, make sure the tape is comfortably close to body, but not tight. This will insure an accurate measurement.

4.2 Common tailoring terms

Here are some of the most commonly used tailoring terms that you must know so that you can understand information you may get from books, charts etc. and also so that you can work with someone else or in a job situation.

a. **Alteration** – It means altering something so it is exactly as it sounds- changing a garment to make it fit for the purpose it is designed for.

b. **Baste** – Basting is a loose and easy stitch that is used to join two or more pieces of fabric together.

c. **Ease** – When you are making clothing, you need to be aware of easing. This is essentially an allowance that should be added to all core body measurements (bust, waist and hips) to ensure that the item will fit, after all it is better to make an item slightly too big rather than one too small!

d. **Edge stitching** – This type of stitch appears as a row on the edge of the fabric and typically it involves using a thread the exact colour as the fabric.

e. **Finger pressing** – If you don’t have an iron handy but need to open your seam allowance, you will need to finger-press. That’s really all it is – opening the seam allowance with your thumbs!

f. **Give** – If a fabric has give it will have a high amount of elasticity. Lycra for example has more give than denim. Give is a term that can apply to both fabric and threads. The opposite of give is stability.

g. **Grading** – It’s important to produce a precise seam allowance; you don’t want to create unnecessary bulk. Grading is the process of trimming the allowance to a smaller width.

h. **Hand** – If you hear someone refer to the hand of the fabric, all they are referring to is the feel and drape of the fabric; literally how it feels to the touch.

i. **Notch** – If you are asked to do a notch basically it means making a small cut in the seam. What this does is allow the fabric to bend slightly at the corners, removing harsh lines from the overall shape.

j. **Seam allowance** – Seams are essential and you must learn all you can before embarking on a project. A seam allowance refers to the space between the stitching and the edge of the fabric. Some items will require a greater seam allowance than others so make sure you get those measurements exact!
k. **Selvage** – You would have definitely seen a selvage before but you may not have known it! It is simply the edge of the raw fabric that you might buy at the store. This is where the company and fabric details are written.

l. **Top stitch** – It is a row of stitch, which is then visible. They finish an item off and can be decorative – feel free to use complementary thread colours when top stitching.

m. **Gathering** – It is a technique for shortening the length of a strip of fabric so that the longer piece can be attached to a shorter piece. It is commonly used in clothing to manage fullness, as when a full sleeve is attached to the armscye or cuff of a shirt, or when a skirt is attached to a bodice. In simple gathering, parallel rows of running stitches are sewn along one edge of the fabric to be gathered. The stitching threads are then pulled or "drawn up" so that the fabric forms small folds along the threads. Multiple rows of gathering are called shirring.

n. **Interfacing** – It is a common term for a variety of materials used on the unseen or "wrong" side of fabrics in sewing.

o. **Lining** – It is an inner layer of fabric, fur, or other material that provides a neat finish; conceals seam allowances, interfacing, and construction details; and allows a garment to slip on and off easily.

p. **Patchwork** – It is a form of needlework or craft that involves sewing together small pieces of fabric and stitching them together into a larger design, which is then usually quilted, or else tied together with pieces of yarn at regular intervals, a practice known as tying. Patchwork is traditionally 'pieced' by hand, but modern quilt-makers often use a sewing machine instead.

q. **Pattern** – In sewing and fashion design, a pattern is an original garment from which other garments of a similar style are copied, or the paper or cardboard templates from which the parts of a garment are traced onto fabric before cutting out and assembling (sometimes called paper patterns). Home sewing patterns are generally printed on tissue paper and sold in packets containing sewing instructions and suggestions for fabric and trim.

r. **Piping** – It is a type of trim or embellishment consisting of a strip of folded fabric inserted into a seam to define the edges or style lines of a garment or other textile object. Usually the fabric strip is cut on the bias or cross-grain, and often it is folded over a cord. It may be made from either self-fabric (the same fabric as the object to be ornamented) or contrasting fabric, or of leather.

s. **Placket** – It is an opening in the upper part of trousers or skirts, or at the neck or sleeve of a garment Plackets allow clothing to be put on or removed easily.

t. **Stomacher** – Also called a placard it is a slit to allow access to a hanging pocket, or a petticoat or skirt pocket.

u. **Pleat or Plait** – It is a type of fold formed by doubling fabric back upon itself and securing it in place. It is commonly used in clothing and upholstery to gather a wide piece of fabric to a narrower circumference. Pleats are categorized as pressed, that is,
ironed or otherwise heat-set into a sharp crease, or un-pressed, falling in soft rounded folds. Pleats may also be partially sewn flat and allowed to fall open below.

v. **Pocket** - It is a bag- or envelope-like receptacle either fastened to or inserted in an article of clothing to hold small items. In older usage, a pocket was a separate small bag or pouch.

### 4.3 Common measurements, standard size charts

While each piece of clothing that you stitch will require a different set of measurements, given below is an exhaustive list of almost all possible measurements of the outer structure of the human body. With each measurement type is a brief explanation on how to take that measure most accurately. For a fuller understanding refer to the four figures at the end of this section which illustrate where these measurements should be taken for adults and children.

a. **Around Collar** - It is taken from the base of the neck and around. Not too tight and not too loose.
b. **Shoulder width** - It is taken from the base of the neck to the birth of the arm.
c. **Chest width** - It is taken on the wider part of the chest, over the bust, from one side to the other of the chest, starting exactly at the base of the arms.
d. **Back width** - It is taken on the wider part of the back, from one side to the other, starting at the base of the arm.
e. **Around bust** - The measurement tape should go around, just below the base of the arms. The tape has to go over the bust on the most prominent part of it, without tightening it. NOTE: For men, girls and boys this measure is called AROUND CHEST and it is taken in the same fashion but on the front the tape must go over the widest part of the chest.
f. **Around Thorax** - it is taken underneath the bust, exactly at it’s base, and around the thorax, adjusting the tape measure to the body measures.
g. **Around waist** - It is taken exactly where that lace is tied around the waist. It must be an exact measure.
h. **Shoulder to waist length (back)** - This measure is taken on the back, “over” the shoulder (exactly at the base of the neck), going down vertically along the back to the point where the lace is tied around the waist.
i. **Shoulder to waist length (front)** - This measure is taken on the front, “over” the shoulder (exactly at the base of the neck), going down vertically along the front, passing it over the prominent part of the bust and to the point where the lace is tied around the waist.
j. **Bust Height** - It is taken on the front, “over” the shoulder, exactly at the base of the neck, going down vertically to the tip of the bust.
k. **Bust separation** - It is taken between the tips or more prominent parts of the bust. (From tip to tip).
l. **Arm Length** - It is taken along the folded arm, from the shoulder or base of the arm, to the prominent bone of the wrist (cuffs).
m. **Elbow Length** - It is taken from the shoulder to the tip of the elbow.
n. **Around arm** - It is taken on the wider part of the arm, going around it completely.
o. **Around hip** - It is to be taken tightly on the most prominent part of the gluteus or hip.
p. **Hip height** - is to be measured on the side from the waist down to the lateral side and equidistant to the most prominent part of gluteus.
q. **Measurement around half hip height** - Right on the half of the previous hip height measurement, the hip is to be measured around.
r. **Crotch length** - This measure should be taken on the middle, front, from the waist down to the point where you can see light between the legs.
s. **Total leg length** - It is to be taken on the side, from the lace around the waist down to the ankle. The tape measure should be close to the body especially on the hip.
t. **Inside leg length** - It is taken on the front, from the light between the legs (crotch), along the inside of the leg and down to the ankle.
u. **Around the leg** - It is taken on the middle of the leg, on the thicker part and around it.
v. **Length of knee** - It is to be taken on the side, from the lace around the waist and down to the knee, keeping the tape close to the body especially at the hip.
w. **Total height** - Person must be without shoes. It is taken from the highest part of the head and down to the floor. We recommend that the person is against a wall when taking this measure.
How to measure an adult female
Standard measurement charts:

Given below are several tables that show you what the actual measurements of the various standard sizes. We have provided tables for men, women and young children. In most cases the standard US size and standard Indian sizes are shown. If you are required to make a garment that follows standard sizing norms you can consult these charts. Please note that the measurements are in inches and refer to actual body measurements for which the size is most suited and is not the size of the finished garment.

### Regular Mens' sizes (Average build, from 5'7" to 6'1")

<table>
<thead>
<tr>
<th>Standard men's sizes</th>
<th>Neck</th>
<th>Chest</th>
<th>Waist</th>
<th>Hip</th>
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<tr>
<td>Small</td>
<td>14-14.5</td>
<td>34-35</td>
<td>28-30</td>
<td>34-36</td>
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<tr>
<td>Medium</td>
<td>15-15.5</td>
<td>38-40</td>
<td>32-34</td>
<td>38-40</td>
</tr>
<tr>
<td>Large</td>
<td>16-16.5</td>
<td>42-44</td>
<td>36-38</td>
<td>42-44</td>
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<tr>
<td>X-Large (1X)</td>
<td>17-17.5</td>
<td>46-48</td>
<td>40-42</td>
<td>45.5-47</td>
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<tr>
<td>2X</td>
<td>18-18.5</td>
<td>50-52</td>
<td>44-46</td>
<td>48.5-50</td>
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</table>

### Toddlers' sizes (Children from ages 2 to 5)

<table>
<thead>
<tr>
<th>Indian Sizes</th>
<th>Height</th>
<th>Waist</th>
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<td>28.5-32</td>
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<tr>
<td>26</td>
<td>42</td>
<td>22.5</td>
<td>36.5-41</td>
</tr>
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</table>
4.4 Shaping techniques- (Tucks, Darts, Gathers and Pleats)

When making a clothing you will sometimes be required to add "fullness" or "body" to it or give it either ease of wearing or just better looks. For example in a skirt or a ghagra you will notice that even though the hem and the waist have a smaller diameter the rest of the skirt has a lot of space allowing for east movement. This is done mostly by adding what are called “pleats” at the waist. This allows you to add fabric and yet control it in place. In this section we will learn about some of the most commonly used techniques used for purposes like this.
a. Pleat (older plait) - It is a type of fold formed by doubling fabric back upon itself and securing it in place. It is commonly used in clothing and upholstery to gather a wide piece of fabric to a narrower circumference. The most commonly used types of pleats are:

1. Accordion pleating is a form of tight pleating which allows the garment to expand its shape when moving. Accordion pleating is also used for some dress sleeves, such as pleating the end of the elbow, with the fullness of the pleat gathered closely at the cuff.

2. Knife pleats are used for basic gathering purposes, and form a smooth line rather than springing away from the seam they have been gathered to. The pleats have 3:1 ratio—three inches of fabric will create one inch of finished pleat. Knife pleats can be recognized by the way that they overlap in the seam.

3. Box pleats are knife pleats back-to-back, and have a tendency to spring out from the waistline. They have the same 3:1 ratio as knife pleats, and may also be stacked to form stacked box pleats. These stacked box pleats create more fullness and have a 5:1 ratio. They also create a bulkier seam. Inverted box pleats have the "box" on the inside rather than the outside.

b. Gathers - This is another technique used to manage the fullness of fabric. When done by hand two parallel lines are sewn at the edge of the fabric where the gathers have to be made and then the thread ends are pulled till the desired width of the fabric is achieved.
This will pull the fabric together in gentle folds. This type of technique is used around necklines, as edging for pillow cases or even at the cuffs of the sleeves so that the actual sleeve has room but is tightened at the cuff. Gathers can also be created by machine and by using elastic.

c. Darts- This is a very commonly used shaping technique. Darts are used most commonly around the fuller areas of our body, those that are broader or larger than other areas e.g. hips, shoulders and for women on the bust or chest. Like their gaming counterparts these are also wide at one end and pointed at the other. They allow room for the fuller areas without taking away from the shape of the fabric.

d. Tucks- In sewing, a tuck is a fold or pleat in fabric that is sewn in place. Small tucks, especially multiple parallel tucks, may be used to decorate clothing or household linen. The different kinds of most commonly used tucks are:

1. Pin tucks- These are tiny dainty tucks used on baby clothes and fine blouses. To stitch each tuck fold, along the middle of the markings. Tack or machine baste about 1/8 inch wide from the fold.
2. Piped or corded tucks- These are made by placing cording on the wrong side of the fabric at centre of tuck before stitching the tuck and then stitched close to the cording.

3. Shell tuck- Shell tucks create a delicate edge finish for both lightweight knits and woven fabrics. Heirloom and lingerie sewers use this stitch on armholes and necklines because of its soft finish. Ruched flowers, which give a 3-D effect, can also be made by incorporating this technique.
Points to remember:
- Before starting work on a garment it is most essential that measurements be taken of the person for who the garment is being stitched.
- Common tailoring terms- Alteration, Baste, Ease, Edge stitching, Finger pressing, Grading, Hand, Pattern etc.
- Different set of measurements like- Around Collar, Shoulder width, Chest width, Back width, Around bust, Around Thorax, Around waist, Shoulder to waist length, Shoulder to waist length, Bust Height, Arm Length, Elbow Length, Around arm, Around hip, Measurement around half hip height, Crotch length, Total leg length, Around the leg, Total height.
- The measurements are in inches and refer to actual body measurements for which the size is most suited and is not the size of the finished garment.
- Shaping techniques:
  1. Pleat- Accordion pleating, Knife pleats and Box pleats.
  2. Gathers- This is another technique used to manage the fullness of fabric, Gathers can also be created by machine and by using elastic.
  3. Darts- This is a very commonly used shaping technique. Darts are used most commonly around the fuller areas of our body, those that are broader or larger than other areas e.g. hips, shoulders and for women on the bust or chest.
  4. Tucks- Pin tucks, Piped or corded tucks, Shell tuck.
NOTES

Use the blank space provided below to make important notes based on your understanding of the topics

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

__________________________________________________________________________
Exercise sheet

1. Visually the body is divided into two parts- above the waist and below the waist.
   a. True
   b. False

2. There are two types of measurements- vertical and horizontal.
   a. True
   b. False

3. Write some of the commonly used tailoring terms.

   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________
4. Match the following:

<table>
<thead>
<tr>
<th>Images</th>
<th>Names</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Darts" /></td>
<td>Darts</td>
</tr>
<tr>
<td><img src="image" alt="Gathers" /></td>
<td>Gathers</td>
</tr>
<tr>
<td><img src="image" alt="Pleats" /></td>
<td>Pleats</td>
</tr>
</tbody>
</table>
# FEEDBACK SHEET

Dear Participant, we request you to provide us with open feedback to make this training process more effective. We shall really appreciate your time in filling up this form.

<table>
<thead>
<tr>
<th>PARAMETERS</th>
<th>RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>S.No.</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>How well did the trainer interact with the trainees?</td>
</tr>
<tr>
<td>2</td>
<td>How well did the trainer clarify the doubts?</td>
</tr>
<tr>
<td>3</td>
<td>Was language used by the trainer simple and clear?</td>
</tr>
<tr>
<td>4</td>
<td>Did you find the trainer knowledgeable?</td>
</tr>
<tr>
<td>5</td>
<td>How friendly was the trainer?</td>
</tr>
<tr>
<td>6</td>
<td>How successful was he in making session lively?</td>
</tr>
<tr>
<td>7</td>
<td>How good was the learning material?</td>
</tr>
<tr>
<td>8</td>
<td>How well is it related to application at work?</td>
</tr>
<tr>
<td>9</td>
<td>Was it easy and clear to understand?</td>
</tr>
<tr>
<td>10</td>
<td>Was the place of learning comfortable and safe?</td>
</tr>
<tr>
<td>11</td>
<td>Was the place of learning clean and hygienic?</td>
</tr>
<tr>
<td>12</td>
<td>Did the place of learning has good quality of basic amenities?</td>
</tr>
<tr>
<td>13</td>
<td>How useful did you find the training and do you think it has increased your skills and knowledge?</td>
</tr>
<tr>
<td>14</td>
<td>How well did it help to improve your attitude towards learning and eagerness to learn more?</td>
</tr>
<tr>
<td>15</td>
<td>How was the overall effectiveness of the training?</td>
</tr>
</tbody>
</table>

**REMARKS:**

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**LabourNet**

VER1.00
Module 5- Patterns

Module Overview

This module explains the marking of patterns and its categories. It contains the use of accessories like trimming materials and fastenings. This module includes the varieties of collars, strips, facing and lining sleeves and pockets.

Module Objectives

- To learn pattern making, trimming, fastening, and stitching of colours, sleeves and pockets.

Module Design

<table>
<thead>
<tr>
<th>Topic no.</th>
<th>Session Topics</th>
<th>Method</th>
<th>Duration</th>
<th>Tools/Equipment/Props</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Stitches pattern in sewing</td>
<td>Theory and practical</td>
<td>75 mins</td>
<td>PPT/Flipchart, learning cards, images, video</td>
</tr>
<tr>
<td>2.</td>
<td>Use of accessories like Trimming Materials and Fastenings</td>
<td>Theory and practical</td>
<td>75 mins</td>
<td>PPT/Flipchart, learning cards, images, video, Buttons, Hooks, Zippers</td>
</tr>
<tr>
<td>3.</td>
<td>Variety of Collars, strips, facing and lining</td>
<td>Theory and practical</td>
<td>75 mins</td>
<td>PPT/Flipchart, learning cards, images, video</td>
</tr>
<tr>
<td>4.</td>
<td>Variety of Sleeves and Pockets</td>
<td>Theory and practical</td>
<td>75 mins</td>
<td>PPT/Flipchart, learning cards, images, video</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>3 hrs</strong></td>
<td></td>
</tr>
</tbody>
</table>
Session Plan

Session Objectives
(Key learning outcome)

At the end of the session,

- The trainee will be able to understand the marking of patterns and categories of markings and demonstrate.
- The trainee will understand the uses of accessories on garments.
- The trainee will know the types of collars.
- The trainee will know the various types of sleeves and pockets.

Underpinning Knowledge/ Theory/ Principle
(Theoretical concept on which the learning is based)

- The trainee has knowledge of Tailoring.
- The trainee is aware of the techniques in handling needles tools and rules for hand sewing.
- Trainee is aware of the selection of the appropriate stitch for different fabrics, manage the thread tension, types of needles and their uses, and maintain the sewing machine.
- Trainee is aware of the accurate measurement, common tailoring terms, and measurement techniques for adults and kids, types of pleats gathers and darts.

Duration

<table>
<thead>
<tr>
<th>Topic No.</th>
<th>Topic</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Theory</td>
</tr>
<tr>
<td>1.</td>
<td>Stitches pattern in sewing</td>
<td>30 mins</td>
</tr>
<tr>
<td>2.</td>
<td>Use of accessories like Trimming</td>
<td>30 mins</td>
</tr>
<tr>
<td></td>
<td>Materials and Fastenings</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Variety of Collars, strips, facing</td>
<td>30 mins</td>
</tr>
<tr>
<td></td>
<td>and lining</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Variety of Sleeves and Pockets</td>
<td>30 mins</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>2hrs</td>
</tr>
</tbody>
</table>
Instructions to the Trainee

- The trainee should practice pattern making, trimming, fastening, and stitching of collars sleeves & pockets.
- Take part in discussion and make notes.
- Trainee should take notes and ask questions whenever they have any doubts.
- Maintain discipline.

Slide No.51-68

5. Patterns

Markings can be done in the following two ways:

a. You can drape the cloth over a mannequin and mark the various points for cutting.

b. You can alternatively cut out the various measured pieces of the garment e.g. bodice and sleeves for a simple ladies kurta from paper and then lay that down on the cloth and trace the outline.
Activity

Objective: The trainer can explain the pattern & categories of markings, the use of accessories on garments, and the variety of collars, sleeves and pockets.

Methodology:

Trainer will explain the pattern making, trimming, fastening, and stitching of collars, sleeves & pockets using power point presentation (PPT). And then will demonstrate Stitches of pattern in sewing, variety of collars, sleeves and pockets related to tailoring and allow the Participants to practice the same under trainer’s supervision.

On completion of training, the trainees and trainer will interact and discuss on the patterns.


Outcome: The trainee will be aware of pattern making trimmings and fastenings and stitching of collars, sleeves and pockets.
Module 5-Patterns

5.1 Stitches pattern in sewing

In order to sew a piece of garment you must first know the measurements and the various details such as type of sleeve, neckline or bodice you are going to stitch. The cloth then needs to be cut to those specifications before stitching. And in order to cut the cloth to those specifications you can need to make markings on it. These markings can be done in one of two ways:

a. You can drape the cloth over a mannequin and mark the various points for cutting.
b. You can alternatively cut out the various measured pieces of the garment e.g. bodice and sleeves for a simple ladies kurta from paper and then lay that down on the cloth and trace the outline. This way if you make any mistakes you will be able to correct them while still at the paper stage and avoid wastage of cloth.

Paper patterns can thus be cut to the exact size of the individual and transferred to the cloth. But if you are not sure of how to make paper patterns or are making a standard size garment you may use commercially available paper patterns. Commercial patterns are usually done on tissue paper. Since tissue paper is not bulky, it allows many pieces of pattern to be packed compactly in an envelope. Good patterns are carefully labelled with the following information:

a. Pattern size
b. Name of each pattern (back, front, sleeve, etc.)
c. Number of pieces to cut from each pattern piece
d. Pattern markings like notches, buttons and button hole position, seam allowances, grain lines, centre front, centre back, hem line markings, dart locations, etc.
e. Markings for pattern alteration locations
f. Instruction sheets explaining
   1. Steps involved in using the pattern
   2. Steps to cut the garment
   3. Method of cutting specific fabrics with different textures and print
   4. Method of construction and fabric suitability

Commercial patterns are printed with a universal system of symbols and lines designed to help you put the pattern pieces together quickly, easily and successfully. Every marking is there for a specific reason. Learning what they mean will make your cutting and sewing go more accurately. Remember however that not every marking is on every pattern because some are specific to a certain style or construction technique.
There are two broad categories of markings on commercial patterns - Layout and cutting markings and construction markings. Layout and cutting markings don't need to be transferred to the fabric. Construction markings, on the other hand, are very helpful during the sewing process and transferring them to the fabric is a good idea. Here are some of the lines on the patterns and how to read them:

a. Cutting Line: It is a solid line round the outside of the pattern. Cut the pattern out on this line first, and then follow it to cut out the fabric.

b. Sewing line - This is usually 5/8" inside the cutting line, but some patterns come with narrower allowances, and so do some parts of patterns! Modern multi sized patterns do not usually have the seam line marked. Read the notes carefully to see how much seam allowance is included on the pattern. Remember, it is the seam line that has to be matched with the seam line on the other piece of fabric, NOT the cut edges!

c. Arrows - These are used for several things, like telling you the direction in which to make a pleat, tuck or fold, and for the grain line. Read any instructions with or on the pattern to see which type you have.

d. Bust point/Hip point - These help you to determine the fit of the pattern. They mark where the bust or hip point of the pattern is. They help to indicate alterations when they do not match your personal bust and hip points.
e. **Cut on Fold Line** - This symbol points to the fold in a piece of fabric, and means that that edge of the pattern needs to be placed on the fold. The fold may not always be down the length of the fabric, so look carefully at the layout diagrams first! Also, they may not mean you to fold the fabric down the centre. Again, look at the diagram to see where the fold should be.

f. **Darts** - These help to turn a flat bit of cloth into a three-dimensional garment. They add shape to the garment to make it fit better. They can be from a seam line into the garment piece, or wholly inside the garment piece. Either way, they have the same job. Dart positions need to be transferred to the fabric before removing the pattern. They need to be sewn very carefully.

g. **Dots, both round and square** - These are also used to help you position things in the garment. They can be used to match up particular points, mark the end of an opening, or the position of a feature. Dots that need to be matched usually come in the same size and shape, but there are exceptions. Dots for pleats are sometimes different sizes to help you fold a pleat in the right direction. Read the pattern notes carefully before you start, so that you know what they are for in the pattern you are using. Dot positions need to be transferred to the fabric before removing the pattern.

h. **Grain Line** - This long arrow has to run parallel to the selvage edge of the fabric. It helps to make the garment hang properly. If you don’t lay out the pattern to follow this line, the finished garment may not hang as the designer intended. It may also affect the fit. On some patterns the grain line may have only one point. On most commercial patterns it has two.

i. **Lengthen or Shorten Here Lines** - These mark a place where you may safely alter the length of the pattern. Sometimes they are a simple pair of lines close together: cut between them and spread the pieces apart by the correct amount to lengthen them, or overlap them to shorten them. If overlapping, glue the two pieces together when they are the right length. If spreading them, glue them down to a piece of tissue when they are the right distance apart to add the length you need. *Remember to do the relevant alteration to all the relevant pieces of the pattern!*

j. **Notches** - These come in pairs, which need to be matched up as you put the garment together. They come in groups of one to four. You need to match the single notches to single notches, double notches to double notches, and so forth. Sometimes
they are numbered, which helps too. At first you will be advised to cut the notches out as they are marked, so that they are easy to match up. Later, I will show you quick methods that can be used to speed things up.

k. Placement Lines - These are used to mark the placement of things like pockets and buttonholes. They need to be transferred to the cloth very accurately, so that, for example, both pockets on a skirt are at the same level. Sometimes the position of something needs to be altered if the pattern pieces have been altered, or the garment will look unbalanced. This alteration needs to be marked on the pattern before cutting.

l. Selvage - This is the woven side edge of the fabric. It is sometimes used in dressmaking to save on a finishing process on the finished garment. It does not unravel, so can be useful in this way. It will also help you to determine the grain of the fabric.

Tip - The most important thing you can do with a pattern and a garment is cut them out accurately! If you cut the pattern out carefully, and then do your alterations properly, you can then cut out the garment accurately. It will fit you a lot better than being careless or trying to hurry too much! It takes less time to cut out a garment accurately than to get it wrong and have to re-do it. 90% of sewing is preparation.

5.2 Use of accessories like Trimmings materials and Fastenings
Trim or trimming in clothing and home decorating refers to stitching decorative elements such as laces, cords, beads onto the fabric. In the case of elastics they are also used to give the garment a grip for e.g. in children’s clothing they are used in pyjamas, pants and also to create fancy puffed sleeves.

Here are some tips on the use of trimmings:

c. They should be used keeping in mind the fabric. In the case of very delicate fabrics like silks or muslins avoid using very heavy embroideries.

d. They should add to the basic design of the garment and not take away from it. If the garment is made of a very heavily patterned cloth, avoid adding too many embellishments on top of that. The effort you put in will be unnecessary.

e. They should not come in the way of comfort especially if it is a garment for kids or everyday use garment. Clothes for parties etc. can have more trimmings.
f. Remember that some trimmings may require extra care. For e.g. some laces these days are machine made and are made of nylon. These cannot be ironed. So if attached to a cotton garment you need to avoid the trim when ironing.

g. Choose the trimming style to match the style of the garment. Laces and other embroidered patches are used for fancy clothes and that too most commonly for women and kids. Cartoon patches can be used for children’s clothing. Many may need to be sewn while others need to be stitched.
In older days a lot of laces, cords, patches, borders etc. had to be made by hand and were expensive and time consuming. But with the advent of machine weaving a lot of this stuff is available readymade. Also if you are using an electric machine, it will allow you to create various types of patches and embroideries very easily. With a good understanding of design you can use them to enhance the appearance of the garments you stitch.

**Fastenings:**

Almost all garments need some mind of fastenings to close various openings such as the front of a shirt, or back of a dress. The most commonly used fasteners are Zippers, buttons and hooks. Within each of these can be found several variations and we will spend some time to get a preliminary look at them.

**Buttons**

All of us have seen buttons and they come in a variety of shapes, sizes and colours. Buttons can be categorized by the following criteria:

a. **Materiel-** Buttons can be made of plastic, metal, ivory or even cloth.

b. **Shape-** They can be simple round, oval or square to very fancy ones such as stars, animals etc. used for kids clothing.
c. **Style**- Some buttons come with holes for stitching them through, some buttons come with a loop at the back to stitch them on to the fabric and some such as fused buttons come with a narrow channel through their bottom metal portion through which the thread is passed to sew them to the garment. Buttons such as the mandarin buttons or what we may call “potli” buttons are stitched using a tine thread loop at the end of them. Then there is a variety of buttons called snap buttons or stitch buttons. Where each button unit comes with two pieces – one with a hole and one with a corresponding lip that snaps into the hole.

d. **Function**- While most buttons are used for fastening openings some buttons are also used for decorative purpose.

The choice of button will depend on the type of garment you are using. Heavy woollens will require larger plastic or metal buttons, on a short you will use easy to close small buttons that should be mostly the kind that have holes for being sewn through so that they are firmly in place. For women’s garments such as Salwar Kamiz or night dress you can use colourful or even novel shaped buttons.
Tip- It is always a good practise to give your customer 2-3 extra buttons with the garment if the buttons used are unusual so that they may not have trouble in the future if they lose one.

Hooks:

As an alternative to buttons hooks are used on many clothing items such as women’s sari blouses, brassieres for women and even on SalwarKamiz tops. Hooks are used when a clean edge us required and you do not want to show button holes. Hooks come wither by themselves or with an “eye” or a metal piece through which the hook can be passed so as to secure the opening. If the metal piece is not there a corresponding loop is made with thread.

Zippers:

The most modern form of fastener is the zipper or zip. They come in a variety of colours to help you create the look you want. They can be mostly classified into metal or plastic depending on the type of materiel used to make them. In addition to that there is a speciality plastic zipper called the Invisible zipper. These zippers do not require provision of a fly, since they are made and stitched in such a manner that only a hairline seam is visible from outside. These zips are predominantly used in ladies dresses and skirts. These zippers are available in knitted and woven tapes.
5.3 Variety of collars, strips, facing and lining

Broadly collars can be categorized into the following types:

a. **Standing or stand-up**- Fitting up around the neck and not lying on the shoulders.
b. **Turnover** - Standing around the neck and then folded or rolled over.
c. **Flat or falling** - Lying flat on the shoulders.

Within the above three categories there are several variations which are commonly known as:

a. **Mandarin** - A mandarin collar is a short unfolded stand-up collar style on a shirt or jacket. Mandarin collars start at the neckline and typically rise vertically two to five centimetres. The edges of the collar either barely meet at the centre front or overlap slightly. Overlapping mandarin collars are often a continuation of a shirt's placket and have a button on the collar to secure the two sides of the shirt together. Band, and Stand are different variations of the Mandarin collar.

b. **Pilgrim** - It is a folded collar that typically runs all the way around the neckline from front to back. In the front it is typically open in front centre but closed on top at the neck point. It is generally quite wide.
c. **Chelsea** - A collar with a low, V-shape that ends in long, triangular points.

d. **Peter Pan collar** - A Peter Pan collar is a flat, round-cornered clothing collar.

e. **Shawl** - a turned-over collar of a garment that combines with lapels forming an unbroken curving line.

f. **Bertha** - Collar made of a strip of fabric of variable width and attached to the edge of a neckline or round neck.
g. **Sailor** - a broad collar having a square flap across the back and tapering to a V in the front.

**Strips:**

Bias tape is strips of fabric that have been cut on the bias of fabric. Packaged bias tape may be purchased in various widths, in single fold and double fold forms. Bias tape can be used on almost any raw edge of fabric. It is perfect for a decorative finish on a curved edge. It is used in many quilting techniques and sewing projects. Bias tape will "bend" to a curved edge that a straight grain strip will not curve to without kinks and warping.

**Variety of Facings:**

A facing is a piece of fabric used to finish raw edges of a garment at open areas, such as the neckline, armhole, and front and back plackets or opening. The three different kinds of facings are:

a. **Shaped Facings** - A shaped facing is a separate piece of fabric cut from a pattern to the same shape and on the same grain as the garment edge it will finish.

b. **Bias Facings** - A bias facing is a narrow strip of lightweight fabric cut on the bias so that it can be shaped to conform to the curve it will finish. Bias facings often are used on sheer fabrics to eliminate a wide facing that may show through. Bias facings also are used on children's garments. A bias strip of lining fabric can eliminate heavy shaped facings on bulky fabrics. A bias facing should be about 1/2 inch wide when finished.
c. **Extended facing** - An extended facing is cut as an extension of the garment and then folded back along the edge it finishes. Extended facings often are used on garments with front or back openings cut on a straight line.

**Variety of linings:**

Lining in simple terms is something that is attached to the inside of a garment for different purposes. Broadly it can be categorised into lining, underlining and interlining.

a. **Lining** - A lining is assembled separately, as though it were a second garment. It is then placed inside the garment, wrong side to wrong side, and attached along the edges; it provides the garment with a perfectly smooth inside finish.

b. **Interlining** - It is a layer of fabric inserted between the face and the lining of a garment, drapery, or quilt. It is similar to batting, a thick layer of fibre designed to provide insulation, loft, and body to quilts, pillow toppers, and heavy winter jackets. Depending on the application, the materials in this layer can be woven, knitted, or created by fusing fibre together. Silk, wool, and artificial fibres with good insulating qualities are common choices for interlining. Generally, interlinings are soft, thick, and flexible. Some are designed to be fused, while others are intended to be sewn to one or both layers of the textile.

c. **Underlining** – It is a layer of fabric applied to an entire garment piece and can serve many purposes. It's often used on white or light coloured fabrics to prevent seam show-through. It can add firmness and weight to a lightweight fabric and opaqueness to a sheer fabric or even help change its colour. It can reduce wrinkling, making it an excellent choice for linens. It may absorb perspiration and protect the fashion fabric so it's often used in evening and bridal gowns.

**5.4 Variety of Sleeves and pockets**

The sleeves in a garment should add style and beauty as well as provide comfort to the wearer. Well-fitting sleeves can be easily achieved with an understanding of fit and a few basic sewing principles. The four main types of sleeves and their variations are:

a. **Set-in sleeve** - Are sewn to the bodice armholes. All set in type sleeves must be eased, gathered, darted, or tucked and sewn into the bodice armskey seam. They can be fitted or flared, cut to any length, and their hemlines finished in a variety of ways. The different types of set-in sleeves are
1. **Classic** - The classic sleeve is the sleeve found in most traditional tailored, fitted styles. The classic sleeve is characterized by a high sleeve cap. The higher sleeve cap is much more formal and attractive when movement is not a priority.

2. **T-shirt** - The t-shirt sleeve is a very casual style. The shoulder point on the bodice armscye is typically dropped off the shoulder more than one inch (2.5 cm) and the armhole is a very shallow curve. Diagonal wrinkles will form at the arms key as a result. Greater freedom of movement is possible with this style though.

3. **Casual** - The shorter cap sleeve is designed for a slightly dropped garment shoulder-line. There is approximately 3/4 to 1 inch ease in the sleeve cap between the notches. Being less fitted, this sleeve provides a greater amount of movement than the classic or regulation set-in sleeve.

b. **Raglan** - The raglan sleeve is often selected for its comfortable fit and relatively easy construction. It can be cut on the straight or bias grain and in one or two pieces. Because the sleeve continues into the neckline area or some other part of the garment bodice, shaping is needed over the shoulder curve. Shaping may take the form of a dart, a seam, or gathers. It can be either a one-piece or a two piece sleeve.
c. **Kimono** - The kimono sleeve is actually an extension of the bodice or body of the main garment and sometimes is referred to as a gem of simplicity. The sleeve is frequently cut as one piece with the garment, thus producing a T-shape bodice. When the garment is worn the arms are seldom at right angles, therefore the sleeves create folds in the arm and shoulder area. A very graceful draped effect can be achieved when the sleeve/armhole area is large or more open in structure.

d. **Dolman** - A full sleeve that is very wide at the armhole and narrow at the wrist. The dolman sleeve is a sleeve set into a very low armscye; in fact, the armscye may extend to the waistline, in which case there will be no underarm seam in the blouse.

**Variety of pockets:**

In a garment pockets can be both functional and decorative. Some are hidden and some are visible. Here are the most common styles of pockets and their brief definitions as explained by the Webster dictionary. Within each of these you can choose to make alterations in design. A simple change can be to put a pocket of a different colour than the rest of the garment to add a style element.
a. **Welt pocket** - Pocket whose opening is adorned and reinforced by one or two thin strips.

b. **Patch pocket** - Pocket of various shapes and sizes, made of a piece of material sewn onto the garment’s outer surface.

c. **Flap pocket** - Pocket whose opening is covered by a piece of fabric hanging from the top of it.

d. **Gusset pocket** - Patch pocket made fuller by an expandable bottom and sides or by an inverted or round pleat in the middle of the pocket.

e. **Hand-warmer pouch** - Patch pocket on the front of a garment; it opens vertically on one or both sides to protect the hands against the cold.

f. **Broad welt side pocket** - Angled pocket; the outer edge of the opening has a wide welt.

g. **Seam pocket** - Pocket where the opening is in a side seam of the garment.

h. **Inset pocket** - Pocket whose opening contains a decorative seam, giving the garment a distinctive line.
Points to remember:
- Good patterns are carefully labelled with the following information:
  1. Pattern size
  2. Name of each pattern (back, front, sleeve, etc.)
  3. Number of pieces to cut from each pattern piece
  4. Pattern markings like notches, buttons and button hole position, seam allowances, grain lines, centre front, centre back, hem line markings, dart locations, etc.
  5. Markings for pattern alteration locations
  6. Instruction sheets explaining- Steps involved in using the pattern, Steps to cut the garment, Method of cutting specific fabrics with different textures and print and Method of construction and fabric suitability.
- There are two broad categories of markings on commercial patterns- Layout and cutting markings and construction markings.
- The most important thing you can do with a pattern and a garment is cut them out accurately! If you cut the pattern out carefully, and then do your alterations properly, you can then cut out the garment accurately.
- Use of accessories like Trimmings materials and Fastenings.
- Almost all garments need some mind of fastenings to close various openings such as the front of a shirt, or back of a dress. The most commonly used fasteners are Zippers, buttons and hooks.

- Variety of collars, strips, facing and lining
  1. Broadly collars can be categorized into the following types:
     a. Standing or stand-up- Fitting up around the neck and not lying on the shoulders.
     b. Turnover - Standing around the neck and then folded or rolled over.
     c. Flat or falling - Lying flat on the shoulders.
  2. Variety of Facings- Shaped Facings, Bias Facings and Extended facing.
NOTES

Use the blank space provided below to make important notes based on your understanding of the topics.

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Exercise sheet:

1. The below pictures shows different collars
   Match the correct name of collars in the given fig.

   Chelsea                                     Shawl                                             Mandarin  Sailor

2. Identify the type of the pockets:

3. Oral exercise to analyze the trainee:
   Tell the Parts of a Fastening given fig. shows
**FEEDBACK SHEET**

Course Title: 
Date: 
Venue: 
Trainers Name: 
Name (Optional): 

Dear Participant, we request you to provide us with open feedback to make this training process more effective. We shall really appreciate your time in filling up this form.

<table>
<thead>
<tr>
<th>PARAMETERS</th>
<th>RATING</th>
</tr>
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<tbody>
<tr>
<td>S.No.</td>
<td>TRAINER</td>
</tr>
<tr>
<td>1</td>
<td>How well did the trainer interact with the trainees?</td>
</tr>
<tr>
<td>2</td>
<td>How well did the trainer clarify the doubts?</td>
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<tr>
<td>3</td>
<td>Was language used by the trainer simple and clear?</td>
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<tr>
<td>4</td>
<td>Did you find the trainer knowledgeable?</td>
</tr>
<tr>
<td>5</td>
<td>How friendly was the trainer?</td>
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<tr>
<td>6</td>
<td>How successful was he in making session lively?</td>
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**CONTENT**

<table>
<thead>
<tr>
<th>S.No.</th>
<th>How good was the learning material?</th>
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<table>
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<th>S.No.</th>
<th>How well is it related to application at work?</th>
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<tr>
<th>S.No.</th>
<th>Was it easy and clear to understand?</th>
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**FACILITY**

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<tr>
<th>S.No.</th>
<th>Was the place of learning comfortable and safe?</th>
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<tr>
<th>S.No.</th>
<th>Was the place of learning clean and hygienic?</th>
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<tr>
<th>S.No.</th>
<th>Did the place of learning has good quality of basic amenities?</th>
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**PROGRAMME**

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<tr>
<th>S.No.</th>
<th>How useful did you find the training and do you think it has increased your skills and knowledge?</th>
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<tr>
<th>S.No.</th>
<th>How well did it help to improve your attitude towards learning and eagerness to learn more?</th>
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<tr>
<th>S.No.</th>
<th>How was the overall effectiveness of the training?</th>
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**REMARKS:**
Module 6- Garment Making Kid’s Apparel

Module Overview

This module helps us to prepare simple baby suit or jabla by using measurement, drafting, cutting and laying out the pattern on cloth. It also explains to make School Uniform (Skirt and Half Sleeve Blouse).

Module Objectives

- To learn the process of measuring, drafting, cutting and laying the pattern on the cloth and stitching of the garments under topics.

Module Design

<table>
<thead>
<tr>
<th>Topic no.</th>
<th>Session Topics</th>
<th>Method</th>
<th>Duration</th>
<th>Tools/Equipment/Props</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Simple Baby Jabla or suit</td>
<td>Theory and practical</td>
<td>7 hrs</td>
<td>PPT/Flipchart, learning cards, video</td>
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<tr>
<td>2.</td>
<td>School Uniform (Skirt and Half Sleeve Blouse)</td>
<td>Theory and practical</td>
<td>15 hrs</td>
<td>PPT/Flipchart, learning cards, video,</td>
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<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td>22 hrs</td>
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Session Plan
Session Objectives

(Key learning outcome)

At the end of the session,

- The trainee will be able to understand the process of making a jabla or baby suit.
- The trainee will know the process of making a uniform skirt and blouse.

Underpinning Knowledge/ Theory/ Principle

(Theoretical concept on which the learning is based)

- The trainee has knowledge on Tailoring.
- The trainee is aware of the techniques in handling needles tools and rules for hand sewing.
- Trainee are aware of selection of the appropriate stitch for different fabrics, manage the thread tension, types of needles and their uses, and maintain the sewing machine.
- Trainee is aware of the accurate measurement, common tailoring terms, and measurement techniques for adults and kids, types of pleats gathers and darts.
- Trainee is aware of pattern making, trimming, fastening and stitching of collars, sleeves and pockets.

Duration

<table>
<thead>
<tr>
<th>Topic No.</th>
<th>Topic</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Theory</td>
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<tr>
<td>1.</td>
<td>Simple Baby Jabla or suit</td>
<td>2 hrs</td>
</tr>
<tr>
<td>2.</td>
<td>School Uniform (Skirt and Half Sleeve Blouse)</td>
<td>5 hrs</td>
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<tr>
<td>TOTAL</td>
<td></td>
<td>7 hrs</td>
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Instructions to the Trainee

- The trainee should learn the process of measuring, drafting, cutting and laying the pattern on the cloth after which the parts have to be stitched together for baby suit and uniform skirt.
- Trainee should be attentive in the class and learn the common tailoring terms and different shaping techniques and have to practice it.
- Take part in discussion and make notes.
- Trainee should take notes and ask questions whenever they have any doubts.
- Maintain discipline

Slide No.69-97

6. Garment’s making : Kids’ Apparel

6.1 Simple baby jabla or suit

a. Measurements needed: We only need two measurements for a Jabla.

- Chest=18”
- Length =10”
Activity

**Objective:** The trainer will discuss the topic on Garment Making – Kids Apparel to the participants.

**Methodology:**

Trainer will explain the process of measuring, drafting, cutting and laying the pattern on the cloth and stitching of the garments using PPT and will demonstrate the same. Trainer will initiate the group discussion for further understanding on the subject and should provide clarification if anyone has a doubt.

The trainees are allowed to use or operate equipments to practice and learn stitching of school uniform and baby suit procedures under trainer’s supervision. Exercise sheet need to be completed after the group discussion.

**Materials Required:** PPT/Flipchart, learning cards, video Materials and Tools for demo and practical.

**Outcome:** Trainees will come to know, how to carry out measuring, drafting, cutting and laying the pattern on the cloth and stitching of the garments.
**Module 6 - Garment Making - Kids’ Apparel**

### 6.1 Simple baby jabla or suit

This is the simplest kind of garment that can be used for infants, both girls and boys. Usually made out of soft cotton, it is best to use soft shades and you can decorate with a contrasting piping at the edges and do some simple patchwork with readymade patches. For kids’ clothing it is best to avoid too much embroidery as the back of the stitches can bother children unless finished with a lining.

**a. Measurements needed:** In the case of garments for infants typically one goes by standard measurements and there is no need to measure each child individually. For a jabla we only need two measurements to start with. These are

1. Chest=18”
2. Length =10”

**b. Drafting the pattern:** Using the above measurements and the image below as your guide, draw the draft as follows:

- **A-C=length=10”+1”**
- Draw perpendiculars A-B and C-D from the points A and C
- A-B=¼ chest+ 2”
- A-B=C-D
- Join B-D.
- Mark J on B-D such that B-J =¼ Chest-1”
- Join J and D by a curved line as shown.
- A-E= G-F=1/12th chest and A-G= G-F=1/12th chest +1”
- A-K=1½”
- Draw a parallel line H-I, 2” away from line A-C
- H-I is ½” less than line G-C
- Shape front neck line E-G-H and back neck line A-K

c. Cutting the patterns: In the above image you can see that the front and back pieces are slightly different in size. Firstly you will see the two have different necklines. This is because the front neckline (E-G-H) is deeper than the back (A-K).

Also the front panel is wider than then back panel. Width I-D is the width of the front pattern and C-D is the width of the back pattern. Therefore draw two duplicate patterns on paper and then cut out different front and back panels.

- For the front pattern cut along E-H-I-C-D-J-B-E
- For the back pattern cut along E-K-G-C-D-J-B-E

d. Laying out the pattern on cloth: Before paying out the patterns mark them clearly as “Back and Front”. Now fold the cloth you will be using into half. And layout the front and back pattern pieces as shown in the image below. Make sure the back pattern is laid on the fold and the front pattern is laid on the open side. This way when you cut out the cloth with appropriate seam allowances, you will have two separate pieces for the front panel and one wide piece for the back.

e. Stitching: Join shoulder lines of front and back together with right sides together. Finish neck line and sleeves with piping. Stitch together the two sides. Finish the bottom hem also with piping. Stitch snap fasteners to the front opening. Given below is an image of what the finished jabla will look like
6.2 School Uniform (Skirt and Half sleeve Blouse)

**a. Measurements needed**: Take the following measurements

1. Waist measurement = [(actual waist+1/2” for ease)/4] + 1/4 “
2. High Hip measurement which is approximately 4 “below your waist
3. Low hip measurement which will be at approximately 8” below your waist
4. Full front length which is approximately 18” or somewhere just above or centre of the knee

**b. Drafting the pattern**: You will need to draft the front, back and the waist band.

1. Front- use the illustration below as your guide and perform the following steps
• Draft a rectangle ABCD where A-C = B-D = Full skirt length as determined by you.
• C-D = A-B = the width of the front skirt block = \{[(low hip + 1.5”)/4]+.25”\} e.g. if your full low hip measurement is 36.5 “, divide that amount plus 1.5” (36.5+1.5 = 38 “) by 4 for a total of 9.5” and add .25 “, resulting in a final calculation of 9.75 “.
• Mark the two vertical lines as centre front (CF) and the side seam (SS).
• Draw in your high and low hip guidelines at 4 and 8 “ respectively on line AC and mark those points as E and G as shown above.
• Now join point G to line BD with a straight line and mark that point as H on BD
• Mark a point F on the line running from E to BD (or your high hip marker line) such that E-F =\{[(High hip + 1”)/4]+.25”\} e.g. if your high hip measurement is 34 “, divide that amount plus 1” (35”) by 4 for a total of 8 3/4 “ and add 1/4 “, resulting in a final calculation of 9 “.
• With the following guide, use your full waist measurement including ease (e.g. 28 1/2 “) to determine your front dart distance from centre front to the first dart leg. Round up if you are in between measurements. So in this case we will round off the 28.5” to 29” and mark the first dart point as 3 3/8” as indicated by the chart below. Starting from CF measure over the amount of your front dart distance on line AB (3 3/8 “) and mark that as I.

• 24 “ – 2 3/4 “
• 25 “ – 2 7/8 “
• 26 “ – 3 “
• 27 “ – 3 1/8 “
• 28 “ – 3 1/4 “
• 29 “ – 3 3/8 “
• 30 “ – 3 1/2 “
• 31 “ – 3 5/8 “
• 32 “ – 3 3/4 “
• 33 “ – 3 7/8 “
• 34 “ or more – 4 “

2. Front Darts and shaping’s: Determine your front dart width by calculating the difference between your full waist measurement with ease (28 1/2 “) and your full low hip measurement with ease (38 “), which is 9 1/2 “ in this example. According to the guide below, the front dart width should be 3/4 “. Round down if the difference contains a fraction

• 0 to 5 “ – Eliminate dart
• 6 to 7 “ – 3/8 “
• 8 to 9 “ – 3/4 “
- 10 to 13 “ – 1 “
- 14 to 16 “ – 1 1/4 “

Starting at I, measure over the amount indicated on the guide (3/4 “) and mark J.
Next, subtract the front dart distance (3 3/8 “) from your front waist measurement (7 3/8 “) to get the remainder of the front waist calculation. Measure over this amount (4 “) from J and mark K.

Using your front dart width measurement (3/4 “) in this case centre of points I and J, determine your front dart length from the following guide. In this e.g. it will be 3 1/2 “
- 3/8 “ – 3 “
- 3/4 “ – 3 1/2 “
- 1 “ – 4 “
- 1 1/4 “ – 4 1/2 “
• Mark point L on line AB as the centre of points I and K. Draw a straight line down from L to M such that length of line LM = length of dart as determined by the chart above in this case 3 ½”
• Drop down 1/2 “ from A along centre front and mark N. Square off 3/4 “ at centre front in a right angle starting at N, then use a drafting curve to shape your front waist, ending at K.
• Starting at points I and J drop down your dart legs till your new waistline NK and mark the points as O and P respectively. Connect your new dart legs (O and P).
• Next extend these dart legs to meet and converge at point M. If necessary, adjust the top of P, the second dart leg, so that it is the same length as the first one (O).
• Excluding the front dart width (O to P), measure the distance between N and K to make sure that it equals your front waist calculation (7 3/8 “) and adjust K as necessary.
• Connect points K, F, H, and D in a fairly straight shape to create your front side seam. If necessary, smooth the pattern at the high and low hip points, but do not shave off more than 1/16 “.
• Place the paper on the materiel as shown in the picture below and draw a line along seam side or SS at a distance of ½ to give allowance for seam.
- Add a line to bottom for hem which is at a depth of 1 ½” from the CD and runs exactly like CD.

3. Back-Now it is time to start work on the back panel. First calculate your back waist as follows \([(true\ waist+\ 1/2")/4\] – ¼” which in the case of a 28” waist will result in a final number of 6 7/8”

- Draft a rectangle ABCD as seen in the figure above
- BD=AC= 18 “long (or your desired length of skirt).
• DC=AB= The width of the back skirt = [(full low hip+1 ½")/4] - ¼”. In this case the final number will be 9 ¼”.
• Mark centre back (CB) and the side seam (SS) as shown in the figure above.
• Draw in your high and low hip guidelines at 4 and 8 “respectively.
• Starting at A, move in 3/8 “away from centre back and mark E for back contouring.
• Next, drop down 7 “ from A along centre back and mark F. Square off 1/2 “ from E in a right angle and blend to F, forming your new centre back.
• Mark G at the intersection of the high hip guideline and the new centre back line.
• To mark your high hip width the formula is = [(full high hip measurement+1”)/4]-1/4”. In this case the number will come to 8 ½”. Now mark point H starting from point G on the High hip marker line just as shown in the figure above.
• Mark I and J as points where the lower hip marker line meets AC and BD respectively. This width should be same as your back width you measured earlier.
4. Back dart and shaping’s: Now it is time to mark the point where the back dart will be placed.

- Mark point K on the line AB such that \( EK = \frac{\text{back waist measurement}}{2} \). Starting from centre back at E, measure over the resulting distance as K. If this calculation does not divide evenly to the nearest 1/8 “, distribute the smaller quotient toward the centre back and the larger quotient toward the side.
- Determine your back dart width by taking your front dart width (3/4 “) and subtracting 3/8 “ for back contouring, resulting in a final calculation of 3/8 “. Starting at K, measure over this amount and mark L. If your front dart width is 3/8 “, you will eliminate the back dart. The same applies if you have no front dart.
- Next, calculate the remainder of the back waist calculation by subtracting the back dart distance (3 7/16 “) from your back waist measurement (6 7/8 “). Measure over this amount (3 7/16 “) from L and mark M.
Using your back dart width measurement (3/8 “), determine your back dart length with the following guide (Dart width – Dart length):

- 3/8 “ – 3 “
- 3/4 “ – 3 1/2 “
- 1 “ – 4 “
- 1 1/4 “ – 4 1/2 “

Since the back dart width in this case is 3/8” the length will be 3” as per the chart above. To mark this point simple find the mid-point of the dart, mark that as n and drop a line 3” long in a straight line and mark the end point as O.

Drop down 1/2” from E along centre back and mark P as shown in the image above. Square off 3/4 “ at centre back in a right angle starting at P, then use a drafting curve to shape your back waist, ending at M.

Now join points L and K to point O and where these dart legs intersect with the new line PM mark label those points as Q and R respectively.

Fold your dart in half along the line drawn for the back dart length (N to O) and, using a tracing wheel, score across the waistline over the dart bulk so that it is flush with the waistline. Unfold and draw in the new shaping.

Excluding the back dart width (Q to R), measure the distance between E and M to make sure that it equals your back waist calculation (6 7/8 “) and adjust M as necessary.
• Connect points M, H, J, and D in a fairly straight shape to create your back side seam. If necessary, smooth the pattern at the high and low hip points, but do not shave off more than 1/16 “.
• Add ½” seam allowance along the line SS for cutting and a 1 ½” below line DC for hem allowance.

5. Waist band: Use the diagram below as your guide

• Draft a rectangle where length=your full waist measurement plus ease (which in this case will be 28” = ½”) and depth = either 2” or your double your desired waist band height.
• Label the corners A, B, C, and D as shown. (Please note that this is a sketch and not the actual full-size draft.)
• Measure over the amount of your back waist measurement from A and mark that point as E (6 7/8 “, as calculated in Step 8). Square down from E and draw a straight line down, marking F.
• Next, measure over the amount of your front waist measurement from E and mark G (7 3/8” as calculated in Step 2). Square down from G and draw a straight line down, marking H.
• Next, measure over the amount of your front waist measurement from G and mark I. Square down from I and draw a straight line down, marking J.
• Next, measure over the amount of your back waist measurement from I and mark B. Square down from B and draw a straight line down, marking D.
• Determine the width of your extension for the sew-on snap (say ¾”), with the overlap going towards the left. Measure over this amount from B and mark K. Square down from K and draw a straight line down, marking L. Mark the placement for your sew-on snap.
• Draw a dotted line to mark the waistband fold line (1”) and mark M and N as shown in the image above.
• Mark centre front, centre back, sides, extension, and fold line.
• Add ½” seam allowance all around for cutting.

c. Laying out the pattern on the fabric: Fold your fabric in half selvage to selvage and pin down pattern pieces, making sure that you will be cutting on the straight grain. Transfer all dart, awl punch, and notch markings

d. Sewing the garment: Once pattern pieces have been cut out
• Sew the darts first.
• Next, match up your notches and sew all side seams, pressing them open.
• Attach the invisible zipper and continue sewing down centre back.
• Fold up ¾” at the hem and press. Fold up another 3/4 “, press, and top stitch to finish your hem.
**e. Constructing and stitching the waist band.**

- Iron fusible interfacing to the wrong side of the fabric. Fold the waistband in half lengthwise (wrong sides together) and press. Pin the skirt fabric and waistband right sides together with centre front, centre back, and side seams matching the waistband notches.
- Sew together at the ½” seam allowances you had left, making sure that the left side of the skirt waistband has a ½” seam allowance jutting out and that the extension is on the right side of the skirt. Press the waistband and seam line up.
- Next, fold in the ½” “seam allowance on the unstitched end of the waistband towards the wrong side and press to create a crease.
- Fold the waistband over at the fold line, right sides together and wrong sides out. On the left side of the waistband (the side with no extension), sew the end at a ½” “seam allowance and trim the seams and corners down before turning right side out. Press the waistband along the fold line wrong sides together.
- On the extension end, also sew the end at a ½” “seam allowance, trimming the seam and corners down before turning right side out. Press here and the entire waistband along the fold line wrong sides together.
- Next, hand-stitch the ends of the waistband shut using a slipstitch. Continue to use a slipstitch to hand sew the folded edge of the waistband to the skirt seam line to fully join the inner waistband to the lining of the skirt.
- Prior to this, you may want to trim down the seam allowance at the waist to 1/4“to reduce bulk.
- Sew the snap onto the waistband.
- Lastly, slipstitch around the invisible zipper to attach to the lining, using the 1/2 seam allowance crease as a guide.

**Uniform Top or Collar Shirt:**

To go with the skirt we will now learn how to make a collared shirt with half sleeves. In this the shirt block, sleeves and the collar have to be created separately and then sewn together. Let us start with the measurements that are needed.

**a. Measurements needed:** For the whole shirt these are the measurements you will need. Please note that since this is not a fitted shirt and is typically school uniform shirt you will not be shaping it around the waist or the fullness of the chest. Hence those measurements will not be needed.

1. The distance from the shoulder to the thigh.
3. The measurement of the chest.
4. Distance from one shoulder to the other.
5. Diameter of the upper part of the arms.
6. Length of the arm from the shoulder to the hand; depending on the length of the sleeves

b. Drafting the pattern – As said before we will draft the shirt block, the sleeves and the collar separately. Let us start with the shirt block.

**Shirt block:**

- Using the image below, mark Point A. Orient your paper in landscape orientation, or with the longest dimension running horizontally in front of you. Mark a point in the upper left hand corner about 1cm from either edge of the paper. Mark this point A. Draw straight down from this point the distance of the armscye depth + 2.5 cm. Mark the endpoint B.
- Mark Point C one half the chest measurement + 8cm to the right of Point B. Connect points B and C. Line BC is the Armscye line of the shirt.
- Draw straight up from Point C the same distance as line AB. Mark the endpoint D.
- Draw guideline AD. This line won’t show up in the finished product, so you may want to draw it in lightly.
- Extend the line AB downwards until the whole line measures the distance of the waist length + 1cm. Mark the endpoint E. Do the same for line DC, marking that endpoint F. Connect E and F with a horizontal line. This line should be the same length as line BC. Line EF is the waist line of the shirt.
- Extend the line AE downwards again to the desired length of the finished shirt, plus 1 cm (3/8 in.) and mark the end point G. Do the same from line DF, marking the end point H. Connect points G and H with a straight line. Line GH is the hemline of the shirt.
• Measure along the Armscye Line a distance of half the back measurement plus 2.5cm. Mark that point I. Draw a perpendicular line from Point I to Line AD. Mark the point where they meet Point J.
• Measure from point B along the Armscye Line, a distance of 1/3 of the chest measurement + 1.5cm. Mark the endpoint K. Draw a vertical line upward from point K 3.5cm. Mark the endpoint L. Later on, we’ll use Line KL to help us define the sleeve.
• Measure the distance from point I to point K along the Armscyle Line. From point K, mark a distance of half the IK measurement minus 0.5 cm to the left along the armscye line. Mark this point M. Draw a vertical line down from this point, crossing the Waist Line (mark the intersection point N) and meeting the Hem Line (mark this point O).

![Diagram of tailoring measurements](image)

• Measure the distance of ½ the Armscye depth plus 1cm down from point A. Mark this point P. Draw a horizontal line from point P to meet the line IJ. Mark this point Q.
• From point A, measure 1/5 of the neck measurement minus 0.5cm to the right. Mark the end point R. Draw a short vertical line up 2cm from Point R. Mark the end point S. Draw a curved line from point A to point S. This is the back of the neck line.
• Measure up from point Q ¼ of the Armscye depth plus 4 cm. Mark this point T. Then measure 3.5 cm to the right of Point T. Mark this point U.

• Connect Points S and U with a straight line. This is the back shoulder seam.

• Measure 1/5 of the neck measurement down from point D. Mark the endpoint V. Measure the same distance minus 1 cm to the left of point D. Mark this point W. Draw in the neck curve between points V and W.

• Draw a short, 2 cm line down from point U. Mark the end point X. Draw another line from X to the right about halfway to Line CD.
• Measure the line SU. Add 0.5cm to that measurement and record that amount. Pivot your ruler around on point W until it intersects with the horizontal line X at the distance you just recorded. Connect the two points and mark this intersection point Y.

• Connect Points Y and L with a straight line. Draw this line in lightly, you’ll be erasing it in just a little bit.
• Construct the Armscye by connecting points U, Q, M, L, and Y with a curved line. Make sure that the curve stays within 1.25cm of line LY, within 1.75cm of point K, and within 3 cm from point I.
• Erase all extraneous lines, leaving only the outer lines, the armscye line, the waistline and the centre line MO. You should have something that looks like this:
What you get the end of this is a block that looks like the one in the picture below. If you line up AG with the fold of the cloth and cut along MO you will get one broad piece for the back block and the two front blocks.

![Image of a tailored block]

**Shirt Sleeve:**

Now that we have made the shirt block we need to now draft the sleeve. For this use the final shirt block draft as below and then draw the arm measurements off of that itself.

- Rename the Points- For the sake of simplicity we’re going to rename some of the points on our completed Men’s Shirt block as described above to use on our Sleeve Block. Rename the following points according to the chart below.
  - Point K to become Point (a)
  - Point L to become Point (b)
  - Point Y to become Point (f)
  - Point U to become Point (g)
  - Point M to become Point (h)
- Measure the Armscye- Lay a flexible measuring tape or a length of string along the armscye curve. Record this measurement. Extend the line (ab) upwards a distance of 1/3 the armscye measurement and mark the end point (c).
- Drawing in the Construction Lines- Extend the Armscye Line out to the left, through point B. It doesn’t really matter how far, just far enough. You can always make it longer if you need to. Do the same from Point (c). Mark point (d) halfway along line (ac), and extend a line out to the left of point (d) approximately the same length as your other two construction lines. These lines don’t need to be drawn in very heavily; you’ll only be erasing them at the end.
- Mark Some New Points- Where the construction line from (d) intersects with the left side of the armscye marks the point (e).
• Measure and Pivot - Measure the distance from (f) to (b) in a straight line. Add 1.5cm to this and record. Pivot your ruler on point (b) until it intersects with the topmost construction line at the distance you just recorded, to the left of point (b). Draw the line and mark the endpoint (i). Measure the distance again from (g) and (e) in a straight line. Add 1.25cm and record. Pivot your ruler on point (i) until it intersects with the middle construction line at the distance you just recorded, to the left of point (i). Draw the line and mark the endpoint (j).

• Measure and Pivot again - Measure the distance along the curve from (e) to (h). Add 1.25cm and record. Pivot your ruler around point (j) until it intersects with the Armscye Line at the distance you just recorded, to the left of point (j). Draw the line and mark the endpoint (k). Measure the distance again along the curve from (b) to (h). Add 0.75cm and record. Pivot your ruler on point (b) until it intersects with the Armscye Line at the distance you just recorded, to the right of point (b). Draw the line and mark the endpoint (l).
- **Sleeve Length** - Draw a vertical line straight down from point (i) to the desired sleeve length. (This block creates a long dress-shirt sleeve. I’ll go over pattern editing for shorter sleeves at a later date. For now, it’s good to have a longer base to work from). Mark the endpoint (m).

- **The Hem Line** - Draw a horizontal line to the right of point (m) until the end lines up with point (l). Mark the end point (n) and connect (n) to (l) with a straight line. (mnl) should be a right angle. Do the same for the left side, marking the end point (o) and connecting (o) to (k).

- **Suppressing the Shirt Block** - Go ahead and get rid of your shirt block lines at this point. You won’t need them after this. Make sure to keep everything you’ve done on the sleeve so far.
- Shaping the Sleeve- Measure 5cm inward from (n). Mark the point (p), and connect it to point (l). Do the same on the other side, marking the resulting point (q) and connecting it to point (k).

- Sleeve Slit- Mark point (r) midway between (m) and (q). Draw a short, 1cm line straight down from point (r), and mark the end point (s). Draw a line straight up from (s) 10cm long. Mark the end point (t). The line (st) will become the sleeve plaquette in the finished pattern.

- The Sleeve Hem- Draw a curved line connecting points (m), (s), and (q).
• Drawing the Sleeve Cap - Connect the points at the top of the sleeve with curved lines, following the chart below

<table>
<thead>
<tr>
<th>From point…</th>
<th>To point…</th>
<th>Direction of Curve</th>
<th>Maximum Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>k</td>
<td>j</td>
<td>Downward</td>
<td>0.75cm</td>
</tr>
<tr>
<td>j</td>
<td>i</td>
<td>Upward</td>
<td>1.5cm</td>
</tr>
<tr>
<td>i</td>
<td>x</td>
<td>Upward</td>
<td>2cm</td>
</tr>
<tr>
<td>x</td>
<td>b</td>
<td>None (straight)</td>
<td>0cm</td>
</tr>
<tr>
<td>b</td>
<td>l</td>
<td>Downward</td>
<td>0.75cm</td>
</tr>
</tbody>
</table>

• Marking the Elbow Line - Find the halfway point between (n) and (t); 2.5cm above that, mark a point (z). Draw a horizontal line through (z) until you reach the line (kq). This is the elbow line of the sleeve.
• Cleaning up - erase all the construction lines, and you should be left with something that looks like this:
• Here is another image of a finished sleeve that shows what part is what in the pattern.

After you have the basic sleeve pattern in place now you can modify it to make a short sleeve. These are the steps to follow:
• First, measure down from the centre of the bicep line the length of the short sleeve desired. In the example below, this length is 1.5”.

You can also choose to measure from the top of the sleeve cap down along the centre line to a point where you'd like the sleeve to end.
- Then draw a line, perpendicular to the centre line (or parallel to the bicep line), across the width of the sleeve.

- Cut away the pattern below this line and you have your shortened sleeve.

- Cut along the new hemline.
• You have your short sleeve pattern you will be using for this garment.

Collar:

• Begin with a simple horizontal line a-b. But to obtain that simple line here are a few things to keep in mind while drafting the collar pattern.

  ▪ The collar block is made from Centre Front (CF) to Centre Back (CB), hence across half the length of the collar - it is made symmetrically for the other half, with a fold at CB.
  ▪ The length of the collar from CB to CF should ideally be obtained by measuring the neck size from the shirt block along the curve of the neck segments (i.e. the neck at the back and the neck from the front), using a flexible tape measure or a length of string. If the tape measure is used, make sure the same edge of the tape measure is flush against the paper for the whole length of the neckline.
  ▪ If your block includes a seam allowance, you may need to remove this from the measurement to ensure you get the right length.
  ▪ If you make a mistake, you can lengthen or shorten the collar by adding or subtracting fabric from the CB fold end of the collar back, as the shape is rectangular at this location.
  ▪ Then draw a horizontal line from point "a" to point "b", a distance of half the neck size measurement.
  ▪ Then draw a horizontal line from point "a" to point "b", a distance of half the neck size measurement.
The height of the collar stand, like many aspects of the collar, is a choice of the individual designer. As a general rule, the higher you make the stand (especially at the front), the more the collar points will come together at the front of the shirt. Using whatever height you choose, draw from point "a" downwards this distance to point "c", across from point "c" to point "d" the collar stand length as before, and then connect points "b" and "d" with another straight line.

Depending on how you choose to modify the basic shirt block to include a button stand, you will need to extend the collar stand the same distance. Hence when you have determined this distance, extend the line from point "c" through point "d" to point "e" that distance, and then draw up to point "f" and back horizontally to point "b".
The bottom edge of the collar stand will be made to curve upwards (see instruction below). The edge of the collar must be orthogonal (at right angles) to the base of the shirt stand to look right - therefore we slant the edge inwards by roughly 0.75 cm (1/4 in.) along the top edge of the collar. If you were to steepen the curve along the bottom, you would need to slant the edge more heavily.

Now we curve the bottom edge of the collar stand upwards, by 0.5 cm (3/16 in.) at the neck edge.

The curved bottom edge of the stand also means that we need to correct the CF line so it, too, is at right angles to the bottom edge.

The collar stand is more or less complete at this point. What we need to do next is determine the length of the collar itself. For some garments, the collar edge is aligned with the CF line, but for many men's shirts, the collar edges are further apart than that. In the diagram, it is shown (point "k") some distance to the left of point "j". Typically, the distance from "j" to "k" is relatively small - at most 1 or 2 cm (between 3/16 in. and 3/8 in.). Mark the location (point "k") along the collar stand top edge; you will need to keep track of this location in your sewing efforts.
- Next you should draw in the baseline of the collar (i.e. its lower edge) when doing this remember to draw it sufficiently far above the collar stand drawing so that you have enough room to draw in seam allowances and so forth.

- Now we begin shaping the curve along the collar's bottom edge. Measure 1 cm (3/8 in.) downward from point "k'" and mark this location (point "l'").

- Draw in the curve from point "a'" to point "l'", hence curving slightly downwards.
Now go back to point "a'" and draw vertically upwards to point "m'" the height of the collar. This distance is a choice of the designer.

There are two design issues here: (1) How far do you locate the point to the right of where the edge meets the stand - this question also concerns the separation between the two collar points when fastened at the front; and (2) How convex do you make the curve? That is, do you curve it up only slightly and more or less evenly along its length, or do you pinch it up steeply near the collar point? Both designs are acceptable, the choice really depends on you as a designer.
- As for the top edge, you may choose to close off the neck edge of the collar point with a straight line, with a slightly concave edge (bulging outwards from the point) or with a convex edge (pinching inwards in a curve towards point "l'").

- The two pieces are now complete, so retrace the collar and stand outlines in bold or copy them to another sheet of paper. A general note regarding collar shapes - changing a collar's shape has no effect on the overall fit; it is simply an issue of styling. Therefore feel free to change the collar shape and experiment.
• This is what the finished pieces will look like. You will need to add in a seam allowance to both the collar and the collar stand. Note that, normally, these pieces are cut twice - most of the time, we use the same fabric for both sides of the collar and collar stand. Most books recommend a seam allowance of 0,5 cm (1/4 in.), but to be safe use the standard seam allowance of 1,5 cm (5/8 in.), even though you may have to trim the seams more heavily after sewing. Note that you do not add a seam allowance to the left edge (the CB fold), as this will sit on the fold line of the fabric.

You will need two pieces of each of these patterns.

c. Cutting and placing the pattern:

Fold the cloth selvage to selvage. Place the pieces of the shirt pattern on the cloth in such a way that:

• The sleeves are on the bias giving them flexibility
• The single shirt block is lined along line AG at the fold
• The four collar patterns are laid out in the remaining space.
• Now cut out in a way that you get one large back block, two front pieces, two sleeve pieces and four pieces of the collar.
• Extend the front right pattern by desired width along line VH to allow for the overlap of the buttons with the button hole.
• Make sure you leave room for seam allowance around all the pieces.

d. Stitching: Now it is time to stitch the various shirt pieces together. Here are the steps for everything to be done before you attach the collar.

• Attach the front bodice pieces to the back along the shoulder and the side seams.
• Make the button holes in the front right bodice and finish the edge
• Attach the buttons on the front left bodice and finish the edge
• Finish the bottom seam of both the front pieces and the back ensuring they all are finished at the same length.
- Attach the sleeves to the arms cyan and finish the armhole by hemming it.
- Attach the collar following the steps below

- Place rights sides together and interfacing on the back. Pin the collar points first, then the centre and the top edges. Start sewing from the neck edge. When you reach the collar point slow down, check that you have gone far enough, simply by leaving the needle in the fabric, lift the presser foot and turn around, stitch thought the centre of the collar. You can sew all around if the fabric does not stretch, or stop at the centre, turn the collar and do the same seam starting from the other edge, turning and continuing to the centre.
• Place rights sides together and interfacing on the back. Pin the collar points first, then the centre and the top edges. Start sewing from the neck edge. When you reach the collar point slow down, check that you have gone far enough, simply by leaving the needle in the fabric, lift the presser foot and turn around, stitch through the centre of the collar. You can sew all around if the fabric does not stretch, or stop at the centre, turn the collar and do the same seam starting from the other edge, turning and continuing to the centre.

• Turn it around. Push the tip with something narrow and hard, to get a crisp corner. Hand-press the seam so that the seam is rolled towards the back.

• Topstitch the collar. Guide the seam with the foot leg. Leave the needle in at the corners; lift the presser foot, turn, let down the presser foot and stitch.
• The topstitching will give your collar a nice finished look.

• Attaching collar stand (band) to collar: Match the marks on the stand, at the tip of the stand, with the edge of the collar. Put a layer of interfacing if you want. My fabric was stiff as it was, so I did not add the interfacing. Place the collar in between the collar bands, the collar bands should face the collar. Sew.
When you have a straight seam and a drastic curve, you have to cut small clips (or clip the seam) in the seam and going a thread or two to the seam line (careful not to cut the seam line). This will give you enough stretch for the fabric can lie smoothly.

Press this seam.

The shirt back and front are attached at the shoulder lines. Sew a stay seam around the neckline, as it is curved and it will distort otherwise. Match the marks on the collar bands to the shoulder seam (not the topstitching) of the shirt. Start sewing on the seam line on the collar stand. Straighten the ruffles that are created underneath the seam. Turn the seam allowance inside and press it under towards the top of the collar. Pin the stand around, along the stitch that attached the stand to the shirt. You can now hand stitch it or machine stitch it, topstitching it from the wrong side (backstitch at the ends). This stitch will show on the right side of the fabric as well. All done!
Points to remember:
- Garment Making for Simple baby jabla or suit
  1. Measurements needed: chest and length.
  2. Drafting the pattern
  3. Cutting the patterns
  4. Laying out the pattern on cloth: Before paying out the patterns mark them clearly as “Back and Front”.
  5. Stitching: Join shoulder lines of front and back together with right sides together. Finish neck line and sleeves with piping. Stitch together the two sides.
- For making School Uniform (Skirt and Half sleeve Blouse)
  1. Measurements needed: Take the following measurements
     a. Waist measurement = [(actual waist+1/2” for ease)/4] + 1/4 “
     b. High Hip measurement which is approximately 4 “below your waist
     c. Low hip measurement which will be at approximately 8” below your waist
     d. Full front length which is approximately 18” or somewhere just above or centre of the knee
  2. Drafting the pattern: You will need to draft the front, back and the waist band.
  3. Laying out the pattern on the fabric: Fold your fabric in half selvage to selvage and pin down pattern pieces, making sure that you will be cutting on the straight grain.
  4. Sewing the garment: Once pattern pieces have been cut out
     - Sew the darts first.
     - Next, match up your notches and sew all side seams, pressing them open.
     - Attach the invisible zipper and continue sewing down centre back.
     - Fold up ¾” at the hem and press. Fold up another 3/4 “, press, and top stitch to finish your hem.
  5. Constructing and stitching the waist band.
NOTES

*Use the blank space provided below to make important notes based on your understanding of the topics*

________________________________________________________________________

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________________________________________________________________________
Exercise sheet

1. Which are the measurements needed for making a baby suit or jabla?

   a. Chest                                                b. Front neck depth
   c. Round neck                                    d. Length

2. Which is the simplest kind of garment that can be used for infants, both girls and boys.

   a. Simple baby jabla or suit                         b. School uniform

3. True or False.

   a. Before laying out the patterns mark them clearly as “Back and Front”.
   b. Before stitching join shoulder lines of front and back together with right sides together.
   c. Measurements needed for making school uniform is given below:

   1. Waist measurement = [(actual waist+1/2” for ease)/4] + 1/4 “
   2. High Hip measurement which is approximately 4 “below your waist
   3. Low hip measurement which will be at approximately 8” below your waist
   4. Full front length which is approximately 18” or somewhere just above or centre of the knee
4. What are the points needed for sewing the garments?

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5. What are the measurements needed for uniform top or collar shirt?

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# FEEDBACK SHEET

**Course Title:**
**Date:**
**Venue:**
**Trainers Name:**
**Name (Optional):**

Dear Participant, we request you to provide us with open feedback to make this training process more effective. We shall really appreciate your time in filling up this form.

![Smiley Emojis for Ratings]

## PARAMETERS

<table>
<thead>
<tr>
<th>S.No.</th>
<th>TRAINING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>How well did the trainer interact with the trainees?</td>
</tr>
<tr>
<td>2</td>
<td>How well did the trainer clarify the doubts?</td>
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<tr>
<td>3</td>
<td>Was language used by the trainer simple and clear?</td>
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<tr>
<td>4</td>
<td>Did you find the trainer knowledgeable?</td>
</tr>
<tr>
<td>5</td>
<td>How friendly was the trainer?</td>
</tr>
<tr>
<td>6</td>
<td>How successful was he in making session lively?</td>
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</table>

### CONTENT

<table>
<thead>
<tr>
<th>S.No.</th>
<th></th>
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<tbody>
<tr>
<td>7</td>
<td>How good was the learning material?</td>
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<tr>
<td>8</td>
<td>How well is it related to application at work?</td>
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<td>9</td>
<td>Was it easy and clear to understand?</td>
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### FACILITY

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<tr>
<td>10</td>
<td>Was the place of learning comfortable and safe?</td>
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<tr>
<td>11</td>
<td>Was the place of learning clean and hygienic?</td>
</tr>
<tr>
<td>12</td>
<td>Did the place of learning has good quality of basic amenities?</td>
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### PROGRAMME

<table>
<thead>
<tr>
<th>S.No.</th>
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<tr>
<td>13</td>
<td>How useful did you find the training and do you think it has increased your skills and knowledge?</td>
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<tr>
<td>14</td>
<td>How well did it help to improve your attitude towards learning and eagerness to learn more?</td>
</tr>
<tr>
<td>15</td>
<td>How was the overall effectiveness of the training?</td>
</tr>
</tbody>
</table>

## REMARKS:

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*LabourNet*

VER1.00
Module 7- Garment Making –Women’s Apparel-1

Module Overview

This module helps us to stitch the petti coat and simple top or kurta by using measurement, drafting, cutting and laying out the pattern on cloth. This module will present both theory and practical session.

Module Objectives

- To learn the process of measuring, drafting, cutting and laying the pattern on the cloth and stitching of the garments under topics.

Module Design

<table>
<thead>
<tr>
<th>Topic no.</th>
<th>Session Topics</th>
<th>Method</th>
<th>Duration</th>
<th>Tools/Equipment/Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Petticoat</td>
<td>Theory and practical</td>
<td>8 hrs</td>
<td>PPT/Flipchart, learning cards, video</td>
</tr>
<tr>
<td>2.</td>
<td>Simple top or kurta</td>
<td>Theory and practical</td>
<td>19 hrs</td>
<td>PPT/Flipchart, learning cards, video</td>
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<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td>27 hrs</td>
<td></td>
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Session Plan

Session Objectives

(Key learning outcome)

At the end of the session,

- The trainee will be made aware of the process of making a petticoat.
- The trainee will know the process of making simple ladies top/ kurtha.

Underpinning Knowledge/ Theory/ Principle

(Theoretical concept on which the learning is based)

- The trainee has knowledge of Tailoring.
- The trainee is aware of the techniques in handling needles tools and rules for hand sewing.
- Trainee is aware of the selection of the appropriate stitch for different fabrics, manage the thread tension, types of needles and their uses, and maintain the sewing machine.
- Trainee is aware of the accurate measurement, common tailoring terms, and measurement techniques for adults and kids, types of pleats gathers and darts.
- Trainee is aware of pattern making, trimming, fastening and stitching of collars, sleeves and pockets.
- The Trainee has learnt the process of measuring, drafting, cutting and laying the pattern on the cloth and stitching of the garments under topics.

Duration

<table>
<thead>
<tr>
<th>Topic No.</th>
<th>Topic</th>
<th>Duration</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Theory</td>
</tr>
<tr>
<td>1.</td>
<td>Petticoat</td>
<td>3 hrs</td>
</tr>
<tr>
<td>2.</td>
<td>Simple top or kurta</td>
<td>4 hrs</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>7 hrs</td>
</tr>
</tbody>
</table>
Instructions to the Trainee

- Be attentive in the class and learn the process of measuring, drafting, cutting and laying the pattern on the cloth and stitching of petticoat & ladies top /kurtha.
- Take part in discussion and make notes.
- Trainee should take notes and ask questions whenever they have any doubts.
- Maintain discipline.

Slide No.98-100

7. Garment Making - Women's apparel I

7.1 Simple six piece petticoat

a. Measurements needed:

- Waist
- Hip
- Full length
- Width of the waist band

b. Drafting the pattern on paper:
Activity

Objective: The trainer will discuss the topic on Garment Making – Women’s Apparel – I to the participants.

Methodology:

Trainer will explain the process of measuring, drafting, cutting and laying the pattern on the cloth after which the parts have to be stitched together using PPT. The trainer will carry out demonstration and make the trainees to practice and learn stitching of petticoat and simple top or kurta. On completion of training the trainees and trainer will interact and discuss on the topic.

Materials Required: PPT /Flipchart, video, learning cards, Materials and Tools for demo and practical.

Outcome: Trainee will be able to carry out measuring, drafting, cutting and laying the pattern on the cloth and stitching of the garments under topics.
Module 7-Garment Making- Women’s apparel I

7.1 Petticoat

a. Measurements needed: To make the petticoat only a few basic measurements are needed. These are:

1. Waist
2. Hip- measured around the widest part of the hip. Usually 7” or 8” below the waist line.
3. Full length
4. Width of the waist band

b. Drafting the pattern on paper: Using the measurements you have taken and the figure below draw the draft on paper as follows (remember to fold the paper in half before you start drawing):

1. Line A-F should fall on the fold
2. A-F= full length –Waist band width 6”.
3. Mark point D on A-F such that A-D =7 “or 8”
4. Draw perpendiculars from A, D and E
5. A-B =1/8 waist +1/2”
6. A-C =1/2 “
7. D-E =1/8 hip +½”
8. Join B-E and produce. This line meets the perpendicular drawn from F at H.
9. G-H =1/2”
10. Shape B-C and F-H

c. Cutting and placing the pattern:

1. Cut along C-B-H and F
2. Cut along the folding line C-F and separate the sheets. This will produce two patterns which are exactly the same.

3. Fold the material twice, making 4 layers. Place the paper draft on the cloth as shown in the figure below. Make sure you fold the cloth in a way that it can accommodate two of these pattern pieces side by side as shown below.

**d. Cutting the cloth:** You will need to produce 6 pieces in total out of this layout. This is a little tricky so follow the following steps.

1. First cut out the pattern on your right. This will produce 4 identical panels. These are your left and right panels.
2. Next cut the pattern on your left but only along the right line, the top line and the bottom. Do not cut the line laid out on the fold. This will produce two large panels. This will produce your two central panels which will be wider that the left and right panels. See the figure below to get a rough idea of what the various parts will look like at this stage.
e. **Stitching the panels:** Join the side panels to the central panel in this sequence (refer to the numbering of the panels in the figure above) Join panel 2-8 to panel 3-9, panel 4-10 to panel5-11. Do the same thing to the other set. This will give you two finished pieces as shown below- labels here as panel A and panel B.

![Diagram of panels](image)

f. **Creating the waist band:** Refer to the image below to follow the instructions.

![Diagram of waist band](image)

3. Measure the top of the petticoat (waist line) and cut a waist band ABCD 6” wide and length equal to the top of the petticoat + 1”.
4. Fold ½” on ends A-C and B-D of the waist band and stitch.
5. Fold ½” along A-B and C-D and crease
6. Open the side A-B and attach it to the petticoat top from inside.
7. Keep right side of the band and the wrong side of the petticoat together and stitch on the crease made earlier.
8. Fold the band length wise stitch the edge C-D to the waist line so that the fold just covers the machine stitching at the waist line.

f. **finishing the petticoat:** Turn the bottom of the petticoat by 1” and stitch.-Run a draw string along the waist band.
7.2 Simple ladies top or kurta without collar

These days a simple Kurti is becoming very popular with old and young girls alike. Some Kurtis are very formal with a lot of embroidery while others are more functional for everyday wear. Some are short and sit just at the waist while some are slightly longer. They can be made from almost any fabric that you prefer and are worn with jeans and pants and tight leggings. Here we will learn how to stitch a simple kurta without a collar.

a. Measurements needed: To make a Kurti you will need the following measurements

1. Length of the Kurti (this will be as desired by you)
2. Shoulder width
3. Chest
4. Round neck
5. Front neck depth
6. Back neck depth
7. Waist length
8. Waist round

b. Drafting the pattern: Using the illustration below and the measurements taken by you draw the following pattern on a piece of paper:

1. 0 to 1 – Total length of the Kurti as desired by you + seam allowance
2. 0 to 2 – 1/6 chest measurement +1"
3. 2 to 3 – 1/4 chest + 1" or 1 ¼ " or 1 ½” depending on how lose you would like it to be
4. 0 to 4 – half shoulder (to draw this start at 0 and draw perpendicular line to line 0-1 and mark that point as “4”)
5. 4 to 5 – 1/2”(drop down a point from 4 at a depth of ½”)
6. 0 to 6 – 1/6 round neck + 1/2” (this should be marked on the line 0-4)
7. 0 to 7 - Back Neck depth (this is marked as point on line 0-1 and the standard = 3” but you can mark the depth you are comfortable with)
8. 7 to 8 - Front Neck depth (this is marked as point on line 0-1 and the standard = 6” but you can mark the depth you are comfortable with)
9. 0 to 9 – mark the point on line 0-1 at which you will shape the waist so mark here the length that you took as your Waist length
10. 9 to 10- ¼ waist + 1” or 1 ¼” or 1 ½”. To draw this point drop a line perpendicular from line 0-1 that is ¼ of your waist plus the ease that you would require and mark the end point as “10”
11. 1 to 11- This will be the “ghera” of your Kurti. To draw this point drop a perpendicular to line 0-1 starting at point 1 such that point 11 is = ¼ chest+2 to 3”
12. Now join 5 to 3 with a curved line using a fashion ruler
13. Join 3 to 10 again using a curved line or a fashion ruler
14. 11 to 13- 1” to achieve a slight curve on the “ghera”
15. From 13 draw a curved line to meet line 1-11 and where these two intersect mark that point as 12. With a fashion ruler smooth the curves
16. Now join point 6 to 8 to draw the front neck
17. Now join 6-7 to achieve the back neck pattern
18. Drop a perpendicular from 4 on to line 2-3 and mark that point as “c”. where the line 4-c intersects the curve from 5 to 3 mark that point as d.
19. Now mark point ‘a’ as the midpoint of 3 and ‘d’.
20. Take ‘b’ ½” from ‘a’ and draw another curve from 3 to 5 through ‘b’ and ‘d’. The inner curve through ‘b’ is the front arm hole, and the outer curve through ‘a’ is the back arm hole.
21. Since the back and front are different when it comes to the back neck and the arm hole, draw exactly the same pattern on a new paper.
22. Now cut along the following for the front 8-6-5-d-b-3-13-12-1-9-2-8 on one sheet
23. Cut along 7-6-5-a-3-13-12-1-9-2-7 for back on another sheet of paper.

c. Laying out the pattern and cutting the cloth: fold your cloth into two with selvage upon selvage and cut along the fold. Fold the cloth again along the two new selvages. Line the front pattern on one piece lining the line marked as “FOLD” along the fold on the cloth and does the same for the back pattern. Now transfer the pattern on to the cloth
and leaving a 1” seam all around, cut out the cloth making sure not to cut open the fold. When you open up the two cloths along the fold you will get a full back and a full front portions that you can stitch.

d. Stitching the Kurti: Stitching the Kurti: Now stitch the shoulders together, the side seams from the arm hole bottoms to the ghera and if you like you can leave side slits open. Remember to line right sides together and wrong sides out so that you stitch with the wrong sides of the fabric in front. Finally finish the arm holes with seams and also the hem the bottom ghera. You may like to add a piping to the neck and the arm holes and the side slits if you have left them open. A finished Kurti will look like this.

e. Adding a Chinese collar: These days a Chinese collar is really becoming popular. Here is now you can make the collar. This can be cut from the same fabric as the Kurti or a contrasting decorative cloth.
1. 0 to 1 = Half Round neck (e.g. 7 ½”)
2. 0 to 2 = 1”
3. 2 to 3 = collar width = e.g. 1 ½”
4. 1 to 4 = collar width – ½” = 1”
5. 1 to 5 = ½”
6. Join 2 to 5, 4 to 5 and 3 to 4 as shown
7. Cut two pieces of cloth using the above measurements leaving 1/2” allowance on all sides except the fold.
8. Place the two pieces on top of each other and stitch on the reverse along 4 to 5 and 4’ to 5’ and 5 to 5’ line and then turn to the correct side.
9. The cloth along 4’ to 4 is attached to the neck part of the top.
Points to remember:
Following steps to be considered for making Petticoat:
1. Measurements needed: To make the petticoat only a few basic measurements are needed. These are: Waist, Hip - measured around the widest part of the hip. Usually 7” or 8” below the waist line, Full length and Width of the waist band.
2. Drafting the pattern on paper
3. Cutting and placing the pattern
4. Cutting the cloth
5. Stitching the panels: Join the side panels to the central panel in this sequence.
6. Creating the waist band
7. Finishing the petticoat: Turn the bottom of the petticoat by 1” and stitch.-Run a draw string along the waist band.

For making simple ladies top or kurta without collar:
1. Measurements needed: To make a Kurta you will need the following measurements- Length of the Kurta (this will be as desired by you), Shoulder width, Chest, Round neck, Front neck depth, Back neck depth, Waist length and Waist round.
2. Drafting the pattern
3. Laying out the pattern and cutting the cloth
4. Stitching the Kurta
5. Adding a Chinese collar: These days a Chinese collar is really becoming popular. Here is now you can make the collar. This can be cut from the same fabric as the Kurti or a contrasting decorative cloth.
NOTES

Use the blank space provided below to make important notes based on your understanding of the topics

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Exercise sheet

1. What are the measurements needed for making petticoat?

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2. Strike out the incorrect point:

What are the measurements needed to make a petticoat.

1. Waist
2. Hip- measured around the widest part of the hip. Usually 7” or 8” below the waist line.
3. Round neck
4. Front neck depth
5. Back neck depth
6. Full length
7. Width of the waist band

3. The given fig is depicted the instructions for creating the waist band. True or False

1. Measure the top of the petticoat (waist line) and cut a waist band ABCD 6” wide and length equal to the top of the petticoat + 1”.
2. Fold ½” on ends A-C and B-D of the waist band and stitch.
3. Fold ½” along A-B and C-D and crease
4. Open the side A-B and attach it to the petticoat top from inside.
5. Keep right side of the band and the wrong side of the petticoat together and stitch on the crease made earlier.
6. Fold the band length wise stitch the edge C-D to the waist line so that the fold just covers the machine stitching at the waist line.
4. Whether following measurements are needed for making a Kurti. True or False

1. Length of the Kurti (this will be as desired by you)
2. Shoulder width
3. Chest
4. Round neck
5. Front neck depth
6. Back neck depth
7. Waist length
8. Waist round
Dear Participant, we request you to provide us with open feedback to make this training process more effective. We shall really appreciate your time in filling up this form.

### FEEDBACK SHEET

<table>
<thead>
<tr>
<th>Course Title:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Venue:</td>
<td></td>
</tr>
<tr>
<td>Trainers Name:</td>
<td>Name (Optional):</td>
</tr>
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</table>

#### PARAMETERS

<table>
<thead>
<tr>
<th>S.No.</th>
<th>TRAINER</th>
<th>RATING</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>How well did the trainer interact with the trainees?</td>
<td>☀️ ☀️ ☀️ ☀️ ☀️ ☀️</td>
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<td>2</td>
<td>How well did the trainer clarify the doubts?</td>
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<tr>
<td>3</td>
<td>Was language used by the trainer simple and clear?</td>
<td>☀️ ☀️ ☀️ ☀️ ☀️ ☀️</td>
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<tr>
<td>4</td>
<td>Did you find the trainer knowledgeable?</td>
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<tr>
<td>5</td>
<td>How friendly was the trainer?</td>
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<tr>
<td>6</td>
<td>How successful was he in making session lively?</td>
<td>☀️ ☀️ ☀️ ☀️ ☀️ ☀️</td>
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<tr>
<td>7</td>
<td>How good was the learning material?</td>
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<tr>
<td>8</td>
<td>How well is it related to application at work?</td>
<td>☀️ ☀️ ☀️ ☀️ ☀️ ☀️</td>
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<tr>
<td>9</td>
<td>Was it easy and clear to understand?</td>
<td>☀️ ☀️ ☀️ ☀️ ☀️ ☀️</td>
</tr>
<tr>
<td>10</td>
<td>Was the place of learning comfortable and safe?</td>
<td>☀️ ☀️ ☀️ ☀️ ☀️ ☀️</td>
</tr>
<tr>
<td>11</td>
<td>Was the place of learning clean and hygienic?</td>
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<tr>
<td>12</td>
<td>Did the place of learning has good quality of basic amenities?</td>
<td>☀️ ☀️ ☀️ ☀️ ☀️ ☀️</td>
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<td>13</td>
<td>How useful did you find the training and do you think it has increased your skills and knowledge?</td>
<td>☀️ ☀️ ☀️ ☀️ ☀️ ☀️</td>
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<tr>
<td>14</td>
<td>How well did it help to improve your attitude towards learning and eagerness to learn more?</td>
<td>☀️ ☀️ ☀️ ☀️ ☀️ ☀️</td>
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<tr>
<td>15</td>
<td>How was the overall effectiveness of the training?</td>
<td>☀️ ☀️ ☀️ ☀️ ☀️ ☀️</td>
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#### REMARKS:

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LabourNet

VER1.00
Module 8- Garment Making- Women’s apparel II

Module Overview

This module helps us to stitch the Simple sari and Choli blouse, Normal Churidar and Kurtaby using measurement, drafting, cutting and laying the pattern on the cloth. This module will present both theory and practical session.

Module Objectives

- To learn the process of measuring, drafting, cutting and laying the pattern on the cloth and stitching of the garments under topics.

Module Design

<table>
<thead>
<tr>
<th>Topic no.</th>
<th>Session Topics</th>
<th>Method</th>
<th>Duration</th>
<th>Tools/Equipment/Props</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Simple sari blouse</td>
<td>Theory and practical</td>
<td>15 hrs</td>
<td>PPT/Flipchart, learning cards, video</td>
</tr>
<tr>
<td>2.</td>
<td>Choli Blouse</td>
<td>Theory and practical</td>
<td>17 hrs</td>
<td>PPT/Flipchart, learning cards, video</td>
</tr>
<tr>
<td>3.</td>
<td>Normal Churidar and Normal Kurta</td>
<td>Theory and practical</td>
<td>13 hrs</td>
<td>PPT/Flipchart, learning cards, video</td>
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<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td>45 hrs</td>
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Session Plan

Session Objectives

(Key learning outcome)

At the end of the session,

- The trainee will be able to understand the process of making a simple sari and choli blouse.
- The trainee will know the process of making a normal chudidar.

Underpinning Knowledge/ Theory/ Principle

(Theoretical concept on which the learning is based)

- The trainee has knowledge of Tailoring.
- The trainee is aware of the techniques in handling needles tools and rules for hand sewing.
- Trainee is aware of the selection of the appropriate stitch for different fabrics, manage the thread tension, types of needles and their uses, and maintain the sewing machine.
- Trainee is aware of the accurate measurement, common tailoring terms, and measurement techniques for adults and kids, types of pleats gathers and darts.
- Trainee is aware of pattern making, trimming, fastening and stitching of collars, sleeves and pockets.
- Trainee know how to carry out measuring, drafting, cutting and laying the pattern on the cloth and learn the process of making petticoat, simple ladies top/ kurta.

Duration

<table>
<thead>
<tr>
<th>Topic No.</th>
<th>Topic</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Simple sari blouse</td>
<td>2 hrs</td>
</tr>
<tr>
<td>2</td>
<td>Choli Blouse</td>
<td>3 hrs</td>
</tr>
<tr>
<td>3</td>
<td>Normal Churidar and Normal Kurta</td>
<td>2 hrs</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>7 hrs</td>
</tr>
</tbody>
</table>
Instructions to the Trainee

- Learn the process of measuring, drafting, cutting and laying the pattern on the cloth and stitching of Sari, choli blouse and normal churidar.
- Take part in discussion and make notes.
- Trainee should take notes and ask questions whenever they have any doubts.
- Maintain discipline.

8. Garment Making - Women’s apparel II

8.1 Simple Sari blouse

- Measurements needed:
  - Chest
  - Full length of the blouse
  - Shoulder
  - Sleeve length
  - Sleeve round
  - Front length - Measured from shoulder along the highest point of bust to where bra cup ends.
Activity

Objective: The trainer will discuss the topic on Garment Making – Women’s Apparel – II to the participants.

Methodology:

The Trainer will explain the process of measuring, drafting, cutting and laying the pattern on the cloth after which the parts have to be stitched together using PPT. Trainer will carry out demonstration and make the trainees to practice and learn stitching of simple sari, choli blouse and normal chudidar under trainer’s supervision. On completion of training, the trainees and trainer will interact and discuss on the topic.

Materials Required: PPT /Flipchart, video, learning cards, Materials and Tools for demo and practical.

Outcome: Trainee will be able to carry out measuring, drafting, cutting and laying the pattern on the cloth and stitching of the garments under topics.
Module 8-Garment Making- Women’s apparel II

8.1 Simple Sari blouse

There are many varieties of Sari blouses ranging from those with ¾ sleeves to the sleeveless and the blouse length can also vary from very short to waist length. Since the Sari blouse is a tight fitting garment it is very critical to take the measurements carefully and get a good custom fit. Explained here is the basic method of drafting a sari blouse. If you have never made a sari blouse before, for the first few times it is advisable to prepare a paper draft and cut the fabric based on that. Further you may also consider stitching a trial blouse with a cheap material a couple of times before making an actual blouse. In the case of a Sari blouse more than any other garment, practise makes perfect.

a. Measurements needed: To take accurate measurements refer to the image below. It will guide you where exactly to place your measuring tape.

![Diagram of Sari blouse measurements](image)

Now take the following measurements:

1. Chest
2. Full length of the blouse
3. Shoulder
4. Sleeve length
5. Sleeve round
6. Front length- Measured from shoulder along the highest point of bust to where bra cup ends.

b. Drafting the pattern on paper: Using the image below and the measurements you have taken you will need to draft the front, back, sleeves, belt and darts of the blouse. Here is how:
1. Front:

- A to B = front length + ½”.
- A to C = ½ shoulder + ¼”.
- On the line A-B mark D such that A-D =¼ chest -1¼” or 1½”.
- A-D is called armscye depth. It varies with chest measurement. It can be calculated using the chest measurement. It can also be measured directly on the body. It is measured from the nape of the neck downwards to a line that joins armpits. Here is a reference chart you can use to calculate standard armscye depth for various breast measurements:
  - 28” to 30” =¼ chest-¾’ to 1”
  - 31” to 33” =¼ chest-1” to 1¼”
  - 34” to 36” =¼ chest-1½” to 2”
  - 37 “ to 39” =¼ chest- 2¼” to 2½”
  - 40 to 42 = ¼ chest-3” to 3½”
- Draw perpendicular lines from the points D and B to the line A-B.
- On the line A-C mark G such that A-G =the neck width = 1/8th chest or to taste.
- Mark H on A-B such that A-H =neck depth =1/8th chest or to taste.
- Shape front neck curve H-G.
- Mark D-E=½ chest +1 +1/2”.
- Mark F such that B-F = D-E.
- Produce D-E to K such that E-K=. ½”.
- Mark L on B-F such that L-F =½’
- Join K-L.
- On the line D-E mark point I such that D-I =½” less than A-C.
- Join I-C .On the line I-C mark point R such that C-R =½” or ¾”. Join G-R.
- On the line I-C mark a point J such that I-J =1”.
- Shape the armscye round R-J-E-K.
- On the line D-E mark a point S such that D-S =½th chest +½”.
- On the line A-B mark point M such that B-M =1”.Join M-L by a curved line as shown in the figure.
Drop a perpendicular from the point S. This line meets the curved line M-L at P. On this line Mark point T which is the bust point. It can be marked in two ways. This can be done in two ways
- Method 1- Mark T such that distance S-T=1/8th chest-1½”
- Method 2- Actual bust length is measured from the shoulder line to the highest point of the bust. Mark T along the line U-T passing through S such that U-T is equal to is the bust length.
- Add 1/2” extension along the line of opening of the front to attach button-stands (see figure for “parts of a blouse”)

2. Darts:
- All the darts should point towards the bust point T
- Mark N on the line A-B such that D-N =S-T. Take ½” or ¾” dart
- At point P a dart of 1¼” to 2” dart of required length is taken
- On the line K-L mark a point O such that O-L = 1” take a dart of ¾” wide and of required length.
- At the point J take a dart of ½” wide of required length.

3. Belt:
- U-V= Full length of the blouse –Front length +½”.
- V-W =B to F -1½” (size of the dart taken).
- W –X =U-V -1”
- Shape the curve U-X identical to the curve M-L.
- Y-W= ½”
- Join X-Y.

4. Back: For this and the sleeves refer to the image below

- A-B =Full length of the blouse +1”
- A-D is armscye depth = same as armscye depth of front the blouse.
- Draw perpendiculars from A, D and B.
TAILORING

- A-C = ½ shoulder + ¼”.
- Mark D-E = ¼ chest + 1½”.
- Mark F such that B-F = D-E.
- F = ½” Join E-I.
- On the line A-C mark G such that A-G = the neck width = 1/8th chest or to taste.
- Mark K on A-B such that A-K = Back neck depth = 1/12th chest or to taste.
- Shape back neck curve K-G.
- On the line D-E mark H such that D-H = A-C. Join H-C.
- On the line H-C mark a point R such that C-R = 1”.
- Shape the back armscye round R-E.
- B-L = 1/12th chest + ½”. A dart L-M of ½” width and of required length is taken here.
- Mark "place on fold" on the centre-line of the back.(see figure for “parts of a blouse”)

5. Sleeves:

- A-B = sleeve length + ½”.
- K-A = 1” for folding.
- From the points B, A and K draw perpendiculars.
- B-C is as A-D = armscye depth of the body taken while drawing body draft + ½” to 1½ “.
- For smaller sizes B-C is equal to the armscye depth.
- B-C = K-L.
- Join C-L.
- Mark D on the line C-L such that D-C = 1/8th chest - ½”. It should be between 3 to 3½”
- B-J = 1”.
- Join D-B . F is the middle point of D=B.
- F-H = ¾”
- G is the middle point of D-F. I-G = ½”
- Shape the front armscye curve of the sleeves D-I-F- J-B and Back armscye curve of the sleeves D-H-J-B.
- A-E = ½ sleeve round + 1” for seams.
- Join L-E.
- Mark the centre of sleeve top.(see figure for “parts of a blouse”)

C. Cutting and placing the pattern: Prepare the draft and separate each part. Label all pattern pieces. Place the parts of the draft on the fabric taking into account the print and the pattern and cut the parts out. One piece each for the front, back and belt, and two pieces for the sleeve. Make sure that as in all garments mark plenty of room for seam
allowances when transferring the pattern on the cloth. Here is an image of what the various draft patterns will look like

![Pattern Diagram]

**d. Stitching:** Here are the steps to follow:

- Stay stitch neck, armscye and sleeve top.
- Stitch the darts.
- Attach the belt to the body.
- Stitch button stands. Right side should overlap the left side. Extension is stitched to the left side and right side is finished with a facing.
- Join shoulders.
- Finish neck line with Piping or flat facing
- Hem the lower edge of the sleeves and back.
- Attach sleeves to the body, matching centre line of the sleeves to the shoulder line and easing wherever necessary.
- Stitch sides of the sleeves and body.

- Sew the hooks on the underside of right button stand and work eyes on the right side of left front facing

**8.2 Choli or Katori Blouse**
A variation of the simple ladies’ blouse is the Katori blouse which features a shorter front portion. This is the picture of a typical Katori blouse. Essentially you are sewing the “cups” for the chest separately to give a more tailored look. This is also known as a choli blouse.

![Choli Blouse Image]

To stitch the various parts of the blouse follow the following method.

**a. Taking the measurements:** The measurements you take will be the same as in the simple sari blouse.

**b. Drafting the pattern on paper:** We will be making the Front piece, the waist band and the sleeves. Let us start with the Front pieces.
Front Pieces:

Take the front draft on which neck and front armscye Markings are there and using the figure above make the following markings.

- On the line D-E mark point Z such that Z-H = 1/2" to 3/4". This is for the bust measurements up to 33". For bust size more than 33" shift the point Z to towards H and continue.
- S is the midpoint of D-Z.
- From the points S and Z drop perpendiculars. These lines meet the line M-N at point 2 and 3 respectively. On the line S-2 mark point T such that S-T = 1/8th chest - 1½".
- Through the point T and on either side, draw a line parallel to the line M-N. This line cuts the line A-M at the point 4 and the line Z-3 at the point V.
- On the line A-M mark point P such that 4-P = 1". This is for chest measurement below 36". For bust measurements 36" and above increase this measurement to 1¼" or 1½”.
- On the line Z-3 mark point Q such that V-Q = 1". This is for chest measurement below 36". For bust measurements 36" and above increase this measurement to 1¼” or 1½”.
- Join P-T and T-Q.
- Paste a small piece of paper of width 2” along P-X outside the line A-M.
- Produce the line V-4 to U such that length of line P-T + the length of the line T-Q = length of the line V-U.
- Paste a small piece of paper of width 2” along the line M-N.
Produce line 4-M to X such that 4-X = P-M.
Produce line V-3 to W such that V-W = Q-3.
Join U-X. On U-X mark point Y such that X-Y = 1”.
Join W-Y by a curved line as shown in the figure.
Produce T-2. It cuts the line W-Y at point 5. At this point take a dart of ½”.
Point 1 is the midpoint of the front neck line. L-G. Join 1 and Z by a curved line as shown in the figure.

Take the front draft on which neck and front armscye Markings are there and using the figure above make the following markings.

- On the line D-E mark point Z such that Z-H = 1/2’ to 3/4”. This is for the bust measurements up to 33”. For bust size more than 33” shift the point Z to towards H and continue.
- S is the midpoint of D-Z.
- From the points S and Z drop perpendiculars. These lines meet the line M-N at point 2 and 3 respectively. On the line S-2 mark point T such that S-T = 1/8th chest - 1½”.
- Through the point T and on either side, draw a line parallel to the line M-N. This line cuts the line A-M at the point 4 and the line Z-3 at the point V.
- On the line A-M mark point P such that 4-P = 1”. This is for chest measurement below 36”. For bust measurements 36” and above increase this measurement to 1¼” or 1½”.
• On the line Z-3 mark point Q such that V-Q = 1". This is for chest measurement below 36". For bust measurements 36" and above increase this measurement to 1¼" or 1½"
  • Join P-T and T-Q.
  • Paste a small piece of paper of width 2" along P-X outside the line A-M.
  • Produce the line V-4 to U such that length of line P-T + the length of the line T-Q = length of the line V-U.
  • Paste a small piece of paper of width 2" along the line M-N.
  • Produce line 4-M to X such that 4-X = P-M.
  • Produce line V-3 to W such that V-W = Q-3.
  • Join U-X. On U-X mark point Y such that X-Y = 1".
  • Join W-Y by a curved line as shown in the figure.
  • Produce T-2. It cuts the line W-Y at point 5. At this point take a dart of ½”.
  • Point 1 is the midpoint of the front neck line. L-G. Join 1 and Z by a curved line as shown in the figure.

As shown in the picture above this creates three distinct section. These are marked in different colours above. We have to separate them as follows.

• Piece no 1 is side piece.
• Piece no 2 is Katora piece.
• Piece no 3 is under bust piece.
• Cut front neck line along the line L-I-G. Cut along the shoulder line G-R and front armscye shape R-J-E. Cut along the E-O. Cut along O-3.
• Cut along the curve 1-Z-Q-V-3. This is piece no 1 or side piece.
• To separate piece no 2 or Katora from piece no 3 or under bust piece cut along the line P-T-Q.
• Cut along the line U-4-T-V-3-W-5-X-Y-U to get under bust piece.

Waist band

Now we will be making the waist band. Refer to the figure above and follow the steps as indicated below:

• 1-2 = (A-B - A-M )=(Full length of the blouse— Front length of the blouse) +½”.
• 2 to 4 = M-O (refer fig 2) -1”.
• 4-3 = 1 to 2 -¼ or 1”.
• 4 to 5 = ½”.
• Join 1 and 3 by a curved line as shown.
• Join 3 and 5.
• Cut along 1-3-5-2-1.

Sleeves:

The sleeves are made the same way as in an ordinary blouse.
c. Laying out the drafts on the cloth and cutting: Now place the various pieces on the fabric as shown above and cut them out. While cutting the fabric take ½” extra for seams as shown in the figure above by dotted lines. Arrow mark shows length wise of the cloth. To get good fitting the Katora piece which is coloured in green should be cut on bias as shown in the figure above.

![Figure 5]

<table>
<thead>
<tr>
<th>A</th>
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<tr>
<td>C</td>
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<td>E</td>
<td>F</td>
</tr>
<tr>
<td>G</td>
<td>H</td>
</tr>
</tbody>
</table>

d. Stitching the blouse: You will have created two Katori front piece as shown in green, two front side pieces as shown in purple, two front bottom pieces as show in blue and four waist band pieces as shown in orange.

![Figure 6]

http://www.artvani-oani.blogspot.com/

To stitch start with the figure above. Fold the under bust piece which is coloured blue along the line T-5 and stitch ½” dart. Open the fold and press.
As shown in the figure above place the under bust cover on the Katora ,Keeping right sides together and place D’ on D, C’ on C and B’ on B . Stitch them together along the line D-C-B, ¼” from edge. Make small snips along the stitched edge taking care to not cut the stitches. Open and press.

As shown in the figure above keep the side piece which is coloured purple on Katora and under bust which are stitched together, keeping right sides together and Point A on A’ G on G’ and stitch ¼” away from the curved edge . Make small snips and turn the seam and press.
Out of 4 waist band pieces take 2 pieces of the belt and stitch them together along the edge I-J and turn the seam inside fold and press. Place the belt on under bust piece and side piece which are stitched together, matching points F and F’ and H and H’. This is left front of the blouse. Stitch right front also in the same manner. Complete sewing the blouse as an ordinary sari blouse.

8.3 Normal Churidar and normal Kurta
As with all of the above garments for the ladies’ ChuridarKamiz we will follow the simple steps of measuring, drafting a pattern on paper, cutting the paper pattern, tracing on cloth, cutting the cloth and stitching.

Kamiz:

a. Measurements needed:
1. Chest
2. Shoulder
3. Waist length
4. Full length
5. Hip
6. Sleeve length
7. Sleeve round
b. **Drafting the pattern on paper:** You will be drawing the main bodice, darts and sleeves. For the bodice and darts refer to the markings on the figure below. Remember to fold the paper into half vertically before commencing the drafting. You will see that all measurements are divided into half or quarter to ensure that you get a symmetrical pattern.

![Pattern diagram]

1. **Bodice: It has the following markings**
   - A-C = full length +1”
   - A-D =¼ chest -1”
   - A-E = waist length
   - Mark point R such that E-R = 7” (for seat line)
   - Draw perpendiculars from the points A, D, E, R and C
   - A-B =½ shoulders + ¼”
   - A-K = Neck width =1/12th chest or to taste
   - A-L = Back neck depth =1⅛” or to taste
   - A-M = front neck depth 1/8th chest or to taste
   - D-F =¼ chest +1½” (if loose fitting is needed 2 “to 2½” can be added)
   - Mark point “S” on D-F such that D-S = A-B. Join B-S. On this line mark N such that S-N = 1½”
   - N-O = ¾”
   - Mark “T” on B-S such that B-T = 1”. Join K-T. Shape back neck K-L, front neck K-M as shown.
   - Shape front armscy T-N-F and Back armscy T-O-F
2. Darts: They need the following two markings

- Mark U on G-E such that U-E = 1/12th chest + 1/2”.
- P-U = U-Q = 1/6th chest

3. Sleeve: Referring to the image below make the following markings

- A-B = Sleeve length
- B-J = 1½” or 1” for folding
- Draw perpendiculars from A, B and J.
- A-C = ¼ chest - 1”. A-C = B-D. Join C-D
- Mark L on the line A-C such that A-L = 1”.
- Mark E on the line D-C such that E-C = ½ of A-C
- B-I = ½ sleeve round + 1”
- J-K = 1/2” more than B-I
- Join I-E
- I-K Join E-L
- Mark G as mid-point of E-L
- H-G = 3/4 “
- Draw a line E-F perpendicular to E-C such that E-F = 2”
- Join E-F-L
c. Cutting the paper pattern: The paper pattern will be cut along the following lines to get two sleeves and one front bodice and one back portion of the main bodice.

1. Cut the draft along the line K-T-O-F-I-S-H-J-C-R-E-D-M-L-K. Separate the sheets. Keep one aside. This is the draft of the Kamiz back.
2. In the other portion cut the front neck shape K-M
3. Now cut the front armscye shape T-N-F.
4. Cut the sleeves draft along the line A-B-J-K-I-E-H-L-A.
5. Open the fold.
6. Cut the front sleeve shape E-F-L-A
This way you will have four patterns the front and back bodices and two sleeves.

d. Transferring the paper patterns to the cloth: As shown in the figure below layout all the four patterns on the cloth ensuring that you orient them correctly to the print. Mark the outlines adding in the seam allowances.

d. Stitching the pieces together: Now that you have your four pieces of cloth needed to make ladies’ kurta with darts and sleeves, here are the steps for stitching

1. Stay stitch neck, armscye and top of the sleeves.
2. Stitch the back opening of required length as explained here.
3. Join the shoulders.
4. Stitch darts starting from one pointed end to other pointed end. Fasten the threads at both the ends.
5. Stitch the neck with flat facing or fitted facing.
6. Pin the sleeves to the armscye, keeping right sides together taking care to pin sleeve front to body front and shoulder line to the middle line of the sleeve. Tack them together easing wherever necessary. Machine stitch them.
7. Join the sides of sleeves and sides of the body, starting from the sleeve end and to the point where the slit starts. Usually two lines are stitched side by side. But they should end at only one point where the slit starts as shown in the figure.

8. Turn the slits inside and stitch.

9. Finish the bottom of the Kamiz with a machine hemming.

**Churidar:**

a. **Measurements needed:**

   a. 1. Full length
   b. 2. Seat
   c. 3. Knee round
   d. 4. Bottom round

b. **Drafting the pattern on paper:** Using the image below and the measurements you have taken, draw the pattern on a piece of paper. Remember to fold the paper in half vertically before starting to draw out the lines. The line G-A-Q-B-C-E-F should be where the paper folds.

![Pattern Diagram]

1. A-D = full length
2. D – E = for gathers = 3 to 5” or to taste
3. E-F = 1” for folding.
4. A-G = 1⅛” for casing
5. A-B = 1/3 seat + 1”
6. C is the midpoint of B-D.
7. Draw perpendiculars from the points G, A, B, C, D, E and F
8. G-H= 1/3 seat+ 2” to 4” as per wish
10. K-R = 1 1/2” to 2”
11. R-L = 1 1/2”
12. J is the midpoint of I-K
13. Shape the front curve H- I-J-R and back curve (red curved line) H- I- L as shown in the figure.
14. C-M = half of knee round + 1/2”
15. N-E = half of bottom round + 1/2”
16. R-N = 4” to 6” for opening
17. Join the curve R-M-N-O and L-M-N-O as shown on the figure
18. Red line is back shape of the Churidar

C. **Cutting the paper pattern:** At the end of drafting you will see that you have two sections which vary slightly in size. The front is slightly smaller than the back. So repeat the same pattern on another piece of paper. From one pattern cut the front and from another cut the back. To get the front piece cut along G-H-I-R-M-N-O-F. For the back cut along G-H-I-P-L-M-N-O-F.

d. **Transferring the paper patterns to the cloth:** Once you have cut out both the sections you can lay them out on the cloth in bias as shown below.

However you will see that in this method there is a lot of wastage of cloth. The other way is to cut the top part of the Churidar separately from the bottom. Let us look at the drafting sheet again
Instead of cutting the front and back pieces as one single piece, divide each of them into two by cutting along the dotted line P-Q as shown in the figure. You will now have four parts to layout. Cut the upper part on straight grain and the lower part on true bias. Remember to add ½” seam allowance at each side along the line P-Q in the draft because now you will need to sew it to the bottom part. Later on stitch the two pieces together and finish by stitching the front and back pieces together.

**Points to remember:**
-**Following methods are required for making sari, Choli or Katori blouse:**
  1. **Measurements needed**- Chest, Full length of the blouse, Shoulder, Sleeve length, Sleeve round and Front length- Measured from shoulder along the highest point of bust to where bra cup ends.
  2. **Drafting the pattern on paper**: Using the image below and the measurements you have taken you will need to draft the front, back, sleeves, belt and darts of the blouse.
  3. **Cutting and placing the pattern**: Prepare the draft and separate each part. Label all pattern pieces. Place the parts of the draft on the fabric taking into account the print and the pattern and cut the parts out.
  4. **Stitching**: Here are the steps to follow: Stay stitch neck, armscye and sleeve top, Stitch the darts and Attach the belt to the body.
  -For making Normal Churidar and normal Kurta:
  1. **Measurements needed**: Chest, Shoulder, Waist length, Full length, Hip, Sleeve length and Sleeve round.
  2. **Drafting the pattern on paper**: You will be drawing the main bodice, darts and sleeves.
  3. **Cutting the paper pattern**: The paper pattern will be cut along the following lines to get two sleeves and one front bodice and one back portion of the main bodice.
  4. **Transferring the paper patterns to the cloth**.
  5. **Stitching the pieces together**: Now that you have your four pieces of cloth needed to make ladies’ kurta with darts and sleeves, here are the steps for stitching.
NOTES

*Use the blank space provided below to make important notes based on your understanding of the topics*

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Exercise sheet

1. Are below images correctly depicted? True/False

These are the measurements needed for simple sari blouse:

1. Chest

2. Full length of the blouse
3. Shoulder
4. Sleeve length
5. Sleeve round
6. Front length- Measured from shoulder along the highest point of bust to where bra cup ends.

2. Fill up the blank in the given chart which is used for the measurement of katori blouse.
3. Oral exercise to analyze the trainee.

List out the steps to be followed while stitching the blouse.

4. Name the steps to be followed while making the normal chudidar and kurta.

- Front length - Measured from shoulder along the highest point of bust to where bra cup ends.
**FEEDBACK SHEET**

Course Title:  
Date:  
Venue:  
Trainers Name:  
Name (Optional):  

Dear Participant, we request you to provide us with open feedback to make this training process more effective. We shall really appreciate your time in filling up this form.

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<td>2</td>
<td>How well did the trainer clarify the doubts?</td>
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<td>3</td>
<td>Was language used by the trainer simple and clear?</td>
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<td>Did you find the trainer knowledgeable?</td>
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<td>5</td>
<td>How friendly was the trainer?</td>
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<td>6</td>
<td>How successful was he in making session lively?</td>
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<td>How good was the learning material?</td>
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<td>How well is it related to application at work?</td>
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<td>12</td>
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<td>13</td>
<td>How useful did you find the training and do you think it has increased your skills and knowledge?</td>
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<td>14</td>
<td>How well did it help to improve your attitude towards learning and eagerness to learn more?</td>
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<tr>
<td>15</td>
<td>How was the overall effectiveness of the training?</td>
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</table>

**REMARKS:**

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LabourNet

VER1.00
Module 9- Estimate of Materials Required for particular garments & costing of Finished Products

Module Overview

This module will cover the factors involved in material and cost estimation. This module will discuss on how to determine the pricing margins for stitched materials.

Module Objectives

- To make the Trainee aware of how to estimate the materials for making the garments and also estimate the cost.

Module Design

<table>
<thead>
<tr>
<th>Topic no.</th>
<th>Session Topics</th>
<th>Method</th>
<th>Duration</th>
<th>Tools/Equipment/Props</th>
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<tbody>
<tr>
<td>1.</td>
<td>Factors of Material Estimation</td>
<td>Theory</td>
<td>1 hr</td>
<td>PPT/Flipchart, learning cards, images</td>
</tr>
<tr>
<td>2.</td>
<td>Cost Items</td>
<td>Theory</td>
<td>30 mins</td>
<td>PPT/Flipchart, learning cards, images</td>
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<tr>
<td>3.</td>
<td>Factors determining pricing margin</td>
<td>Theory</td>
<td>30 mins</td>
<td>PPT/Flipchart, learning cards, images</td>
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<tr>
<td>TOTAL</td>
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<td>2 hrs</td>
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**Session Plan**

**Session Objectives**

(Key learning outcome)

At the end of the session,

- The trainee will be made aware of the factors of Material Estimation.
- The trainee will know the cost items involved.
- The trainee will know how to price a finished garment.

**Underpinning Knowledge/ Theory/ Principle**

(Theoretical concept on which the learning is based)

- The trainee has knowledge of Tailoring.
- The trainee is aware of the techniques in handling needles tools and rules for hand sewing.
- Trainee is aware of the selection of the appropriate stitch for different fabrics, manage the thread tension, types of needles and their uses, and maintain the sewing machine.
- Trainee is aware of the accurate measurement, common tailoring terms, and measurement techniques for adults and kids, types of pleats gathers and darts.
- Trainee is aware of pattern making, trimming, fastening and stitching of collars, sleeves and pockets.
- Trainee know how to carry out measuring, drafting, cutting and laying the pattern on the cloth and learn the process of making petticoat, simple ladies top/ kurta.
- The Trainee will know to carry out measuring, drafting, cutting and laying the pattern on the cloth and stitching of Saree Blouse, Choli Blouse, Normal Churidar and Kurtha

**Duration**

<table>
<thead>
<tr>
<th>Topic No.</th>
<th>Topic</th>
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<td></td>
<td><strong>TOTAL</strong></td>
<td><strong>2 hrs</strong></td>
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</table>
Instructions to the Trainee

- The Trainee should learn the factors involved in material and cost estimation.
- Trainee must understand the factors that determine the margin of stitched materials.
- Take part in discussion and make notes.
- Trainee should take notes and ask questions whenever they have any doubts.
- Maintain discipline.

Slide No.112-116
Activity

Objective: The trainer will discuss the topic on Estimate of Materials & Costing of Finished Products to the participants.

Methodology:

Trainer will explain how to estimate the materials for making the garments and also to estimate the cost using PPT. On completion of training the trainees and trainer will interact and discuss on the factors that determine the margin of stitched materials.

Materials Required: PPT /Flipchart, learning cards,

Outcome: Trainee will be able to estimate the materials for making the garments and also estimate the cost.
Module 9-Estimate of Materials required for particular garments & Costing of Finished Products

9. 1 Factors of materials Estimation

In order to estimate the amount of fabric that will be needed for a particular garment there are a few things that you need to know before hand:

a. **Width of the fabric on the bale**- There are about 3 common widths for bolts of fabric: 36", 44-45" and 54". Most apparel fabrics, calico, quilting fabric, etc. will be 44-45" wide (and folded in half on the bolt), most home decor fabrics are 54" (usually on rolls). 36" is less common, though you can find muslin, interfacing, and some more utilitarian fabrics in 36" widths. The width of each fabric should be labelled on the end of the bolt, along with the fibre type. When you talk about the amount of cloth or fabric that is required you mean the length of the fabric. The width will be pre-fixed and the desired length will be rolled off the bolt and cut to your requirement at the shop.

b. **Orientation of print on the cloth**- Is there any print on the fabric and can it be used only in a certain direction e.g. polka dots, stripes and such patterns can be used in any direction while other prints require the cloth to be oriented only in one direction.

c. **Paper pattern**- You need to have a paper pattern pieces of the various parts of the clothing

d. **Fabric type**- You will also need to know the kind of fabric you will be using. Certain types of cottons etc. shrink on first wash so you will need to pre-shrink the cloth before cutting

First understand if the cloth needs to be pre-shrunk. So for e.g. if there is a 10% shrinkage you will need to make sure that whatever length you calculate you add 10% to it. Next place your paper pattern pieces of the various parts of the garment on the floor to fit into the width of the fabric. Once all the pieces have been placed then measure the length they have occupied and add the necessary inches to compensate for shrinkage. You have your answer for the amount of fabric that is needed.

Note that if the fabric is a plain cloth or the pattern orientation does not matter then optimise every inch to place the paper patterns. But if the pattern means that you cannot just simply cut any piece from anywhere on the fabric, you will need to place paper pattern pieces in a way that all parts of the garment get appropriate pattern layout. This can mean more length sometimes.
9.2 Cost items and factors determining pricing margin (Estimating the costing and pricing)

The simplest formula for determining the price of any item is:

Cost + margin = Price

Where “cost” refers to what the item has cost you and “margin” refers to how much extra over and above the actual cost you would like for your effort in creating it. Some of the cost items you need to keep in mind are as follows:

a. **The cloth that has been used** - If the customer has given you the materials then there is no charge. Whatever you buy on your own, you can charge at a 5-10% convenience charge (mostly achieved by buying from wholesale and charging the customer the retail charges they would incur).

b. **Your fixed and variable costs** - Other inputs from your end such as thread, rent for the place of work, electricity, cost of equipment such as machine, cutting tool, iron, table etc. - This will really come with practice and experience. Over a period of time you will be able to estimate what your running costs are and how many garments do you sew in a given period. Then you can divide this cost equitably e.g. if your rental and electricity cost you Rs.5000/pm and you stitch 100 big pieces a month then you can add about Rs.50 to the price of each item.

c. **Special items you may have purchased** - Fasteners and edgings that have been used such as zippers, buttons, hooks, laces, elastics - If the customer has given you the materials then there is no charge. Whatever you buy on your own, you can charge at a 5-10% convenience charge (mostly achieved by buying from wholesale and charging the customer the retail charges they would incur).

After you add items a-c you will get your basic cost in making that garment. If you do not recover that, you will be making a loss. After this you will add in the margin. This is not so easy to determine but you can keep in mind a couple of things:

a. **The prevalent rate in your area** - you can use to charge a little premium or a discount depending on how confident you are of getting customers. Always assume that people are aware of the rates and will be willing to pay you extra if they feel you are a better tailor and will expect a discount if you are just starting out.

b. **Complexity of the garment** - You can generally charge a premium for doing some extra designing such as different style of necks and sleeves, adding some gathers or pin tucks. Patiala Salwars for e.g., cost more than ordinary salwars to stitch.
Finally keep in mind that pricing is a tricky game and a lot of it will be perfected over time and with experience. But looking at your peers and what they charge for different items is a good way to start.

**Points to remember:**
- Factors of materials Estimation.
- Estimate the amount of fabric that will be needed for a particular garment there are a few things that you need to know before handling:
  a. Width of the fabric on the bale.
  b. Orientation of print on the cloth.
  c. Paper pattern.
  d. Fabric type.
- Cost items and factors determining pricing margin.
- The simplest formula for determining the price of any item is: Cost + margin = Price
- Some of the cost items you need to keep in mind are as follows:
  a. The cloth that has been used.
  b. Your fixed and variable costs.
  c. Special items you may have purchased.
NOTES

*Use the blank space provided below to make important notes based on your understanding of the topics*

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Exercise sheet

1. Fill up the blank with the correct choice required to estimate the materials?

   - a. Paper pattern
   - b. Complexity of the garment

2. Are below images shows the Estimating the cost and price. True or False

   - Cost + Margin = Price
3. Are below images depicted the cost items you need to keep in mind are as follows. True or False

4. Are below images depicted the factors to determine the margin of the stitched material. True or False
**FEEDBACK SHEET**

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Parameters</th>
<th>Rating</th>
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<tr>
<td>3</td>
<td>Was language used by the trainer simple and clear?</td>
<td>😊😊😊😊😊😊</td>
</tr>
<tr>
<td>4</td>
<td>Did you find the trainer knowledgeable?</td>
<td>😊😊😊😊😊😊</td>
</tr>
<tr>
<td>5</td>
<td>How friendly was the trainer?</td>
<td>😊😊😊😊😊😊</td>
</tr>
<tr>
<td>6</td>
<td>How successful was he in making session lively?</td>
<td>😊😊😊😊😊😊</td>
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**CONTENT**

<table>
<thead>
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<th>S.No.</th>
<th>Parameters</th>
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<tbody>
<tr>
<td>7</td>
<td>How good was the learning material?</td>
<td>😊😊😊😊😊😊</td>
</tr>
<tr>
<td>8</td>
<td>How well is it related to application at work?</td>
<td>😊😊😊😊😊😊</td>
</tr>
<tr>
<td>9</td>
<td>Was it easy and clear to understand?</td>
<td>😊😊😊😊😊😊</td>
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**FACILITY**

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<tr>
<td>10</td>
<td>Was the place of learning comfortable and safe?</td>
<td>😊😊😊😊😊😊</td>
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<td>11</td>
<td>Was the place of learning clean and hygienic?</td>
<td>😊😊😊😊😊😊</td>
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<td>12</td>
<td>Did the place of learning have good quality of basic amenities?</td>
<td>😊😊😊😊😊😊</td>
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**PROGRAMME**

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<tr>
<td>13</td>
<td>How useful did you find the training and do you think it has increased your skills and knowledge?</td>
<td>😊😊😊😊😊😊</td>
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<tr>
<td>14</td>
<td>How well did it help to improve your attitude towards learning and eagerness to learn more?</td>
<td>😊😊😊😊😊😊</td>
</tr>
<tr>
<td>15</td>
<td>How was the overall effectiveness of the training?</td>
<td>😊😊😊😊😊😊</td>
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**REMARKS:**

---

Dear Participant, we request you to provide us with open feedback to make this training process more effective. We shall really appreciate your time in filling up this form.
5. Assessment Overview

<table>
<thead>
<tr>
<th>Theory/Practical/Activity</th>
<th>Duration</th>
<th>Type of Questions</th>
<th>No. of Questions</th>
<th>Max Marks</th>
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<tr>
<td></td>
<td>15 mins each</td>
<td>MCQ/Brief question</td>
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<td>10-20</td>
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Formative assessment will be conducted at the end of the modules as per the “module wise duration”.

Resources: Participant Guide
Summative Assessment

<table>
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<tr>
<td>Practical</td>
<td>Duration: 4 hour</td>
</tr>
<tr>
<td>Resources</td>
<td>Theory/Practical Assessment Guide, Assessment Checklist, Question paper, Answer paper, Viva form.</td>
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Calculation of % of Marks

<table>
<thead>
<tr>
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<th>%</th>
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<tr>
<td>A) Formative assessment</td>
<td>30% weightage</td>
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<tr>
<td>B) Summative assessment</td>
<td>70% weightage</td>
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<tr>
<td>Total</td>
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Awarding of Grades

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<th>Result/Grade</th>
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<td>Greater than 75</td>
<td>A</td>
</tr>
<tr>
<td>50-75</td>
<td>B</td>
</tr>
<tr>
<td>Less than 50</td>
<td>C</td>
</tr>
</tbody>
</table>

Disclaimer: Assessment guidelines are indicative. Contact the trainer for detailed information.
Annexure: Basic WPS, Health & Safety and Basic Hygiene

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Annexure 1 – Workplace Skills

Introduction:

The basic skills required for a beauticians job involves good hand to eye co-ordination. He/She should also be able to understand the blueprint of the work on hand and should be able to carry out the work plan effectively. The person should also be well versed with products and brand available in the market.

Basic general skills required are:

1. Communication – Communication process, Listening skills, Effective Questioning, Effective Verbal and Non-Verbal communication.
2. Customer Service – Importance, Types of customer and ways to handle them.
3. Work Ethics – Policies and procedures importance, Ethical decision making, Ethical relationship with customer, peers and company.

What is communication?
Communication is exchange of information between people. It can be in the form of oral words, written words, drawings or physical actions. Communication is essential to express ideas and thoughts to friends, family, co-workers and customers. Communication also plays a major role in information exchange and decision making.

Importance of communication
Lack of effective communication skill has a negative impact on the personal as well as professional life of a person. Communication is being considered as a competitive advantage by organizations today. Hence organizations today prefer to have a work force with excellent communication skills so as to handle customers and competitors smartly.

A good communicator is able to persuade people, influence others, negotiate effectively and provide valuable feedback. They can also inspire, motivate and encourage organizational staff and employees and can convey their ideas better to their boss, can make interesting conversation and network easier and can speak to groups of people with self-confidence and credibility. The better the communication skills, the greater success can be achieved.
Communication raises aspirations of employees and it can be further understood by the following points:

- Increases listening ability
- Motivates the people for a purpose.
- Communication is for development of the individual organization, society, nation, and country.
- Communications helps the administration in arriving quick decision and implementation.
- Good communication is essential for proper planning and coordination.
- Effective communication has a special role-play, particularly in an underdeveloped country like India where most of the workers are illiterate.
- A Manager's/Executive's success is conditioned by his ability to understand the needs and requirements of both employees and customers.
- Effective and timely communication promotes cordial relations and work culture among the employees for increasing production and creates healthy and happy environment within and outside the organization.
- ‘Communication’ is a key instrument to create relations, to strengthen relations between the two people or a group of people. Without communication methods, there are no human relations and human relations rehires effective communication methods, tools, positive words, skills etc.

The communication process
Communication is an activity, which has a series of steps. The components involved in the process of communication are:

1. **CONTEXT**: Communication is affected by the context in which it takes place. The context may be physical, social, chronological, or cultural. Every communication proceeds with context. The information is present in the mind of the sender (Source). The sender chooses the message to communicate within a context. This can be an idea, a concept, information or feelings.
2. **SENDER/ENCODER:** Sender/Encoder is the person who sends the message. The credibility of the sender is important in the message process. For example, emails from the senior management are read first. The sender initiates a message by encoding the idea or a thought in words or symbols and sends it to a receiver. The message is the actual physical product from the source encoding. The message could be a speech, a written document or a physical gesture. Sender may be an individual or a group or an organization. The views, background, approach, skills, competencies, and knowledge of the sender have a great impact on the message. The verbal and non-verbal symbols chosen are essential in ascertaining interpretation of the message by the recipient in the same terms as intended by the sender.

3. **MESSAGE:** Message is the main thought that the sender wants to communicate. Communication process begins with deciding about the message to be conveyed. It must be ensured that the main objective of the message is clear. There should be no ambiguity.

4. **CHANNEL:** Channel is the medium in the communication process that the sender uses to transmit the message to the receiver. There are various channels available for communication:

   - **Written**
     - Email
     - Letter
     - Memo
     - Reports
     - Fax
     - Publications
   
   - **Verbal**
     - Face to face meetings
     - Telephone
     - Video conferencing
     - Presentations

Using the correct channel is essential in making sure that the communication is effective. For instance, written medium can be effective when communicating with a small group of people while oral medium is chosen when spontaneous response in required from the recipient.
5. **RECEIPIENT/DECODER**: Recipient/Decoder is the person for whom the message is intended/aimed/targeted. The degree to which the decoder understands the message is dependent upon various factors such as knowledge of recipient, their responsiveness to the message, and the reliance of encoder on decoder. During the transmitting of the message, two processes will be received by the receiver - Content and Context. The receipt of the message can be interfered with in several ways:

- Environmental factors
  - Noise – talking to someone on a mobile with train announcements in the background
  - Light – if the screen cannot be seen clearly in a presentation
- Needs/ anxiety/ expectation of the listener

6. **FEEDBACK**: Feedback is the main component of communication process as it permits the sender to analyze the efficacy of the message. It helps the sender in confirming the correct interpretation of message by the decoder. Feedback may be verbal (through words) or non-verbal (in form of smiles, sighs, etc.). It may take written form also in form of memos, reports, etc. There are five main categories of feedback –

- **Evaluation**: Making a judgment about the worth, goodness, or appropriateness of the sender's statement
- **Interpretation**: Paraphrasing - attempting to explain what the sender's statement means
- **Support**: Attempting to assist or support the sender.
- **Probing**: Attempting to gain additional information, continue the discussion, or clarify a point
- **Understanding**: Attempting to discover completely what the sender means by his/her statement

**Common communication barriers**
**Assumption:** Generally senders forget to communicate complete information to the receiver assuming that the receiver would know what has to be done. On the other hand, receiver might assume an entirely different scenario causing a barrier in communication.

**Use of jargons:** Some people are in the habit of using jargons in their communication message. But they fail to understand that their jargons may not be clear to the receiver of the message. The receiver might misunderstand them causing a barrier in communication.

**Incomplete sentences:** At times, people leave their sentences incomplete, like “I wanted to go but…”. This leaves the receiver with numerous assumptions and the exact message cannot be conveyed.

**Psychological barriers:** The state of mind and mood of the sender and the receiver also affect the message delivery. If a person is in a bad mood, then a positive message can also sound negative.

**Over-communication:** Senders may also spoil the message delivery by over communication the message, that is, communicating the same message through different channels and also giving too much information to make a point. This confuses the receiver and the message context may not be clear.

**Language Differences:** The difference of language between the sender and receiver can also cause a major barrier in communication delivery. So they both should make sure that the language used for communication is understandable to both. Or else the entire process of communication ends up in being a failure.

**Prejudice:** The receiver might have some prejudices about the sender may be based on cast, culture, status, etc. In such cases the receiver can misunderstand the exact idea of the communicated message. For example, a supervisor feels that the subordinate is not a sincere worker. So the supervisor due to his prejudice towards the subordinate will misjudge every communication of this subordinate.

**Physical barriers:** One of the major barriers to communication is the physical barrier. Physical barriers are present in the area surrounding the sender and receiver. Physical barriers include a work environment that has a lot of background noise, poor lighting or unstable temperature. These barriers can affect how individuals try to send and receive messages. If there is a lot of background noise than the receiver may not hear what the sender is saying. If the temperature in a work environment is too hot or too cold the sender may not be as focused on the message that they are trying to send. If people in the work place are separated by others, communication is not as effective. Proximity to others aids communication because it helps them get to know one another.
Active listening

Active listening means listening to understand the communication. Active listening is an art that comes by practice. It takes more effort than plain “hearing” but the benefits make it well worthwhile. Listening goes beyond hearing. Through listening, we store, classify and label information, listening therefore, involves attention, interpretation and understanding. Applying listening to business is the conscious, active process of eliciting information, ideas, attitudes and emotions in interpersonal, oral exchange for the purpose of increasing the listener’s capacity of planning and decision-making. At work people listen in order to understand instructions receive new information, understand changes in procedure and interact with other people. Listening has many benefits, some of which are -

1. When people notice how well one is listening to them, they usually reciprocate and try to understand the person better.
2. Relationship within a group improves. Members develop a more positive attitude towards each other, so personal support and teamwork is strengthened. Friendships develop and deepen.
3. More accurate information is received. The more confident people are that they are being listened to, the happier they will be to share facts they would not reveal to a poor listener.
4. One can acquire knowledge of the world and profit from the insights of others who have learned or seen what one may have not.
Below are some tips to improve active listening:

<table>
<thead>
<tr>
<th>keys to effective listening</th>
<th>the bad listener</th>
<th>the good listener</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Find areas of interest</td>
<td>switches off during boring or dull subjects</td>
<td>Asks if there might be something of relevance to him</td>
</tr>
<tr>
<td>2 Judge content not delivery</td>
<td>If delivery is poor, switches off</td>
<td>Considers content, skips over errors of delivery</td>
</tr>
<tr>
<td>3 Hold your fire</td>
<td>Jumps in before hearing the full argument</td>
<td>Waits until he understands fully before exercising his opinion</td>
</tr>
<tr>
<td>4 listen for ideas</td>
<td>listens for facts</td>
<td>looks for a theme or thread in what is being said</td>
</tr>
<tr>
<td>5 Be flexible</td>
<td>Takes copious notes using only one system</td>
<td>Takes fewer notes. Uses several systems according to the speaker</td>
</tr>
<tr>
<td>6 Work at listening</td>
<td>Makes no real effort to listen – fakes his attention</td>
<td>Works hard to concentrate</td>
</tr>
<tr>
<td>7 Resist distractions</td>
<td>Is easily distracted</td>
<td>Fights or avoids distractions, tolerates bad habits, knows how to concentrate</td>
</tr>
<tr>
<td>8 Exercise your mind</td>
<td>Avoids difficult material, looks for light relief</td>
<td>seeks complex material to exercise his mind</td>
</tr>
<tr>
<td>9 keep your mind open</td>
<td>Reacts to emotional words</td>
<td>Holds his emotions in check</td>
</tr>
<tr>
<td>10 Use thought speed productively</td>
<td>Allows his mind to wander.</td>
<td>looks for main ideas summarises and evaluates what he hears and shows genuine interest in response.</td>
</tr>
</tbody>
</table>

**Assertiveness**

Assertiveness is the ability to honestly express your opinions, feelings, attitudes, and rights, *without undue anxiety*, in a way that doesn't infringe on the rights of others. It's not aggressiveness; it's a middle ground between being a bully and a doormat. Assertiveness is based on balance - it requires being forthright about ones’ wants and needs while still considering the rights, needs, and wants of others. When one is assertive, they ask for what they want but they don't necessarily get it. There are many advantages of assertive communication, most notably these:

- It helps to feel good about ourselves and others
• It leads to the development of mutual respect with others
• It increases self-esteem
• It helps in achievement of goals
• It minimizes hurting and alienating other people
• It reduces anxiety
• It protects from being taken advantage of by others
• It enables to make decisions and free choices in life
• It enables to express, both verbally and non-verbally, a wide range of feelings and thoughts, both positive and negative

Some people are naturally more assertive than others. If the disposition tends more towards being either passive or aggressive, people need to work on the following skills to develop their assertiveness.

One has to value themselves and their rights:

• People need to understand that their rights, thoughts, feelings, needs and desires are just as important as everyone else's.
• But they also need to remember they are not more important than anyone else's, either.
• They need to recognize their rights and protect them.
• They need to believe that they deserve to be treated with respect and dignity at all times.
• They need to stop apologizing for everything.

People need to identify their needs and wants, and ask for them to be satisfied:

• They need not wait for someone to recognize what they need
• They should understand that to perform to their full potential, their needs must be met.
• They must find ways to get their needs met without sacrificing others' needs in the process.
It has to be acknowledged that people are responsible for their own behavior:

- The mistake of accepting responsibility for the how people react to ones assertive statements (e.g. anger, resentment) should not be taken.
- As long as one is not violating someone else's needs, then they have the right to say or do what they want.

Negative thoughts and feelings should be expressed in a healthy and positive manner:

- People should allow themselves to be angry, but always be respectful.
- They should always say what's on their mind, but do it in a way that protects the other person's feelings.
- Complete control of emotions.

People should receive criticism and compliments positively:

- Complements should be accepted gracefully.
- They should allow themselves to make mistakes and ask for help.
- Feedback has to be accepted positively

People have to learn to say "No" when they need to.

- People need to know their limits and what will cause them to feel taken advantage of.
- They need to know that they can't do everything or please everyone and learn to be OK with that.
- Go with what is right for them.
- Suggest an alternative for a win-win solution.

EFFECTIVE QUESTIONING
Effective questions are questions that are powerful and thought provoking. Effective questions are open-ended and not leading questions. They are not "why" questions, but rather "what" or
"how" questions. "Why" questions are good for soliciting information, but can make people defensive so one has to be thoughtful in their use of them. When asking effective questions, it is important to wait for the answer and not provide the answer.

When working with people to solve a problem, it is not enough to tell them what the problem is. They need to find out or understand it for themselves. They can be helped to do this by asking them thought provoking questions. Rather than make assumptions the concentration should be on finding out what the person being talked to knows about the problem.

For example: "What do you think the problem is?"

Behind effective questioning is also the ability to listen to the answer and suspend judgment. This means being intent on understanding what the person who is talking is really saying. What is behind their words?

Questions are of varied types but there are certain aspects, which should be present in all questions such that they lead to an effective questioning process. They are -

- Brief and clear
- Focused on the work task
- General, when an overview is required
- Specific, when particular facts have to be understood
- Rephrased, when the sender does not understand the question
Effective verbal and non-verbal communication

Verbal communication is enhanced when a person is an effective listener. Listening doesn't simply mean hearing; it necessitates understanding another person's point of view. People need to take time to think before they speak to ensure that they articulate themselves clearly. In the meantime they should let other people interject and have the floor. They first need to allow time for reflection on the subject at hand.

Watching other people's body language, facial expressions and intonations, and being conscious of one’s own physicality and feelings can enhance non-verbal communication. The ability to adapt quickly to the situation and form of communication at hand is a skill that people continue to hone for a lifetime. The following points need to be taken care for an effective verbal and non-verbal communication:

- **Clarity**
  One has to be as clear and as specific as possible in all verbal communications and especially when they are asking someone to carry out a task for them.

- **Summarize**
  If a person is not sure that people understand them, then they should either summarize what they have said in different words, or ask them to summarize their message in their own words.

- **Observe Responses**
  Responses to messages need to be observed. What people are thinking is not always expressed verbally. People’s thoughts should be read by watching their facial expressions, hand and foot gestures. Eyes should be looked at to study signs of confusion, disagreement, disbelief, resistance or understanding.

- **Background Noise**
  If there is background noise, one has to speak loudly or move to a quieter area. Verbal communication has to be reinforced, especially in noisy areas, with gestures.

- **Use of Voice**
To keep people’s attention, voice should be modulated. Speaking more loudly or softly, more quickly or slowly increases interest in what is being said.

- **Eye Contact**
  Eye contact should be maintained with those to whom one is talking. Their cultural background should also be kept in mind. In some cultures, excessive eye contact is a sign of disrespect.

- **Undivided Attention**
  Interruptions should be avoided. Two conversations at the same time should not be continued.

- **Emphasize Important Points**
  To communicate an important point, speaker should raise the voice slightly or speak deliberately. The body language should reflect the importance of what is being said by leaning forward, opening eyes wider, and using appropriate hand gestures.

- **Positivity**
  Conversations should be started by use of positive words and phrases. If there is potential for conflict, then the communication should start with a point on which all the members of the communication process agree.

- **Choice of words**
  Use of ‘but’ to join sentences should be avoided. ‘But’ puts people on the defensive. Instead ‘and’ can be used to join sentences, it is far more positive.

**Effective communication in interviews**
Success of job interviews, to quite an extent, depends on the communication skills of the interviewee as well as the interviewer. Often communication in the job interview will start off with some small talk, asking questions about getting to the interview, the weather etc. the respond should be in a casual conversational tone but over communication should be avoided.
The interviewee has to prepare in advance for effective communication during the interview. Mock interview should be conducted with a friend or business associate and communication skills should be evaluated. If there are topics that the interviewee didn't fully understand, they should work on ways to make them clearer for the real interview. They should speak while looking in a mirror and pay attention to any nervous habits, such as excessive hand movement, poor eye contact or awkward long pauses. During the interview, the interviewer has to take care of certain things like

- He should be a great listener. This will help in understanding exactly what is being asked and how to answer
- Poise should be shown at all times before answering. A short pause won’t make a bad impression as long as it is used to gather thoughts for a clear and concise answer
- Long, run-on answers should be avoided by asking for clarification if a certain question is not clear
- Interviewee should always tell the truth, even if that is not consistent with the resume and may end up in loss of the job offer. The easiest way to communicate effectively and truthfully is to emphasize the strong points
- Interviewee should confirm that the interviewer has received all the answers that he or she needed to know
- A few questions should be asked at the end of a job interview to show that the interviewee is just as interested in the position as the interviewer is in hiring

On the interviewer’s part he has to prepare well in advance so as to avoid any ambiguity during the interview. The interview should be structured in terms of questions. The interviewer should prepare a list of questions and follow the list at the time of interview. Some do’s and don’ts for conducting interview:

- Questions that can be answered in yes or no should be avoided
- Words should not be put in the mouth of the interviewee
- Interviewee should not be interrogated as if he or she is a criminal
• Patronizing, sarcastic and inattentive behavior has to be avoided
• The interview should not be monopolized not should the interviewee be allowed to dominate the interview
• Open ended questions should be asked
• Interviewer should attentively listen to the interviewee and encourage them to express their thoughts

Customer Service

What is customer service?
Customer Service is about creating a relationship of trust and loyalty with customers that transcends the interaction of the moment. Ironically, such bonds are best forged not when things go right but when things go wrong. Therefore complaint management becomes the premier opportunity to prove care, responsiveness, and trustworthiness to customers. Using complaining psychology allows turning crises into opportunities and by doing so to make them more loyal than they had been before a problem arose. The following points should be kept in mind while offering customer service:

1. Calls should always be answered.
2. Reliability is one of the keys to any good relationship, and good customer service is no exception. Hence promises should be made only if it possible to fulfill them. Nothing annoys customers more than a broken promise.
3. Customer service employees should always pay attention to what the customer has to say.
4. No one likes hearing complaints but if attention is given to complaints, then this might please the customer.
5. Be helpful to customers even is there is no immediate profit in it.
6. Whether it's a coupon for a future discount, additional information on how to use the product, or a genuine smile, people love to get more than they thought they were getting. Hence these extra benefits should be provided to customers.
Benefits of customer service

Benefits of customer service are -

- Overall positioning and image will be enhanced
- Customer loyalties will increases
- It will bring competitive advantages
- Word-of-mouth advertising will increase
- Complaints will be reduced.

Types of customer behavior

Three types of customer behavior:

1. **DISTANT CUSTOMERS**

These customers like to keep to themselves and may act indifferent. They are afraid of intimacy, dependence and unpredictability. Generally they feel more at ease with facts or numbers than with other people. Most distant customers are timid, impersonal, reserved and silent. In their eyes social people are annoying, while dominant people are irrational and dictatorial.

2. **DOMINANT CUSTOMERS**

Dominant customers can approach with a bit of a hostile, even aggressive, attitude. They are assertive, competitive and always want to win. This type of people is driven by status and success and is generally very ambitious. Insensitive as they are, some dominant people are not afraid to use a bit of manipulation to achieve their goals. Most of them are suspicious by nature, which leads them to be independent and individualistic.

3. **SOCIAL CUSTOMERS**

Social customers have abundance of warmth and friendliness. This also means they have much need for affection, acceptance, approval and understanding from others. They are docile, flexible and easygoing by nature. Their friendliness and cordiality are paired with a genuine interest for others. Still, they can also feel insecure from time to time, therefore
being vulnerable to manipulation and exploitation. Social people are afraid of loneliness and don’t like to be rejected. They will go out of their way to prevent or avoid conflicts and don’t like competition.

Adapt to customer behavior style

Every customer is different. Experienced customer service providers learn to recognize these differences and adapt their responses accordingly in order to provide quality service. How to adapt to distant customers

Customers who are distant distrust customer service people and therefore keep their distance. They see customer service people as intruders and try to run away from them. The best strategy here is to keep them involved by asking open questions. Customer service people should have the patience to wait for answers.

Dominant type of customer loves active customer service people and a good mental spar. Customer service staff should remain professional and stick to facts, even when the customer seems to act by instinct. They should try to be moderately dominant, without making it a cockfight. They can be very direct and in-your-face. This should not affect the staff.

In general it can be said that these customers need help of customer service staff, but don’t want to be patronized. They require more care, love and attention than other customers. Staff should make sure they keep in touch with these customers as this can help them getting these customers for repeat buying.

A. Courteous approach

Common courtesy is the basic guideline for all customer relations. All customers should be treated exactly as an individual would like to be treated, regardless of their disposition or individual’s circumstances. It should always be kept in mind that the customer pays the wages and without them there won’t be a job. A courteous approach to customers results in developing their loyalty.
Ignoring the phone ringing is a very good way to lose a customer. If the phone isn’t answered by the third ring most callers become annoyed and hang up. They will usually call another vendor.

Flip, short, and hurried answers or comments are rude and offensive. Time should be taken to answer all questions thoroughly. A smile should always be on the face even if an individual is mad at the world. A smile can be heard over the telephone as well as seen.

Everyone who walks through the door should be greeted. If a customer in the room is looking around, it can be assumed they have not been helped and they should be offered assistance. It is better to ask too often than not enough.

Unless an individual is busy with another customer, they should never point and tell the customer where to go. They should always take the customer to the item or service area.

**Rephrasing negative responses**
Negative phrases pose several problems in communications with customers. Confusion is one reason to avoid negative expression. However, a more important one is that of image. Customers react and shape their perceptions of company, based on the way employees say things to them. Hence people should try to make their statements positive. Instead of focusing on what cannot be done, employees should instead focus on what can be done. In short, they should try to eliminate words like "don't," "won't," "not," "no,". there might be times when rephrasing an idea positively can make it too complicated, but with practice it can be overcome.

For example,

- "We can't do that" becomes "That's going to be a problem, but here's what we CAN do instead."
- "We can't start until we get requirements" becomes "Please give us the requirements so we can start."
- "We can't help you unless you log off" becomes "Please log off so we can help you."
In all of these examples, the rephrased statement tends to leave a better impression on the listener. Instead of coming across as an obstacle, the speaker comes across more as someone who is trying and willing to help. Customers who sense this attitude are likely to be easier to work with and to react favourably.

A variation of this issue involves negative questions. Suppose a customer is asked, "You don’t have the latest software?" and the customer says "Yes." What does the customer mean? That answer could signal two opposite things:

- Yes, that's right, I don’t have the latest software.
- Yes, I have the latest software.

The question here is of a confusing nature. To avoid negative phrases, the question can be asked as below

- Rephrase the question positively. For example, "Do you have the latest software version?"
- Asking an open-ended question. For example: "What software version are you using?"

The same applies if someone asks a negative question. In that case, the best approach is to avoid answering with a "yes" or "no." Instead answer can be given with a positive statement. For example: "I have the latest version" or "I have an older version."

By avoiding negative expressions wherever possible and using positive phrasing instead, one can project a more positive image and communicate more clearly.
WORK ETHICS

Policies and procedures
Policies and Procedures are the strategic link between the Company's Vision and its day-to-day operations. It is important because well written policies & procedures allow employees to understand their roles and responsibilities within predefined limits. Basically, policies & procedures allow management to guide operations without constant management intervention.

A "Policy" is a predetermined course of action, which is established to provide a guide toward accepted business strategies and objectives. In other words, it is a direct link between an organization's "Vision" and their day-to-day operations. Policies identify the key activities and provide a general strategy to decision-makers on how to handle issues as they arise. This is accomplished by providing the reader with limits and a choice of alternatives that can be used to "guide" their decision making process as they attempt to overcome problems.

The ultimate goal of every procedure is to provide the reader with a clear and easily understood plan of action required to carry out or implement a policy. A well-written procedure will also help eliminate common misunderstandings by identifying job responsibilities and establishing boundaries for the jobholders. Good procedures actually allow managers to control events in advance and prevent the organization (and employees) from making costly mistakes.

1. ADHERENCE TO EMPLOYER POLICIES AND PROCEDURES

Managing employees can be one of the most difficult aspects of running a business. Establishing policies and procedures and stating them in the employee manual may ease the burden. Clearly communicated standards may help to reduce employee complaints, absenteeism, and staff turnover.
One of the purposes of a personnel policy and procedure manual is to address legal requirements such as equal opportunity employment. By addressing different legal requirements, the manual provides protection to both the business and its employees. As a manual, these personnel policies and procedures lay a foundation for employee training.

By outlining the rules and beliefs of the business in a manual, everyone knows what is expected of them. This provides a basis for consistency in the workplace. The benefits of outlining personnel policies and procedures go beyond directly affecting the employees. As employee satisfaction increases, so does customer satisfaction. When all employees function under the same understandings, consistency in customer service is achieved. When a customer can expect a certain level of performance or quality of product from any employee at the business, it creates a positive impact on the company's brand, reputation and fiscal bottom line.

In order to be effective, all policies and procedures outlined in the manual should be followed. Lack of adherence will have a negative effect on employee satisfaction and can lead to legal consequences. Likewise, the grievance procedure should be followed step by step in order to protect the interests of all employees involved. If the policies and procedures need to be updated during employment, then all employees should be given a copy and they should sign an acknowledgment form. Also any changes made to the personnel policies and procedures should be reviewed by a lawyer. In some instances, policies and procedures can be considered implied contracts and may affect a company's ability to terminate an employee.

All employees and managers must abide by and enforce the various policies and procedures that have been put in place in order for companies to comply with legislative requirements. The employees and management also need to ensure they are familiar with the requirements in terms of the various policies and standards that have been set.

This then would place the onus on management to ensure all employees are adequately trained and understand the terms and conditions of the policies that exist in the workplace. This does not mean giving employees a copy of the various policies and trusting they will
read them – we all know this doesn’t happen. The employees must be put through formal training to ensure common understanding.

Managements understanding of the meaning of ethics for instance must be the same as the employees understanding. In addition, the company has an obligation to ensure the rules and regulations are enforced equitably, as soon as possible after a deviation occurs.

Below is a framework for ethical decision-making:

1. **Clarify.**
   - Determine precisely what must be decided.
   - Formulate and devise the full range of alternatives.
   - Eliminate patently impractical, illegal and improper alternatives.
   - Force yourself to develop at least three ethically justifiable options.
   - Examine each option to determine which ethical principles and values are involved.

2. **Evaluate.**
   - If any of the options requires the sacrifice of any ethical principle, evaluate the facts and assumptions carefully.
   - Distinguish solid facts from beliefs, desires, theories, suppositions, unsupported conclusions, opinions, and rationalizations.
   - Consider the credibility of sources, especially when they are self-interested, ideological or biased.
   - With regard to each alternative, carefully consider the benefits, burdens and risks to each stakeholder.

2. **Decide.**
   - Make a judgment about what is not true and what consequences are most likely to occur.
   - Evaluate the viable alternatives according to personal conscience.
   - Prioritize the values so that you can choose which values to advance and which to subordinate.
   - Determine who will be helped the most and harmed the least.
   - Consider the worst-case scenario.
• Consider whether ethically questionable conduct can be avoided by changing goals or methods, or by getting consent.

• Apply three "ethics guides."
  o Are you treating others as you would want to be treated?
  o Would you be comfortable if your reasoning and decision were to be publicized?
  o Would you be comfortable if your children were observing you?

4. **Implement.**

• Develop a plan of how to implement the decision.
• Maximize the benefits and minimize the costs and risks.

5. **Monitor and modify.**

• Monitor the effects of decisions.
• Be prepared and willing to revise a plan, or take a different course of action.
• Adjust to new information.

**Ethical relationships**

The ethical foundation of a company is important to the way a company is perceived by customers and peers alike. It is also a source of pride and self-respect for the company itself. While appropriate business ethics may be subjective, depending upon the context of the business, some basic principles of ethics will apply regardless of the type of business being operated. Ethical business relationships are less often a matter of legal compliance as they are of conscious self-governance by individuals and businesses. Engaging in activities that are in direct conflict with the needs of customers or clients, or engaging in personal activity that is in conflict with business, are conflicts of interest. A conflict of interest is unethical and can result in legal repercussions and damage to the ethical foundation of the company.

1. **COMPANY EMPLOYEE RELATIONSHIP**

Handling employee relations’ issues correctly is absolutely essential for creating a successful company. One should never ever forget, employees are a top asset, but if the relationship with them is botched up, a work environment with low morale and little productivity gets created. Needless to say, this isn’t good for business.
a. Loyalty

The current stormy economic condition means layoffs and employees on both sides of the pink slip are unsettled. In such a case, loyalty is a very powerful concept.

In its most basic sense, it's the relationship between an employer and an employee--an abstract, often unwritten contract in which the employer agrees to provide the materials and resources the employee needs to get the job done, matched by the employee's agreement to work at an optimal level to fulfill the goals of the company. Loyalty is really the glue that ties an employee to their job, and that tie is a function of the respect and allegiance the entrepreneur attempts to develop in their employees. When it comes right down to it, loyalty is a key reason many employees remain on their job.

But when either party to this contact fails to fulfill their role, the contract that's hard to build in the first place gets broken. And then it's extremely difficult to rebuild the trust that existed between the employee and the boss.

Loyal staffers help create a history and a culture of stability; people who've been around awhile know the road, the rules and the "how it's done around here." Loyalty reduces costly turnover rates by eliminating the time needed to advertise for new hires, then interview, screen and train them, and wait till they get up to speed. Loyal employees are usually also satisfied, productive employees.

b. Professional use of facilities

The organizational facilities should be used carefully. Just because they do not belong to us directly, they should not be misused.

Following points need to be kept in mind while using the organizational facilities:

- The stationary should not be wasted
- Rest rooms should be kept clean
- Desks should not be shabby and dirty
- Cafeteria should be a place to relax and not a place to make noise
- Proper use of dust bins should be made
• Vending machines and other mechanical stuff and also computers should be handled with care

2. **PEER RELATIONSHIP**

The peer group is critical to an individual’s success, especially in matrixed, collaborative environments, where peer reviews and opinions have heavy weight. Peer relationships must be developed and given attention or they can deteriorate and derail your career. This can be an informal coffee meeting, a more formal agenda meeting, whatever makes sense – but should be regular. That way, when an issue comes up, resolving the issue will be easier, quicker and less wear and tear on all the peers.

a. **Unbiased treatment of all peers**

Today organizations are wide spread across boundaries and also have a varied workforce. Peers in an organization come from various cultural and social backgrounds. But they should never be judged on this factor. All peers should be equally treated so as to develop a healthy working environment.

Some peers may be less educated or less talented in one way or the other. But they should not be alienated. Generally people have the habit to befriend only those peers who are from similar status, or social or cultural background, or speak similar language. This creates groups within the organization, which in the long run might turn out to be hazardous for the health of the company.

The idea should be to work with and treat all peers equally. This also promotes productivity of the employees.

b. **Treating a female peer**

Female peer should be treated with respect in an organization. The way one talks to men is different and should be avoided while dealing with female peers. The language and pitch of voice both need to be soft and slow. Also females may not prefer too much proximity while conversing or they may be slow compared to men when it comes to physical work. But all
this not be a reason to taunt them. The body language also has to be taken care of while dealing with female peers. Too much of hitting high five or shaking hands or a pat may not be agreeable to them.

3. EMPLOYEE CLIENT RELATIONSHIP

Customers form relationships with the employees who serve them as well as with the vendor firms these employees represent. The costs of retaining current customers are much lower than the costs of acquiring new ones. In many cases, a customer’s relationship with an employee who is closest to them, a key contact employee may be stronger than the customer’s relationship with the vendor firm.

a. Honest selling

To strengthen employee client relationship, companies should sell good products. The customer would feel cheated if the product/service offered is not as promised. This would affect the loyalty of the customer with the company.

b. After sales service

Customers are the assets of every business. Sales professionals must try their level best to satisfy customers for them to come back again to their organization. Good after-sales service is the key to customer retention. After sales service refers to various processes, which make sure customers are satisfied with the products and services of the organization. The needs and demands of the customers must be fulfilled for them to spread a positive word of mouth. In the current scenario, positive word of mouth plays an important role in promoting brands and products.

After sales service makes sure products and services meet or surpass the expectations of the customers. After sales service includes various activities to find out whether the customer is happy with the products or not? After sales service is a crucial aspect of sales management and must not be ignored. After sales service plays an important role in customer satisfaction and customer retention. It generates loyal customers.

Customers start believing in the brand and get associated with the organization for a longer duration. They speak well about the organization and its products. A satisfied and happy
customer brings more individuals and eventually more revenues for the organization. After sales service plays a pivotal role in strengthening the bond between the organization and customers.

**Integrity**

Used words describing people identified as possessing 'integrity':

- Strength of character
- Steadfast, resolute, having fibre
- Walking the talk, doing what was promised
- Authentic, straightforward, what's on the inside is displayed on the outside
- Open, honest and direct in their dealings with others
- Clear and uncompromised values, and clarity about what's right and wrong
- Committed, with the courage of their convictions
- Behaviours matched values (congruence)
- Principled, honourable, fair, accountable and responsible
- Balanced, integrated, whole
- self-aware and self-reflective
- Mature and wise

**5 Ways to build job integrity**

- Maintain accurate records
- Be accountable to another employee
- Keep your word
- Don't take advantage of relationships
- Pull your weight

**Self-confidence**

How to build self-confidence?

- Recognize your insecurities.
- Talk about it with friends and loved ones.
- Remember that no one is perfect.
- Identify your successes.
- Be thankful for what you have.
- Be Positive, even if you don't feel the same way.
- Accept compliments gracefully.
- Look in the mirror and smile.
- Fake it.
- Stick to your principles.
- Help others.
- Avoid perfectionism.
Annexure 2 – Safety, Health and hygiene

Health and safety

Staying healthy and safe at work is important. No matter what your job, it is important to reduce your risks of injury and illness at work.

Here are some tips to help make your workplace safe.

1. Understand the risks. Once you know the particular hazards of your job or workplace, you can take steps to reduce your risk of work-related injury or illness.
2. Reduce workplace stress. Common causes include long hours, heavy workload, job insecurity and conflicts with coworkers or bosses. Stress can lead to depression, sleeping difficulties and problems with concentration.
3. Take regular breaks. Staying fresh and alert will help you avoid injury or burnout. Schedule the most difficult tasks of each day for times when your concentration is best, such as first thing in the morning.
4. Avoid stooping or twisting. Use ergonomically designed furniture and equipment or rearrange your work area so that everything you need is within easy reach.
5. Use mechanical aids whenever possible. Instead of trying to lift or carry a heavy object, use a wheelbarrow, conveyor belt, crane or forklift.
6. Protect your back. If you do need to pick up and carry heavy loads, keep the load close to your body and lift with your thigh muscles.
7. Wear protective equipment to suit the task. If worn correctly, gear such as earplugs, earmuffs, hard hat, safety goggles, gloves or full-face mask can dramatically reduce your risk of injury.
8. Stay sober. Alcohol and drugs are a contributing factor in around three per cent of workplace fatalities.
9. Talk over any concerns. Your employer or human resources manager need to be informed about hazards and risks. Your employer is legally obliged to ensure a safe working environment.
Types of Health Hazards

1. Chemical
2. Physical
3. Biological
4. Ergonomic

**Chemical Hazards** - *Chemicals can enter the body through:*

- **Inhalation** - breathed in
  
  Inhalation is typically the most common way chemicals can enter the body in a work situation.

- **Ingestion**: Accidental swallowing through eating, drinking, or smoking

- **Absorption**: Absorbed through contact with skin or eyes

**Physical Hazards**: Physical hazards are different types of energy which may be hazardous to workers. They include:
- **Noise:** When you are exposed to excessive noise levels, the first stage is temporary hearing loss. Several factors influence the noise levels to which workers are exposed:
  - Type of equipment being operated
  - Condition/maintenance of the equipment
  - Other equipment running at the same time
  - Enclosed or partially enclosed spaces

- **Vibration:**
  Whole-body vibration can occur from operating large mobile equipment, such as drillers, air hammers, pile drivers, tractors, graders, excavators, earth-moving equipment, and other large machinery.

  Hand-arm vibration can result from using hand-held power tools, such as pneumatic drills and hammers, and disc grinders.

- **Temperature Extremes:** A change in body temperature due to extreme work environmental conditions can lead to stress or illness from heat or cold. If not treated in time, both heat and cold stress/illness can develop into life-threatening situations.

  **Heat illnesses causes:** Heavy work in high temperatures can cause muscle cramps, dehydration, sudden collapse, and unconsciousness.

  - Heat rash
  - Fainting
  - Heat cramps
  - Heat exhaustion
  - Heat stroke

  Prolonged work under direct sunlight in summer (e.g., asphalt paving or roofing in summer)

  - Wearing impermeable protective clothing when doing heavy work

  **Cold illnesses and injuries:** Cold temperatures can lead to fatigue, irregular breathing, confusion, and loss of consciousness (hypothermia).
- Frost nip
- Immersion injury (trench foot)
- Frost bite
- Hypothermia

**Health effects:**
- Skin cancer
- Eye damage
- Premature skin aging
- Burns

**Ergonomic Hazards:** Ergonomic hazards can cause painful and disabling injuries to joints and muscles. They can occur from:
- Heavy, frequent, or awkward lifting
- Repetitive tasks
- Awkward grips, postures
- Using excessive force, overexertion
- Using wrong tools for the job or using tools improperly
- Using improperly maintained tools
- Hand-intensive work

Ergonomic hazards can lead to musculoskeletal disorders (MSDs) and injuries: strains and sprains – one of the most common injuries among construction workers

- Tendonitis
- Carpal tunnel syndrome
- Low back pain
- Fatigue
Basic Hygiene

Personal cleanliness and good hygiene practices are essential for health.
Healthy hygiene habits should be practiced daily.

Hand Washing

- Frequent hand washing reduces the spread of germs, bacteria and food-borne illness. Apply soap and lather for at least 20 seconds, making sure to clean fingers, fingernails, cuticles, palms and wrists. Rinse thoroughly and dry with a fresh paper towel or an air dryer.
- You should always wash your hands before handling or eating food; after trips to the restroom; and after blowing your nose, sneezing or coughing.

Bathing

- Regular bathing reduces body odour and can help control skin problems like acne. Personal preference and resources determine whether you should take a bath or shower, though if you are heavily soiled it is best to shower rather than wash with dirty bathwater.
- Wash your hair as frequently as needed based on your hair type. Dry yourself thoroughly after bathing to prevent bacteria growth.

Oral Hygiene

- Proper oral hygiene is crucial in reducing and preventing problems of the mouth and gums like plaque, cavities, gingivitis, tartar and bad breath.
- Brush your teeth at least twice per day and floss once per day.
- No false nails as they harbor bacteria.
Handling Stress

How to reduce Stress

Stress is the trash of modern life – we all generate it but if you don’t dispose of it properly, it will pile up and overtake your life.

**Identify Your Work Stress.** Before you can eliminate or reduce stress, you must know what you are dealing with. Write down all the stresses that you deal with on a daily and weekly basis. Then create a top 10 list of all the things that cause you stress and determine which items you can eliminate from your list.

**Shorten Your Scheduled Meetings.** Consider cutting many of your 60 minute meetings to 30 minutes and your 30 minute meetings to 15. With a shorter time frame to work in, you will be forced to be more productive.

**Stop Procrastinating.** Allowing work to pile up will stress you out. Plan time to get things done and off your desk.

**Get Organized.** Disorganization can cause a significant amount of workplace stress. Block time to get things organized.

**Always Be On Time.** Being late will cause a lot of stress at work or in your life. Learn the habit of being early, and this type of stress will disappear.

**Stop Trying To Control Everything.** Trying to control situations and people does not work. In fact, when we are in the state of trying to control, it just creates more stress at work and in our lives. Learn to let go of situations that are out of your control. The only thing you can control is yourself.
Stop Multitasking. Doing multiple tasks at the same time might seem productive, but in reality it slows us down from completing tasks, reduces the quality of work, and creates stress. Learn to single-task and get more done.

Cut Out Negative People. You know who they are. They can drag you down and create more stress. Surround yourself with other positive minded people and you will feel less stress.

Simplify Your Work. Look for ways to make your tasks more streamlined and simple.

Give Back & Help Others. Whether you volunteer for a charity or just make an effort to be more compassionate to those around you, you will notice it lowers your own stress levels. Try it out for a day and see how you feel.

Take Mini Breaks. Studies have shown that concentration levels decrease 25 to 30 minutes into a task. If you don’t take any breaks, your focus and productivity will drop. Plan and enjoy mini-breaks during your work day.

Breathe. Take a moment and breathe. Prospects want to work with confident salespeople so collect yourself before an important call or meeting and get oxygen circulating throughout your body. This will stimulate blood flow to the brain and help you recall pitches and answers more effectively.

Exercise. Regular exercise will help immensely with stress in your life. At least, 15 mins walk in midday and jogging in the morning is advisable.