# UNIT 401: INTERPERSONAL RELATIONSHIP AT WORKPLACE 

## INTRODUCTION

Interpersonal relationship is the association between people of similar mindset and taste. People with similar interests and goals enter into an interpersonal relationship.

Now a day's human race is attacked with a great deal of health hazards so it is necessary to maintain as sanitized as possible. Maintenance of hygiene is crucial for many ins and outs; individual, communal, fitness, psychological or basically as a way of life. Maintaining a decent standard of cleanliness is important in preventing from various contaminations and infections.

Hygiene at the workplace is critical for the threat of being ill. Functioning in close contact with work associates can be a sign of germs being effortlessly spread, when specifically workers fall ill, feel stress to come to work. Maintaining hygiene at workplace has prime importance.

The very important aspect of professional practice in design is the relationship between designers and their clients. Designer connects with clients through face to face interaction or with use of digital technology. This involves various aspects of professional practice. It helps designer to identify, evaluate and enlist the need of client.

## SESSION 1: MAINTAINING GOOD INTERPERSONAL RELATIONSHIP AT THE WORKPLACE

To have good interpersonal relationship at workplace it is essential that both individual get along well. Factors affecting Interpersonal relationship are:

Compatibility: Good compatibility results to no conflicts and misunderstanding in the relationship. People from similar background or with goals in life always have good relationship.

Communication: It is the medium to express feelings and reciprocate, so plays very significant role in any type of relationship. Effective communication leads to good understanding. Any mode can be used for communication. In professional relationship it is essential that all colleagues must speak with each other for better binding. Sitting
with coworkers and discussing issues for mutually acceptable solution is essential for good managers. Clarity of thoughts leads to better interpersonal relationship.

Honesty: Honesty is strongest strength of any relationship between two people. One should never lie or hide things with the counterpart in relation. Transparency builds confidence in relation.

Stay calm: It is advisable to remain cool and calm in relationship. One should never overreact on small matters. Try to discuss on any matter to understand other person's views. Saying sorry first is solution to half of the problem. Keep ego away in relations.

Forgiving: To maintain long lasting relationship you need to adopt the kindness to be little more forgiving. Never drag unnecessary issues for long. Fighting makes situation worse.

Smile: There is saying that-"smiling is the smallest and cheapest curve that makes everything straight." Always take care of your facial expressions while communicating with people because there is saying that action speaks louder than words.

Time: In an organization, one should spend quality time with coworkers. Time plays significant role in interpersonal relations. Spending time together strengthens the bond. Time and efforts are essential to grow any relationship. Appreciating staff and praising publically gives motivation for better work.

## Tips to Improve Interpersonal Relations at Workplace

Interpersonal relationship in organization is association among members in team or in office. All individuals spend six to eight hours regularly at the workplace. It is not possible to work alone or in stressful conditions. We need to discuss on many issues and work together so it is always best to have good interpersonal relationship at workplace to be energetic and work efficiently. Good interpersonal relation between members of organization improves the productivity.

It is essential to have healthy atmosphere which creates positivity in thoughts and beauty in minds.

1. Do not treat office as your home- It is essential to follow professional ethics at workplace. Keep control over your behavior at workplace. Misbehaving with colleagues, leg pulling, backbiting, criticism, is never accepted at workplace. Draw a clear line with friends and colleagues.
2. Never interfere in colleague's work- There should be clarity in responsibilities of the employees. Overlapping leads to interfering in each other's task which many times eventually ends with fighting. One should always analyze his/her own work instead of keeping eye on what others are doing.
3. Give space to fellow workers- This is the most important for any relationship at any place; if it is workplace it becomes essential. Never open posts which are not for you. Avoid keeping ear on anyone else's personal conversations.
4. Never spread rumors- Make habit to keep things to yourself. Never discuss personal matters publically. Avoid publicizing personal matters.
5. Always pass correct information- If you are provided with any information to pass to others, make sure to do it on time and in the desired form. Tampered information creates confusions and spoils relationship at workplace. Always leave ego behind- Never bring personal ego and tensions to workplace. Thinking before speaking is always expected. Making fun of colleagues is never expected out of professional. Appreciate if someone has performed exceptionally well. Remember only hard work pays in the long run.
6. Never scold any team members publically- Leaders should always keep in mind not to scold anyone in organization publically. It might insult him/her. Call and discuss issues at right place. Employees must be strictly judged on their work or assigned duties and nothing else. Members doing good work should be appreciated or rewarded.
7. Stays away from nasty politics- Never try to harm anyone. Always avoid being jealous if someone is appreciated for his/ her work. Maintain healthy atmosphere and competition at workplace.
8. Never share all secrets with coworkers- if you don't have confidence of blind trust, never share. They might be misused.
9. Employees must communicate effectively with each other- Sharing problem reduces it to half so communicate effectively for healthy relationship.
10. Interact with coworkers more often- Always try to make discussions on an open platform where every member has liberty to express their opinions or views. It is always advised to prefer written mode of communication at workplace. In the age of electronic communication make communication clear, self explanatory and to all related employees same. Never hide things from fellow workers. Never ignore any of your coworkers, which may hurt the person and will spoil relationship with individual resulting to workplace atmosphere negatively.
11. Talk to each and every person of your organization whether part of team or not. An individual must not take things to heart at workplace.
12. Leaders should conduct meetings in the morning with his team members-Informal meeting in the start of the day, breaks the ice among employees resulting good interpersonal relationships at workplace. Give equal opportunity to each member. Favoritism always spoils relationship between superiors and subordinates.
13. Plan lunch, picnics or get together occasionally- Try to connect with the employees family members by organizing get together where employees family is also invited.
14. Greeting colleagues on important days- sending wishes electronically and asking for treat, connects to the colleagues. These small ideas go a long way in increasing the bond among associate workers. Make arrangements to celebrate important festivals at workplace for workers to form close bond with each other.
15. Allocate work equally to each team member. No one member should be overburdened.
16. Never expect all the things to be done as you like it. One needs to be more adjusting and cooperative at workplace. Each member of the organization has its own capabilities; you are surrounded with different type of people. Do not always look at the negative side of things, but look at the positive side of an individual and be prepare to accept people as they are. Being flexible at workplace always helps in improving interpersonal relationships.
17. Always stand by your coworker when needed. This is the strong way to create good atmosphere and interpersonal relationship.

## EXERCISE

## Assignment

1. List out the points for good interpersonal relationship you find with your friend.
2. Make a small ( 30 words) dictionary terms related to interpersonal relationship.

## ASSESSMENT

## Answer the following questions:

1. Explain the factors affecting interpersonal relationship at workplace.
2. Write ten important ways to improve interpersonal relationship at workplace.
3. Write short notes on the following:
a) Time
b) Communication
c) Compatibility
d) Smile

## Fill in the blanks:

1. It is essential to follow $\qquad$ ethics at workplace.
2. Good compatibility results to no $\qquad$ and $\qquad$ in the relationship.
3. Good interpersonal relationship between members of organization improves the
$\qquad$ .
4. It is essential to have healthy atmosphere which creates positivity in $\qquad$ and beauty in $\qquad$ .
5. Communication is the medium to express $\qquad$ and $\qquad$ .

## SESSION 2: IMPORTANCE OF HYGIENE, PERSONAL HYGIENE AND PERSONAL GROOMING AT THE WORKPLACE

Nowadays human race is attacked with much kind of health hazards so it is essential to keep as sanitized as possible. In actual fact, absence of hygiene is main reason of the new-world sicknesses. Keeping hygiene is essential for many ins and outs; individual, public, fitness, psychological or basically as a way of life. Upholding a set standard of cleanliness is important in preventing from various contaminations and infections. It is logical to monitor the similar hygiene both at home and workplace as we devote more time at work than we do at home.

Understanding how germs spreads and what we can do around is a primary phase to helping to protect ourselves from polluted microorganisms. Maintaining hygiene at workplace has prime importance.

## The Importance of Good Hygiene at Workplace

A place of work is usually packed with a large number of people working together. Workplace hygiene helps you to stay away from a number of contagious diseases. This helps to live a healthy lifestyle at both workplace and in home. Nobody can work in an unhygienic environment. It is duty of the entire work team to keep our environment clean and hygienic. Cleanliness policies at the workplace are always beneficial as they act as a catalyst to improve the productivity. All employees should also maintain the cleanliness.

At workplace, hygiene checklist should include a number of things such as:

- Get your organization vacuumed daily
- Always use dustbin on a daily basis for all the crap stuff.
- Wash hands before serving or eating anything.
- Motivate your coworkers to keep the environment neat and clean.
- Reuse the papers and other paper material to reduce the garbage in the office.
- Make sure all the appropriate materials are kept well stored up at place.

Hygiene at workplace:

1. Helps increase the productivity
2. Helps to enhance personality at workplace
3. Protects against various diseases.
4. Unhygienic habits affect others also.

Points to be remember at workplace:

1. No smoking
2. No dirty clothes
3. No putting fingers in nose, mouth, and ears and touching hairs while working
4. No long nails
5. No sneezing in air

## Personal Hygiene and Personal Grooming

Personal hygiene is practice performed by an individual for cleanliness of body. It shows how much importance you give to your body. It is important for healthy and fit body. You can always find a fit mind in fit body. General cleanliness habits are brushing teeth twice a day, taking bath daily, washing hands before taking food and after using toilet keep bacteria, viruses and illness away. Good personal hygiene is essential to promoting good health.

Personal grooming is the process of making yourself looks neat, clean and attractive. It is also called preening. This makes our self look more systematic and tidy. Grooming is important for a positive self-image. Proper grooming is important to gain positive impression. It also helps in gaining admiration in the workplace. The ways you look and carry yourself create impact on people you interact with. It also helps to create a good first impression on others.

Appropriate hygiene and grooming is an important part of managing your own image. As employees represent the face of the organization, the image of an employee makes an impact on the image of the organization.

To bring uniformity in standard of self presentation by the employees, employers often fixes dress code for the organization. Some basic grooming standards are also fixed for employees who interact with clients.

In a professional environment the alertness of proper hygiene and grooming standards among workers is most important. Each employee should know and accept the requirement for right grooming and hygiene standards. This needs knowledge and efforts regarding the positive impact of good grooming habits and also negative effects of bad grooming habits.

Such awareness leads to cordial working conditions and also brings about a highly positive environment in the organization.

## The Ways of Good Personal Hygiene

We know that a healthy body is the home of a healthy mind. Any one employee not keeping the hygiene around him could most likely spread the contagion across the office. Neat and clean person is popular. It provides charm to personality and also enhances morals.

Keeping personal hygiene is required for many reasons; personal, social, health, psychological. It could avoid the growth and spread of infections, diseases and bad odours by keeping a good standard of hygiene.

Most people are aware of personal hygiene because:

- They are taught the significance of hygiene from an early age.
- They may have been "picked-on" at early age for any one of the hygiene problem.
- They could have felt the distance of friends and colleagues due to unpleasant smell etc.
- They are conscious of health problems that can increase as a result of poor personal hygiene

One should focus on hair and teeth along with areas of the body that might stink or are more prone to fungal/bacterial infections.

1. Hair:

Dirty hairs: Appearance is most affected by dirty hairs. If you are suffering with the problem of greasy hair find solution: one of the solution is to wash hairs regularly, long enough hair can be kept tied.
Dandruff: If you suffer from dandruff, try the most effective shampoos. Always take medical advice.
Head lice: Head lice are contagious. Keep hair clean and treat them to remove lice.
2. Teeth and Mouth:

Teeth: A beautiful smile always attracts and enhances the appearance. If teeth are grubby or breath is smelly, it has an entirely different result. Brush your teeth twice daily. One can see dentist about treatments for problems at the early stage.
Smelly breath: Tooth decay, dehydration or an empty stomach are the reasons of smelly breath. Bad breath can also be the sign of a gum infection. Make sure to visit your dentist on a regular basis to keep a check on it. Always eat healthy food and drink water regularly.
3. Areas Prone to Odour and Fungal Infection

The legs, the genitals and some of our sweat glands are areas of the body that are not often exposed to fresh air. They commonly experience unpleasant odors and fungal infections. Most common problems are-
Smelly feet: The feet have lots of sweat glands. The pungent 'cheesy' aroma is because, of the attack of skin bacteria as feet are confined in socks and shoes for long time, and the sweat has no place to 'evaporate'. To reduce smell of feet:

- You should wash feet daily and dry with a soft towel and use an anti-bacterial foot powder or baby talc.
- Whenever feasible wear open shoes to allow feet to air.
- Use cotton or other breathable fabric socks and change socks every day.
- Athlete's foot - Athlete's foot is a fungal infection that causes itching, flaky skin and sometimes a sore, red rash. It's highly contagious. Always take medical advice.
Genital Areas: Keep genital areas clean as they are prone to bacterial infections which can cause unpleasant aroma. The best hygiene for all the genital areas is to clean once or twice a day using mild soap and water.


## The Ways of Good Personal Grooming

Perfect grooming is a part of good hygiene. Maintaining proper personal grooming makes a person look more fit and smart than other people. One could create a decent impression at workplace and people would like to hear you if you are well groomed.

Some ways to keep groomed are:

1. Get your hairs cut regularly and in style suitable to your profession.
2. Dress up with apparel clean and pressed and suitable to your profession.
3. Select the dress and its color suitable to your personality.
4. Wear polished foot wears and also matching to your apparel.
5. Always use good soothing perfume.
6. Always use mouth freshener.
7. Always keep smiling.
8. Keep your mind and body under your control.

Workers to a great extent influenced by their workplace environment. An appealing workplace creates a good level of comfort in the employees. Keeping workplace clean helps in creating a good environment. There are several essential measures that can help maintain the hygiene of the workplace.

## The following are some guidelines for addressing hygiene issues:

1. Develop a policy.
2. Understand workers' rights.
3. Never take for granted that you know the cause.
4. Meet with the employee in private.
5. Be tactful but direct.
6. Give the worker an opportunity to speak.
7. Set correct expectations and document actions taken.

## EXERCISE

## Assignment

1. Collect five pictures of neat and clean workplace and label the important points of hygiene visible in the pictures.
2. Prepare collage of pictures on personal hygiene and grooming.

## ASSESSMENT

## Answer the following questions:

1. Explain the importance of hygiene at workplace.
2. Differentiate between personal hygiene and personal grooming.
3. Write ways to maintain personal hygiene.
4. List out the benefits of hygiene to organization.
5. How is employee personal grooming helpful to an organization.

## Jumbled the words:

(a) yihegen, (b) mteinernovn, (c) ogmrogni, (d) enta, (e) athleh, (f) enlca, (g) ydti, (h) mergs, (i) psdsera, (j) sdiaesse

## SESSION 3: INTRODUCTION TO INTERPERSONAL RELATIONSHIP BETWEEN DESIGNER AND CLIENT

The very important aspect of professional practice in design is the relationship between designers and their clients. Designer connects with clients through face to face interaction or with use of digital technology. This involves various aspects of professional practice. Clients depend on the designers because they develop new ideas or give form to their vision. It helps designer to identify, evaluate and enlist the need of client.

There is a famous saying "Fashion fades style is eternal". The designer should develop some best qualities for having good relationship with the client.

Certain qualities that a designer should develop are:

1. Good Business Sense: Knowledge of excellent business skills is necessary as designer need to understand budgets, marketing, and sales concepts which are important to get designs produced and sold.
2. Good Communication: The second most important quality in designer is to have good communication skills, to communicate effectively to client.
3. Sense of Competition: The designer should keep updated with the competitors in market and their works.
4. Creative: Designer should possess the creative skills to come up with new innovative ideas.
5. Strong Drawing Skills: Designer should have excellent drawing skills to be able to easily sketch ideas onto paper to initiate production process.
6. Good Eye for Materials: Designer should have an eye for the fabric and trimming materials in market for the designed garment. Designer should select appropriate material to fit best for the developed designs.
7. Good Sewing Skills: Designer should possess good sewing skills to convert the idea on paper to the real form.
8. Team Player: A good fashion designer always works in a team. Designer should be able to work well with everyone involved in the team.

Designers should ask right questions to the client. Questions should be in correct format so they may get the appropriate information for their designs. They should conduct a professional meeting, establishing contact and rapport with clients. Designers should have sufficient information about their clients' lifestyle, their budget and expenditure and what are their regular activities. This helps them to understand the extent to which clients' lifestyles influence design decisions.

Designer should collect information from clients' answers and prepare a list of requirements based on the information gained from clients.

The designer needs to interact with the client to identify the difference between their reaction and idea and clients abilities to interpret design ideas. The designers' thought process during designing and their view of garment can be very different from the way the client visions it. Designer should understand that there is difference between the designers' organized world against the client's practical world which is in a constant state of change. So there is a need for designers to develop interpersonal skills in creating good relationship with clients.

To bridge the gap between designers and their clients, designers need to interact with the client during design development. Designer should have good listening and communication skills to communicate and respond with client. This helps to improve designers' understanding of clients' ideals and objectives, and their physical as well as mental needs, and enhancing their ability to work with clients. The four major steps that require communication with the client include project generation, acquisition, concept and design.

Designer should develop concept statements for their clients'. It should reflect clients' social and personal lifestyle and aesthetic preferences in the development of
their design concepts. Develop design concepts favorable to the clients' needs, preferences, and lifestyle; and communicate conceptual ideas to clients. The major tool of designer is illustration skills which the client is not fluent in reading and incorporating. Designer should learn to verbalize the thinking process during design. This will help to convey their concepts and ideas with the clients. It will also ensure that the clients' requisites are successfully understood by designer. Designer's should understand that need of client may change during process of production.

Designers discuss their designs with their clients and get their reply on the direction being taken. Designer should have the ability to convey design ideas to clients and write a client meeting summary based on their meeting with the client. The documentation is important. Based on the feedback from clients, designer further alters their designs. Designers select fabric, sewing material and trimming materials, and other salient elements for their designs. Designers prepare presentation boards with their drawings, inspiration photographs, and materials selected for their client. The drawings may be sketched or drawn on graph paper. Designer should dress professionally and present their collection to client. Designer should have good communicating ability to present their designs and justify the design and material selections to satisfy the clients need.

The designer should establish relationships with clients and should be ready to face the challenges. Clients may have different preferences and artistic sensibilities than them. As designers they are faced with the challenge of line up their design judgment with the clients', desires, and likes. Designers are also challenged by color and fabric type and length of choices presented by their clients that do not align with their personal judgment.

Clients are found giving too much direction to the designer and making design decisions for them. There is no one to interjects in meetings and requests the client to hold back design ideas. Designers should consolidate a certain amount of work and present a design scheme to their clients. Designer must present themselves, ask the right questions to assess client needs, translate client needs into design decisions, and communicate their design ideas.

## EXERCISE

## Assignment

1. Prepare a client board
2. Prepare a power point presentation on client board.

## ASSESSMENT

## Answer the following questions:

1. Write down the qualities that a designer should develop.
2. Write the need for designers to develop interpersonal skills in creating good relationship with clients.
3. What are the four major steps that require communication with the client?
4. Why designers need to interact with the client during design development?
5. Write the types of challenges a designer could face.
6. Explain the importance of good interpersonal skills for designer.

# UNIT 402: ADVANCED APPAREL DESIGN 

## INTRODUCTION

Perspective is a key to almost any drawing or sketch. Perspective drawing gives a three-dimensional feeling to a picture. It is a technique to signify three-dimensional images on a two-dimensional picture plane. It is an art system that modifies the distance or depth of an object on paper. Perspective is the way that one looks at something.

Drawing of pattern or texture in sketch is called Rendering. Rendering is the term used for a two-dimensional drawing that an artist illustrates what a structure will look like once it has been built. Rendering in illustration and technical drawing means the method of creating, adding color, shading, and texturing of a figure. It can soften drawings.

Texture means the surface quality of an object- How it looks, feels and performs. Texture is critical to clothing for two reasons: texture is the very medium, the tangible substance from which clothing is made and it appeals to our three senses: touch, sight and hearing. All fabric textures depend on variations of four factors- Fiber content, Yarn structure, Fabric structure and Finishes. All these affect the visual and tactile as well as performance qualities of a texture.

Shapes is usually define as flat, two dimensional area enclosed by a line. The outline creates the silhouette seen as flat. Forms is defined as a three dimensional area enclosed by a surface. The three dimensional human form is a solid mass bounded by the contours, the protrusion and indentation of the surface of the skin. Clothing parts are hollow forms whose interior volume relate to and complement the exterior contour of the body. The human figure can be seen as combination of geometrical forms. As age changes the shape of the body also changes. The basic human form does not change; the designer creates visual variety, maintaining the functional comfort, safety, mobility, and practicality. We can use garments to change the form proportions.

3D Structural forms used in garments visible are also decorative. In fashion, the term "silhouette" refers to the outline of a garment, or the garment's overall shape. Usually, silhouette is what one sees from a distance. It is responsible for the first impression of the garment. There are factors that determine the character and quality of silhouette. Ad designer should know how to relate costume to size and personality. Since no two human are alike in size, shape or personality so learning which style is better for individual needs specific study.

## SESSION 1: DESIGN AND RENDERING TECHNIQUES

When employing artificial perspective one should create the illusion of real seen as viewed through window. This illusion can only be achieved by viewing with one eye from the correct position. Altering the viewpoint - through distance, height or anglewill change the perspective of the picture.

Rendering is the term used for a two-dimensional drawing that an artist creates to illustrate what a structure will look like once it has been built. Rendering in visual art and technical drawing means the process of formulating, adding color, shading, and texturing of an image. It can soften drawings. From this term came the word render, which means "to make visible" or "to draw."

Drawing of pattern or texture in sketch is called Rendering. There is always more than one way to render any specific fabric. Every illustrator has own way of rendering technique based on individuals styles and creativity. Illustrating fabric become easier after becoming familiar with material to be illustrated and media to be used.

Perspective: Perspective is depicting three-dimensional space on a two dimensional plane. An object may appear very different what it is in reality when seen from different viewpoints. Our familiarity with two dimensional representations or photographs has trained our eye to be aware of the changes caused by the distance and angle. The human eye is in effect a camera so that wherever we look we see a perspective view. For example, we know our arms are the same length but a figure seen in perspective may appear to have arms of a different length.

There are three types of perspective-

1. Linear perspective
2. Atmospheric perspective
3. Color perspective
4. Liner perspective- It is to achieve an illusion of space. All parallel lines in a painting or drawing using this system join in a single vanishing point on the composition's horizon line. In many ways, a drawing depending solely on the laws of linear perspective will not match the real- life experience. In real life, we see with both the eyes, which constantly move, scanning objects within our range of visionfrom foreground to horizon, from sides to centre. To avoid the pitfall of linear perspective the theory must be used with own observation and well- founded illusionistic devices.
5. Atmospheric perspective- It is to creating an illusion of depth into the picture space. It is created through the representation of the tonal modification of colors caused by the atmosphere. This means, as things retreat from the eye, they
become lighter in tone. Object in close focus have more tonal strength than objects seen in the middle distance and these objects, in turn, are stronger in tone than those seen in the far distance. Those objects located in full focus of the foreground have more overall tonal strength and would thus appear darker - but parts of such objects, the area receiving full light, would tend to be darker in tone than anything else included in the picture. When foregrounds are strong and dark, the next layer is middle toned and the background ones are light, the eye is led automatically into the picture space.
6. Color perspective- The colors are affected by the distance, further the object from the eye, modified is the color. As color recede, they have a bluish tendency. Blue is the key to the distant hues as perceived in nature. Anything located in the same approximate area in the picture space must fall within the same tonal range to integrate into the space. The credibility of 3D space can be augmented by details of texture and patterns as they recede away from us and reach out beyond the picture plane. Patterns and textures of various things have clear and discernible detailing when close and becomes blurred and less distinct at a distance.

When employing artificial perspective, one should aim to create the illusion of a real scene as viewed. The illusion can only be achieved by viewing with one eye from the correct position. Altering the viewpoint will change the mood of the picture. By mastering the tricks of linear perspective, combined with other well-founded illusionistic devices and the powers of observation, one can create an illusion of depth into the picture space.

Cone of vision: The field of vision is called the cone of vision, because of the endless number of sight lines, which radiate in a cone like shape from eye. For drawing and sketching purpose, the cone of vision is 60 degree. The peripheral area around our cone of vision is sensitive to light and movement but in order to see objects in this area clearly to draw it is necessary to turn our head and shift our focus. This changes the perspective and therefore when larger objects are drawn a greater range of vision is required so subject matter needs to be observed from a greater distance.

## Perspective terms

Center line of sight or the central visual ray: When we look about us, we focus upon a succession of spots of interest, each of which is fixed by a sight line at the exact center of the cone of vision. This line is known as the center line of sight or the central visual ray.
The ground line: It is the line where the picture plane and ground plane meet.
Horizon line: On the picture plane at eye level the horizon line can be drawn. This means the height of the horizon line above the ground is the same as the eye above the ground plane. The height at which the illustrator places himself can change the mood of the picture. The higher the position, the more of the ground plane he is able
to see. An artist sitting down sees less than one standing up. Panoramic view must have a high eye-level. By lowering the viewpoint, we can increase the feeling of drama in the picture. Figures seen from low down appear menacing.

Distance of artist from the picture plane: This is also important, although the distance between the two is dependent upon the length of artist arm and the control he wishes to retain.

Distance of picture plane from object: To get the best illusionistic effects, the illustrator must be at least one and a half times the height away from the tallest object.

Vanishing point: Any two or more lines that in reality are parallel will, if extended with continuing imaginary lines appear to converge at a point on the horizon this point is known as vanishing point. For example, railway tracks are receding into the distance.

Perspective System: There are three types of systems.

1. One Point Perspective
2. Two Point Perspective
3. Three Point Perspective

To demonstrate difference between the various perspective systems a box like shape is visualized.

1. One point perspective- in this perspective one will have two plane visible one parallel to picture plane and the other with sides which appear to converge to a single point on the horizon.
2. Two point perspective- if you rotate the box slightly so that a corner presence itself to us, the vanishing point of the length lines will be located further along the horizon line until, from a certain angle it passes out of a picture. The width lines of the box are therefore no longer parallel to picture plane so a vanishing point has to be establish for them too. This is called angular or two point perspective.
3. Three point perspectives- with three-point perspective the observer can see the three planes again but there are three sets of converging lines not two. With this system, two of the sets of the parallel line meet at vanishing points on the horizon and the third set intersects at a point either above or below that line. This occurs when there is a very high or low viewpoint.

## Shadows and Reflection in Perspective

Reflection can create interesting and fascinating visual propositions. The important principle is that a reflected image will always appear to be the same distance behind the reflecting surface as the object is in front of the surface. A mirror with a box placed in front of it will not only reflect the box, but the ground between the box and the
mirror. It is this, which makes the reflection of the object look as though it is the same distance behind the mirror the reflecting surface as the object is in front of it.

Shadows: The characteristics of the shadow are affected by the light that caste them.

Shadows cast by the sunlight: There are two factors concerning shadows cast by the sun in a picture plane: first, the position of the sun governs the direction in which shadows fall and secondly the height of the sun governs the length of the shadows.

## Rules to remember_

1. If the post is viewed in ordinary sunlight, the side facing the light source appears lighter than the side facing away from the light source, which is in the shade. The line between the face seen in the light and the face seen in the shade is known as the line of separation because the post stops light rays from reaching the ground. The area on the ground behind the post on the opposite side to the light source will be in shadow. This shadow will start at the base of the post and will finish with the first light ray, which is able to pass directly over the post. It is therefore important to know the angle of the sun and its position in the sky in order to calculate the length and shape of the shadow.
2. Shadow will fall in the direction in which the light rays travel from the light source.
3. In shadow projection, parallel lines cast parallel shadows. The shadow of the arms of a person stretched out and parallel to the ground will share same vanishing points as his arms.

Shadows cast by the artificial light:_The light rays from an artificial source radiate from a single point. The shadows cast by them are different in shape and that the shadows cast will be larger than that cast by parallel light rays, although they also travel in straight line, cannot change direction unless a reflector is introduced and cannot pass through solid matter. Number of light source also affects the shadow.

Perspective and the figure: When interpreting the figure, cognizance is given to the general features and details of the anatomy along with the important factor, perspective. Rules of perspective must be employed to suggest depth, solidity and balance. This involves the relationships between the angle of the feet, the hips and the shoulders plus their relationship to those angles of the top of the head. It is always important to draw a firm platform for the feet of a standing figure or in the case of seated figure, for the thighs and buttocks, to which angles of the body can be related. Treat the figure as a solid existing in space. The angles through the shoulders, hips and feet demonstrate the effects of the perspective.

Rendering: Rendering in illustration and technical drawing means the method of formulating, adding colour, shading and texturing of an image. It can reduce drawings. It is the term used for a two-dimensional drawing that an artist
creates to illustrate what a structure will look like once it has been built. From this term came the word render, which means "to make visible" or "to draw."

Techniques of rendering a drawing are:

1. Hatching and crosshatching
2. Blending
3. Shading
4. Random lines
5. Cross contour lines
6. Hatching and crosshatching is achieved by drawing lines to create value. These lines may cross over each other. The more the lines cross over each other, the darker the value. By changing the frequency of marks, a series of value can be achieved. This series of value leads to the illusion of form.


Fig.2.1 Hatching techniques
2. Blending can take on various forms. The amount of pressure put on the pencil to change the amount of material applied. This creates the series of value that is essential for the illusion of form.
3. Shading- In this technique, the artists uses pencil on the surface and then removes some of using eraser, which creates light and dark shade on the surface. Shading usually results in a "Smokey", atmospheric look.
4. Random lines- Value are achieved in this method by applying haphazard lines to add the value. The occurrence of crossing lines, affects the values created, resulting in the illusion of form.
5. Cross contour lines: Cross contour lines are lines that follow the outlines of the object. This can cause the lines to cross over each other. In the case of a sphere, cross contour lines will curve slightly as the sphere curves.

Fabric in an illustration is about fiber or weave and also surface interest of a particular fabric- for example stripe or plaid or print or paisley and also can be a knitted fabric or knit designs. These surface interests encompass both pattern and texture. There is always more than one way to render any specific fabric. Every illustrator has own way of rendering technique based on individuals styles and creativity. Illustrating fabric become easier after becoming familiar with material to be illustrated and media to be used. Here are some examples of illustration.


Fig.2.2 Cross hatching

1. Stripes: Stripe on knitted fabric will cling a bit more than they would on a crisper, woven fabric. When rendering stripes on garment start in the middle center front of garment and then move out to the sides in one direction on the body. Another technique is to follow the hemline curves or folds or gathers of the garment drawing the stripes in and out with the movement of the hemline.
2. Checks, Gingham and Plaids: They are drawn similar to stripes. In stripes, we follow only one direction on the body while in checks, gingham and plaids we extend in both directions, vertically and horizontally at the same time. If we wish to sketch a checked or plaid fabric on the bias then we draw " $X$ " shape and if we are sketching straight on the grain of the fabric then we need to create the " + " shape on the sketch. When rendering these fabrics start with one direction first, either the top to bottom stripes or left to right stripes. After completing all the stripes in one direction, draw stripes of opposite direction. For a top to bottom or shoulder to waistline stripes use the sewing line of princess seam as guide. Drawing horizontal line extend the bust line apex to move the stripe in a curve around the chest contour. While drawing checks, gingham or plaids all the line need to be
equidistant from one another as the lines curve on the body, so the pattern appears to be geometrical on the form.

## 3. Patterns:

a) This rendering on a grid shows a basket weave fabric.
b) These heavy, medium, and light limes represent thick, medium and thin wale corduroy.
c) This is an equidistant repeat pattern of polka dots.
d) This Hounds tooth fabric could be very small to extra bold can be rendered on grid by drawing the little squares and then giving each one a tale, to form a star shape in the center of four blocks.
e) Herringbone can be drawn by creating equal rows of chevrons. Angle first to the left and then to the right.


Fig.2.3 Herringbone pattern
4. Shading: Functional shading gives a sense of depth as well as a sense of action. The depth is achieved by the suggestion of shape through shadow, which creates the illusion of dimension. The action in shading comes from how the shadows appear to be moving. Shading needs a light source. Light can be from any direction top, side front. Shading needs variety in shapes. Their length, width and height should look spontaneous and random- the same as the natural bends and the breaks in the fabric which we are sketching. Despite the great variety of shapes, their tonal value can be same. Shading and highlighting are related techniques. Both can use a light source as direction for coloring accents. They can be used in any combination to serve fabric rendering. Highlighting is often used in partial shading and cool summer looks. Shading is used on regular edge-to-edge rendering and heavier cold weather looks or for more finished look.

Shading for design collection or a group of figures need to have variety in the type of strokes. To create variety of shading use short and long strokes, some wide, some narrow.


Fig.2.4 Rendering

Rendering with marker is faster as the color can be applied speedily, although only limited color choice are available which match the color of the fabric swatches. It dries flatter and has less of a textured surface.

Always use an outline pen to make clear line to complement marker rendering. Outline pen is essential in sketching, as many times, exterior outline sketching is done then whole background color is filled to sketch. With marker, work should be done very quickly to avoid streaks in color. Then add all interior lines as the last step.

We can also render the flat background tone in sections. Working on cuts or folds first and then moving the marker quickly up and down an area over the pen line to completely fill in the outline. Continue the process until whole outline is filled in.

Dramatic Shading: Rendering can also be done in solid, flat tones. There are some matte fabrics that have smooth, simple surface to draw that look finished without using shading. There are also solid fabrics that have sheen in their surface that reflects highlights. These highlights can be rendered similar to shading when using marker technique of rendering. Minimum shading is done to represent garment with heavier fabric. It will have only few folds to be shaded. Maximum shading is done to represent garment with light- weight fabric. It will have many folds to be shaded. A rendering of sheer fabric must convey a sense of being able to see through the garment to the body underneath. Therefore, the flesh tones become the background color. On top of the flesh tone, the white of the paper is utilized to indicate the fabric. To indicate the sheerness on the garment area it is rendered in combination of highlights and shadows.


Sheer fabric
Fig.2.5 Different view of fabrics
For fall fabrics rendering is done in four layers. First solid background flat layer, then layer of shading with next value, then third step is darkest value and finally detailing with black the last layer. Always keep test strips on another sheet of same paper on which sketching is done.

Fabric Development- Markers and brushes come in different tips as well as colors. Always use thick, thin, and fine point pens and try brush sizes medium number 7, small number 3 , and tiny number 1 . Pencils can be used sharp, dull or even the side of the point.
Rendering with black- Black can be rendered on its own as a solid color. Black can have dimensions through a light source or by shading with another type of black
media. Mixing and blending blacks can be achieved by adding one media to another. Black pen or pencil with some of the white of the page showing through is also an effective way of rendering black fabric. Seven methods are-

1. Rub a pencil on its side along the point, to make a soft, transparent, grainy black.
2. Render a solid black near to but not touching the construction or fold lines in a garment.
3. Create variety of pen line edges, outlines and textures for different fabric treatment.
4. Create glossy highlights in bent shapes that are narrow and elongated for fashion.
5. Use smooth lines for a tight, sleek fit and bunch of lines for a crunch in the fabric.
6. For small dots that suggest sequins, mix outline pens, solid black and white.
7. For lace edge, use two pen points: one regular and one extra fine for crosshatching to render the delicate texture.

Rendering with color- Color breaks the rendering process down into layered steps. It is used to achieve a great variety of effects. Use marker, pens or paints in any mix, watercolour gouache and render in layers one-step at a time. Rendering in color is packed with choices. Practice rendering flesh tones, menswear and kids wear using marker, gouache, watercolors, and fabrics in watercolor. With color we can illustrate solid color fabrics or patterns.

## EXERCISE

## Assignment

1. Sketch fabric using different rendering techniques.
2. Collect swatches of different fabric, label them and write the texture of the fabric.

## ASSESSMENT

## Answer the following questions:

1. Define perspective.
2. How many types of perspectives are there?
3. Enlist and define perspective terms.
4. What are the perspective systems?
5. What is the importance of shadow and reflection in perspective?
6. Describe the difference of shadow cast by sunlight and by artificial light.
7. Explain perspective and figure.
8. Enlist rendering techniques.
9. How to render different types of textures.

## Fill in the blanks:

1. $\qquad$ and $\qquad$ is achieved by drawing lines to create value.
2. $\qquad$ can create interesting and fascinating visual propositions.
3. $\qquad$ is depicting 3-dimentional space on a 2 -dimentional plane.
4. For drawing and sketching purpose, the cone of vision is $\qquad$ .
5. The $\qquad$ line is the line where the picture plane and ground plane meet.

## SESSION 2: TEXTURES

Texture means the surface quality of an object- How it looks, feels and performs. Texture is critical to clothing for two reasons-

- Texture is the very medium, the tangible substance from which clothing is made
- Texture appeals to our three senses: Touch, sight and hearing.

All fabric textures depend on variations of four factors-

- Fiber content
- Yarn structure
- Fabric structure and
- Finishes

All these affect the visual and tactile as well as performance qualities of a texture. One surface looks different from another because of the different amounts of light each reflects. A smooth glittering surface reflects light dazzlingly; a dull surface absorbs light into its depths and reflects it softly from the nubs, creating a pattern of light and shade.

Handling fabrics also develops judgment in estimating how they will perform. Before buying a fabric, one should feel it to discover how it behave, suspend from corner to see how the bias fall, squeeze it gently and release to discover its flexibility, crispness, springiness and firmness. These qualities determine fabric hand.

The appearance, feel and use of all fabrics are determine by-

- Fiber content (Such as Cotton, Wool, Rayon, Polyester, Nylon)
- Yarn structure (Coarse vs Fine; Rough vs Smooth, Tightly vs Loosely twisted woven, Long filament vs Short staples)
- Fabric structure (Weaving, Knitting, Felting, Bonding)
- Finishes (Chemical or Mechanical Finish)

New fibers, new blends and new finishes which are being constantly developed create concept of new performance and handling. These textures resemble the familiar natural fiber- Cotton, Wool, Silk, Jute, Linen, but may feel and behave differently. It is difficult to identify the fiber content of a fabric. Therefore reading the label and testing in laboratory becomes essential.

## Fiber content

Fiber is the substance from which yarn and fabric are made. The length, chemical composition, shape, and performance characteristics of a fiber greatly influence the final texture. Natural fiber - cotton, wool, ramie and other minor fibers; man-made and synthetic fibers include rayon, acetate, nylon, polyester, acrylics and others.

Long filament fibers such as silk and synthetics gives shinier, smoother, cooler touch and many times stronger fabrics. Short, staple fibers such as cotton, wool and cut synthetics give a relatively dull, rough, fuzzy, warmer touch and many times weak fabrics.

Some fibers or combination of fiber contribute static electricity which results in clinging garment. Functional qualities of heat conductivity, shrinkage control, wash ability, absorbency, resistance to heat and fire mildew etc. depends initially on the fiber content of the fabric.

## Yarn structure

Fibers are spun into yarn. Very different fibers with the same yarn structure may look similar or same fiber may change in appearance and performance characteristics simply with different yarn structure.

A very long or filament, fiber yarn is generally smoother and more slippery than the fuzzier fabric made from short staple fibers. Whether or not a yarn is of all the same fiber or blend of several fibers will also influence the final texture.

The amount of yarn twist also influences surfaces and hand. Crepe fabrics are made with very high twist yarn produce a pebbly surface and wrinkle surface. High twist yarn contributes to hard surface, smooth, strong. Soft surface fabrics are made from low twist yarn. Low twist in lustrous filament fiber creates a shiny texture.

The direction of twist whether S or Z is also important and whether all the yarns twisted in the same direction or some twisted in $S$ direction and some in $Z$ direction, as in crepe. The number of ply or strength twisted in a yarn influences textural thickness and strength. Generally higher the ply, stronger is the yarn. The thickness of a yarn influences how many yarns can be worked into an inch, and so the fineness or coarseness of a texture.

Novelty yarn create interesting surface contour. Yarns of more than one type of strand such as nub, flack, spiral creates a variety of bumpy, curly, fuzzy surfaces and insulating air pockets in the fabric itself. Most such effects results from combining more than one fiber type, ply, thickness and direction and degree of twist in a yarn.

These surfaces are visually interesting but may be often functionally vulnerable because of the unevenness of twist and thickness and consequently uneven strength. Yarns involving loops are easy to snag. Elasticized and high bulk yarns introduce other tactile effects and performance.

## Fabric Structure

Type of structure: Fabric structure is a mainly way in which fibrous yarns are interlocked into a flat surface. Varieties in fabric structure provide the most dramatic and easily seen difference in texture. The structure could be felt or made of various fibers adhering directly to each other without first being spun or the structure could be lace, net, braid, crochet, macramé, knit or woven.

Knits could be of single, double, weft, warp, or pile knits. Knitted fabrics have greater flexibility, wrinkle resistance, stretchiness qualities which correspond to body contours. Knitted fabrics will stretch horizontally or vertically or both but their stable stitched seams may break.

A woven structure could be plain, twill, basket, satin, dobby, jacquard, cut pile, loop pile or other. Weaving gives the strongest and most stable fabric structure. "Balanced" fabrics, having similar number of warp and weft yarns per square inch, are stronger than unbalanced weaves.

Non woven fabrics generally withstand less stress. Lace, net, crotchet and other fragile structures with yarn constantly changing directions have little tensile strength.

Grain: The direction of yarns called grain is the way a fabric will or will not behave. Both nonwoven and woven fabrics have grain in that many behave differently when used at different angles. Woven fabrics have strong warp and should go in the direction that receive greatest strength in a garment. This direction is vertical: Length wise pull of skirt when seated, of pants when knees bend, of bodices when shoulder stretch and of sleeves when elbows bend and of bodices when shoulders reach or stretch.

Many fabrics have flexibilities and softness in bias grain that make them drapable and allow soft elegant effect. Bias grain requires more care to avoid sagging hemlines. Net, lace and felt does not have flexibility of grains so they hold crisp shapes better.

Combination of fabric structure: These create new textural potential. If two fabrics are bonded and laminated together they produce a thicker, firmer, texture; but their joining must be permanent and on-grain and their care and performance quality
compatible. These fabrics are generally not suitable for garment. Embroidery, shirring and swivel weave motifs add surface interest but reduce resistance to surface friction.

Finishes: Chemical or mechanical finishes which use heat, pressure, and / or chemicals may either affect the fabric surface or penetrate the fibers.

Finishes for appearance are-

- Bleaching- Whitens the fabric.
- Embossing- Produces raise patterns.
- Flocking- Creates a fuzzy surface.
- Glazing, Schreinering, and Calendering- Increase the sheen of the surface.
- Moireing- Creates lustrous pattern resembling water ripples.
- Dyeing- adds colours.

Finishes that affects both visual and tactile qualities are -

- Singeing- Increase surfaces smoothness.
- Tentering- Keep the fabric even and on grain.
- Napping- Provide a soft fuzziness.
- Shearing- Gives an even surface to cut pile fabrics.
- Puckering- Is a results from embossing or chemicals.
- Sizing- Temporary or permanent sizing- Increases stiffness and some time shine of the fabric.

Functional finishes are soil release, wash and wear, permanent press, mercerizing, weighting, heat reflecting, antiseptic, and antistatic, absorbency, and resistance to wrinkles, shrinking, mildew, moths and flame.

In wool fulling, crabbing and decating are used to improve its textures and performance. Finishes have many advantages but they may also create some undesirable side effects which may harm the quality of fabric and also to the wearer.

## EXERCISE

## Assignment

1. Collect fabric of different texture and prepare a collage.
2. Prepare a small dictionary ( 25 words) terms related to texture.

## ASSESSMENT

## Answer the following questions:

1. Define texture.
2. What are properties that determine fabric texture?
3. Importance of fiber content in texture
4. Yarn structure and textures
5. Fiber structures and texture
6. Finishes and their effect on fabric

## Fill in the blanks:

1. $\qquad$ is the substance from which yarns and fabrics are made.
2. $\qquad$ fabrics have greater flexibility, wrinkle resistance, stretchiness qualities.
3. $\qquad$ gives the strongest and most stable fabric structure.
4. The direction of yarns called $\qquad$ _.

## Jumbled the words:

a) extetur
b) arny
c) riebf
d) cafibr
e) veawe
f) hsinsfei
g) tlmfneia

## SESSION 3: SILHOUETTE

Shapes is usually defined as flat, two dimensional area enclosed by a line. The outline creates the silhouette seen as flat. Flat decorative design, such as pattern, motifs and appliqués or flat garment parts such as collars and pockets are shapes.

Forms is defined as a three dimensional area enclosed by a surface. If the form is hollow the interior area is its volume, and if it is solid the interior is mass. The three dimensional human form is a solid mass bounded by the contours, the protrusion and indentation of the surface of the skin. Clothing parts are hollow forms whose interior volume relate to and complement the exterior contour of the body.

The expressive powers of shape and form are enhanced by the compounded powers of the effects of line plus those of space. A shape edged by the thin, smooth, continuous line of the curved path and with unbroken interior space conveys a different feeling from one edged by a thicker, porous line of straight path and with subdivided interior space.

Shapes and forms assume the physical and psychological effects of the line surrounding them and of the space separating them. The human figure can be seen as combination of geometrical forms. The average adult male and female head is ovoid: the neck, arms, hands and legs are dominantly cylindrical. The female torso is usually
two reverse cones or an hourglass or cylinder. The shoulder, hip, knee joints, breast and buttocks are domes or spheres.

The male torso is dominantly cylindrical, or an inverted, flattened cone if the shoulders are much wider than the hips. The child's head is predominantly spherical, and body parts cylindrical. As age changes the shape of the body also changes. The basic human form does not change; the designer creates visual variety, maintaining the functional comfort, safety, mobility, and practicality. If we want to show our figure look different than actually it is, we can use garments to change the form proportions.

Shapes and form in dress: - Flat geometrical shapes can be decoratively or structurally incorporated in dress. The square, rectangle, triangle, tear drop, diamond, trapezoid, circle, are both decorative and structural. Whereas the hexagon, marquis, ogiv, oval are primarily decorative.

(a) Traingle

(b) Trapezoid

(c) Hexagon


Fig.2.6(a-i) Shapes and forms in dress

Almost any shape can find attractive uses in dress. Many shapes can join to create other shapes; square can combine to form rectangle, paisley can combined to form circle.

3D Structural forms that are visible are also decorative. The equilateral cube and sphere flatter the figure but the unequal structure forms of the cylinder, ring, cone, bell, ovoid, hour glass, and most 3d forms have a sense of direction that lends character.

Styles changes according to fashion and culture but the human figure keeps the same form throughout time and everywhere. Therefore, the designer need to understand which form conforms most closely to the part of the body supporting it, which form allows greatest freedom of movement and what kind of decorative shape would harmonize best with other form in garment.

Silhouette: Silhouette refers to the form of one solid color projected against the background of another color so that only the shape is visible. In fashion, the term "silhouette" refers to the outline of a garment, or the garment's overall shape. Usually, silhouette is what one sees from a distance. It is responsible for the first impression of the garment.

A costume silhouette is determined by the contour of the person wearing the clothing than by the cut of the costume itself. A figure in the distance will be silhouetted against the background before any detail of cut and even color clearly visible. As shape is the first impression it has greater power to convey an image of beauty, style and taste than any other design elements. The structural seaming of a garment creates the silhouette.

You have already studied various types of silhouette of garment as:

| 1) A-Line | 2) V-Line | 3) Tent line |
| :--- | :--- | :--- |
| 4) H-Line | 5) X-Line | 6) Bell line |
| 7) I-Line | 8) Y- Line | 9) Balloon line |
| 10) T-Line | 11) Trapezoid line | 12) Empire line |
| 13) Princess line |  |  |



Fig.2.7 Various types of silhouette of garment

## FACTORS THAT DETERMINE THE CHARACTER AND QUALITY OF SILHOUETTE

1) The figure: A good silhouette always relates to body structure and emphasizes the points of body articulation. For example, two women wearing exactly the same dress make quite a different impression because of their body proportion and structure.

To produce a pleasing impression every part of the figure must be well related to the whole or such an illusion must be created by a costume so cleverly planned that it emphasis the figures best features and draws attention away from its defects.

A well proportion human figure has been the most beautiful or natural form. The line of a costume emphasis natural beauty if they follow body contour close enough to revel its shape line. If the garment clings very close to the body contour than the freedom of the motion may be restricted e.g. Fluid lines derived from classic Greek drapery enhances the beauty of the form whereas an alluring gown that clings very close from hip to ankle restricts movements.

If clothes muffle the body in heavy, shapeless garments or distort it with thick puffing invariably appear clumsy.

Break in the silhouette at the bodice natural division are best. To emphasis flexibility, belt should always be placed at smallest waistline. If belt is moved down or up, the body proportions get distorted and increases apparent weight and
shapelessness. A wide loose belt thickens waist line whereas a narrow belt is slenderizing. Body joints must always be fitted to allow freedom of the motion. A costume fuses smoothly with all details if scaled to size of the wearer.
2) Carriage: Carriage or the way a person carries herself enhances or ruins the silhouette. A beautifully proportional figure and well planned garment can be ruined by a slouchy, dejected carriage. On the other hand an erect carriage works miracle in counteracting figure irregularities. Everyone is not endowed with perfect figure but one can make the most of her figure by carrying herself with grace. An erect head lifts and firms the bust, and tucked under hips look smaller than they are. An impression of compactness is created by keeping the feet close together even the body is heavy. Smooth graceful movement transforms a simple garment into one of distinction. Wearing clothes with style and matters more than wearing the newest or costly fashion.
3) Suitability: The silhouette of a garment should be selected considering its suitability for the purpose. Whether it is for a business or formal occasion, for shopping or travelling purpose, or for party or evening wear. Purpose, places limitations on garment silhouettes in any fashion period. Defiance of these limitations, overdressing or under dressing indicates inexperience, poor judgment and lack of good taste. For a day time garment silhouette is different than for evening wear. The finishing touches jewelry, footwear, and bag for the costume also plays an important role. The silhouette selected should be contemporary.
4) Fashion: Fashion is the most decisive factor in affecting the silhouette of the garment in specific period of time. From the garment silhouette only one can recognize the fashion periods. The study of silhouette and omission of details strengthen each period impression and make them more lasting. Achieving quality of line and shape in dress depends on discrimination in choosing from a trend only those fashions that suits figure personality and activities. Wearing clothing out of fashion appears eccentric. Creating garments using exquisite fabrics and in harmony with the figure and personality of the person to enhance the figure is artistic achievement, possessing timelessness and distinction. One should always keep abreast of the times and renovate out of date clothing so that it fits into contemporary scene inconspicuously.
5) Texture: The silhouette of the garment is also affected by the fabric used in its construction owing to the drape and feel of the fabric. The texture of wearer hair also affects the silhouette. Fabrics like jersey or soft crepe form clinging fluids line: Thick wool tweeds or furs take on bulky shapes; crisp taffetas or slipper satin produce fluffy silhouette.

The manner of assembling all texture determines the coherence of ensembles. Stylish and smart silhouette can be produced by combining textures in harmony. Using the
same texture for all accessories is not advisable. Also all the fabrics are not suitable for a specific silhouette. It is very important to use a suitable fabric in specific styles so the appropriate silhouette can be achieved along with the desirable psychological effects.
6) Garment fit and construction: Structure seaming are necessary for shaping costume but not revealed in silhouette but any fitting fault affects the silhouette. If a garment conforms to the body with enough ease around the bust, the hips and a sleeve girth and allows smooth movement of body, the garment is set to be in proper fit and affects quality of silhouette. Too much of ease creates an impression of looseness while very little ease makes it skimpy tight. Fit also implies style of wearing clothing. Jacket should settle squarely on the shoulder, pitching forward or back will make a good jacket to worst silhouette. Construction also plays important role in producing quality of shape. Mishandling of fabric can be seen in silhouette. Ironing plays an important role in producing a smooth silhouette. Ironing glosses over all the small imperfection of construction. It eliminates wrinkles, sharpen edges and flatten seam and help molding the shape of the garment so that the wearer fuse into a smooth expressive silhouette. You have already studied about the basic body shapes and do's and don't of clothing for them in previous class. Here you are going to study how to relate costume to size and personality. Since no two human are alike in size, shape or personality so learning which style is better for individual needs specific study.

Tall figures: There are three different figures in this category

1. Tall, willowy, slender, rounded, feminine
2. Tall, large boned, majestic, dignified,
3. Tall, rangy, athletic

- Tall, willowy, slender, rounded, and feminine: The clothes of a tall slender fashion figure should be distinguished, unusual and can be dramatic at times. All high style clothes are design for this figure.

Line should be long and details impressive scaled to her height. Structural details formed by subtly curved horizontal or flatten diagonal suit her style and she can afford to repeat this cross lines. A shoulder, yoke, belt, and peplum in the same dress do not cut her height excessively. She can contrast the color of jackets and skirts. Clothes that define figure closely enough emphasis her beautiful proportion and sharp dramatic contrast of line are in accord with a style. She can wear caps, stoles with styles. They can wear big pattern designs. Extravagantly wide skirts topped by round neckline bodies and narrow hip fitting skirts with deep bat-wing sleeves to dramatize her figure.

These figure should avoid both tight, skimpy clothes that appear outgrown rather than form fitting, clothes that make her appear short waist, and small cute details that are insignificant and out of character.

- Tall, large boned, majestic, dignified: - These figure have height but does not have the slenderness to wear the extremes of fashion. They have dignified and commanding appearance. This type of figure should always look neat. One should never wear junior miss lines in a large size. Best structure lines are vertical or diagonal combined with vertical lines.

Clothes must fit comfortably and should never look outgrown. One piece dress needs complete or partial belts to mold a slightly lowered waistline. Massive pieces of costume jewelry accent her clothes effectively, and colorful silk scarves or crepe blouses soften severe lines without exaggerating bulkiness. Dainty frills and ruffles, perky little collars and bows contradict her size.

- Tall, rangy, athletic: - The dress for such persons should have comfortably large armholes with action pleats, blousing with a low-placed contour belt and pleated or circular skirt for easy movements. These figures easily carry sports or casual wears clothes than high style clothing. Horizontal lines opposed by verticals harmonize rightly with her angular frame. Tailored suits, sport jackets and slacks suits her styles, if carried with feminine accents. Easy fit, freedom of action, and strength of line characterize designs for the tall rangy figures.

Short figures: - There are three different figures in this category

- The short, dainty, small boned
- The short, muscular, stocky
- The short, small boned but overweight figure
- The short, dainty, small boned: This type of figure can wear short lines and small details to appear beautifully proportioned and appropriately dressed. Short boleros, jackets just above hipbone, small collars, small bows and crisp sheer neckline frills suits her size and physical appearance to perfection. Some horizontals or flattened diagonals are needed to cut the design into small spaces. Fine soft tweeds, flat furs and small patterns like dots and checks increases her stature and harmonize with her size. Avoid using unbroken verticals or long diagonals, large out- of- scale details, large patterned prints.
- The short, muscular, stocky: Simple and neatly styled clothes are recommended for this figure type. Clothes cut with slightly curved diagonals tapering towards the waistline suits best. Waist length jackets neatly fastened at the waistline makes her look taller and slender. Well- fitted one piece dress with narrow, self fabric belts indenting the waistline are appropriate for the figure. Built up necklines, small collars that roll high at the sides of the throat and 'V' down in front increases the height. Set- in- sleeves, fitting the arm below the elbow adds the least width. Gored full length skirts with straight flares contribute the most length. A simple accent, such as a white collar or an ornament at the shoulder, holds the attention at the top of the figure and gives
neat look. Avoid hip length jackets, unbelted or loosely fitted waistline. These increase the impression of squareness and stockiness.
- The short, small boned but overweight figure: - The problem of this figure is prominent bust and large hips. Stylish Clothes of one solid color with vertical lines predominating is best solution. Soft, gently curving diagonals, tapering towards the waist line breaks the expanse of bosom and hips and harmonize with the silhouette. Soft but firm fabric in dark solid colors produces the neatest silhouette. The one piece dresses with narrow, self fabric belts are best for the figure, as waistline is usually small in relation to bust and hips. The shaped waistline seam with the partial belt presents a better solution as it marks the waistline less bluntly. Collars rolling high and close to the sides of the throat and ' V ' down at center front slenderize the neck and adds height. Full length unfitted coats cut to hang as narrowly as body permits looks best. Avoid flat, round collars, fitted coats, puff sleeves, full gathered skirts for these figures.


## Figures of Medium Height

- Slender, thin and angular
- Large boned and stockily built
- Over weight

Choice of lines for these figures fall in between those recommended for the tall and the short figures. These type of figures can use medium-large to mediumsmall in scale of design of fabric patterns and from medium fine to medium coarse textures. They can wear more variety of clothes. Most of the ready to wear are designed for this figure, so also have greater choice for selection.

Restoring Balance to Out- Of- Proportionate Figures - There are four methods to balance out of proportion figures

1. Draw attention away from a figure fault by focusing on good points.
2. Work directly with the out of proportion area.
3. Conceal the figure fault
4. Built out a too small parts of the body to balance a normal or too large part

Narrow, Sloping-Shoulders Small Bust, Broad hips and Heavy Thighs- This is typically feminine figure, but the difference of shoulder and hip becomes more pronounced with the years.
Overweight below the waist shorten, widen, and age the whole figure. Focus is to be done at the smaller areas of shoulder and bust and the over heavy thighs and hips need to be reduced or concealed.

Carefully fitted foundation garments are the first requisite. Figure control with correct undergarments solves figure faults. To broaden narrow shoulders and reduce heavy
hips and thighs accent the top of the figure and conceal the hips under a long full skirt. Use broad collar and double breasted bolero to balance hip width. Must avoid halter necklines and pleats busting apart at the hips, avoid raglan sleeves, long blouse sleeve which flares at the sides.

Large Head, Neck, Shoulder, Arms and Bust- The top heavy Figure- This type of figure is common in old females. The problem is to de-emphasis the upper heavy part of the body and subtly increases the apparent size of the small hips, legs, and ankles to bring them into better balance with top. However enlarging the body from below the waist makes the whole figure appear large and clumsy and so the work has to done with restraint.

The firm undergarment will lift and support the heavy, low bust. A lightweight, soft girdle smoothes the hips without reducing the size but gives support to the figure. A hip length blouse or jacket balances the predominant busts, vertical lines, easy fit, and flared pleated skirts emphasize hips. Never wear short jackets which enlarges the bust, avoid tight fitting bodice, choker beads, boat neckline and raglan sleeves because these details greatly magnify the heavy bust area.

Round Shoulders, Forward Head, Flat Chest, Hollow Back- Generally a willowy young girl who grows too fast develops some or all of these irregularities. First step is to improve the posture before the bones and muscles become permanently adjusted to the slouched position.

If the faults are caused due to defects in bone structure and cannot be entirely corrected, skillfully placed lines in dress accomplish wonders in concealing them. Filling out hollows in figure is easier than cutting out the overweight figure.

To minimize the defect hollow chest wear soft folds and ties at the bust line. This will fill hollow chest area. Avoid unrelieved necklines and bust lines. To hide round shoulders and a hollow back, dress the hair low at the nape: wear collar and straight falling upper garment. Always avoid fitted jackets tightly buttoned. Always add bows and blousing to fill out the hollows. Wear large draped bows and full skirts, to give shape to a thin undeveloped figure.

Long and short waistlines- A belt marking the natural waistline will make:

- A low waistline looks nearly as long from the waist up as from the waist down.
- A short-waisted tall figure will look too leggy.

Therefore, it is essential to restore appearance of normal proportion with clothes. The figure below shows how the built-up belts and midriff emphasis shorten a long waistline. Contour belts placed at the hipbone, and details below the waist lengthen a short waistline.

Large abdomen- Prominent abdomen is caused due to overweight or wrong posture. Improving posture with systematic eating habits is essential to correct it. In clothing wear a firm girdle that helps flatten the bulge. Seek lines in a garment which appear to modify the abdomen curve and attract attention elsewhere.

All these examples of scaling designs to figure size and of improving the appearance of disproportionate figures through manipulation of lines cannot include every possible figure variation. The successful adaptation of costume lines to figure lines must be based on the understanding of:

- Illusions of the various line directions created by the repetition or contradictions.
- The illusion of diverging and converging lines
- The strengthening power of color and pattern contrast
- The effect of textures and colors on figure size and appearance.

Success in choosing clothes to make the most of one's appearance depends on capturing those elusive qualities- style and smartness- fully as much as on improving figure irregularities.

## EXERCISE

## Assignment

1. Collect pictures of dresses and show various shapes and forms in them.
2. Collect pictures of different garments and identify the silhouette.
3. Trace from magazine sketch of garment, which suit your figure and style for the most part. On tracing paper placed over the sketch, try various minor changes that adapt them specifically for your figure.
4. Sketch various proportion figures and practice designing clothes becoming on each.

## ASSESSMENT

## Answer the following questions:

1. Differentiate between shapes and forms.
2. Prepare dresses incorporating geometrical shapes.
3. Define silhouettes in garment and their types.
4. Explain factors determining the character and quality of silhouette.
5. Relate costume to size and personality of various figures.

## Match the column:

| A | B |
| :--- | :--- |
| 1. Short figure | a) High style clothes |
| 2. Willowy | b) Medium - large to medium - small |
| 3. Large abdomen | c) Wear short line and small detail dresses |
| 4. Medium height | d) Large arm holes with action pleat |
| 5. Rangy | e) Wear a firm girdle dress |

# UNIT 402: ADVANCED APPAREL DESIGN 

## INTRODUCTION

Perspective is a key to almost any drawing or sketch. Perspective drawing gives a three-dimensional feeling to a picture. It is a technique to signify three-dimensional images on a two-dimensional picture plane. It is an art system that modifies the distance or depth of an object on paper. Perspective is the way that one looks at something.

Drawing of pattern or texture in sketch is called Rendering. Rendering is the term used for a two-dimensional drawing that an artist illustrates what a structure will look like once it has been built. Rendering in illustration and technical drawing means the method of creating, adding color, shading, and texturing of a figure. It can soften drawings.

Texture means the surface quality of an object- How it looks, feels and performs. Texture is critical to clothing for two reasons: texture is the very medium, the tangible substance from which clothing is made and it appeals to our three senses: touch, sight and hearing. All fabric textures depend on variations of four factors- Fiber content, Yarn structure, Fabric structure and Finishes. All these affect the visual and tactile as well as performance qualities of a texture.

Shapes is usually define as flat, two dimensional area enclosed by a line. The outline creates the silhouette seen as flat. Forms is defined as a three dimensional area enclosed by a surface. The three dimensional human form is a solid mass bounded by the contours, the protrusion and indentation of the surface of the skin. Clothing parts are hollow forms whose interior volume relate to and complement the exterior contour of the body. The human figure can be seen as combination of geometrical forms. As age changes the shape of the body also changes. The basic human form does not change; the designer creates visual variety, maintaining the functional comfort, safety, mobility, and practicality. We can use garments to change the form proportions.

3D Structural forms used in garments visible are also decorative. In fashion, the term "silhouette" refers to the outline of a garment, or the garment's overall shape. Usually, silhouette is what one sees from a distance. It is responsible for the first impression of the garment. There are factors that determine the character and quality of silhouette. Ad designer should know how to relate costume to size and personality. Since no two human are alike in size, shape or personality so learning which style is better for individual needs specific study.

## SESSION 1: DESIGN AND RENDERING TECHNIQUES

When employing artificial perspective one should create the illusion of real seen as viewed through window. This illusion can only be achieved by viewing with one eye from the correct position. Altering the viewpoint - through distance, height or anglewill change the perspective of the picture.

Rendering is the term used for a two-dimensional drawing that an artist creates to illustrate what a structure will look like once it has been built. Rendering in visual art and technical drawing means the process of formulating, adding color, shading, and texturing of an image. It can soften drawings. From this term came the word render, which means "to make visible" or "to draw."

Drawing of pattern or texture in sketch is called Rendering. There is always more than one way to render any specific fabric. Every illustrator has own way of rendering technique based on individuals styles and creativity. Illustrating fabric become easier after becoming familiar with material to be illustrated and media to be used.

Perspective: Perspective is depicting three-dimensional space on a two dimensional plane. An object may appear very different what it is in reality when seen from different viewpoints. Our familiarity with two dimensional representations or photographs has trained our eye to be aware of the changes caused by the distance and angle. The human eye is in effect a camera so that wherever we look we see a perspective view. For example, we know our arms are the same length but a figure seen in perspective may appear to have arms of a different length.

There are three types of perspective-
4. Linear perspective
5. Atmospheric perspective
6. Color perspective
4. Liner perspective- It is to achieve an illusion of space. All parallel lines in a painting or drawing using this system join in a single vanishing point on the composition's horizon line. In many ways, a drawing depending solely on the laws of linear perspective will not match the real- life experience. In real life, we see with both the eyes, which constantly move, scanning objects within our range of visionfrom foreground to horizon, from sides to centre. To avoid the pitfall of linear perspective the theory must be used with own observation and well- founded illusionistic devices.
5. Atmospheric perspective- It is to creating an illusion of depth into the picture space. It is created through the representation of the tonal modification of colors caused by the atmosphere. This means, as things retreat from the eye, they
become lighter in tone. Object in close focus have more tonal strength than objects seen in the middle distance and these objects, in turn, are stronger in tone than those seen in the far distance. Those objects located in full focus of the foreground have more overall tonal strength and would thus appear darker - but parts of such objects, the area receiving full light, would tend to be darker in tone than anything else included in the picture. When foregrounds are strong and dark, the next layer is middle toned and the background ones are light, the eye is led automatically into the picture space.
6. Color perspective- The colors are affected by the distance, further the object from the eye, modified is the color. As color recede, they have a bluish tendency. Blue is the key to the distant hues as perceived in nature. Anything located in the same approximate area in the picture space must fall within the same tonal range to integrate into the space. The credibility of 3D space can be augmented by details of texture and patterns as they recede away from us and reach out beyond the picture plane. Patterns and textures of various things have clear and discernible detailing when close and becomes blurred and less distinct at a distance.

When employing artificial perspective, one should aim to create the illusion of a real scene as viewed. The illusion can only be achieved by viewing with one eye from the correct position. Altering the viewpoint will change the mood of the picture. By mastering the tricks of linear perspective, combined with other well-founded illusionistic devices and the powers of observation, one can create an illusion of depth into the picture space.

Cone of vision: The field of vision is called the cone of vision, because of the endless number of sight lines, which radiate in a cone like shape from eye. For drawing and sketching purpose, the cone of vision is 60 degree. The peripheral area around our cone of vision is sensitive to light and movement but in order to see objects in this area clearly to draw it is necessary to turn our head and shift our focus. This changes the perspective and therefore when larger objects are drawn a greater range of vision is required so subject matter needs to be observed from a greater distance.

## Perspective terms

Center line of sight or the central visual ray: When we look about us, we focus upon a succession of spots of interest, each of which is fixed by a sight line at the exact center of the cone of vision. This line is known as the center line of sight or the central visual ray.
The ground line: It is the line where the picture plane and ground plane meet.
Horizon line: On the picture plane at eye level the horizon line can be drawn. This means the height of the horizon line above the ground is the same as the eye above the ground plane. The height at which the illustrator places himself can change the mood of the picture. The higher the position, the more of the ground plane he is able
to see. An artist sitting down sees less than one standing up. Panoramic view must have a high eye-level. By lowering the viewpoint, we can increase the feeling of drama in the picture. Figures seen from low down appear menacing.

Distance of artist from the picture plane: This is also important, although the distance between the two is dependent upon the length of artist arm and the control he wishes to retain.

Distance of picture plane from object: To get the best illusionistic effects, the illustrator must be at least one and a half times the height away from the tallest object.

Vanishing point: Any two or more lines that in reality are parallel will, if extended with continuing imaginary lines appear to converge at a point on the horizon this point is known as vanishing point. For example, railway tracks are receding into the distance.

Perspective System: There are three types of systems.
4. One Point Perspective
5. Two Point Perspective
6. Three Point Perspective

To demonstrate difference between the various perspective systems a box like shape is visualized.
4. One point perspective- in this perspective one will have two plane visible one parallel to picture plane and the other with sides which appear to converge to a single point on the horizon.
5. Two point perspective- if you rotate the box slightly so that a corner presence itself to us, the vanishing point of the length lines will be located further along the horizon line until, from a certain angle it passes out of a picture. The width lines of the box are therefore no longer parallel to picture plane so a vanishing point has to be establish for them too. This is called angular or two point perspective.
6. Three point perspectives- with three-point perspective the observer can see the three planes again but there are three sets of converging lines not two. With this system, two of the sets of the parallel line meet at vanishing points on the horizon and the third set intersects at a point either above or below that line. This occurs when there is a very high or low viewpoint.

## Shadows and Reflection in Perspective

Reflection can create interesting and fascinating visual propositions. The important principle is that a reflected image will always appear to be the same distance behind the reflecting surface as the object is in front of the surface. A mirror with a box placed in front of it will not only reflect the box, but the ground between the box and the
mirror. It is this, which makes the reflection of the object look as though it is the same distance behind the mirror the reflecting surface as the object is in front of it.

Shadows: The characteristics of the shadow are affected by the light that caste them.

Shadows cast by the sunlight: There are two factors concerning shadows cast by the sun in a picture plane: first, the position of the sun governs the direction in which shadows fall and secondly the height of the sun governs the length of the shadows.

Rules to remember_
4. If the post is viewed in ordinary sunlight, the side facing the light source appears lighter than the side facing away from the light source, which is in the shade. The line between the face seen in the light and the face seen in the shade is known as the line of separation because the post stops light rays from reaching the ground. The area on the ground behind the post on the opposite side to the light source will be in shadow. This shadow will start at the base of the post and will finish with the first light ray, which is able to pass directly over the post. It is therefore important to know the angle of the sun and its position in the sky in order to calculate the length and shape of the shadow.
5. Shadow will fall in the direction in which the light rays travel from the light source.
6. In shadow projection, parallel lines cast parallel shadows. The shadow of the arms of a person stretched out and parallel to the ground will share same vanishing points as his arms.

Shadows cast by the artificial light:_The light rays from an artificial source radiate from a single point. The shadows cast by them are different in shape and that the shadows cast will be larger than that cast by parallel light rays, although they also travel in straight line, cannot change direction unless a reflector is introduced and cannot pass through solid matter. Number of light source also affects the shadow.

Perspective and the figure: When interpreting the figure, cognizance is given to the general features and details of the anatomy along with the important factor, perspective. Rules of perspective must be employed to suggest depth, solidity and balance. This involves the relationships between the angle of the feet, the hips and the shoulders plus their relationship to those angles of the top of the head. It is always important to draw a firm platform for the feet of a standing figure or in the case of seated figure, for the thighs and buttocks, to which angles of the body can be related. Treat the figure as a solid existing in space. The angles through the shoulders, hips and feet demonstrate the effects of the perspective.

Rendering: Rendering in illustration and technical drawing means the method of formulating, adding colour, shading and texturing of an image. It can reduce drawings. It is the term used for a two-dimensional drawing that an artist
creates to illustrate what a structure will look like once it has been built. From this term came the word render, which means "to make visible" or "to draw."

Techniques of rendering a drawing are:
6. Hatching and crosshatching
7. Blending
8. Shading
9. Random lines
10. Cross contour lines
6. Hatching and crosshatching is achieved by drawing lines to create value. These lines may cross over each other. The more the lines cross over each other, the darker the value. By changing the frequency of marks, a series of value can be achieved. This series of value leads to the illusion of form.


Fig.2.1 Hatching techniques
7. Blending can take on various forms. The amount of pressure put on the pencil to change the amount of material applied. This creates the series of value that is essential for the illusion of form.
8. Shading- In this technique, the artists uses pencil on the surface and then removes some of using eraser, which creates light and dark shade on the surface. Shading usually results in a "Smokey", atmospheric look.
9. Random lines- Value are achieved in this method by applying haphazard lines to add the value. The occurrence of crossing lines, affects the values created, resulting in the illusion of form.
10. Cross contour lines: Cross contour lines are lines that follow the outlines of the object. This can cause the lines to cross over each other. In the case of a sphere, cross contour lines will curve slightly as the sphere curves.

Fabric in an illustration is about fiber or weave and also surface interest of a particular fabric- for example stripe or plaid or print or paisley and also can be a knitted fabric or knit designs. These surface interests encompass both pattern and texture. There is always more than one way to render any specific fabric. Every illustrator has own way of rendering technique based on individuals styles and creativity. Illustrating fabric become easier after becoming familiar with material to be illustrated and media to be used. Here are some examples of illustration.


Fig.2.2 Cross hatching
5. Stripes: Stripe on knitted fabric will cling a bit more than they would on a crisper, woven fabric. When rendering stripes on garment start in the middle center front of garment and then move out to the sides in one direction on the body. Another technique is to follow the hemline curves or folds or gathers of the garment drawing the stripes in and out with the movement of the hemline.
6. Checks, Gingham and Plaids: They are drawn similar to stripes. In stripes, we follow only one direction on the body while in checks, gingham and plaids we extend in both directions, vertically and horizontally at the same time. If we wish to sketch a checked or plaid fabric on the bias then we draw " $X$ " shape and if we are sketching straight on the grain of the fabric then we need to create the "+" shape on the sketch. When rendering these fabrics start with one direction first, either the top to bottom stripes or left to right stripes. After completing all the stripes in one direction, draw stripes of opposite direction. For a top to bottom or shoulder to waistline stripes use the sewing line of princess seam as guide. Drawing horizontal line extend the bust line apex to move the stripe in a curve around the chest contour. While drawing checks, gingham or plaids all the line need to be
equidistant from one another as the lines curve on the body, so the pattern appears to be geometrical on the form.

## 7. Patterns:

f) This rendering on a grid shows a basket weave fabric.
g) These heavy, medium, and light limes represent thick, medium and thin wale corduroy.
h) This is an equidistant repeat pattern of polka dots.
i) This Hounds tooth fabric could be very small to extra bold can be rendered on grid by drawing the little squares and then giving each one a tale, to form a star shape in the center of four blocks.
j) Herringbone can be drawn by creating equal rows of chevrons. Angle first to the left and then to the right.


Fig.2.3 Herringbone pattern
8. Shading: Functional shading gives a sense of depth as well as a sense of action. The depth is achieved by the suggestion of shape through shadow, which creates the illusion of dimension. The action in shading comes from how the shadows appear to be moving. Shading needs a light source. Light can be from any direction top, side front. Shading needs variety in shapes. Their length, width and height should look spontaneous and random- the same as the natural bends and the breaks in the fabric which we are sketching. Despite the great variety of shapes, their tonal value can be same. Shading and highlighting are related techniques. Both can use a light source as direction for coloring accents. They can be used in any combination to serve fabric rendering. Highlighting is often used in partial shading and cool summer looks. Shading is used on regular edge-to-edge rendering and heavier cold weather looks or for more finished look.

Shading for design collection or a group of figures need to have variety in the type of strokes. To create variety of shading use short and long strokes, some wide, some narrow.


Fig.2.4 Rendering

Rendering with marker is faster as the color can be applied speedily, although only limited color choice are available which match the color of the fabric swatches. It dries flatter and has less of a textured surface.

Always use an outline pen to make clear line to complement marker rendering. Outline pen is essential in sketching, as many times, exterior outline sketching is done then whole background color is filled to sketch. With marker, work should be done very quickly to avoid streaks in color. Then add all interior lines as the last step.

We can also render the flat background tone in sections. Working on cuts or folds first and then moving the marker quickly up and down an area over the pen line to completely fill in the outline. Continue the process until whole outline is filled in.

Dramatic Shading: Rendering can also be done in solid, flat tones. There are some matte fabrics that have smooth, simple surface to draw that look finished without using shading. There are also solid fabrics that have sheen in their surface that reflects highlights. These highlights can be rendered similar to shading when using marker technique of rendering. Minimum shading is done to represent garment with heavier fabric. It will have only few folds to be shaded. Maximum shading is done to represent garment with light- weight fabric. It will have many folds to be shaded. A rendering of sheer fabric must convey a sense of being able to see through the garment to the body underneath. Therefore, the flesh tones become the background color. On top of the flesh tone, the white of the paper is utilized to indicate the fabric. To indicate the sheerness on the garment area it is rendered in combination of highlights and shadows.


Sheer fabric
Fig.2.5 Different view of fabrics
For fall fabrics rendering is done in four layers. First solid background flat layer, then layer of shading with next value, then third step is darkest value and finally detailing with black the last layer. Always keep test strips on another sheet of same paper on which sketching is done.

Fabric Development- Markers and brushes come in different tips as well as colors. Always use thick, thin, and fine point pens and try brush sizes medium number 7, small number 3 , and tiny number 1 . Pencils can be used sharp, dull or even the side of the point.
Rendering with black- Black can be rendered on its own as a solid color. Black can have dimensions through a light source or by shading with another type of black
media. Mixing and blending blacks can be achieved by adding one media to another. Black pen or pencil with some of the white of the page showing through is also an effective way of rendering black fabric. Seven methods are-
8. Rub a pencil on its side along the point, to make a soft, transparent, grainy black.
9. Render a solid black near to but not touching the construction or fold lines in a garment.
10. Create variety of pen line edges, outlines and textures for different fabric treatment.
11. Create glossy highlights in bent shapes that are narrow and elongated for fashion.
12. Use smooth lines for a tight, sleek fit and bunch of lines for a crunch in the fabric.
13.For small dots that suggest sequins, mix outline pens, solid black and white.
14.For lace edge, use two pen points: one regular and one extra fine for crosshatching to render the delicate texture.

Rendering with color- Color breaks the rendering process down into layered steps. It is used to achieve a great variety of effects. Use marker, pens or paints in any mix, watercolour gouache and render in layers one-step at a time. Rendering in color is packed with choices. Practice rendering flesh tones, menswear and kids wear using marker, gouache, watercolors, and fabrics in watercolor. With color we can illustrate solid color fabrics or patterns.

## EXERCISE

## Assignment

3. Sketch fabric using different rendering techniques.
4. Collect swatches of different fabric, label them and write the texture of the fabric.

## ASSESSMENT

## Answer the following questions:

10.Define perspective.
11.How many types of perspectives are there?
12. Enlist and define perspective terms.
13. What are the perspective systems?
14. What is the importance of shadow and reflection in perspective?
15. Describe the difference of shadow cast by sunlight and by artificial light.
16. Explain perspective and figure.
17. Enlist rendering techniques.
18. How to render different types of textures.

Fill in the blanks:
6. $\qquad$ and $\qquad$ is achieved by drawing lines to create value.
7. $\qquad$ can create interesting and fascinating visual propositions.
8. $\qquad$ is depicting 3-dimentional space on a 2 -dimentional plane.
9. For drawing and sketching purpose, the cone of vision is $\qquad$ .
10.The $\qquad$ line is the line where the picture plane and ground plane meet.

## SESSION 2: TEXTURES

Texture means the surface quality of an object- How it looks, feels and performs. Texture is critical to clothing for two reasons-

- Texture is the very medium, the tangible substance from which clothing is made
- Texture appeals to our three senses: Touch, sight and hearing.

All fabric textures depend on variations of four factors-

- Fiber content
- Yarn structure
- Fabric structure and
- Finishes

All these affect the visual and tactile as well as performance qualities of a texture. One surface looks different from another because of the different amounts of light each reflects. A smooth glittering surface reflects light dazzlingly; a dull surface absorbs light into its depths and reflects it softly from the nubs, creating a pattern of light and shade.

Handling fabrics also develops judgment in estimating how they will perform. Before buying a fabric, one should feel it to discover how it behave, suspend from corner to see how the bias fall, squeeze it gently and release to discover its flexibility, crispness, springiness and firmness. These qualities determine fabric hand.

The appearance, feel and use of all fabrics are determine by-

- Fiber content (Such as Cotton, Wool, Rayon, Polyester, Nylon)
- Yarn structure (Coarse vs Fine; Rough vs Smooth, Tightly vs Loosely twisted woven, Long filament vs Short staples)
- Fabric structure (Weaving, Knitting, Felting, Bonding)
- Finishes (Chemical or Mechanical Finish)

New fibers, new blends and new finishes which are being constantly developed create concept of new performance and handling. These textures resemble the familiar natural fiber- Cotton, Wool, Silk, Jute, Linen, but may feel and behave differently. It is difficult to identify the fiber content of a fabric. Therefore reading the label and testing in laboratory becomes essential.

## Fiber content

Fiber is the substance from which yarn and fabric are made. The length, chemical composition, shape, and performance characteristics of a fiber greatly influence the final texture. Natural fiber - cotton, wool, ramie and other minor fibers; man-made and synthetic fibers include rayon, acetate, nylon, polyester, acrylics and others.

Long filament fibers such as silk and synthetics gives shinier, smoother, cooler touch and many times stronger fabrics. Short, staple fibers such as cotton, wool and cut synthetics give a relatively dull, rough, fuzzy, warmer touch and many times weak fabrics.

Some fibers or combination of fiber contribute static electricity which results in clinging garment. Functional qualities of heat conductivity, shrinkage control, wash ability, absorbency, resistance to heat and fire mildew etc. depends initially on the fiber content of the fabric.

## Yarn structure

Fibers are spun into yarn. Very different fibers with the same yarn structure may look similar or same fiber may change in appearance and performance characteristics simply with different yarn structure.

A very long or filament, fiber yarn is generally smoother and more slippery than the fuzzier fabric made from short staple fibers. Whether or not a yarn is of all the same fiber or blend of several fibers will also influence the final texture.

The amount of yarn twist also influences surfaces and hand. Crepe fabrics are made with very high twist yarn produce a pebbly surface and wrinkle surface. High twist yarn contributes to hard surface, smooth, strong. Soft surface fabrics are made from low twist yarn. Low twist in lustrous filament fiber creates a shiny texture.

The direction of twist whether S or Z is also important and whether all the yarns twisted in the same direction or some twisted in $S$ direction and some in $Z$ direction, as in crepe. The number of ply or strength twisted in a yarn influences textural thickness and strength. Generally higher the ply, stronger is the yarn. The thickness of a yarn influences how many yarns can be worked into an inch, and so the fineness or coarseness of a texture.

Novelty yarn create interesting surface contour. Yarns of more than one type of strand such as nub, flack, spiral creates a variety of bumpy, curly, fuzzy surfaces and insulating air pockets in the fabric itself. Most such effects results from combining more than one fiber type, ply, thickness and direction and degree of twist in a yarn.

These surfaces are visually interesting but may be often functionally vulnerable because of the unevenness of twist and thickness and consequently uneven strength. Yarns involving loops are easy to snag. Elasticized and high bulk yarns introduce other tactile effects and performance.

## Fabric Structure

Type of structure: Fabric structure is a mainly way in which fibrous yarns are interlocked into a flat surface. Varieties in fabric structure provide the most dramatic and easily seen difference in texture. The structure could be felt or made of various fibers adhering directly to each other without first being spun or the structure could be lace, net, braid, crochet, macramé, knit or woven.

Knits could be of single, double, weft, warp, or pile knits. Knitted fabrics have greater flexibility, wrinkle resistance, stretchiness qualities which correspond to body contours. Knitted fabrics will stretch horizontally or vertically or both but their stable stitched seams may break.

A woven structure could be plain, twill, basket, satin, dobby, jacquard, cut pile, loop pile or other. Weaving gives the strongest and most stable fabric structure. "Balanced" fabrics, having similar number of warp and weft yarns per square inch, are stronger than unbalanced weaves.

Non woven fabrics generally withstand less stress. Lace, net, crotchet and other fragile structures with yarn constantly changing directions have little tensile strength.

Grain: The direction of yarns called grain is the way a fabric will or will not behave. Both nonwoven and woven fabrics have grain in that many behave differently when used at different angles. Woven fabrics have strong warp and should go in the direction that receive greatest strength in a garment. This direction is vertical: Length wise pull of skirt when seated, of pants when knees bend, of bodices when shoulder stretch and of sleeves when elbows bend and of bodices when shoulders reach or stretch.

Many fabrics have flexibilities and softness in bias grain that make them drapable and allow soft elegant effect. Bias grain requires more care to avoid sagging hemlines. Net, lace and felt does not have flexibility of grains so they hold crisp shapes better.

Combination of fabric structure: These create new textural potential. If two fabrics are bonded and laminated together they produce a thicker, firmer, texture; but their joining must be permanent and on-grain and their care and performance quality
compatible. These fabrics are generally not suitable for garment. Embroidery, shirring and swivel weave motifs add surface interest but reduce resistance to surface friction.

Finishes: Chemical or mechanical finishes which use heat, pressure, and / or chemicals may either affect the fabric surface or penetrate the fibers.

Finishes for appearance are-

- Bleaching- Whitens the fabric.
- Embossing- Produces raise patterns.
- Flocking- Creates a fuzzy surface.
- Glazing, Schreinering, and Calendering- Increase the sheen of the surface.
- Moireing- Creates lustrous pattern resembling water ripples.
- Dyeing- adds colours.

Finishes that affects both visual and tactile qualities are -

- Singeing- Increase surfaces smoothness.
- Tentering- Keep the fabric even and on grain.
- Napping- Provide a soft fuzziness.
- Shearing- Gives an even surface to cut pile fabrics.
- Puckering- Is a results from embossing or chemicals.
- Sizing- Temporary or permanent sizing- Increases stiffness and some time shine of the fabric.

Functional finishes are soil release, wash and wear, permanent press, mercerizing, weighting, heat reflecting, antiseptic, and antistatic, absorbency, and resistance to wrinkles, shrinking, mildew, moths and flame.

In wool fulling, crabbing and decating are used to improve its textures and performance. Finishes have many advantages but they may also create some undesirable side effects which may harm the quality of fabric and also to the wearer.

## EXERCISE

## Assignment

3. Collect fabric of different texture and prepare a collage.
4. Prepare a small dictionary ( 25 words) terms related to texture.

## ASSESSMENT

## Answer the following questions:

7. Define texture.
8. What are properties that determine fabric texture?
9. Importance of fiber content in texture
10. Yarn structure and textures
11. Fiber structures and texture
12. Finishes and their effect on fabric

## Fill in the blanks:

5. $\qquad$ is the substance from which yarns and fabrics are made.
6. $\qquad$ fabrics have greater flexibility, wrinkle resistance, stretchiness qualities.
7. $\qquad$ gives the strongest and most stable fabric structure.
8. The direction of yarns called $\qquad$ _.

## Jumbled the words:

h) extetur
i) arny
j) riebf
k) cafibr

1) veawe
m) hsinsfei
n) tlmfneia

## SESSION 3: SILHOUETTE

Shapes is usually defined as flat, two dimensional area enclosed by a line. The outline creates the silhouette seen as flat. Flat decorative design, such as pattern, motifs and appliqués or flat garment parts such as collars and pockets are shapes.

Forms is defined as a three dimensional area enclosed by a surface. If the form is hollow the interior area is its volume, and if it is solid the interior is mass. The three dimensional human form is a solid mass bounded by the contours, the protrusion and indentation of the surface of the skin. Clothing parts are hollow forms whose interior volume relate to and complement the exterior contour of the body.

The expressive powers of shape and form are enhanced by the compounded powers of the effects of line plus those of space. A shape edged by the thin, smooth, continuous line of the curved path and with unbroken interior space conveys a different feeling from one edged by a thicker, porous line of straight path and with subdivided interior space.

Shapes and forms assume the physical and psychological effects of the line surrounding them and of the space separating them. The human figure can be seen as combination of geometrical forms. The average adult male and female head is ovoid: the neck, arms, hands and legs are dominantly cylindrical. The female torso is usually
two reverse cones or an hourglass or cylinder. The shoulder, hip, knee joints, breast and buttocks are domes or spheres.

The male torso is dominantly cylindrical, or an inverted, flattened cone if the shoulders are much wider than the hips. The child's head is predominantly spherical, and body parts cylindrical. As age changes the shape of the body also changes. The basic human form does not change; the designer creates visual variety, maintaining the functional comfort, safety, mobility, and practicality. If we want to show our figure look different than actually it is, we can use garments to change the form proportions.

Shapes and form in dress: - Flat geometrical shapes can be decoratively or structurally incorporated in dress. The square, rectangle, triangle, tear drop, diamond, trapezoid, circle, are both decorative and structural. Whereas the hexagon, marquis, ogiv, oval are primarily decorative.

(a) Traingle

(b) Trapezoid

(c) Hexagon


Fig.2.6(a-i) Shapes and forms in dress

Almost any shape can find attractive uses in dress. Many shapes can join to create other shapes; square can combine to form rectangle, paisley can combined to form circle.

3D Structural forms that are visible are also decorative. The equilateral cube and sphere flatter the figure but the unequal structure forms of the cylinder, ring, cone, bell, ovoid, hour glass, and most 3d forms have a sense of direction that lends character.

Styles changes according to fashion and culture but the human figure keeps the same form throughout time and everywhere. Therefore, the designer need to understand which form conforms most closely to the part of the body supporting it, which form allows greatest freedom of movement and what kind of decorative shape would harmonize best with other form in garment.

Silhouette: Silhouette refers to the form of one solid color projected against the background of another color so that only the shape is visible. In fashion, the term "silhouette" refers to the outline of a garment, or the garment's overall shape. Usually, silhouette is what one sees from a distance. It is responsible for the first impression of the garment.

A costume silhouette is determined by the contour of the person wearing the clothing than by the cut of the costume itself. A figure in the distance will be silhouetted against the background before any detail of cut and even color clearly visible. As shape is the first impression it has greater power to convey an image of beauty, style and taste than any other design elements. The structural seaming of a garment creates the silhouette.

You have already studied various types of silhouette of garment as:

| 14) A-Line | 15)V-Line | 16) Tent line |
| :--- | :--- | :--- |
| 17) H-Line | 18)X-Line | 19) Bell line |
| 20)I-Line | 21)Y- Line | 22) Balloon line |
| 23)T-Line | 24)Trapezoid line | 25) Empire line |
| 26) Princess line |  |  |



Fig.2.7 Various types of silhouette of garment

## FACTORS THAT DETERMINE THE CHARACTER AND QUALITY OF SILHOUETTE

2) The figure: A good silhouette always relates to body structure and emphasizes the points of body articulation. For example, two women wearing exactly the same dress make quite a different impression because of their body proportion and structure.

To produce a pleasing impression every part of the figure must be well related to the whole or such an illusion must be created by a costume so cleverly planned that it emphasis the figures best features and draws attention away from its defects.

A well proportion human figure has been the most beautiful or natural form. The line of a costume emphasis natural beauty if they follow body contour close enough to revel its shape line. If the garment clings very close to the body contour than the freedom of the motion may be restricted e.g. Fluid lines derived from classic Greek drapery enhances the beauty of the form whereas an alluring gown that clings very close from hip to ankle restricts movements.

If clothes muffle the body in heavy, shapeless garments or distort it with thick puffing invariably appear clumsy.

Break in the silhouette at the bodice natural division are best. To emphasis flexibility, belt should always be placed at smallest waistline. If belt is moved down or up, the body proportions get distorted and increases apparent weight and
shapelessness. A wide loose belt thickens waist line whereas a narrow belt is slenderizing. Body joints must always be fitted to allow freedom of the motion. A costume fuses smoothly with all details if scaled to size of the wearer.
7) Carriage: Carriage or the way a person carries herself enhances or ruins the silhouette. A beautifully proportional figure and well planned garment can be ruined by a slouchy, dejected carriage. On the other hand an erect carriage works miracle in counteracting figure irregularities. Everyone is not endowed with perfect figure but one can make the most of her figure by carrying herself with grace. An erect head lifts and firms the bust, and tucked under hips look smaller than they are. An impression of compactness is created by keeping the feet close together even the body is heavy. Smooth graceful movement transforms a simple garment into one of distinction. Wearing clothes with style and matters more than wearing the newest or costly fashion.
8) Suitability: The silhouette of a garment should be selected considering its suitability for the purpose. Whether it is for a business or formal occasion, for shopping or travelling purpose, or for party or evening wear. Purpose, places limitations on garment silhouettes in any fashion period. Defiance of these limitations, overdressing or under dressing indicates inexperience, poor judgment and lack of good taste. For a day time garment silhouette is different than for evening wear. The finishing touches jewelry, footwear, and bag for the costume also plays an important role. The silhouette selected should be contemporary.
9) Fashion: Fashion is the most decisive factor in affecting the silhouette of the garment in specific period of time. From the garment silhouette only one can recognize the fashion periods. The study of silhouette and omission of details strengthen each period impression and make them more lasting. Achieving quality of line and shape in dress depends on discrimination in choosing from a trend only those fashions that suits figure personality and activities. Wearing clothing out of fashion appears eccentric. Creating garments using exquisite fabrics and in harmony with the figure and personality of the person to enhance the figure is artistic achievement, possessing timelessness and distinction. One should always keep abreast of the times and renovate out of date clothing so that it fits into contemporary scene inconspicuously.
10) Texture: The silhouette of the garment is also affected by the fabric used in its construction owing to the drape and feel of the fabric. The texture of wearer hair also affects the silhouette. Fabrics like jersey or soft crepe form clinging fluids line: Thick wool tweeds or furs take on bulky shapes; crisp taffetas or slipper satin produce fluffy silhouette.

The manner of assembling all texture determines the coherence of ensembles. Stylish and smart silhouette can be produced by combining textures in harmony. Using the
same texture for all accessories is not advisable. Also all the fabrics are not suitable for a specific silhouette. It is very important to use a suitable fabric in specific styles so the appropriate silhouette can be achieved along with the desirable psychological effects.
11) Garment fit and construction: Structure seaming are necessary for shaping costume but not revealed in silhouette but any fitting fault affects the silhouette. If a garment conforms to the body with enough ease around the bust, the hips and a sleeve girth and allows smooth movement of body, the garment is set to be in proper fit and affects quality of silhouette. Too much of ease creates an impression of looseness while very little ease makes it skimpy tight. Fit also implies style of wearing clothing. Jacket should settle squarely on the shoulder, pitching forward or back will make a good jacket to worst silhouette. Construction also plays important role in producing quality of shape. Mishandling of fabric can be seen in silhouette. Ironing plays an important role in producing a smooth silhouette. Ironing glosses over all the small imperfection of construction. It eliminates wrinkles, sharpen edges and flatten seam and help molding the shape of the garment so that the wearer fuse into a smooth expressive silhouette. You have already studied about the basic body shapes and do's and don't of clothing for them in previous class. Here you are going to study how to relate costume to size and personality. Since no two human are alike in size, shape or personality so learning which style is better for individual needs specific study.

Tall figures: There are three different figures in this category
4. Tall, willowy, slender, rounded, feminine
5. Tall, large boned, majestic, dignified,
6. Tall, rangy, athletic

- Tall, willowy, slender, rounded, and feminine: The clothes of a tall slender fashion figure should be distinguished, unusual and can be dramatic at times. All high style clothes are design for this figure.

Line should be long and details impressive scaled to her height. Structural details formed by subtly curved horizontal or flatten diagonal suit her style and she can afford to repeat this cross lines. A shoulder, yoke, belt, and peplum in the same dress do not cut her height excessively. She can contrast the color of jackets and skirts. Clothes that define figure closely enough emphasis her beautiful proportion and sharp dramatic contrast of line are in accord with a style. She can wear caps, stoles with styles. They can wear big pattern designs. Extravagantly wide skirts topped by round neckline bodies and narrow hip fitting skirts with deep bat-wing sleeves to dramatize her figure.

These figure should avoid both tight, skimpy clothes that appear outgrown rather than form fitting, clothes that make her appear short waist, and small cute details that are insignificant and out of character.

- Tall, large boned, majestic, dignified: - These figure have height but does not have the slenderness to wear the extremes of fashion. They have dignified and commanding appearance. This type of figure should always look neat. One should never wear junior miss lines in a large size. Best structure lines are vertical or diagonal combined with vertical lines.

Clothes must fit comfortably and should never look outgrown. One piece dress needs complete or partial belts to mold a slightly lowered waistline. Massive pieces of costume jewelry accent her clothes effectively, and colorful silk scarves or crepe blouses soften severe lines without exaggerating bulkiness. Dainty frills and ruffles, perky little collars and bows contradict her size.

- Tall, rangy, athletic: - The dress for such persons should have comfortably large armholes with action pleats, blousing with a low-placed contour belt and pleated or circular skirt for easy movements. These figures easily carry sports or casual wears clothes than high style clothing. Horizontal lines opposed by verticals harmonize rightly with her angular frame. Tailored suits, sport jackets and slacks suits her styles, if carried with feminine accents. Easy fit, freedom of action, and strength of line characterize designs for the tall rangy figures.

Short figures: - There are three different figures in this category

- The short, dainty, small boned
- The short, muscular, stocky
- The short, small boned but overweight figure
- The short, dainty, small boned: This type of figure can wear short lines and small details to appear beautifully proportioned and appropriately dressed. Short boleros, jackets just above hipbone, small collars, small bows and crisp sheer neckline frills suits her size and physical appearance to perfection. Some horizontals or flattened diagonals are needed to cut the design into small spaces. Fine soft tweeds, flat furs and small patterns like dots and checks increases her stature and harmonize with her size. Avoid using unbroken verticals or long diagonals, large out- of- scale details, large patterned prints.
- The short, muscular, stocky: Simple and neatly styled clothes are recommended for this figure type. Clothes cut with slightly curved diagonals tapering towards the waistline suits best. Waist length jackets neatly fastened at the waistline makes her look taller and slender. Well- fitted one piece dress with narrow, self fabric belts indenting the waistline are appropriate for the figure. Built up necklines, small collars that roll high at the sides of the throat and 'V' down in front increases the height. Set- in- sleeves, fitting the arm below the elbow adds the least width. Gored full length skirts with straight flares contribute the most length. A simple accent, such as a white collar or an ornament at the shoulder, holds the attention at the top of the figure and gives
neat look. Avoid hip length jackets, unbelted or loosely fitted waistline. These increase the impression of squareness and stockiness.
- The short, small boned but overweight figure: - The problem of this figure is prominent bust and large hips. Stylish Clothes of one solid color with vertical lines predominating is best solution. Soft, gently curving diagonals, tapering towards the waist line breaks the expanse of bosom and hips and harmonize with the silhouette. Soft but firm fabric in dark solid colors produces the neatest silhouette. The one piece dresses with narrow, self fabric belts are best for the figure, as waistline is usually small in relation to bust and hips. The shaped waistline seam with the partial belt presents a better solution as it marks the waistline less bluntly. Collars rolling high and close to the sides of the throat and ' V ' down at center front slenderize the neck and adds height. Full length unfitted coats cut to hang as narrowly as body permits looks best. Avoid flat, round collars, fitted coats, puff sleeves, full gathered skirts for these figures.


## Figures of Medium Height

- Slender, thin and angular
- Large boned and stockily built
- Over weight

Choice of lines for these figures fall in between those recommended for the tall and the short figures. These type of figures can use medium-large to mediumsmall in scale of design of fabric patterns and from medium fine to medium coarse textures. They can wear more variety of clothes. Most of the ready to wear are designed for this figure, so also have greater choice for selection.

Restoring Balance to Out- Of- Proportionate Figures - There are four methods to balance out of proportion figures
5. Draw attention away from a figure fault by focusing on good points.
6. Work directly with the out of proportion area.
7. Conceal the figure fault
8. Built out a too small parts of the body to balance a normal or too large part

Narrow, Sloping-Shoulders Small Bust, Broad hips and Heavy Thighs- This is typically feminine figure, but the difference of shoulder and hip becomes more pronounced with the years.
Overweight below the waist shorten, widen, and age the whole figure. Focus is to be done at the smaller areas of shoulder and bust and the over heavy thighs and hips need to be reduced or concealed.

Carefully fitted foundation garments are the first requisite. Figure control with correct undergarments solves figure faults. To broaden narrow shoulders and reduce heavy
hips and thighs accent the top of the figure and conceal the hips under a long full skirt. Use broad collar and double breasted bolero to balance hip width. Must avoid halter necklines and pleats busting apart at the hips, avoid raglan sleeves, long blouse sleeve which flares at the sides.

Large Head, Neck, Shoulder, Arms and Bust- The top heavy Figure- This type of figure is common in old females. The problem is to de-emphasis the upper heavy part of the body and subtly increases the apparent size of the small hips, legs, and ankles to bring them into better balance with top. However enlarging the body from below the waist makes the whole figure appear large and clumsy and so the work has to done with restraint.

The firm undergarment will lift and support the heavy, low bust. A lightweight, soft girdle smoothes the hips without reducing the size but gives support to the figure. A hip length blouse or jacket balances the predominant busts, vertical lines, easy fit, and flared pleated skirts emphasize hips. Never wear short jackets which enlarges the bust, avoid tight fitting bodice, choker beads, boat neckline and raglan sleeves because these details greatly magnify the heavy bust area.

Round Shoulders, Forward Head, Flat Chest, Hollow Back- Generally a willowy young girl who grows too fast develops some or all of these irregularities. First step is to improve the posture before the bones and muscles become permanently adjusted to the slouched position.

If the faults are caused due to defects in bone structure and cannot be entirely corrected, skillfully placed lines in dress accomplish wonders in concealing them. Filling out hollows in figure is easier than cutting out the overweight figure.

To minimize the defect hollow chest wear soft folds and ties at the bust line. This will fill hollow chest area. Avoid unrelieved necklines and bust lines. To hide round shoulders and a hollow back, dress the hair low at the nape: wear collar and straight falling upper garment. Always avoid fitted jackets tightly buttoned. Always add bows and blousing to fill out the hollows. Wear large draped bows and full skirts, to give shape to a thin undeveloped figure.

Long and short waistlines- A belt marking the natural waistline will make:

- A low waistline looks nearly as long from the waist up as from the waist down.
- A short-waisted tall figure will look too leggy.

Therefore, it is essential to restore appearance of normal proportion with clothes. The figure below shows how the built-up belts and midriff emphasis shorten a long waistline. Contour belts placed at the hipbone, and details below the waist lengthen a short waistline.

Large abdomen- Prominent abdomen is caused due to overweight or wrong posture. Improving posture with systematic eating habits is essential to correct it. In clothing wear a firm girdle that helps flatten the bulge. Seek lines in a garment which appear to modify the abdomen curve and attract attention elsewhere.

All these examples of scaling designs to figure size and of improving the appearance of disproportionate figures through manipulation of lines cannot include every possible figure variation. The successful adaptation of costume lines to figure lines must be based on the understanding of:

- Illusions of the various line directions created by the repetition or contradictions.
- The illusion of diverging and converging lines
- The strengthening power of color and pattern contrast
- The effect of textures and colors on figure size and appearance.

Success in choosing clothes to make the most of one's appearance depends on capturing those elusive qualities- style and smartness- fully as much as on improving figure irregularities.

## EXERCISE

## Assignment

5. Collect pictures of dresses and show various shapes and forms in them.
6. Collect pictures of different garments and identify the silhouette.
7. Trace from magazine sketch of garment, which suit your figure and style for the most part. On tracing paper placed over the sketch, try various minor changes that adapt them specifically for your figure.
8. Sketch various proportion figures and practice designing clothes becoming on each.

## ASSESSMENT

## Answer the following questions:

6. Differentiate between shapes and forms.
7. Prepare dresses incorporating geometrical shapes.
8. Define silhouettes in garment and their types.
9. Explain factors determining the character and quality of silhouette.
10. Relate costume to size and personality of various figures.

## Match the column:

| A | B |
| :--- | :--- |
| 1. Short figure | a) High style clothes |
| 2. Willowy | b) Medium - large to medium - small |
| 3. Large abdomen | c) Wear short line and small detail dresses |
| 4. Medium height | d) Large arm holes with action pleat |
| 5. Rangy | e) Wear a firm girdle dress |

## UNIT 404: SURFACE ORNAMENTATION

## INTRODUCTION

This is another creative method used for surface ornamentation. For embroidery almost any fabric can be used. The fabric should be strong, laundered well, look fresh and with no distortion of the design. Always prewash fabric if the item has to be laundered, so that shrinkage can occur at this stage. A design with fine outlines and delicate details to be embroidered in a stranded silk requires a smooth-surface and closely woven fabric. When fabrics have a balanced weave there are equal number of warp and weft in each direction. This evenness of weave minimizes distortion and pulling during stitching, which makes these fabrics ideal for embroidery.

Threads used for embroidery are usually cotton, silk, wool, zari etc. Cotton is the most commonly used embroidery thread which is versatile and has wonderful silky sheen. It is made up of six fine strands that can be separated to create different thickness of thread and used on any type of fabric. A simpler, bolder design using thicker thread works best on a heavier, even-textured, and more loosely woven fabric. A line is worked best in stem stitch; in silk thread it looks delicate, while the same stitch in a thicker twisted thread is bolder.

The most common needle for embroidery is crewel needle. These needles are available in a range of size from 1 to10. The lower the number the bigger the needle. A hoop frame is commonly used frame for embroidery. These are available in all sizes. In addition to needles, threads and frames, a pair of scissors, tracing paper is required. Before transferring the design onto the fabric, press the fabric so that it is completely smooth.

## SESSION 1: EMBROIDERY STITCHES

## A) BASIC STITCHES

## 1. Running Stitch

It is a very simple stitch which forms the outline. The length of the stitch can be equal or unequal, depending upon the requirement of the design. This stitch is used in quilting popularly used in Kantha embroidery from West Bengal.


Fig.4.1(a,b) Running stitch and final look

## Steps of Running Stitch

a) Pass the needle in and out through the ground fabric; this will give the appearance of broken line.
b) Draw the needle up at one point and down at the second point.
c) Before pulling it through, pick a number of stitches on needle.

It is a quick and an easy stitch. It is used to tack two pieces of cloth together temporarily. It can also be used to quilt layers of fabric together permanently, or to sew in a linear pattern.

Variations: There are many variations on running stitch, but it is most often used to make a line, solid or broken.
A row of running stitch is worked in one direction and then the direction of the needle is reversed and the gaps in between the first row are filled up. This stitch technique is used for embroidering geometric patterns, often in combination with cross stitch.

## 2. Back Stitch

It produces a solid line on the surface of the fabric while running stitch produces a broken line of stitches. If the stitches are kept very small, back stitch can outline any shape, which makes it ideal for embroidering fine details such as tiny stem and leaf tendrils.


Fig.4.2(a,b) Steps of back stitch

## Steps of Back Stitch

a) This is achieved by taking short; 'back-ward' stitches on the back.
b) Two step forward, one step back.
c) The stitch is worked from right to left. Bring the needle up through to the right side of the fabric and make a short backward stitch along the working line. With the needle at the back of the work, take a long stitch forward and bring the needle up to the left of the backward stitch. The long stitch should be twice the length of the backward stitch. Take another short backward stitch on top, joining with the last stitch, and repeat in this way for the required distance. The stitches on top should be equal in length, with no gaps left between them.

## 3. Stem Stitch

It is used to make the outline of the designs especially stems and leaves. This stitch is visible in the form of a line. This stitch is used mainly for filling of small designs in motifs by making several lines side by side.


Fig.4.3(a,b) Stem stitch and final look

## Steps of Stem Stitch

a) Insert at some distance and exit a half stitch length backwards. (In every case, the needle must be moved a step backward before a step is taken forward.)
b) Keep the length of the stitches equal.
c) The thread should be kept on the left side or on the right side until the design is complete.
d) Proceed in this way, keeping the stitches even in length.
e) Make a loop and pull the thread from the loop to end the stitch on the backside of the fabric.

## 4. Chain Stitch

This stitch is used to outline circles and is worked in close rows as a filling stitch. Traditionally in India, chain stitch is worked with a hook called an aribharat extensively used in Kutchi embroidery. Design with twisting and flowing lines can be very effective in chain stitch.


Fig. 4.4 (a,,b,c,d) Steps of chain stitch and final look

## Steps of Chain Stitch

a) Bring the needle from below, upwards.
b) The needle is inserted back into the same hole and taken out at some distance above it.
c) The working thread is carried under the needlepoint.
d) Now, pull the needle very gently, so the chain loop is made.
e) Carry out the next stitch the same way, always inserting the needle into the hole made by the emerging thread. Continue in this way for the entire line or the design.
f) Work a chain stitch holding the thread, which is being stitched firmly with the thumb. Adjust the loose thread and then adjust the chain stitch just made.
g) Make a loop and pull the thread from the loop to end the stitch on the backside of the fabric.

## 5. Blanket Stitch

It is frequently used along the edge of household linens and blankets to add a decorative and colourful trim, as well as to secure raw edges. By varying the length and angle of stitches, numerous different decorative effects can be achieved.


Fig.4.5(a,b,c) Steps of blanket stitch and final look

## Steps of Blanket Stitch

a) Slant the needle to the left for the first stitch and then insert it in the same place for the second, but slant it to the right.
b) Two rows of blanket stitch, one straight and one slanting are worked to get a coloured binding on the edge of the fabric.
c) The straight stitches are only half the width of the binding.
d) Make a loop and pull the thread from the loop to end the stitch on the backside of the fabric.

Blanket stitch is worked, often in wool, with spaces between the stitches. When used as a decorative feature it may be sewn in parallel rows or with stitches alternating between long and short.

## 6. Satin Stitch

This is made by working parallel or radiating stitches close together to cover the design completely, from the front and backside of the fabric. Satin stitch looks similar on both the sides of the fabric. Narrow and small-sized floral designs are mainly suitable for this stitch. To make a neat and clear embroidered pattern of this stitch, the design is outlined with running stitches. To give an embossed look to the letters of the monogram, lining is used beneath the embroidery. Satin stitch is used to mostly
embroider monograms. It is used on handkerchiefs, bags, pillow covers, sofa backs, children's garments, sarees, etc.

## Steps of Satin Stitch

a) Make an outline of the design with the running stitch or stem stitch to be embroidered.
b) Bring the needle from below, upwards, at the beginning of the design.
c) Insert the needle from above, downwards, at the other end of the line of the design.
d) Repeat the same process for it. Take the stitches close to one another pulling the thread gently.
e) Go on embroidering carefully to avoid puckering.
f) Take care that the thread does not overlap at curves.
g) Make a loop and pull the thread from the loop to end the stitch on the backside of the fabric.


Fig.4.6(a,b) Steps of satin stitch
It can be used to cover specific areas of quilts or embroideries to enhance the surface effect. The stitches must be worked very close together to give the required satiny look. If a padded effect is required, the satin stitches can be worked over a base of tightly packed running or chain stitches. These stitches can be worked horizontally or diagonally.

## 7. Long and Short Stitch

As long and short stitches are taken one after another, therefore, the name of this type of stitch is the 'long and short stitch'. The long and short embroidery is done in floral designs, and in patterns depicting birds and animals. Two different shades of a colour or sometimes, even three shades of a colour are selected for the design. The embroidery is done from the upper part of the design. In the beginning, an outline is done with the running stitch with a light coloured thread. In this stitch, the light shade of a colour is used on the upper part and a dark shade is used on the lower or the inner part of the design. This stitch seems similar on both the sides of a fabric.

The fabric is kept tight in the embroidery frame. This avoids puckering. Long and short stitches are mostly used for embroidering logos, children's garments, photo frames, wall pieces, sarees, table covers, bed sheets, pillow covers, sofa backs, handkerchiefs, woollen shawls, etc.


Fig.4.7(a,b) Long and short stitch and final look

Steps of Long and Short Stitch
a) Make an outline of the design with a running stitch.
b) Make the design by making one stitch long and the next one short. Carry this out using a single coloured thread.
c) The other shade of the colour should be used in such a way so that it intermingles correctly with the previous shade of the same colour. There should be no gaps remaining between the two colours of stitches.
d) Continue embroidering the design in this way.
e) Take stitches very close to one another so that they intermingle.
f) Make a loop and pull the thread from the loop to end the stitch on the backside of the fabric.
For shading effect, direction of long and short stitches is very important. Before beginning this technique, direction consideration is very important.

## 8. French Knots

French Knots are raised stitches, utilized when a textured effect is required. The size of the knot depends on the thickness of the thread and the number of times it is twisted around the needle. The embroiderer must ensure that a needle is chosen that will easily slip through the tightly coiled thread.


Fig.4.8(a,b,c) Steps of french knots and final look

## Steps of French Knots

a) Bring out the needle from below upwards, at a point where the French knot is to be made.
b) Hold the thread tight with the left hand.
c) Wrap the thread around the needle once or twice (clockwise/anti-clockwise).
d) Gently pull the thread so that the twists are tightened against the needle.
e) Carefully insert the needle near the first point and pull it through; be sure that the thread end is still held taut.
f) A continuous line of knots is made to outline the embroidery. For floral designs, take the knots close to one another.
g) Make a loop and pull the thread from the loop to end the stitch on the backside of the fabric.

French knots are used as filling stitches for relatively small areas such as the petals of a flower. They can be used singly to provide emphasis, or where a dot is needed in the design, such as for the eye of a bird.

## B) DECORATIVE STITCHES

## 1. Buttonhole Stitch

This stitch is used to finish buttonholes; thus, the name 'buttonhole stitch'. This stitch is to create an outline, finish the edges or attach appliqués. It is also used for attaching mirrors in embroidery patterns. Though the buttonhole stitch can be used in any type of design, it is mostly used for doing floral designs. These stitches are placed very close together to form a firm edge. At times, this stitch is used in the centre of a motif. The needle enters the same hole in the centre each time, making a hole in the centre while the wheel around it is filled completely. The buttonhole stitch is used for outlining and attaching mirrors in embroidery, for example, most of the mirror work in Gujarat and Rajasthan uses this stitch. It is used to make the corners of table covers, bed sheets, sofa covers, chair covers, saree borders, etc.


Fig.4.9(a,b,c) Steps of buttonhole stitch and final look
Steps of Buttonhole Stitch
a) Bring the needle out from below upwards, on the design line.
b) Based on the width of the stitch, insert the needle at one edge and take out from the other.
c) Before pulling the needle through the fabric, carry the thread under the needlepoint.
d) Embroider carefully to keep the width of the stitch even and work all the stitches very close together to keep the continuity.
e) In case of groups in the buttonhole stitch, even space should be maintained after each group.
f) Make a loop and pull the thread from the loop to end the stitch on the backside of the fabric.

## 2. Fly Stitch

It is also a type of loop stitch. The formed stitch resembles the wings of a fly and therefore known as fly stitch. Its variation can be made by adjusting the lengths of the loop. It involves making a single loop with the thread and then tacking it down. It helps in forming designs like small plants, birds and grass, etc.


Fig.4.10(a,b) Steps of fly stitch and final look

## Steps of Fly Stitch

a) Bring the thread out from underneath the material, letting the thread hang in the form of a semicircle.
b) Take out the needle from the opposite side, a little farther from the first stitch, and take a stitch until it forms a V-shape by keeping the thread under the needle.
c) Insert the point of needle below the looped thread, thus forming the couching stitch required to hold the loop in place.
d) Continue from step one to complete the design.
e) Make a loop and pull the thread from the loop to end the stitch on the backside of the fabric.

## 3. Feather Stitch

It is used differently in double line and floral designs. In the double line designs, the stitches are taken with some gaps in between. In the floral designs, the stitches are taken close to each other as well as small in size. In this stitch, each loop is formed first to the right hand side and then on the left hand side of the embroiderer. All stitches should follow the same direction and should be equally spaced. This stitch is mainly used in embroidering handkerchiefs, bibs, saree borders, neck and sleeve borders, etc.


Fig.4.11(a,b,c,d) Steps of feather stitch and final look
Steps of Feather Stitch
a) The needle is brought from the backside to the front side on the line of the design.
b) Work stitches from the top to the bottom.
c) A feather-like look comes from their being open, looped stitches taken alternatively to the right and the left from a central core.
d) Every time the needle is pulled very gently, press the stitch under the thumb.
e) Because of the back-and-front movement of the needle, care should be taken to keep the stitches even on both sides of the central line.
f) It is advisable to draw guidelines lightly for the central line as well as for the sidelines before starting the work.
g) Make a loop and pull the thread from the loop to end the stitch on the backside of the fabric.

## 4. Herringbone Stitch

This stitch is a variation of cross-stitch. In herringbone stitch, the cross is made at the top and bottom instead of in the centre as in the cross-stitch. On the back of the fabric, the stitch is visible as parallel rows of running stitch. The stitches can be worked closed together by working two rows of stitches over each other so that the stitches intersect in different style to form a variety of design of greater or lesser intricacy. Embroidered with a slight gap between two lines, when worked closely it is called close herringbone. When the close herringbone stitch is worked on a semitransparent fabric, the reverse is used as the face of the embroidery; it is called shadow work. To maintain the shape of the design, herringbone stitches are taken close together. These stitches are well suited for floral designs and to neaten the edges of material. This stitch should have the small stitches equally spaced alternately at the top and bottom. The herringbone stitch is used mostly to embroider saree borders, kurtis, blouses, children's garments, etc. It is also used to embroider home furnishing items.


Fig.4.12(a,b,c) Steps of herringbone stitch and final look

## Steps of Herringbone Stitch

a) To maintain the shape of the design, take a small stitch in the opposite lines of the design on the fabric.
b) Take out the needle behind the previous stitch and slightly in front of the thread. Work from right to left and left to right.
c) Continue in the similar way to complete the line.
d) When the design is in the double lines, take the first stitch on the upper line and the next on the lower line in front of each other. This gives a cross-stitch look. While embroidering floral designs, take the stitches very close together. This makes the design clear, prominent and attractive. If embroidering with two colours, take the stitches with the some gap in between both the lines. In addition, if embroidering with single colour, then take the stitches close together in both the lines.
e) Make a loop and pull the thread from the loop to end the stitch on the backside of the fabric.

## 5. Bullion Stitch

It takes its name from its resemblance to the heavy twisted gold bullion used in fringes, tassles and ornate embroidery. It is used mainly for embroidering small roses. It creates a very realistic effect, especially when two or more shades are used in a rose. The floral design, when embroidered with shaded thread gives the effect of a beautiful rose. For making leaves, the thread is twisted according to the length of the leaf. The bullion stitch looks beautiful on frocks, saree borders, necks of kurtis, handkerchiefs. It can be made on home furnishings also.


Fig.4.13(a,b,c,d) Steps of bullion stitch and final look
Steps of Bullion Stitch
a) Take out the needle from the backside to the front in such a way that three fourths of the needle is above the fabric. Hold the eye of the needle with the left hand.
b) Coil the thread around the needle according to the size of the petals of the design (clockwise/anticlockwise).
c) Hold the coiled thread with the left hand so that the twists are tightened against the needle.
d) Now arrange them on one side of the petal and insert the needle.
e) Repeat the same process for the other side of the petal.

## 6. Lazy Daisy Stitch

This stitch is mostly used to embroider small petals and leaves. It is a small loop stitch. At the end of the loop, create a small stitch, which looks like a daisy petal. Space out the next loop or use the stitch to create a daisy by making five or more petal shapes to create a flower shape. The lazy-daisy stitch is a variation of the chain stitch. The size of the thread must be chosen to correspond with the size of the petal: medium-fine thread (or two or three strands of six-strand thread) for small petals; very heavy rope thread (or the full number of strands of six-strand thread) for large petals. Two colour schemes make it more attractive.


Fig.4.14(a,b,c,d) Steps of bullion stitch and final look

## Steps of Lazy Daisy Stitch

a) It is worked by taking out the needle from below, upwards, at the base of the petal or the flower.
b) The needle is inserted back into the same hole and taken out at some distance above it. Carry the thread under the needlepoint.
c) Press the loop thread firmly under the thumb and pull out the needle gently. Insert the needle just over a chain loop.
d) To avoid twist in the thread, take out the needle from the nearest petal.
e) Proper shape and distance should be maintained while embroidering small petals of a flower or leaves.

## SOME OTHER ORNAMENTATION TECHNIQUES

## 1. Mirror Work

Mirror work was introduced in India during the Mughal era. Today Indian artisans excel in this craft, and are creators of many indigenous motifs. Mirrors, also known as Shisha in India, are popularly used in hand embroideries from Rajasthan and Gujarat. The back of these mirrors is coated with highly reflective polish which gives it amazing shiny effect. They are widely used for designing and decorating of apparels, jewellery, craft projects, bags etc. and available in the infinite number of shapes, sizes and designs. Shisha work became a trend among local people. Mirror work is used in many motifs of Gujarat, Rajasthan, Madhya Pradesh and Haryana.


Fig.4.15(a,b,c) Steps of mirror work and final look

## Steps of Mirror Work

a) They are normally first held in place with two vertical and two horizontal lines of the threads.
b) The objective is then to hold the mirror firmly and decoratively in place by the surrounding threads.
c) The mirrors are mounted on the fabric by cross stitch embroidery that encloses and provides a casing to the mirror. This method of attaching mirror is known as interlacement. The other method of attaching mirror is first working with chain stitch on fabric and then placing mirror in-between rows of chain stitches.
d) The tension of these base stitches is important as they get pulled towards the edges of the mirror by the top stitching- if they are too loose or if the holding stitches are too close to the edge, the mirror will fall out.

Mirror work is very popular for cushion covers and bedcovers, purses, bags, clutches, sarees and wall hangings are made with mirror work.

## 2. Applique

Plain Appliqué is about cutting shapes from one fabric and sewing them to decorate the surface of another fabric for decorative purpose. Although complex shapes can be applied in this way, special care must be taken to maintain corners and sharp points. Appliqué work can be done either by machine or by hand, depending on the technique. Light weight fabric can be used for the traditional form of turned- edge appliqué.


Fig.4.16 Applique work

## Steps of Applique Work

Hemmed appliqué is the simplest form of appliqué. Motifs are simply cut on fabric and tacked onto the ground. Edges are then turned in and hemmed or slip stitched, leaving the ground fabric semi visible between the applied pieces.

## 3. Patchwork

Patchwork is a method of constructing a textile by sewing together small pieces of fabric into a geometric design. Fabrics with firm weave i.e. they do not stretch or fray
and fabrics with similar weight and texture are ideal for patch work. The patches are most often of identical shapes such as squares, rectangles or hexagons.


Fig.4.17 Patch work

## Steps of Patchwork

a) A template is used to mark the fabric for cutting.
b) The patches are joined along a plain seam using very small running stitches.

For ease of handling, patchwork is usually worked in sections, sewing together a number of patches into a block. It is commonly used to produce the decorative topsides of quilts, cushion covers, wall hangings, etc. It is often used in the making of clothes, banners and other articles.

## EXERCISE

## Assignment

1. Prepare samples of different types of basic stitches.
2. Prepare samples of different types of decorative stitches.
3. Prepare samples of mirror work, appliqué and patch work.

## ASSESSMENT

## Answer the following questions:

1. Write steps of making running, stem, chain, satin and blanket stitch.
2. Write steps of making fly, feather, herringbone, bullion stitch.
3. Write short notes on the following:
a. Back stitch
b. French knot and long \& short stitch
c. Buttonhole and lazy daisy stitch

## SESSION 2: TEXTILE PRINTING

Printing is a design element that is applied on the surface of the fabric. It can also be defined as localized dyeing on the textile surface. In order to produce attractive designs on the surface, dyes or pigments are applied locally on a certain area of textile as per the required design.

This technology is another part of the wet processing. The main objective of printing is to produce attractive designs with well-defined boundaries made by the arrangement of motifs in one or more colors.

## DIFFERENT TYPES OF PRINTING

## DIRECT PRINTING

Direct printing is the simplest technique of printing in which fabric is directly printed on a white or dyed background using some coloring agent, which is in the form of paste. Direct printing is of different types, which includes Block Printing, Screen Printing and Roller Printing etc.

Origin: Printing originated in the East. This technology is as an art of surface ornamentation. It was practiced in countries like India, China and Egypt.

Importance: Textile printing involves skills of many artists and designers. There are several methods of printing and we can combine this technique with other types of surface ornamentation like embroidery like mirror work, thread work and patch work etc. to create unique patterns.

## 1. Block Printing

Origin: Letterpress printing from wooden blocks was practiced in china some two thousand years ago. It is known that in India during the early part of the Christian era there existed a flourishing textile printing industry and that blocks were used, so the Chinese and the Hindus can both justifiably claim credit for the discovery of block printing. Germany was responsible for the first block printing in Europe.

Importance: India has a rich tradition of block printing often using natural dyes, which dates back to many centuries. Traditional techniques are still being used today. Indian textiles have been exported since the 15th century; today the main textiles centers in India are Gujarat, Rajasthan and Andhra Pradesh.


Fig.4.18 Blocks for printing

## Raw Material and Equipment

For block printing, below material and tools are required

1. Table: A wooden table with polished surface on top
2. Pins: To secure the fabric on the table
3. Block: Wooden block engraved with the required design
4. Spoon: To pour the color on the pad
5. Foam Sheets: To make padded surface for colors
6. Tooth Brush: To clean the surface of the block after using
7. Tray: To Keep the Foam sheet and color
8. Brush: To spread the color evenly on the surface of the block
9. Printing Paste and fabric to be printed


Fig.4.19 Block printing

## Procedure of Block Printing

1. Spread the fabric to be printed on the table in a proper position and secure it with the help of the pins.
2. Pour the print paste into a small tray along with foam padding and other material needed for printing.
3. Spread the print paste on the surface of the engraved block of design with the help of a brush and then press it onto the pad slightly in order to prevent the paste to enter into the inner interior parts of the block.
4. If there is an excess of print paste on the block, there may be chances of overlapping of paste onto the design hence proper care should be taken while pressing the block onto the pad, which contains print paste.
5. Press the block heavily on the surface of the fabric with the help of the hand.
6. According to the design, repeat the process, if needed.
7. After the printing process, drying and fixing to be done on the fabric.
8. Drying chamber is used to dry the fabric and then steaming of 5-10 minutes to be done to fix the dye on the surface. Then fabric is washed, soaped and dried.

## EXERCISE

## Assignment

1. Prepare five samples of block printing.

## ASSESSMENT

## Answer the following questions:

1. Write origin and importance of direct printing.
2. Write about block printing.
3. Explain raw material required for block printing.
4. Explain procedure of block printing.

## SESSION 3: TIE AND DYE

This is a type of resist technique, in which certain parts of the cloth remain un-dyed because they have been covered by thread, wax, adhesive tape etc.

Importance: Tie-dyeing is a native craft practiced in many countries all over the world, with possibly the best examples coming from India and Africa. The Indian bandhana works is especially interesting. The women in Indian villages who work in this way are known as bandhanaris.

The Tie-Dye is recognized and renowned craft all over the world. Tie and dye was further developed in specific silk regions of India, China, Japan, West Africa and Central America.

Raw Materials and Equipment: For fine and medium material, tying can be done with sewing threads, for thick and heavy materials, tying can be done with coarser threads other than these raffia, cotton cords, cotton threads, etc. can be used for tying. Various objects can be used for tie purpose like beads, pegs, rods, marbles, wood, needle and threads.

Avoid using colored threads, grains (any eatables) and plastic materials for tying, if hot dyes are used for dying.


Fig.4.20(a,b) Tie and dye and final look

## Procedure of Tie and Dye

1. The basic principle of tie and dye is to tie the part of fabric with thread, string, cord, raffia, knotted, folded, pegged etc. where the colour penetration should be avoided.
2. Whichever part of the thread is tied retains the original colour of the fabric.
3. Without undoing the first tie, dyeing is done for first colour. Second time tying is done for second colour. Therefore, when the tied threads are undone it will give three colours on the fabric.

- First colour is original colour of the fabric
- Second colour is first dye used for dyeing on the fabric
- Third colour is second dye used for dyeing on the fabric.

This will produce elaborate pattern on the fabric.

## Techniques of Tying

## 1. Knotting

Knotting is one of the basic and easiest technique. Knotting requires a large piece of thin, white cloth about 15 " square.
a. Pleat the fabric horizontally like a fan and tie knot at the end.
b. Take a second piece of cloth, pick up the center part of the cloth and tie a knot. Similarly, knots can be tied on all four corners of the cloth.
c. On the third piece of the cloth, tie knots as two corners only.


Fig.4.21(a,b) Knotting and final look

## Procedure

1. Prepare the dye bath according to the dyeing recipe.
2. Immerse all the pieces of cloth in the water for sometime so that the fabric soaks water evenly.
3. Squeeze them and place in the dye bath and dye according to the instructions in dyeing recipes.
4. After the dyeing, remove the fabric and rinse in cold water twice to remove the surface dye.
5. Squeeze the fabric and leave them to dry. Then remove the knots and iron the samples.
6. While ironing, use waste fabric on iron board to avoid spoiling of the ironing board.
7. Also, keep the waste fabric on the sample so that iron does not take any surface dye and get spoiled.

## 2. Marbling

Marbling produces excellent overall texture effect. Take a piece of fabric, crumple up and tie it into a light ball and later dye as before. After untying, the fabric can be recrumpled, tied and dyed in a second colour.


Fig.4.22 Marbling

## Procedure

1. Marbling can also be done by crumpling the fabric into a nylon stocking.
2. Tie pieces of raffia or string around, and immerse it in the dye.
3. Pieces of fabric can be pushed into metallic or plastic hair rollers and tied in a net or porous fabric and dyed.
4. Use azoic or cold reactive dyes for the plastic roller technique.

## 3. Pegging and Clipping



Fig.4.23 Pegging and Clipping

## Procedure

1. Take 15 " square fabric, fold horizontally several times and clip the edges of the fabric with metallic or cloth pegs.
2. Immerse the cloth in the dye bath and start dyeing.
3. In case of plastic, avoid using very hot water, as it will distort plastic.
4. Metallic clips will rust if kept in water for long.
5. After dyeing rinse in cold water and dry.

## 4. Binding - is also known as Bandhan

Binding-in or Bandhani means using an external material and tying with the fabric. Binding materials used can be glass marbles, pebbles, tennis ball, corks, cotton reels, button with different shapes, beads (white wooden, plastic, metallic), small piece of wooden shapes etc. these binding materials can be tied to get required shapes for articles.


Fig.4.24 Types of binding and final look

Design must be planned while tying for bedspread, tablecloth, curtains, dividers, shawls and garments. In India, binding-in technique is known as bandhani or bandhaj. This technique is used for sarees, dupattas, dress materials, cushion covers etc.

## 5. Tying with Threads Forms Concentric Circles



Fig.4.25 Concentric Circles

## Procedure

1. A 15 " square piece of fabric is marked with dotted lines.
2. On the dotted marks, stitch the fabric with threads running up and down, pull the thread, than tie it for about six times Little space is left before starting with next tying.
3. After dyeing rinse it thoroughly in water, squeeze and dry.

## 6. Pleating

Pleating is done to produce stripes and checks effect.


Fig.4.26 Pleating

## Procedure

1. Fabric is folded in lengthwise or horizontal direction and tied.
2. Dyeing is done, fabric is rinsed and dried.
3. The dyeing is done to create different effects.

## 7. Rutching/Rouching



Fig.4.27 Rutching/Rouching

## Procedure

1. A 15 " square piece of cloth is taken and folded into half and cotton cord is placed horizontally at the center of the fabric and again folded into half.
2. Cord is pulled and tied tightly or fabric is rolled around the cord gathered and tied, dyed, rinsed and the tie is undone.

## 8. Chevron Effect

Diagonal stripes in the form of a ' V -shape' are created in this method.


Fig.4.28 Chevron Effect

## Procedure:

1. A 15 " square piece of fabric is folded vertically or horizontally and then pleated diagonally and tied at regular intervals.
2. After tying, the fabric is dyed, rinsed and untied.

## 9. Laheriya

It gives diagonal lines effects; line can give variation effect i.e. broader or finer line.


Fig.4.29 Laheriya

## Procedure

1. Take 15 " square piece of fabric, roll it diagonally.
2. Tie at proper distance so that after first dyeing there is space for re-tying.
3. Re-dye second colour.

## 10. Twisting and Coiling



Fig.4.30 Twisting and coiling

## Procedure

1. Take 15 " square piece of fabric and twist clockwise and fold into half and re-twist anticlockwise.
2. Tie at proper distance with threads or raffia binding.
3. Dye, re-tie for second colour, dye and undo the tie.

## EXERCISE

## Assignment

1. Prepare samples of different types of tie and dye using various methods like knotting, pegging \& clipping, binding, pleating etc.

## ASSESSMENT

## Answer the following questions:

1. Write about raw material and equipment require for tie $\& d y e$.
2. Explain procedure of tie $\&$ dye.
3. Write short note on the following:
a. Knotting \& marbling
b. Pegging \& clipping and Twisting \& coiling
c. Binding \& concentric circles
d. Pleating \& rutching/rouching
e. Chevron \& Laheriya

## UNIT 405: TRADITIONAL TEXTILES

## INTRODUCTION

India is known for a varied and rich textile tradition in the ancient world and known for marvellous woven design. Indian traditional textiles are renowned globally for their intricacy, beauty and texture. The source of Indian textiles can be hinted to the Indus valley civilization they used homespun cotton for weaving. The pieces of cotton material have been found in the Egyptian tombs at Pharaohs Each Indian state has its own textile it in terms of designs, weaving patterns and techniques, colours and texture.

Indian hand-crafted textiles a living craft, practised by millions of craftsman from adolescent to old age. India is the only country in the world which has a weaving tradition carried on from generation to generation from thousands of years.

Indian handloom cotton trade replaced with power loom, British Industrial Revolution was a key factor of this. The motivation for hand spun khadi started by Gandhi. Even today unusual traditional textiles that demand to the international market are created by millions of craftsman all over India.

## SESSION 1: DIFFERENT TYPE OF INDIAN TRADITIONAL TEXTILE

1) Woven textiles
2) Dyed woven textiles
3) Printed textiles
4) Painted textiles
5) Embroidered textiles

## WOVEN TEXTILES

Textiles have mesmerized human being since ancient times. Indian woven textiles are made from different fibres, a variety of design and procedures are used for weaving, raw materials used in the weaving are cotton, wool or silk and which are converted into yarns. Yarns are woven to produce fabric/cloth and can be decorated by painting, printing or embroidery, etc. Different areas of the country have their particular style and technique in variations in styles of weaving and designs, which have been preserved because of the different cultural traditions.

## Development of Woven Cotton, Silk and Woollen Textiles

The production of textiles was the second largest livelihood after agriculture. From Kashmir to Kanyakumari in the South, from Gujarat in the west to Bengal in the east, thousands of families are occupied in spinning and weaving, dyeing, printing and painting and embroidery.

The major centers of cotton and silk weaving are Dacca, Varanasi, Kota, Chanderi, Gwalior and Venkatgiri, Madurai and Tanjore in South India. Silk fabric garments are worn during weddings and festivals as it is regarded as a 'pure' fabric. Kanchipuram in Tamil Nadu Ilkal in Karnataka, Arui and Dharmavaram the best known sarees from in Andhra Pradesh, unbleached cotton sarees from Venkatgiri are with zari borders with floral, bird's motifs both in palloos as well as in the field.

The brocades woven in gold and silk thread with intricate designs, produced at Varanasi (Uttar Pradesh). These brocades known as Kin-khab became renowned all over the world for the elaborate weave, mingling with different type of flowers, birds, animals, foliage and sometimes human figures. The delicate finer woven sarees in pastel shades and white and cream, have floral woven patterns and matching borders on pallavs from Chanderi, in Madhya Pradesh.

Punjab and Himachal Pradesh and Kasmir produced a wide variety of woolen textiles. There are many methods of fabric manufacturing, each competent of producing a large variety of structures depending upon raw materials used.

## Raw Materials used in Weaving

The basic raw material used by the textile industry for making a fabric is Fibre. Fibres are thin, strands are small in diameter compare to their length taken from a plant or animal or other substance.

Many different kinds of fibres are used for making a yarn. The strands of fibres are twisted or spun together to form a yarn that is used in weaving into a fabric.

Some of the fibres commonly used in textile weaving are:

- Cotton
- Silk
- Wool
- Mixture of the above
- Gold and silver thread, etc.

Cotton: The loose fibres of cotton are gathered and cleaned and it is spun on a charkha or spinning machines to the required thickness and texture and is then it is ready for weaving. A range of cotton fabrics from the finest of muslins, to coarse, thick
fabrics are woven all over the country. They are popular among national and international designers

Silk: It is made from the cocoon of a cream-coloured moth which nourishes on the leaves of the mulberry tree. The silk is usually whitish yellow and is expensive for its softness, the lustre and the tensile quality. The cocoons are sorted according to diverse qualities and then boiled. It takes about one week for the cocoon to be fully spun round with silk. The silk thread is wound on a spindle after being reeled and twisted, dried and polished. Tussar, Eri and Moga are the various type of silk.

Wool: It is a natural fibre obtained from hair of sheep; the other fibres are goat wool, camel hair etc. Long, fine silky hair is obtained from angora rabbit in North India known for its warmth. Today weavers are using original motifs and colours in tribal shawls of the North-east and Jamawar shawl of Kashmir and shawls from different regions of Himachal Pradesh.

## Textile Techniques

Indian textiles weaves may be divided into two groups: loom ornamented and postloom ornamented fabrics. Loom-ornamented fabrics are when woven design is created during the weaving. Post-loom ornamented fabrics are in which design is created after the fabric is woven. In other words, plain fabric is embellished with different techniques such as tie and dye, hand printing; painting, embroidery, patchwork and appliqué.

Loom Ornamented Fabrics: In different states of India handloom weaving is done on a variety of looms such as:

- throw-shuttle loom
- fly-shuttle loom
- loin loom
- pit loom
- jacquard loom

The art of weaving is controlled by three movements shedding, picking and beating. The shedding consists of moving the treadle with the feet, to make the alternate warp threads making shed to open for the shuttle carrying filling yarns. The picking movement pushes the shuttle to run across from one side to the other side for laying the filling yarn. The beating movement consists of packing the filling yarns into place one after the other, forming a fabric. Different textures are produced by variation in size and colour of warp and weft threads.

## Banarasi Saree

Banarasi brocade sarees are from the city Varanasi a small town in the state of Uttar Pradesh. The brocade sarees and fabrics are known for their gold and silver brocade or 'zari', fine silk and intricate weaving.


Fig.5.1 Motif of banarsi saree

Technique: The woven designs are constructed by warp and filling yarns of different colours and zari threads. Pattern is woven with or without attachments like jacquard or dobby attachment. It can be silk on silk, cotton on cotton, silk on cotton, zari on silk. The brocade designs are made with additional yarns other than the ground threads. These additional yarns are usually inserted in weft wise direction. Banaras is also known for the 'Minakari', a special method. In this technique, a design is woven with an added colour which looks like the jewellery. The additional coloured yarns are slightly untwisted and hence appear raised.

Motifs: The patterns are fine and delicate with a strong Mughal influence. Motifs like interweave paisley in a creeper (Kalka bel) and hunting scene (shikargah, floral and foliage (Jaal).

The most generally used motifs are:

- Chrysanthemum buta
- Keri (paisley) buta
- Ganga jamuni style (half gold and half silver zari)
- Ari jhari (diagonal stripes)
- Latifa buta

The sarees are woven in fine silk and are ornamented with intricate design, their special features are Mughal designs such as elaborate kalga and bel, floral and foliate motifs,. Other characteristics are gold work, figures with small details, pallus, jal (a net like pattern), and mina work. The sarees are mostly worn by an Indian bride. Depending on the intricacy of its designs and patterns, a saree can take from 15 days to six months to complete.

## Brocade

A richly woven fabric distinguished by raised floral designs attained either by weaving gold and silver threads (zari) or silk threads on a foundation of pure silk or silk and cotton blends. Silk being strong, smooth, fine and durable facilitated weaving of fabulous Brocades. Broadly brocades are classified as pure silk or silk \& cotton brocades and zari brocades with gold and silver threads. Few appropriate names like chand tara, mazchar (ripples of silver), morgala (peacock's neck), bulbul chasma (nightingale's eyes) differentiate artistic brocades. Brocades are also famous as 'Kinkhab' woven with silver and gold threads.


Fig.5.1 Brocade design

## Baluchari

The Baluchari Saree originated in West Bengal. It refers to the traditional woven silk sarees with floral or geometric silk or zari thread designs on it. It is a rich hand woven silk, saree with elaborate motifs representing Indian mythology woven designs portraying scenes from Ramayana or sculptures on historical temples onto its borders and large 'pallu'. Others motifs may include like animals, images of human beings, marriage processions, brides in palaki, horse riders, ethnic musicians. One main feature is the motifs has white outline Nowadays Baluchari sarees are woven with cotton thread and silk thread work ornament in bold colors. The bright colours are used in Baluchari sarees.


Fig.5.3 Baluchari design
Jamdani Sarees

Jamdani is the wedding saree of people of west Bengal. It is derived originally from famous dacca muslin. The delicacy of the fabric and the intricacies of the woven patterns decide the final price of a muslin saree, which can range from thousands of rupee to over a lakh.

The base fabric for Jamdani is woven with natural cream cotton yarn and the design is woven using bleached white cotton yarns which create a light-and-dark effect. Designs varies from the "butidar", the entire saree is scattered with diagonally placed floral sprays, also known as "tercha" and a group of floral motifs arranged in form of "jhalar". The fabric dupattas, scarves, handkerchiefs made out of this fine muslin are also very popular. The Jamdani sarees are one of the most sheer, delicate intricately woven saree from West Bengal. These sarees woven in Phulia, Nadia and Shantipur villages. These are woven in combination of silk with silk, cotton with silk and cotton with cotton.


Fig.5.4 Jamdani saree
Technique: The technique of intertwining the additional weft yarns for creating designs in the fabric is used in Jamdani sarees. These are woven on traditional handlooms.

Motifs: The most familiar motifs in the Jamdani sarees are floral geometric creepers, paisleys and leaves.

## Chanderi

Chanderi, small town near Gwalior, in Madhya Pradesh is recognized for its woven sarees appropriate for summer wear. Chanderi was the popular fabric of royal women of India because the gorgeousness of this fabric was its delicacy, transparency, and buties decorated with heavy gold thread embroidery. The material was very expensive.


Fig.5.5 Chanderi saree
A blend of cotton and degummed silk is used for saree weaving. Mostly woven in pastel colours with small buties and a narrow gold border is used in weaving. The pallu generally has fine lines in zari yarn. Motifs used in chanderi weaving are mostly taken from nature, for example, swans, gold coins, trees, fruits, flowers and different colour combination of bright colour also exist now.

Weaving Process: The craft of weaving chanderi has been practiced in families for generations. Initially, chanderi fabric is woven with handspun cotton yarn resembling the fabric as well-known the Muslins of Dhaka. Mercerized cotton, raw silk is also used in the borders and butis coated with gold, silver or copper dust.

Special features: Chanderi sarees are set apart by their light weight and glossy texture transparency and the sheer texture of the fabric, are known as 'woven air' due to the use of high-quality and extra fine yarns in weaving. The other differentiating feature is the use of designs such as peacocks, lotuses, coins, celestial figures, geometric patterns, artistic intertwining lines and figures of animals. Today, the three most well-liked fabrics used is pure silk, cotton and silk cotton to weave a chanderi saree.

## Maheshwari Sarees

Maheshwar is a small town near Indore; it is famous for delicate woven sarees. The Queen Ahilyabai encouraged weavers from Surat and designed an exclusive saree, with motifs inspired by the local architecture and a striped Pallav. It was graceful saree with simplicity, yet refined and sophisticated.


Fig.5.6 Maheshwari saree
Technique: The saree is woven with cotton weft and silk warp which is dyed on loom. It can be plain, tone on tone with a striped or checked border. It has three decorative bands/ borders of zari on the pallu. The colours are wide-ranging but the most popular are the native haldi-kumkum (yellow and red) combination.

Motifs: The designs are inspired from the architectural carvings of the Maheshwar's ahilya fort such as kangura (chevron) and chatai (mat) are the designs for borders of maheshwari sarees.

## Paithani Saree

Paithani is known as the 'Queen of Silks' worn by royals and aristocrats, Paithani sarees are worn by Maharashtrian bride. It is symbolizing the spirit of true Maharashtrian culture. The paithani sarees got their name from the town in which they originated i.e. Paithan near Aurangabad, during the rule of Aurangzeb. Paithani was promoted. Now-a-days, mulberry silk from south and zari from Surat are used in the weaving with a tapestry technique. Initially Paithani sarees were woven with silk threads pallu, border and buties was made from real gold and silver zari thread. The toughest part of weaving process is to decide the design, colour and finer details of the finished product, this process could take a month to two years. Each saree has two prominent contrast colours - one on the saree and the other on the border and pallu, naturally dyed colour threads, like red, yellow, sky blue, magenta, green, peach-pink and purple are used for paithani saree. While the main emphasis of Paithani sarees is the border and pallu and butis on the body, on the borders, the motifs used are narali (coconut), pankha motifs. The pallu motifs include lotus, mor (peacock), asavali (vines and flowers), koyari (mango shape) and akruti (almond shape) tota-maina. Other motifs are musical instruments like tabla, shehnai, sambal and tanpura on Paithani sarees.


Fig.5.7 Paithani saree

## DIFFERENT TYPE OF PLAIN WEAVE FABRICS

The Muslin Fabric

Muslin is among the most captivating and exotic fabrics known. Muslins are classified according to the degree of fine quality of the fabric: mulmul khas (or king's muslin) is the best quality in fineness entire fabric can pass through a ring. The other variety of muslin Abrawan (or running water), Shabnam (or evening dew). It is woven from the finest quality of cotton that grows in Bengal, it gives transparent, ultra-light and glossy fabric. It is famous for its texture all over the world. The muslins from Dhaka were a sign of royalty and nobility. Muslin was the dress of kings and queens, initially called 'mul-mul', exceptional, delicate, fine and described as 'woven air', muslin.

## Tusser Silk Fabric

Tusser is a rural art. It is manufactured in Bihar, Chhattisgarh, Madhya Pradesh, but the Jharkhand being the main state of tusser silk production. The tribal women were trained in weaving tusser. Silk out of cocoons is obtained. Tussar silk differentiates itself with its exclusive rich texture and natural gold colour ranges from sarees and kurta. Tusser is also known as 'wild silk'. When boiled, these extract thin, naturally gold threads. Tussar is light weight and one of the most suitable fabrics to drape.

## Kota Doria

Kota Doria signifies the origin of the craft, Kota, a town located in Rajasthan, hosts a number of clusters, which have been weaving sheer muslin sarees, called Kota Doria or Kota Masuria. The word 'Dori' means 'threads'.

Kota Doria is an only one of its kind square-checked woven fabric of cotton or silk. Kota is famous for its fine weaves and low yarn count, The fabric is made up of square checks in a variety of sizes and colours. Gold zari is also used to make the weave more beautiful. A variety of fancy yarns can also be used to create diversity. Kota dories sarees also have a narrow zari border. They also produce lamp shades, curtains, skirts and salwar-kamiz by using kota fabric.

## DYED WOVEN TEXTILES

## Ikat

History of Ikat: Ikat fabrics have always been well-liked for their diverse style and beauty. The term 'ikat' is derived word 'mangikat' that means to bind or knot, it is a yarn resist technique, and on weaving a pattern is created on the surface of the fabric wherein the yarns are tie-dyed. An ikat textile can be identified from the typical hazy patterning on fabric due to the resist dyeing of the yarns prior to weaving. Every Ikat Weaving has its own different styles, patterns, and choices of colour.

Ikat Weaving: The name "ikat" refers to the dyeing method used to create the patterns on the fabric. It is a tie dyeing process, where the yarns are tied as needed to make the desired pattern and then dyed before being woven into cloth.

Once tie dyeing process of the yarns is completed, the weaver lines them up for warping on the loom to form the pattern. The design is formed as the yarn is woven into cloth.

Types of Ikat Weaving: There are three types of ikat weaving techniques. These are warp, weft and double ikat. The differences between these three ikat depend on if it is the warp or weft yarns that are dyed to create the design.

There are the different steps engaged in creating an Ikat fabric:

1. The pattern is drawn by hand on the warp and filling yarns.
2. The yarns are tied according to the planned design. The threads are then dyed in the accurate colours.
3. The yarns are untied by removing thread, and the warp yarns are fixed on the loom.
4. The fabric is then woven with dyed yarns, and the colourful pattern of motifs emerges on it.

## Types of Ikat Fabric

Warp Ikat: In this only the warp yarn is dyed by using the Ikat technique. The filling yarn, dyed in a single colour. With this method, the Ikat design is evidently noticeable
in the warp yarns even before the fabric is woven by laying weft. This procedure is generally carried out in Koyyalagudem village and Chirala town; warp ikat sarees produced in these regions continue to be in high demand.

Weft Ikat: In weft ikat, it is the weft or filling yarns are ikat dyed. This kind of weaving is more difficult than warp ikat, as the design will be appear only as the weaving progresses. This is a skilled process as it needs the weaver to adjust the filling yarns in order to get clarity on the design.

Double Ikat: Among the most intricate of the three ikat, double ikat, is where both the warp and filling threads are tie-dyed before weaving. This method involves advanced skill and consumes time. The Patola and Pochampally Saree and Puttapaka sarees characterise beautiful double ikat motifs on silk.

The main production centres of ikat in India are Gujarat, Odisha and Andhra Pradesh. The ikat of each region known by different names can be identified from the motifs and the patterns achieved on weaving the tie-dyed yarns. The ikat textiles of India can be classified into three categories based on region as follows

1. Patola of Gujarat
2. Bandhas of Odisha
3. Pochampally of Andhra Pradesh
4. Patola of Gujarat: The double ikat weaving tradition of Gujarat is called 'Patola'. In the past, Patolas were produced in Patan, Khambat, Surat, Porbander, Ahmedabad and Baroda in Gujarat Patola is one of the renowned textiles from Gujarat known for its complex weaving of separately dyed warp and weft yarns to produce surface motifs according to the design.

Technique: The first step in making a patola is tie and dyes the yarn according to the design. It goes through number of cycles of tying and dyeing according to a specific order of colours. The yarns are than fixed on loom, displacement of even a single yarn can spoil the design plan.

Motifs: Some of famous motifs are 'Rattan chowk' 'Narikunjar' (dancing girl, parrot and elephant), 'Waghkunjar' (shows tiger and elephant), variety of leaf and flower and geometrical patterns.. The elephant, flower, girl and parrot designs are very common in Patola sarees. The Pan Bhaat (Leaf Design) is one of the most frequent patterns. The colours used are bright such as deep red, blue yellow and white. Weaving a Patola saree is very difficult. Each colour in a yarn has its own position in the saree and it has to be cautiously lined up according to pattern while weaving. It takes 6 months to a year, to make one Patola saree.
2. Bandhas of Odisha: Mostly, Odisha Ikat are single Ikat or double Ikat, cotton and silk Ikat are produced in Cuttack, Sambalpur, Nuapatna, Sonepur and Bargarh. The Ikat of Odisha is differentiated by curved geometrical forms with hazy outlines. The separate indistinct lines are created as only one set of yarns in the fabric are tie-dyed. Mostly weft ikat is done in Odisha.

The Ikat weavers of Odisha are known for the usage of striking colour combinations and delicate intricate patterns. 'Bichitrapuri' saree is with the double ikat checker board pattern and extra weft border of rudraksha, bead and fish. Some well known motifs are creepers, swastika, lotus, intertwined snake, fish, tortoise and elephant, shankha or conch shell. Besides the sarees, the other items of ikat are dupattas and dress material.
3. Pochampally of Andhra Pradesh: The weaving takes place not just in the village of Pochampally but also Koyalgudam, Chowtuppala, Srirpuram, Bhubangiri, Chuigottala and Galteppala and a few villages in Nalgonda district. The uniqueness of Pochampally ikat lies is the richness of fabric, design, and colour combinations.


Fig.5.8 Pochampally saree
Ikats are usually of two types -single ikat, where only the warp is tie-dyed and interlaced with the filling or weft yarn, which is usually white or basic colour; and double Ikat has both the, warp and weft are tie-dyed and placed in such a way that they together create the particular design. Pochampally ikat uses double ikat. The colour of the fabrics, is acquired from natural sources. The fabric is cotton, silk and a blend of silk and cotton. One of the unique characteristic of a Pochampally silk saree is the complex geometric design.

## EXERCISE

## Assignment

1. Collect different swatches of woven textile, plain weave fabric and dyed woven textiles.

## ASSESSMENT

## Answer the following questions:

1. Describe in detail of woven textile.
2. Explain plain weave fabrics.
3. Write in detail about dyed woven textiles.

## SESSION 2: DIFFERENT TYPE OF PRINTED TEXTILES

The term 'textile printing' indicates the decorating surface of the cloth by means of printing, painting and dyeing. The printed fabrics are categorized in four different classes or styles: the 'resist' 'dyed', 'discharge' and the 'direct' style. The resist style and dyed style are the oldest form of decorating textiles. All four styles can be used in grouping with a great variety of tools and devices to decorate the textile surface.

## BLOCK PRINTING

Block printing is a renowned art of Western and Central India. Minutely cut wooden blocks are used for printing each design.

1. There are different types of blocks for example buties, borders, carving these blocks is itself an art, one block for each colour is required. Some designs have as many as six to eight different colours.
2. The printing paste is prepared by dyes and gum or by adding pigment colours and fixer in the binder. The printing paste is spread on wet foam/jute cloth then block is pressed on it in such a way that colour is transferred on it evenly, and stamped firmly onto the starch free cloth with a little bang of the other hand to make it register evenly.
3. Once the entire cloth has been printed with one block, and one colour, printing with the next block follows, and then the next in sequence.
4. Printers have to be cautious to place the marker at the corner of the block to make sure that each colour fits into the design correctly.

## Distinctive Designs and Techniques

Block-print designs and colours differ according to the places from where they originate. Bagh from Madhya Pradesh prints are in red and black colour. Sanganer is famous for its unique floral block printed design. There are also various block-printing methods like direct, resist, batik, discharge, khadi (gold and silver stamping).


Fig.5.9 Block print
In the traditional method of printing textiles the designs were printed by using vegetable dyes which do not have affinity for fabric, so the cotton fabric is firstly soaked with metallic salts called mordants it helps in attaching dyes to the fabrics.

## Printing Equipment

Block printing requires equipment in terms of wooden blocks, printing tables, colour trays etc. The blocks are made out of 'saagwan'. Block carving is done in Gujarat; Agra and Farrukhabad in Uttar Pradesh and Delhi. Wooden tables used for block printing. Tables are padded with layers of felt/blanket material and covered with fine muslin, which absorbs extra dye. These tables were narrow width and hence the printer used to keep moving the fabric once the fabric in front of him was printed. The square wooden trays are used in which thick layers of absorbent felt material is spread. The printing paste is spread over the sponge, felt, jute fabric evenly.

Printing Process: The fabric to be printed is first of all washed for de-sizing, to remove starch or any other impurity from it. The fabric is then stretched and fixed on the table with the help of pins. This is to prevent the shifting of fabric when printing is taking place. The printing paste is spread over evenly on the felt fabric layers in the wooden trays which are placed on the table trolley. The block is pressed on the printing pad and then pressed on the fabric. The block is then cautiously lifted to avoid any smudging of fabric. The same amount of pressure is applied on each block to obtain uniformity of colour. Once the first colour printing is finished, second colour is used. The fabrics are dried in strong sunlight.

## DIFFERENT TYPE OF BLOCK PRINTED FABRICS

Block printing displays an extensive variety of butas, there are different states and region producing block printing. Some of the well known block printings are as follows

## Bagru Printing

Bagru is a small village, near Jaipur city in Rajasthan. Bagru printing is one of the oldest methods of printing with natural dyes. Dark colour designs are printed by using blocks onto light coloured background. Designs in indigo blue, alizarine red, iron black and bright yellow colours were created on rough cotton cloth by dyeing and printing. Motifs used are geometrical, floral, animal and bird forms. Synthetic dyes have replaced natural dyes.

Process of Bagru Printing: The process of Bagru printing includes a series of steps that includes:
a. Preparing the raw cloth
b. Making dyes and colours
c. Steps using different types of printing
d. Developing a dyeing technique for resist printing in particular

The process starts with the plain cloth. The raw fabric is washed thoroughly for even and good penetration of colour. The cloth is treated with cow-dung, soda ash and sesame oil, the cloth is then washed, dried and treated with powder of harada seeds mixed in water, this mixture gives a yellow tint to the cloth. The treated fabrics are then dried in the sun. Printing is done on wooden table, Bagru is known a special printing technique of Resist style called 'Dabu' printing. Its essence lies in printing with specially prepared Dabu paste is applied on the fabric and then dyeing the fabrics.

Dabu Preparation: In general, Dabu is made by mixing:
a. Lime dissolved in water,
b. Natural gum 'Bedhan'
c. Locally available black clay

All these are mixed well into a thick paste and left overnight. It is then strained into liquid paste which is used for printing. The cloth is stretched on the table. The prepared cloth is printed with Dabu paste by wooden blocks. Thereafter the printed cloth is dyed with natural colour, these results in resisting dyeing in the portions which were hidden and a printed effect is created in the fabrics.

## Sanganeri Prints

Sanganer is situated near Jaipur. For the Sanganeri hand block-printing, the local herbs and flowers used in the printing process Sanganeri prints have a white background. The designs are floral motifs and are known by the names of the plants. The colours are usually red and black with occasionally violet.

First the cloth is treated with Harada, it leaves yellowish tinge to the fabric, known as 'pila-karna'. The printer then prints the fabric with different colours and

Syahi (ink) printing paste is made by using scrap iron, horseshoes and Gur (jaggery) in an earthenware pot, for black colour of the design. The dyed fabric is washed in the running river water and dried in the heat of the sun with water sprinkling from time to time.

## Bagh Printing

The Bagh printing started in 1962 in the town Bagh situated in the Dhar district of Madhya Pradesh and known for hand block printed patterns. The Bagh prints are mainly floral and geometrical designs in white, cream, brown, red, blue, or black cotton fabric.

The base fabrics used are of cotton or silk. The colour used for printing are natural dyes and designs are carved on wooden blocks. The fabric is washed and scoured to make it starch free and to get rid of the impurities and dried in the sun after that it is dipped in a mixture of castor oil and goat droppings, to make the fibre absorbent. After this, it is dipped in a solution of 'Tarohar' and 'Harada' powder and dried in sun again. This gives the fabric its yellow shade.

Printing paste is prepared by mixing the dye with 'Dhavda' gum. There are two types of pastes: one for the printing of red color alum is boiled in a solution with Tamarind seeds, and other to print black Iron rust is boiled till it becomes a thick paste they are passing through a filter and applied on the jute cloth placed in wooden trays. This dye is transferred to the wooden block by pressing the block onto the tray. In the meantime, evenly stretch the cloth to be printed across the table. Printer then starts printing, until it is printed. It is than dried .It goes for through washing in the Baghini River, the iron content of the river water helps in bringing out finer colors.

Bagh prints are popular in the Indian subcontinent. Bagh printing is done on variety of products such as bed, cushion and table covers, ladies suits and sarees, dupattas. A lot of fashionable prints with variety of fabrics apart from Cotton such as silk, crepe, and tassar with fabulous results are now being used by the Bagh printers. Due to use of vegetable dyes, Bagh prints are eco-friendly in nature, this art is gaining popularity worldwide.

## Batik Printing

The "Batik" is an Indonesian art .It is a technique applying the wax on the design part of cloth and then dyeing it. The waxed area retains its original colour of the cloth and uncovered portion gets the colour and when the wax is removed. One of the important characteristics of this art is that it is very simple and can be done by anyone. Colourful batik prints are found on household linens, home furnishings, bags murals and wall paintings, batik printed kurtis, sarees and wrappers are very popular.


Fig.5.10 Batik print
Batik Technique: The batik process requires preparing the cloth by making it starch free, than tracing the designs on the fabric and stretching the cloth on the frame, and applying melted wax generally, on the design area of the cloth, then it goes through, dyeing and wax is removed by boiling the cloth in water and then washing the cloth in soap. The fabrics used for batik prints are cambric, poplin, voiles, and pure silk.

When fabric is dipped in the dye bath, the wax-protected areas resist the dyestuff; dyestuff penetrates untreated areas. The waxing dyeing and wax removal processes are repeated until design or desired effect is completed. White areas may be left white, dyed or over printed.

## Khadi Printing

Khadi print gives a raised print effect on fabric it is a thick white coloured paste made by combining titanium dioxide as a white pigment along with a binder. Pigment colours can be added to create different colour combinations it is fixed in place by the organic gum used as the glue in the paste. Khadi prints are easy to recognize with design only noticeable on one side of the fabric.

White Khadi Recipe: Titanium oxide, binder and glycerine are blended well and soaked overnight for better printing results; pigment colour (up to 6\%) is added to the paste. Khadi print is best suited for most of the fabrics.
Metallic prints: These are created by using printing paste containing metallic powders. Aluminium, bronze and copper powders are generally used. The type of the print effect depends on the metal powder used in the print paste. For example:

- Aluminium powder: Silver print
- Copper powder: Copper print
- Bronze powder: Gold print

Disadvantages of khadi and metallic prints are due to high content of titanium dioxide or metallic powders, the print pastes tend to dry rapidly resulting in uneven prints.

1. The texture of the fabric at the printed portion is rough
2. The rubbing fastness property is poor.
3. Extensive practice is needed for preparing acceptable prints, using these pastes.

## DIFFERENT TYPE OF PAINTED FABRICS

## Kalamkari from Andhra Pradesh

The word Kalamkari means kalam for pen and kari means work. The Kalamkari fabric was mostly used in canopies and wall hangings. The paintings and murals were taken from Hindu religion and mythology and nature (tree and birds). These fabrics were then dyed in natural dyes. The main tool used in Kalamkari is a brush known as 'kalam'. It is made of pointed edge in bamboo stick like a pen having a ball of wool or felt is tied near the tip. When the kalam is dipped in dye, the ball of wool absorbs the dye which is pressed during drawing. This keeps regular flow of the dye to the tip for continuous drawing.


Fig.5.11 Kalamkari design
Dyes: In Kalamkari natural dyes used are extracted from plants, roots, leaves and are mixed with iron, and mordants like alum which help in fixing the colour on to the fabric. For e.g. Yellow colour is derived from myrobalan flowers and pink colour from pomegranate rind, blue colour is taken from indigo and black from rusted iron fragments.

Technique: Combination of blocks and hand painting using 'kalam', makes Kalamkari fabrics popular. The first step is preparation of cloth by soaking the cotton fabric in water for an hour and subsequent washing to remove the starch which is followed by
drying. Next, the fabric is treated with myrobolan solution which gives the cloth a light yellow shade. The outlining of the main design and figures are then drawn by fermenting iron scrap with jaggery, this solution gives black colour, and alum solution is prepared by dissolving alum in water. This is applied wherever red is needed. The fabric is then dyed with alizarine. The areas painted with ferrous solution turn black and the ones painted with alum become bright rust red. Blue colour is applied by mixing indigo solution in an alkaline solution of lime and fuller's earth. To get green colour, indigo or ultramarine blue is applied on portions which are already painted in yellow colour.

Style and motifs: The prints were characterized by intricate motifs and forms including the tree of life, 'mehrab' pattern, 'jaals', creeper and stylized peacocks, decorative borders were depicted in stylised natural forms.

## Madhubani Painting

The Madhubani painting is a traditional folk art form which got worldwide recognition. Madhubani painting is from Madhubani and Mithila villages in Bihar. These paintings are done on a range of means, such as cloth, hand-made paper and canvas. The major themes of Madhubani paintings include images of Hindu deities such as Lakshmi and Saraswati, Durga and Krishna, Ram, and Shiva. It also includes paintings of sun, moon and tulsi or the holy basil plant worshiped by the Hindus. Scenes of royal courts and social occasions such as celebration of wedding are also skillfully represented in Madhubani paintings.


Fig.5.12 Madhubani design
Technique: The Madhubani painting needs skill and a certain procedure. This method needs simple raw materials such as cotton is wrapped around a bamboo stick to provide as a brush. Then the brush is immersed in colors and applied on to the fabric.

The outline is done with double lines. The gaps between the two lines are filled with cross or straight lines. Colors are not used in linear paintings.

Madhubani paintings are well known for their unique style of painting. They are Colorful and enhance its appeal when used as home décor item. In Madhubani painting, vibrant and bold use of colour combination is attractively done. The theme is related to daily activities, nature, flora and fauna and Hindu Gods. Some of the main features of Madhubani paintings are ornate floral patterns, double line border, abstract figures of deities with prominent eyes and a jolting nose on the faces of the figures.

## Warli Painting

"Warli art" is an attractive tribal folk art of Maharashtra, and is existed since early seventies. Tribal people convey themselves in various styles through paintings on the walls of their house. Warli paintings were done by the women mainly. The most significant aspect of the painting is that they portray social life. Warli painting are distinguished by motifs of human beings and animals, along with scenes from daily life are created in a free rhythmic pattern. Warli paintings are painted on mud walls with white colour. The paintings depict scenes of human figures engaged in different activities like sowing, harvesting, hunting and dancing.

Colour \& Shades: The painting is done on an austere mud base using one color, white, with occasional dots in red and yellow. White colour is acquired from rice powder. The illustrations in the Warli paintings, includes marriages, worship, procession, etc.

Motifs: Geometric motifs such as a circle, a triangle, and a square. The circle represents the sun and the moon while the triangle is used for mountains and pointed trees. The square points out a holy area, the square, the "chauk"; for the mother goddess. The central motif is surrounded by Scenes representing hunting, fishing and farming, festivals and dances, trees and animals.

## EXERCISE

## Assignments

1. Collect swatches of printed and painted textiles.
2. Prepare A-3 size sheet of different printed and painted textiles.

## ASSESSMENT

## Answer the following questions:

1. Describe in detail about printed textiles of India.
2. Explain in detail about painted textiles of India.

## SESSION-3: EMBROIDERED TEXTILES OF INDIA

Embroidery is the art of needlework mostly done by women to express their creativity on dresses and household textiles. The oldest existing embroidered pieces are from the 16th century ad, which comprises textiles exported to Europe or articles prepared for royal families. Different styles of embroidery have expanded in India regionally which has their own unique style. Cotton, silk, wool to velvet and leather fabric are embroidered with cotton, silk, woollen thread or gold/silver. Other than thread, appliqué work with pieces of fabric, beads, mirrors, shells, coins, precious stones and sequins are also used for decorating the fabric.

The Indian embroideries can be classified according to the technique or as per the region of production. In this chapter the Indian embroideries are classified on the basis of regions as follows:

- Chikankari of Uttar Pradesh
- Kashida of Kashmir
- Phulkari of Punjab
- Kasuti of Karnataka
- Kantha of Bengal
- Chamba rumal from Himachal Pradesh
- Kutch \& Kathiwadi embroidery of Gujarat


## CHIKANKARI OF UTTAR PRADESH

## Introduction

It is a very fine and intricate work from the city of Lucknow is famous for its grace and delicacy.

Material: In the beginning, chikankari embroidery was done with the untwisted white cotton thread on soft, white cotton fabric like muslin or cambric also on net to create a kind of lace. Today chikankari is done on all kinds of fabrics like silk, crepe, georgette, organdie, chiffon, and tassar with different coloured threads.


Fig.5.13 Chikankari design

Technique: The design in chikankari is transferred on the fabric by using wooden blocks, tracing paper, carbon paper, etc. The embroidery can be broadly divided into 3 heads flat, raised and embossed style stitches and the open work-like jaali work.

Chikankari flat stitches with their traditional names are:

1. Bukhia: This stitch gives an effect of shadow work. It is done with herringbone stitch on backside which gives a shadow effect on front side.
2. Taipchi: It is the running stitch worked on the right side of the fabric. It is done in between two rows to fill petals and leaves and also to make the bel buti all over the fabric.
3. Gitti: It is buttonhole and long satin stitch combination to make a wheel-like design with a tiny hole in the center.
4. Jangira: It is the chain stitch used as outlines along with running stitch of thick taipchi.

## Chikankari knotted, embossed stitches with their traditional names are:

1. Murri: It is the diagonal a grain shape. Thread wound on needle number of times to form a knot
2. Phanda: It is a short form of murri, small knots made by winding thread around needle two three times which gives a raised effect
3. Dhum patti: It is the cross-stitch leaf pattern.
4. Ghas patti: It is the V-shaped line of stitches on the right side of the fabric to form grass leaves
Besides there are two other important forms of embellishments - jali work \& khatwa
5. Jali work: The jaalis are a unique feature in chikankari. It gives an effect of open net formed by pushing warps and filling yarns apart by needle and finishing with small stitches. It helps in making jaalis on the fabric.
6. Khatawa: It is an appliqué work, which produces a flat effect.

Motifs: The open-work designs of Turkish architecture has led to the introduction of jaalis in chikan embroidery. The designs in chikankari are used are-hathi (elephant)
and kairi (mango) and other common motifs include mostly paisley, flowers, foliages, creepers, fruits, birds like peacock and parrots.

## KASHIDA OF KASHMIR

Kashidakari known as Kashmiri embroidery, developed under the support of Persian and Mughal rulers. Soon became a source of employment for people of Kashmir, Kashidakari inspired from the natural surroundings of the state, this embroidery done mostly on silk and wool. This art of embroidery is passed down from generation to generation; the workers find it easy to work with wool.


Fig.5.14 Kashida of kashmir design

Technique: The different steps involved in kashida are as follows:

- Selection of design: Selection and transfer of designs is done by naqqash.
- Transfer of design is done in two ways: (a) By blocks, (b) By perforations on paper.

Selection of material: The Kashmiri base fabrics are pashminas, shahtoosh and namdas. The other fabrics used are wool, silk, cotton. The threads used for embroidery are cotton wool, and silk. It also contains variety of artwork which includes aari work, needle work, sozni work and Jamavar. The stitches used are of different types, like darning stitch, satin stitch and herring bone.

Common Motifs: The common motifs used are such as sprays of flowering shrubs, birds, cypress trees and cones. The sarav (cypress) is commonly seen motif, quite similar to the badam in its long tapering shape. Chinar leaf, another main motif in

Kashmiri embroidery is the Boteha (flower). Jungle Tarah (jungle scenes) are mostly based on bulbuls, ducks, partridges, horses, jungle cats and many more.

Colours: The colour of thread in kashida of Kashmiri is usually pastel and light shades on a white background.

Utility items: Kashmir is famous for woollen shawls for centuries. They are of two types: the Kani' shawls (Jamawar) woven on the loom and the needle embroidery known as 'Sozni' Shawls. The other embroidered articles produced are bed spreads, dewan covers, cushion covers, screens, hand bags, table cloth, table mats, Namda and Gabba.

Pashmina Shawls (Sozni): Generally men are engaged in doing this work Pashmina wool is derived from Pashmina goat. The finest of the wool is Shahtush. Pashmina shawls are very warm, soft and light weight. The embroidery on Pashmina shawl is done with wool. The embroidery is very fine and in subdued colours.

Dau-shalos: The design is the same on both the sides. Akasi work is done throughout with the darning stitch.

Jamawar Shawls (Kani): In the Jamawar or Kani shawls are woven as well as embroidered; no one could make out the difference between the weave and the embroidery.

## PHULKARI OF PUNJAB

The word Phulkari means "flower-embroidery". Phulkaris and Baghs were worn by women during marriage festivals. Custom is to give phulkaris and baghs to brides at the time of marriage. Phulkari is basically created on shawls and dupattas that cover head whereas bagh is created on the garment that covers the whole body. The embroidery is done in very simple running stitches with untwisted silk thread in bright color combination on different type of fabrics. Today phulkari can also be seen on saree, salwar suits, bed sheets, pillow covers, curtains, wall hangings etc.

Technique: The main characteristic of phulkari embroidery are use of satin stitch on Khaddar a coarse cotton cloth with coloured untwisted silk thread known as patt.

Material: In early days the cloth used for phulkari was home-spun dyed cotton and khadi. Today phulkari embroidery is done on a variety of fabric is used such chiffon, georgette and crepe.

Colours: The contrast colour combination of bright colours silk embroidery thread such as yellow, pink, green, white, orange and blue on contrast colour fabric makes
this embroidery stand out. Horizontal, diagonal and vertical stitches create geometrical patterns in the phulkaris.


Fig.5.15 Phulkari of Punjab

## The Types of Phulkari

The chobe: It is gifted by the grandmother of the bride. It is in veil form embroidered on the borders only.

Ghunghat bagh or saree-pallau: It is the pallu having a triangular embroidered part that covers head with embroidered border on rest of the cloth.

Bawan Bagh: On one single piece of cloth fifty two different geometrical designs are embroidered.

Darshan Dwar: It is an embroidered piece for door that gives a sight of the god in the temple or gurudwara.

Suber: The cloth has five embroidered motifs in center and the other four on each of the corners is worn by the bride during the wedding.

Til patra: The term til patra is decorative embroidery.

## KASUTI OF KARNATAKA

Kasuti is well-known embroidery of Karnataka. This art was passed generation to generation. This embroidery is done on sarees and blouses, Negi and Murgi stitches are used on border of saree.

Technique: The uniqueness of this embroidery is it looks the same on the front and back of the work. The designs are never traced; embroidery begins without knotting threads, but with a tiny back stitch. Stitches are in vertical, horizontal and diagonal manner. The stitching starts in the form of a diagonal line of horizontal stitches (murgi). Following the diagonal line is a row of standard running stitch which will be filled in with more running stitch in return journey. Keep in mind that the back and front of the design should look identical.

Material: Kasuti embroidery is done on different type fabrics such as matte cloth, cotton, silk, linen etc. Mercerized fast colour cotton threads are used. Two to four strands are used for fine and coarse work.

Motifs: There are a variety of traditional kasuti embroidery motifs, such as Lotus flowers (center), animals, shells and plenty of borders. Many motifs gopuras, shiva linga, nandi palanquine are inspired by temples in the Karnatak region etc. are used. Apart from these a variety of types of creepers, foliages, and birds are used. The motifs used in Kasuti are taken from mythological stories.


Fig.5.16 Kasuti of Karnataka
Speciality of Kasuti Stitches: The common four types of stitches used in kasuti are gavanti, murgi, negi and menthi.

Types of Stitches
a) Gavanthi: Gavanthi derived from the Kannada word-Gantu means 'knot'. It is a double running stitch; it can be done in horizontal, vertical or diagonal directions.
b) Murgi: This is a zigzag running stitch; it is same on right and wrong side of the fabric.
c) Negi: Negi design has woven design effect. It is a running stitch. The design is not identical on either sides of the cloth.
d. Menthi: This stitch is similar to cross stitch used for filling purpose. Similar to Negi, even this stitch is not identical on either sides of the cloth.

## KANTHA OF BENGAL

Kantha is an embroidery style that originated in West Bengal. The Sanskrit word kontha means 'rags'. The embroidery is carried out on layers of old white cotton sarees that are stitched together with simple running stitch in white thread.

Technique: The motifs are traced and embroidered with running stitch using different coloured threads. The embroidery threads used are drawn from the old saree borders. The basic stitch used is running stitch along with satin stitch and chain stitch.

Motifs: The motifs are various types of lotus flowers, mandala, satadala, padma, trees, creepers, foliages, floral scrolls, kalkas, animal figures, human figures, spirals, whirls, birds, fish, boats, submarine sceneries, ships, pitcher, mermaids, various sea monsters, comb mirror, nut cracker, umbrella, chariot, palanquins etc.


Fig.5.17 Kantha of Bengal
The designs of kantha portrays mythological motifs, folk stories, epics, ritualistic motifs, running deer, dancing peacock, temples, hukkas, jewelleries, lush vegetation with roaming animals, Some kanthas signify the steeds of Gods like bull, swan, lion, elephant, peacock, mouse, cat, eagle, owl and swan.

Material: The kantha size and thickness is different according to its type. The layers of old cotton fabrics are stitched together by simple running stitch in white thread.

## Types of Kantha

There are different kinds of kanthas named according to its usefulness, there are seven types of kanthas used as coverings in winter, for books, valuables, mirrors, combs, wallets, pillows and bed spreads.

There are seven different types of kantha:
Lep kantha: They are closely padded rectangular covers to create warm coverlets. Sujani kantha: They are rectangular pieces of cloth used as blankets on ceremonial occasions.
Bayton kantha: They are square cover used for wrapping books and other valuables. They are elaborately outlined with borders of a number of rows of colorful designs. Oar kantha: They are rectangular pillow covers with a decorative border stitched around the edges.

Arshilata kantha: They are small, covers in rectangular shape with broad, colorful borders in various motifs used for mirrors.
Durjani/thalia kantha: They are small rectangles with a central lotus design and embroidered borders.
Rumal kantha: They have a ornamented borders with a central lotus are used as plate coverings.

End use: Nowadays, kantha embroidery is done on single layer of white or coloured fabric to create stoles, dupattas, sarees and suit materials.

## CHAMBA RUMAL FROM HIMACHAL PRADESH

The Chamba rumal gets its name from Chamba, in Himachal Pradesh, where it has been carried out. Pahari paintings of Chamba were known for the most scenic needle work, which the Romans portrayed as 'needle painting.

Technique: The process of creating a Chamba rumal involves the following steps:
a) The visualization of the theme to be embroidered.
b) The outlining of the initial drawing in charcoal by a trained miniature artist.
c) The predetermination of a color palette to be used while embroidering the rumal.
d) The designs drawn in charcoal by miniature artists.

The embroidery is carried out on two types of unbleached cotton cloth: lightweight and, coarser khaddar. In embroidering the Chamba Rumal the stitch used are, a double satin stitch, known as do-ruche, The untwisted silk threads in bright colours like red, yellow, green, blue, crimson and purple, known as 'Pat' are used for the embroidery. The satin stitch covers both sides of the cloth, resulting a smooth finish that looks like colours filled into a miniature painting.

Motifs: The motifs used are taken from pahari paintings depicting rasleela of lord Krishna. The embroidery also represents, distinctive motifs from natural surroundings of the Himalayan region include: tiger, goat, deer, horse, peacock, parrot, flowers, shrubs and plants, willow and cypress trees; and musical instruments like sitar, tabla, veena, tanpura etc.

Material: The fabric used as carrier in Chamba rumal was hand spun and woven cotton (khaddar) or fine muslin (mal-mal) of off white colour. For the chamba rumal silk fabric was used by the royal family of chamba for presenting it during the festival times or the marriage ceremonies.

Style of embroidery: The embroidery is done on a square piece of muslin cloth. The motifs are arranged in Rasleela form in order to depict scenes from lord Krishna's life.

Some of the popular themes include Rukmini haran and Kaliya daman. There are also floral designs in the lively silken threads used for filling up the design.

End use: the rumal was used as a cover for food prasad offered to gods and goddesses. Now days, the Chamba embroidery is done on blouses, caps, slippers, cushions covers etc.

## KUTCH AND KATHIWADI EMBROIDERY OF GUJARAT

Embroidery of Gujarat has earned its fame because of the beautiful creations by the artisans. The main centres of embroidery work of Gujarat are in the Saurashtra and Kutch regions. The embroidery of Gujarat is colourful and vibrant put into practiced by different communities of the state. The most well-liked embroidery styles initiated from Kutch and Kathiawar region of Gujarat. Gujarat has given India the greatest heritage in embroidery work and craft through its famous and marvelous Kutch embroidery. The most well-known artwork is known as Abhala embroidery, and bead work with silk threads of bright colors, In Gujarat there are 16 different types of embroideries, each have their own, unique style of embroidery, different patterns and motifs, Kutchhi women embroider garments to wall hangings, toran, bed covers, bags and camel decorations. Mirror-work is a main feature of Gujarat embroidery.

Technique: The embroidery is done with multi-coloured, cotton or silk embroidery threads. different stitches are used according to the style of embroidery, also use of mirrors that are fixed on the fabric with buttonhole stitch other stitches used are chain stitch, herringbone stitch, satin stitch, interlace stitch, and darning stitch. Another technique used is appliqué work, where pieces of fabric are cut into a shape and stitched onto the base fabric. The bright colours like Yellow, Red, Black, and Blue are mainly used in Kutch embroidery.

There are six regionalized techniques of the embroidery - Soof, Kharek, Paako, Rabari, Jat and Mutwa.

Soof: The term 'soof' is derived from 'saaf' meaning cleanliness, indicating the neat needlework that is done in the technique. It also refers to the angular formation of the stitch patterns. Triangles are the basic patterns on which complex, symmetrical patterns are developed. Stitched from the backside of the fabric, the design is done without any prior drawing. It requires a high level of skill in the precise counting of the stitches.
Kharek: 'Kharek' is inspired by the corrugated texture of date trees. This uses satin stitch in geometric patterns in which squares are made with black outlines. The front spaces are entirely filled with satin embroidery along the warp and weft of the fabric.

Paako: 'Paako' means solid and this stitch is characterized by compact stitches of square chain and double buttonhole stitches. It uses mirrors and a unique black outlining using satin stitch.
Rabari: The Rabari embroidery originates from the Rabari community. This kind of embroidery uses mirrors of different shapes and sizes along with a complex pattern of chain stitches. A number of colours are utilized for decoration. The Rabaris are well known for the back stitching technique called 'bakhiya' popularly found on the seams of women blouses and men's kediyal jackets.
Jat: The Jat embroidery shows an immaculate display of dense stitches on the fabric using cross stitch and mirror work. The counted geometric patterns draw its influence from the Sindh region.
Mutwa: The Mutwas are a group of Muslim herders whose works show an intricately embellished and jewelled fabric. It takes months to create a fully adorned Mutwa work using round mirrors and fine, minute stitches. Ornamental patterns and varied motifs are used in this.

Motifs: The motifs used in Gujarati embroidery are mostly taken from flora and fauna. Some typical motifs are flowers, creepers, trees, peacocks, parrots and elephants. Besides flowers and animals, human figures in different poses like dancing women and men are also seen in some styles of Gujarati embroidery.

Style of embroidery: There are various embroidery styles carried out by different tribal communities of Gujarat. Some of the styles are as follows:

Mochi Bharat: This type of chain stitch embroidery is exercised by the mochis of shoemakers.
Soof Bharat: The embroidery is carried out with untwisted silk floss and geometric designs are created by using the darning stitch.
Abhla Bharat: This style of embroidery create designs on fabric with the use of mirror work along with other embroidery stitches.
Moti Bharat: This craft is categorized by to develop colourful design on a white background of beads.
Sindhi Taropa: The motifs are mostly geometrical consist of squares, hexagons and lozenges.


Fig.5.18 Embroidery of Gujarat

Heer Bharat: The embroidery of Gujarat is also well-known for the embroidery that carry out architectural designs known as the 'heer bharat'. A mirror fixed with chainstitch in the center is placed to beautify the embroidery work.
End Uses: The embroidery of Gujarat exhibits a large variety of articles ranging from garments to items of home decor. Toran is the embroidered doorway decoration with hanging flaps. The artisans of Gujarat are doing extremely well in making cholis, gaghras, odhnis, bed spreads, bags, wall hanging and a variety of ornamental pieces for home decor.

## EXERCISE

## Assignment

1. Collect swatches of different embroideries.
2. Prepare samples of different embroideries.

## ASSESSMENT

## Answer the following questions:

1. Explain Chikankari of Lucknow along with diagram.
2. Write about Kashida of Kashmir with diagram.
3. Describe Kasuti of Karnataka and Phulkari of Punjab with diagram.
4. Explain Kantha of Bengal and Chamba Rumal of Himachal Pradesh with diagram.
5. Describe Kutch and Kathiwar embroidery of Gujarat with diagram.

# UNIT 6: DESIGN IDEAS AND PROCESS 

## INTRODUCTION

Design development is a process of developing ideas to solve different design problems. Ideally, one tries to develop a concept that provides solutions for the design problem, communicates effectively on multiple levels, is unique, and stands out from the materials produced by client's competitors. A good design process is a quite lengthy process. Designers have to spend lot of time coming up with ideas; editing, revising, and refining them; and then evaluating their final outcome every time. Good design means assessing every concept for effectiveness of the design or the garment or product.

Process of design development includes discover source of inspiration, derive inspiration, design mood board, story board, client board, etc. design development have steps to active required quality. Unit covers development of mood board inspiration board, client board, story board, colour board. There are a variety of ways to design a garment. Mind mapping is one way to create a central idea by brain storming. It is an initial stage of fashion designing. Unit also describes Indian folk paintings e.g. Madhubani, kalamkari, Gond, Warli etc.

## SESSION: 1 PROCESS OF DESIGN DEVELOPMENT

The key to good design development is good research material. As the process continues, different skills are required along with personal judgement and decision making so as to select ideas that one needs to develop.

Therefore, we can say that the process of design development includes the 5 D's that is

1. Discover (selecting a theme/source of inspiration)
2. Derive (deriving ideas from the selected theme/inspiration)
3. Design (to develop flat sketches in form of mood board, story \& colour boards)
4. Develop (to make final samples/prototypes/garments)
5. Deliver (to market the products or exhibit them or present them in a fashion show)

## Design Development Steps



STEP-1 includes preparing inspiration board, mood boards. The source of inspiration is selected for design development.

## FINDING INSPIRATION

To develop a design you can get inspiration from different source.

## A. Open Up To Inspiration

Any of us can get inspired at any time and the source of inspiration can even come from the least expected. It is important for all of us to open our self to the world to get inspired. However, opening one to the world can be a little difficult for some people, when we are occupied to the routines such as work, or having the similar kind of conversations with the same people. A designer is expected to look around the world nearby and interpret it for people. It is advisable to keep your smart phone and the sketch book handy. One never knows when a great capture may come on the way. All of us can get inspiration from the same object or same place, but the element of inspiration could be different for different people. This is said to have personal interpretation, an essential and important element for inspiration.

## B. Compile Imagery

The medium of creativity here is designing garments. This is the correct time to be greedy and grab everything that interests you. Surely some thought process would have begun in the readers mind. Grab the idea and do not shut the doors of creativity. Further work and improvement can be done later. If the designer is more sensitive
towards tactile textures, than explore magazines, newspaper, fabric swatches, or any other object that inspire you.

## C. Research to Originate Inspiration

When someone has to think about a theme to work on, the person should start gathering ideas that can work as great ideas. Look up at gatherings around you, nature around you, and the atmosphere around you or any even around you, to get a start as a key theme. It can be a certain colour or a silhouette that have drawn attention; one can use this as the foundation for the collection. Literal translation or interpretation of the sources around you can flex the creative muscle in you (the budding designer). Also at the same time it is equally important to learn to pay respect to others work. Remember the golden rule, what is new for you, will be new for the customers. Hence, stay original.

## D. Putting Inspiration into Words

Now the inspiration needs to be put into words. Writing down the ideas makes the work simpler and easy to relate to the designs. This would also help to stay focused on the design. For an aspiring fashion designer this is the step when visualization is taking the form of conceptualization.


Fig.6.1 Potential sources of inspiration and influence for fashion design
Here is a list of sources that can spark ideas for budding fashion designers.

- Society: the closest and a great source of inspiration is the society. Designing a new garment does not mean that one is making something absolutely new, but actually speaking it is reinventing the fashion. But be sure to think out of the box.
- Television: the very inspirational source is to observe the Television characters wore for any drama.
- Fashion shows: Fashion shows are great source of style inspiration.
- Movies: Deigning a garment for any character in a movie is based on a lot of research. They are styled as per their character requirement.
- Performers: those who are performing on a big screen such as a movie actor, theatre performer, choreographer, comedian, or a host are all great source of budding fashion designers.
- Nature: Nature can give you all, even fashion tips. From the beginning of civilization nature has given us enough, even including the source of inspiration for designing or technical development.
- Art: Art and architectural has always inspire designers. All forms of arts, like painting, textile craft, pottery, architecture have the potential to attract designer's attention.

(a) Flowers as a source of inspiration

(b) Final product

Fig.6.2 Embroidery developed from floral source of inspiration
Broadly speaking, the potential sources for inspiration for fashion industry are "manmade". The natural sources or the cultural sources, such as traditional, folk or ethnic costumes and culture, the myths and the legends of any region, ancient stories, and monuments are of little significance to the trendsetters or the fashion makers. These sources are of immense value to the fashion designers. Even though the fact remains the still the same that nature has inspired world and had been a great inspirational source for the artists since the Renaissance period. Given below are some pictures for source of inspiration and Inspiration boards:

STEP-2 includes the research through various means like fashion forecast, textiles available, etc. Starting to collect research material will provide a focus for your thoughts and provides material from which to start generating ideas. While the research, one can collect scraps, photographs, articles, colour schemes, graphics, trimmings, videos and pictures. This research material is arranged properly in form of Mood Board.

Mood board is the arrangement of references (pattern, design, images, etc.) collected on the basis of an inspiration in intended to convey the concept of collection, project or brand.

## Steps of creating mood boards:

1. Research for the references from inspiration: While inspiration is open-ended but mood suggesting the inspiration is not therefore are needs to research and depict the emotions intended from the inspiration. (For example tree suggests emotions like giving, growth, stiffness, linear, unity and on the other hand inspiration like
cherry blossom suggests emotions like freedom, bliss, peace, love \& fun). Then further we collect the references on the basis of emotion depicted from inspiration from various sources.
2. Collection of references: Here in, sourcing of patterns, images, designs or material from various sources that is news paper, magazines, internet, hand-drawn or photographs etc. of the same mind that is (of same mood, colours, emotions, feelings) to depict the mood of project. For example, in case of cherry blossom; all pictures will be related to feelings like bliss, love, freedom etc. with same sort of colours in it.
3. Arrangement of references: then those pictures, materials collected from various sources are arranged in particular manner to depict mood that is free collage, reference collage, templates etc.

STEP-3 includes development of silhouette, usage and colour combination. One needs to put up the ideas arranged in mood board onto the paper in form of flat sketches. For this one needs sketchbooks.

## Fashion Sketchbook

A fashion sketchbook is a platform of collection of personal ideas. Any paper pad or book for drawing or pasting pictures can serve the purpose of a fashion sketchbook. However, most sketchbooks contain croquis. The idea of having a lightly or faintly printed croquis is that it gives an estimation of proportion. One of the most important principles of design is proportion, hence to sketch any garment in the sketchbook, the principle of design can be taken care off. This also imparts a professional look to the work done.

Ideas generate while buying fabric: at the time of purchasing fabrics, sometimes looking at the print of the fabric, new ideas may generate. Capturing ideas at that moment will provide depth, and also one would remember the original concept that was developed.

STEP-4 incorporates prints, patterns, weaves, surface decoration to represent your inspiration accurately.


Fig.6.3 Fashion sketch

STEP-5 In the final step, samples are generated with proper pattern making, draping and fabric finishes etc. and also portfolio making. While these steps, one can make the story board, the colour board and the client board as well to move in the correct direction.

For example, if one is taking nature as inspiration, it includes various things as it is a vast topic to be more specific. Suppose, if we take flowers as our main theme, we need to research on flowers in detail preparing collage and mood boards on it.


Fig.6.4(a) Inspiration board


Fig.6.4(b) Mood board

Slowly and gradually, one can begin the flat sketch drawing keeping in mind that the flowers can be depicted through prints, embroidery, garment construction form,
weaves or even through surface ornamentation techniques on garment designs. For example, floral print, floral embroidery, construction of garment in floral cuts like scalloped.


Fig.6.5 Floral design: print, embroidery, stitching

## EXERCISE

## Assignment

1. Prepare an inspiration board and a mood board by taking any one source of inspiration of your choice.

## ASSESSMENT

## Answer the following questions:

6. Define the process of design development.
7. Explain the sketchbooks.
8. Explain the steps of creating the mood board.
9. Define some of the sources of inspiration which can be used in design development with illustration.

## SESSION: 2 DIFFERENT DESIGN BOARDS

## MIND MAPPING

Fashion design is an imaginative practice of expanding a creative idea to clothing both artistically and practically. There are a variety of ways to design a garment. 'Mindmapping' is one way to create a central idea by brainstorming. Mind mapping is a starting stage of fashion design. 'mind map' is referred as a drawing that has a rootlike structure radiating from a central icon, and which uses colour and lines to show
groupings, relationships and connections between ideas images and words. A mind map helps students to think clearly, ensures a variety of possibilities that could be considered and to encourage the thinking of outside-the-box.

To explore mind-mapping through class practice, all students should become the experimental participants. In which they will assign four different categories of design applications. The application should be describe as follows: 1. First is based on finding two contrasting ideas on an implicit topic and students should converge these different meanings to produce a single concept for a clothing, 2. Students think of a keyword on one topic out of all and further discover to reduce to the essence of the meaning of the idea/word. 3. Students can also use the other form of inspiration such as architecture, painting, and film to associate with the central idea of their developed design. 4. Students select an alternative 'object' to resemble its visual components and transfer them to their central ideas. Students proceed to further analysis, investigation, design and final evaluation of their clothing. This experiment would give thorough knowledge to the students related to mind-mapping method as a representation to express many abstract ideas by fashion designers.

## MOOD BOARD

Mood board is popular technique in fashion design field and among various inventive professionals. It is a board (digital or material) that could be filled with a variety of things from photos to different textures so that they could imagine designs and ideas. Mood boards are meant to move the exact mood and carry the emotions expected from a product. Mood boards are used to help designers to collaborate with team members and clients. Boards are easily created by designers, within a tight timeframe and turn a casual idea into an actual one. These are the ways from which designers can efficiently share their ideas with their customers because visual matter always works better than easy sayings.

Mood boards are the way to play with a colour palette, basis, and style, swatches as well as plan visual order formation of a design project. Mood boards can be created in different ways by laying out the graphics in branding, web design, fashion, film, photography, wedding planning, interior designing etc.

There are various types of mood boards.

## Free Collage

Designers collect high-resolution photos and use it as material in the designer projects. The free collage consist of beautiful pictures is an efficient way to convey a mood of the design inspiration. We can use illustrations, fonts, and color in free collage.

## Reference Collection

This mood board is based on references of past collection of designs. The source of idea and a method for design imagination is depends on quality references. Compilation of design works collected by a common style, this can easily show a proposal for a new project. Such mood boards are very famous among clients because they can see easy references and imagine the future garment design will look like.

## Template Board

Template board shows the structure of design and visual arrangement order of a garment design. In this board parts are shown via random illustrations. The selection of images for template board is based on easy recognition for corresponding color palette.

## Utility of Mood Board for Designers

1. To save time and effort: Mood board doesn't require much time to be done. It means that designers can create a visual guide for customers presenting an idea in a few hours.
2. To get inspired: Mood board is an inspiration to find ideas and interest. Beautiful pictures and right illustrations help to find the right mood and style.
3. To find a right color palette: A collage can include cloth swatches, illustrations, photos, and color samples forming a compelling composition. By combining images in different colours designers can add on colours from a colour palette on a mood board
4. To improve communication with customers: For a designer and a customer, it is sometimes hard to know each other when a product is at the stage of a conceptual idea, while having conversations visual references such as a mood board are the best way to sort out these kind of problems.
5. To talk less and show more: Long reports can't explain plans and ideas compare to visual presentation. Mood board is a trustworthy guide helping customers to know your ideas correctly.
6. To find a style for a design: Creative team works on, received instructions from clients about the style of the design of a garment, if they are not able to receive the details from the client, the task puts on a designer's shoulders. On the basis of mood board varied textures, try out with different types of illustration, test fonts, and change colours, creative team create the idea of design for client.
7. To involve clients in a process: Involvement of the client in a design project and their active participation in the selection of styles and samples, visualize the interest and idea of Mood board. It is a simple method which can be achieved by designer.

Some of the key points to be considered: Format, layout, collage style, colour and typography.

Format: There are two types of format, one is digital, second is physical. Format influences the style. Maximum uses of mood boards are in fashion design, interior design, wedding planning, branding, and web design.
i) Digital format: Mood boards created by Photoshop or illustrator is called digital format. These formats are simpler for designers because they can easily handle all their images digitally. They can re-organize them, trying outing different layouts and manipulating them to suit their needs.
ii) Physical format: Physical mood boards give us an extra tactile element. It works best with industries because they produce real objects for interior and fashion design. For the making of physical format, designers inculcate physical objects that are mixed with pictures pinned up on an actual board.

Layout: Lay out is a one page document. It represents best images of styles. It's the sum of its parts. We can order and display our images that speak itself about the mood created by the images themselves.

Collage Style: These mood boards are more freeform, over lapped, with inconsistent borders, and usually coming from all different sorts of media and digital too. These are a collage and gives off a confused feel. It gives feel of a procedure and less of a "complete piece" like the arranged patterns. Fashion designers uses more of this technique, when covering new trends or designing a new line.

Colour: Colour plays an important role in mood formation. The colour palette should be defined through the images. If we have lot of diverse pictures that have all varied colour schemes, we need to make it simpler or use more organized images. When we see some images that we are looking for and all of a sudden we notice a common colour palette and we start to look for images that suit us. Along with images, colour cards, fabric swatches, or substantial items that represent the colours can be added.

Typography: The word Topography comes from Greek-rooted combo of topos meaning "place" and graph in "to write." The meaning of topography is "the place to write". In terms of mood boards, it's not just about images and colours. If typography is a very important part of designers styling, they can include fonts by their own choices in the mood board. We can see these types of example in branding, web design and also in wedding planning mood boards (fonts on invites).

## STORY BOARD

Story board create innovative designs based on knowledge of the elements and principles of design.

- Story boards give the chance to showcase original designs and used in the sampling section in the industry.
- Story board improve visual communication skills in between client and designers.
- Story board gives information regarding career assignments of a designer and a fashion illustrator.


## Difference between Story Board and Mood Board

Storyboard is the visual depiction of our future designs. Based on script the artist draws pictures and characters, which are then animated. Storyboard is a way of communicating sequence of story scenes one by one till end of the sequence. These story boards have a look of comics.

Mood board is a mechanism used by designers to help them, get an excellent thought of what their customers are aiming for. Mood boards are mostly collages of things such as sketches, photographs, fabric swatches, clippings, and colour samples. These boards can be real or effective. A mood board is used by a variety of designers such as those in fashion and interior design.

By contrast, a Story Board has a more technical accuracy. It can have precise elements of an event and show how they come together. It is still a visual depiction but less conceptual than a Mood Board.

## COLOUR BOARD

## Making of Colour Palette for Fashion Portfolio

- First select your colour palette for your portfolio collection.
- By now you should have an idea regarding colours you are inspired by.
- You have completed your mood board in the last task.
- Concentrate on the colours that popping up and inspiring you.

Note: it is important that the images you chose tie back to your colour palette. Create your colour palette after you create your mood board as you find that which images inspired you. However, it is absolutely acceptable to create a colour palette first and then look for pictures for the mood board that works best for it.

Following things you keep in mind to help you to decide your choice of colour from the colour pallet.
Example: Think about the apparel category, you are forecasting to work and consider if the colours you are thinking about will work for that category. You might be looking at a Persian blue colour and want to use this colour for a denim kurti. Think about;

- Is this the most appropriate shade for the category of denim kurti?
- What are your key colours you work for?
- Sometimes people use a hand full of key colours for most of their collection, but may use other pop colours as accents.
- How many colours you required is depends on how robust your collection will be.


## Procedure of Adding Colour Palette to the Mood Board

There are multiple ways to add colour pallet to mood board. Below are some examples of different types of layouts. After you have finalized your colours, add them to your mood board. That means deciding how you want to present your colours on your board.
Action Steps: By using Pantone, yarns, or other standards, place together a temporary colour palette; think if these colours are right for the things you want to design. Now decide your colour palette to have a greater impact and make a statement.

## CLIENT BOARD

It is important for the making of ideal client profile. We should include client persona in the profile. For this, it is required to collect the information you need for the ideal client profile. There are some varieties of sets of data and information, to evaluate or create an ideal client profile.

1. Ideal client demographics: Demographics explain about ideal client. A demographic profile of client is a compilation of ideas; factual, statistical data about a specific group of people often used by researches to sections and aim their respondents for better results.

The first step in creating ideal client profile is to get clear on ideal client and define their demographic profile, including:

- Age-
- Gender-
- Ethnicity-
- Income-
- Mortgage amount-
- Marital status-
- Geographic location-
- Vehicle type-
- Occupation-
- Education level-

2. Ideal client psychographics: The next step to actual understanding, ideal client is to make a psychographic profile based on the demographic profile. Psychographics is the data about a precise group of people that centres on lifestyle, interests, aspirations, attitudes, and other psychological criteria. This fact explains why customers buy from you and what their inspiration is to buy. Unlike the objective details of demographics, psychographics is more sensitive. A psychographic outline gives a deeper, subjective identification of who your best client is and how they think. It covers things like:

- Mindset and attitude
- Beliefs and opinions
- Aspirations, goals, dreams and wishes
- Interests
- Parenting tips,
- Travel,
- Wealth building,
- Weight lose activities -
- Hobbies,
- Books,
- Stores,
- Restaurants,
- TV shows,
- Movies,
- How they utilize their free time
- Personality and values
- Lifestyle and priorities
- How they plan their budget and spend their money

3. Ideal client behavioural analysis: Behaviour analysis is the procedure of knowing the behaviour of a particular group of people. In an ideal client profile application, this constructs on the basis of the demographic and psychological information, this inform regarding, buying decisions of the client such as, what, when and how to buy.

The behavioural analysis of an ideal client describe solely on their behaviour and the actions they take in reaction to what you are offering and selling. An ideal client profile behavioural analysis is:

- Internal marketing data.
- Kinds of email they mostly open.
- Blog posts are most read.
- Social media posts have the most shares.

Analytics data to identify, action, email, blog post, sales page, triggered a sale. Collect actual feedback, positive and negative from customers about their trial with brand, products, and services, both online and offline. Reason of sales increased and time of year, holiday, special promotion, list out old customers so they keep on buying and encourage new customers, list the clients using your product/service the most, how and when do they use it (frequency, time of day, day of week) gather information of probable clients and customers before making a purchase, How they react by price, quality, handiness, and status.
4. Ideal client background story: Another way to understand an ideal client and their purchasing drive is to understand background story of client and to be able to tell the story in a convincing way that resounds with alike people. An ideal client's background story is the story of how they got to where they are today. You want to know where client began, what they achieved, and challenges they faced, and where they are right now. By understanding exactly where client came from, you can make your part of market stories and messages to have quality with probable new clients and customers and when they respond with your message and feel like you are available for them at the time of their need.
5. Ideal client destination: To make the most powerful marketing messages and sales copy probable to know the advantages of the benefits- or the ultimate target of your
ideal clients want to reach. Describing the benefits of your product or service to the client is the first step. Then want to look at the effect each benefit has on them and their life or business. Explain them the ultimate reward and destination an ideal client dream about reaching.
6. Ideal client future story: On the basis of background story of an ideal client and their target and vision, we can write the story of a client that what will he achieve in the future if they hire and buy from you, or make promise with you. An influential and convincing potential story puts the psychographics describe your work, exclamation about the advantages of your products, how those profits will get better and modify the life and/or business of your ideal customer, and what magical target they will achieve if they decide to invest.
7. Ideal client objections: Objections are an inevitable part of any sales process. The objections of our client should be,

- To consult with a spouse, will take more time to think about it.
- The wish to do more research.
- The necessity of more money.
- Shortage of time.
- Fear of judgement.
- Too much effort.

8. Ideal client risks: The gains your ideal client experience when they invest with you, you also require to look at the threats they might come across, including positive and negative threats.

- Positive threat: Positive threats are risks that have a positive outcome,
$\checkmark$ Counting on the risk of having too many clients.
$\checkmark$ Making so much money they require an investment strategy.
$\checkmark$ Requiring more inventories on hand or a big depot
- Negative threat: Negative threats are risks that have a negative outcome.
$\checkmark$ Including the risk of missing out on an opportunity.
$\checkmark$ Losing new business.
$\checkmark$ Falling behind.
$\checkmark$ Feeling overwhelmed.
$\checkmark$ Continued stress.
$\checkmark$ Financial struggles.

By knowing the risk gaining and risk losing, we can target our marketing messages and calls-to-action.

## EXERCISE

## Assignment

1. Prepare a client board keeping in mind the details to be covered in it as per the inspiration.
2. Collect some swatches from the market as per the colour scheme selected for your inspiration in the colour board and present them in the story board along with some illustrations. (One can make colour board and story board on the same inspiration selected earlier in session 1).
3. Prepare an article/sample inspired by the inspiration selected.

## ASSESSMENT

## Answer the following questions.

1. Define the story board.
2. Explain the points to be included in a client board in detail.
3. Explain the key points to be considered while developing the boards in the process of design development.
4. Define the types of mood boards.
5. Explain how a colour board can be developed.

## SESSION: 3 DESIGN DEVELOPMENTS

To develop the design, you can select any theme. Here we give some examples of folk art of India as an inspiration.

## Indian Folk Painting

Indian folk painting and art styles are very famous in modern world in textiles and interior decoration and design. This art have been carried down from generation to generation. Some of the artisan families are still practised this art in different regions of the country.

Indian folk art is still exists in many parts of the different states of country. Indian continent is culturally varied and different, a variety of art forms have developed over the years; some of them are untouched by modernisation and some become accustomed by using new paint colours and fabrics. Each folk art portrays sacred epics or Gods and Goddesses mostly, each represented in unique style, they were made by using natural dyes and colours on canvas or cloth, giving it a sense of antique, classic reminiscence.
Following are ten famous folk painting forms that are still practiced in different regions of the country:

## Madhubani (Refer Fig.5.12)

Madhubani art is also called Mithila art. This art is originated in the kingdom of Janak (Sita's father in Ramayana) in Nepal. Now days, we can see this art in Bihar. Mostly women artisans are practiced these popular Indian folk arts. The spiritual meaning of this art is to oneness with god is assumed. The motifs of this art is symbolized by geometric designs, this art form was discovered in 1930's. Most of these paintings depict gods, flora and fauna, and mostly done on wall murals, fabrics, etc.

## Warli



Fig.6.6 Warli design
Warli painting one of the oldest art forms of India, initiated by the Warli tribes from the Western regions of India, in 2500 BCE. They use a bamboo stick with brush made by chewing at one end to make it as paintbrush. Indigo, ochre, black, earthy mud, brick red are used for background colour and white made of rice paste to paint, are used as colour for making the motifs which are mainly the circles, triangles and squares to create different shapes and portray daily life rituals like fishing, hunting, festivals, dance and more.

## Gond

The Gondi tribe in Madhya Pradesh are famous for making these bold, vibrantly coloured paintings, representing mainly plants, flowers and animals. Gond art symbolized by a sense of belonging with nature. The colours are made from charcoal, cow dung, leaves and coloured soil. The painting is a combination of dots and lines. Today, these styles are taken over by using acrylic paints. Gond art is gaining its popularity in domestic and international market.


Fig.6.7 Gond design
Kalamkari (Refer Fig.5.11)
It is a type of hand-painted or block-printed art on cotton textiles that produced in Iran and India. Meaning of this word is kalam (pen) and kari (craftsmanship), or drawing with a pen. The former references shows that in previous days this art was block-printed form of art, later it is a free flowing art with a pen on fabric. Today, Kalamkari art represents anything from plant, animals and flowers to epics such as Mahabharata or Ramayana is used on sarees and ethnic clothing.

## EXERCISE

## Assignment

1. Select any one folk art of India, design a collection by taking inspiration from it and prepare a story board along with illustrations.
2. Prepare an Article/Sample depicting any one folk art.

## ASSESSMENT

## Answer the following questions:

1. Explain any two folk arts of India in detail.
2. Write short notes on any three of the following:

- Kalamkari
- Gond
- Warli
- Madhubani


## UNIT 407: DRAFTING AND GARMENT CONSTRUCTION-II

## INTRODUCTION

Fashion Designing is the latest trend of the day. This unit is for preparing the students to join in the garments industry with full technical and stitching knowledge with practical exercises done on fabrics. A self-employed tailor must have a thorough knowledge of the drafting, marking, cutting and stitching of children, women's and men's garments.

Drafting and sewing both are the basic contents of fashion designing. Knowledge of drafting helps in designing, making it more practical. Without the knowledge of drafting, a designer does not know how to develop designs for garments. Fashion designers also need to instruct the tailors about the new types of designs. Hence the basic knowledge of drafting is essential. In this unit student will gain the knowledge about preparation of fabric for cutting, pattern markings, pattern layout for different type of fabrics and garments and drafting, cutting, stitching of children and women's garment. Therefore, all these points are dealt in this unit.

## SESSION 1: MEASUREMENT TECHNIQUES OF MEN

The basic blocks can be drafted for individual figures by substituting the personal measurements of the figure for standard ones. It is important that personal measurements are taken accurately.

For Taking Body Measurements, the body should be relaxed and the following points should be kept in mind:

- The measurements are usually taken when the man is wearing a shirt or t-shirt, trousers, and the pockets of your trousers should be empty.
- Tie a string or elastic around the waist to establish the natural waistline.
- When measuring the circumferences keep in mind to keep the tape measure is held horizontally, perfectly parallel to the floor.
- Do not measure with the tape tight; let it laid flat on your body.
- Make sure to hold your tape from the right end.
- Complete your report with your measurements without adding or subtracting extra centimeters.
- Except for the back length, you should avoid using the measurements of garments that fit you, submit your body measurements only.
- In case of your irregular body shape, you will be asked to take the measurements of both limb circumferences. This will ensure a more precise fit.


Fig.7.1 Men's Measurements

## Guide for Taking Men's Measurements:

- Shoulder: Measure from base of neck to the shoulder bone. This measurement is used only if the shoulders are wider than the standard figure.
- Shoulder width: Measure from left shoulder edge/bone to right shoulder edge/bone. Measure between these two points by holding the tape measure straight.
- Natural waist length: Measure from the highest shoulder point (next to neck) to waistline.
- Length of garment: Measure from the highest shoulder point to length required.
- Back Width: Measure from centre position at back armscye (armhole).For a very accurate measurement - measure the full back width then halve the measurement.
- Chest: This is the most important measurement. Place the tape under the arms round the body at chest level by holding the tape measure straight on front and back. Make sure that the tape passes over the shoulder blades,
- Natural waist: Measure in the position of the string. Measure at its narrowest point of around the waist, by holding the tape measure straight on front and back, usually just above the navel.
- Trouser waist position: Measure 4 cm below the natural waist. This is a low waist measurement and is the common position in which trousers are worn.
- Seat/Hip: Measure around the fullest part of the seat/hip, usually 21 cm down from waistline.
- Neck: measure easily around base of neck; take the measurement on the lower edge of tape.
- Arm/Sleeve length: Measure from shoulder bone to wrist bone with bent arm
- Knee line: Measure around the knee
- Knee length: Measure from waist to Knee level
- Ankle: Measure around the ankle
- Side seam length for trouser: Measure from the waist to heel seam of shoe.
- Crotch depth: Seat the man on a stool; measure the depth from waist to top of stool.
- Inside leg: Measure from high in the crotch to heel seam of shoe. This measurement can be calculated by taking crotch depth measurement from side seam measurement.
- Bottom width: The width required for the bottom should be noted.
- Wrist circumference: Measure wrist in position of wrist bone.
- Arm/Bicep circumference: Measure the top thickest part of arm,
- Scye depth: The standard measurement from the size chart is usually used, but if the arm and shoulder are well developed, check scye depth. Place tape across back under arms, measure down from neck bone to centre of tape.


## EXERCISE

## Assignments

1. Take body measurements of a male and prepare a chart.

## ASSESSMENT

## A. Fill in the blanks:

1. Tie a string or elastic around the $\qquad$ to establish the waistline.
2. When measuring the circumferences keep in mind to keep the tape measure is held
$\qquad$ , perfectly parallel to the $\qquad$ .
3. Sleeve length measure from $\qquad$ bone to $\qquad$ bone with arm bent.

## B. Answer the following questions:

1. Explain the guide of men's measurements.
2. Write short notes on the following:
a) Chest
b) Scye depth
c) Crotch depth

## SESSION 2: KALIDAR KURTA AND CHUDIDAR PYJAMA

## KALIDAR KURTA

Kurta word is originated in the Indian subcontinents with different regional variations. Kurta is an upper garment worn by men and women. There are many variation of kurta with various names like hyderabadi kurta, lucknowi kurta, straight cut kurta, etc. Each kurta variation is famous for its own unique style, cut, embroidery, stitch, etc.

Kalidar kurta basically is stitched by joining panels. Kalidar kurtas are mostly paired up with chudidars as it gives a slimmer and smarter look. It is a comfortable wear. These days' kurtas also have variations in designs, cuts as per fashion and trends.

## Measurements

| Body Measurements | Women | Men's |
| :--- | :---: | :---: |
| Chest | $32 "$ | $40^{\prime \prime}$ |
| Shoulder Width | $7 \prime \prime$ | $8 \frac{1 / 2 "}{}$ |
| Sleeve Length | $20 "$ | $22^{\prime \prime}$ |
| Full Length | $34 \prime$ | $38 "$ |
| Neck Round | $16 "$ | $18 "$ |

Note: Drafts given in this book are not made using any drafting scale. Students should use drafting scale while preparing the drafts.


Fig.7.2 Draft of kalidar kurta

## Instructions for Drafting

## FRONT PART

$1-0=$ full length +1 " for turning
Square out lines from 0 and 1
$2-0=$ shoulder width $+1 / 2$ "
$3-1=2-0$ Join 2 and 3
$4-0=$ one sixth neck $+1 / 2$ " for ease.
$5-0=$ one sixth neck +1 ".
Shape the front neck from 4 to 5 as shown.
$B-5=0.50$. Cut the opening $B$ to $C=9 "$

## BACK PART

6-0 - 1.5". Shape the neck from 4 to 6 .
All the other points are the same as shown in the front part.

## SLEEVE

$7-2=1 / 2$ of shoulder
$8-2=$ the sleeve length +1 " for a seam one the line $2-7$. No seam allowance is kept on the line $8-9$ because selvedge side of the cloth is generally kept here otherwise turning in allowance should be added.
$9-8=2-7$ less $1 / 2 "(7-1 / 2)$.

KALEE (Side - piece)
$10-7=1 / 2 "$ for seams
$11-10=1 / 12$ of chest
$12-3=7-2=8$ " Join 11 to 12
$13-12=1 / 2 "$. Shape from 13 to 3 .
$14-11=8 "$ for women and $9 "$ for men
$15-14=6$ ". This pocket position can be lowered if necessary.
$16-13=8$ " for women and 9 " for men
A slit is kept from 16 downwards.

## BAGAL (gusset)

A square piece of 5 " (one-sixth chest less $1 "$ ) is joined to the sleeve and kalee and is folded diagonally as shown by dash line.

Join side seam, attach sleeve to body. Then attach Kali piece to the armhole and stitch. On the left side of the garment pocket should be stitched.

## Stitching method

1. According to the pattern, keep seam allowances and cut the fabric.
2. Stitch run and fell seam on the shoulder of front \& back parts.
3. Side seam line should be attached to the sleeve.
4. Attach with the body.
5. Fold the kali piece and keep it on the armhole and stitch it.
6. On the front neck portion cut open to attach continuous placket and stitch.
7. Finish the neckline, using a bias strip .
8. Bottom edges of sleeves and kurta should be folded and stitched.
9. When stitching the side seams, opening of 2 " must be stitched.
10. The garment is pressed and ironed.

## Chudidar Pyjama

Chudidar is common for both male and female, with fullness at the top, but tightly fitted at the lower leg from knee to bottom. It is cut on bias material to get a nice fit below knee. For this, either a bias bag (i.e. thaili) is prepared, or it is cut on plain material. Gathers are required below calf; the length is increased at the bottom.


Fig.7.3 Chudidar pyjama design

Layout on plain cloth: This method is followed when no joint is required, but in this case, too much material is wasted as shown in this figure by horizontal lines.


Fig.7.4: Layout of chudidar pyjama

Material required: The length of the material required is twice the full-length measure, when the width is nearly the same at the seat measure. If width is less, the length should be increased accordingly.


Fig.7.5 Draft of chudidar

Making a bias bag: This bag, with a width of nearly two-third of the seat measure, should be prepared as follows.

Figure 7.6a: 1-2-3-4 is the material taken for this bag. 1-4 or $2-3$ is on straight grain and 1-2 or 3-4 is on crosswise grain.

Figure 7.6b: By folding the material at $5-6$, we get the size $2-3-6-5$. Machine at $2-5$ and 3-6 after allowing $1 \mathrm{~cm}(1 / 4$ ") seam allowance. Keep 7 from 5 (in a straight line) equal to two third of the seat measure, the required width of bag.


Fig.7.6 Folding method of fabric for cutting chudidar

Figure 7.6c: Open the folded material, join 7-10-9 with $7-8-9$ and we get a bias bag with all sides closed. After cutting on lines $5-7$ and $9-6$, the bag can be easily placed on a cutting table.

Now turn the sides 1-2 and 3-4 (Fig.7.6c) in such a way that all the joints will come above knee, while cutting the garment. A small seam may appear at the bottom.

## Measures

1. Full length ......... $40^{\prime \prime}+10^{\prime \prime}$ for chudi
2. Seat .................. 38"
3. Knee round ......... 16"
4. Ankle round ....... 12"

## Instruction for Drafting

Square lines from 0, fold at 0-4.
$1.0=$ one-fourth seat +3 "
$2-0=$ full length
$2-4=10$ " for chudi

0-3 = waist to knee length
Square out from 1,3 and 4
5-1 = one-fourth seat +2 ". Square up to 6
$7-5=2 "$
Join and shape 6-7 as shown
$8-3=$ half knee round $+11 / 2$ " for ease
9-4 = half ankle round+ $11 / 2$ " for ease
Join and shape 7-8-9 as shown
$10-9=4$ " for ankle opening
Keep 2" above 0-6 for casing and 2" below 4-9, for in turns

Note: When the width of material is insufficient to cut the pattern on bias, the pattern should be cut 3" above the fork line 1-5-7.

Now cut the upper part on straight grain and the unfolded lower part on true bias. In this case, add 1/2" seam allowance at each side.

## Stitching Process:

1. Join the pieces, with $1 / 2$ " raw seam on wrong side for both front and back, and for both the legs.
2. Cut out a $21 / 2$ " piece on folded material
3. Attach the small triangular piece 4 " below the hemline
4. Finish the center seam $1 / 2$ " raw seam.
5. Turn down the hem round the waist $11 / 2 "$ when finished for the tape.
6. Join legs $1 / 2$ " seam.

## EXERCISE

## Assignment

1. Prepare the draft of kalidar kurta and chudidar pyjama.
2. Construct kalidar kurta and chudidar pyjama (on full scale)

## ASSESSMENT

## A. Fill in the Blanks

1. $\qquad$ is an upper garment worn by men and women.
2. $\qquad$ is cut on bias material to get a nice fit below knee.
3. Kalidar kurta is basically stitched by joining $\qquad$ .

## B. Answer the following questions:

1. Explain drafting and steps of construction of kalidar kurta.
2. Explain churidar pyjama with its drafting and steps of construction.

## SESSION 3: KATORI BLOUSE AND CIRCULAR SKIRT

## Katori Blouse

Katori is a word derived from Hindi means "cup". This cup part of the bust portion is set correctly in the front portion of bust and gives the elegant look to the wearer and also comfort. Katori blouse is an origin of Rajasthan where different kinds of fabric pieces are joined to create a unique look. This blouse mostly has an opening at front. Mostly thread work fabrics, mirror work fabrics, various prints are used to prepare this style of designer blouse.

## Drafting of Katori Blouse-Front

## Measures:

1. Bust 34 "
2. Waist 28 "
3. Length 14 "
4. Shoulder 14 "
5. Sleeve length 10"
6. Armhole 15"
7. Around the arm 10


Fig.7.7 Design of katori blouse


Fig.7.8 Draft of katori blouse front

## Front:

$0-1=$ full length -2 " (for separate belt) $+1 / 2$ "
$0-6,1-5=1 / 2$ of shoulder
0-2, 6-7 = $1 / 2$ of armhole
$2-3,1-13=1 / 4$ of bust +1.5 "
$0-11=3$ "
$0-12=6 "$
Give a shape to front neckline by joining 11 to 12
$6-10=3 / 4 "$
Join 10 to 11 for shoulder slope
8 is the centre point of 6 to 7
$8-9=3 / 4 "$
$7-26=1 "$
Give a curve to front armhole by joining 10, 9, 26, and 3
$20-5,17-1=2$ "
$5-21$ and $1-23=1$ "
Join 20 to 21 and 17 to 23
$17-18$ and $23-22=1$ "
15 is the centre point of $20-18$
24 is the centre point of $21-22$
Draw a dart of $1 / 2$ " on line 24 to 15
$20-19$ and $16-17=3 / 4$ "
Join 19, 14, 16 with a curve
25 is the centre point of $11-27$
Join 19 to 25 with a curve
$1-4=1 / 4$ of waist $+1 \frac{1}{2}$ "
Join 4 to 3 for side seam

## Lower belt

$29-31,28-30=1-13$
$28-29,30,31=3 "$


Fig.7.9 Cut pieces katori blouse front

## Drafting of Katori Blouse- Back

## Back Part:

$32-33,34-35=$ full length $+1 / 2$ "
$32-34,33-35=1 / 4$ of bust $+1 \frac{1}{2}$ "
$32-38.36-41=1 / 2$ of shoulder
$32-36,38-41=1 / 2$ of armhole
$32-47=3 "$
$32-48=4 "$
Give a shape to back neckline by joining 47-48
$38-39=3 / 4 "$
Join 47-39 for shoulder slope
40 is the centre point of $38-41$
Join 39, 40, 37 for back armhole


Fig.7.10 Draft of katori blouse back

## Back dart

$33-43=4 "$
$43-44=5 "$
Join dart legs 43 to $46=1 / 2 "$
Join dart legs 46 to 44 and 45 to 44
$33-42=1 / 4$ of waist $+1 \frac{1}{2}$ "
Join 37 to 42 for side seam.

## Steps of Construction of Katori Blouse

1. Cut and separate $A, B, C$ pieces.
2. Make a dart in the centre of piece $B$
3. Join A piece with B in a curve line.
4. Attach AB pieces with C pieces on extra seam allowance
5. After joining AB pieces with C attach it with lower belt piece with D
6. After joining all the pieces attach front and back part from shoulder
7. Then make finish button strip
8. Finish the neckline with bias facing and binding
9. Attach sleeves with armhole of blouse
10. Stitch the side seam of blouse with sleeves side seam.
11. Finish the lower edge of blouse with a strip.

## Circular Skirt

This skirt is given an effect like an umbrella, hence it is also named as Umbrella skirt. It is cut in a circular way different ways of cutting a circular skirt are explained below.


Fig.7.11: Design of circular skirt


A Without joint, $B, C \& D$ With side seam joint, $E$ With joint at circumference

It is generally cut without a seam at the circumference but for want of sufficient width of cloth, it may be cut in two pieces and joined together at 1-2. It can also be cut by joining the same material at one side, to make enough width. This joint (see 3-4-5) should be taken at the back, before cutting the side opening.

For side opening, slash from the waist on grain line. Bias cloth on the centre front is preferred.

## Material used:

Plain or small designed material of wider width, preferably 92 to 120 cm ( 36 to 48 "), should be selected for this skirt.


Fig.7.13 Draft of circular skirt

## Measurements:

Waist - 28 "
Full length - 16"

Belt width - 1 ½"

## Instructions for Drafting

Draw diagram on an eight layer fold (see 5-0-3) as follows (use paper patterns).
Square lines from 0 .
$1-0=$ one-sixth waist $-1 / 4 "$
Shape 1-2 with 0-1 radius,
$2-0=1-0)$.
3-1 = full length less belt width $+1 / 4$ "
Shape 3-4 with 0-3 radius.
Keep about $3 / 4$ " below 3-4, for inside turning.
After cutting on lines 1-2 and 3-4, the unfolded cloth will look like a circle

## Steps of construction:

1. Keep the draft on the fabric and mark the outlines. Also give the seam allowance and then cut the fabric.
2. Attach the belt with elastic insertion
3. Finish the hem line
4. Finish the garment when complete.

## EXERCISE

## Assignment

1. Drafting and Construction of katori blouse (on full scale).
2. Drafting and Construction of circular skirt (on full scale)

## ASSESSMENT

## A. Fill in the blanks

1. Katori Blouse is an origin of $\qquad$ .
2. Circular skirt is generally cut without a seam at the $\qquad$ but for want of sufficient width of cloth, it may be cut in $\qquad$ pieces and joined together.

## B. Answer the following questions:

1. Explain drafting and construction of katori blouse along with diagram.
2. Explain drafting and construction of circular skirt with the help of diagrams.

## SESSION 4: NEHRU KURTA, PANT PAJAMA AND WAIST COAT

## Nehru Kurta

This kurta is prepared with one patch pocket at the chest and two pockets at both the side seams. It is generally worn with a dhoti or pajama. The neckline is finished with a bound hem or stand collar is attached. Slit is kept at both the side seams. It can be finished with an embroidery design around the neckline, placket (i.e. button stand) and at the shoulder, near the sleeve joint.


Fig.7.14 Nehru kurta design

## Measures:

1. Chest .............................................. 36"
2. Full length ....................................... 36"
3. Waist length ................................... 18"
4. Shoulder ...................................... 16"
5. Neck ................................................ 16"
6. Sleeve length ................................. 22"

## INSTRUCTIONS FOR DRAFTING

Front: Square lines from 0 with fold at 0-1-3.
$1-0 \quad=\quad 1 / 4$ of chest.
$2-0 \quad=\quad$ Waist length
$3-0=$ Full length +1 " square lines from these points.
$4-0=3.5^{\prime \prime}$
$5-0=4$ "
$6-0 \quad=\quad 1 / 2$ of shoulder $+1 / 4$ ". Square down from 6 to 7 .
8-6 = $1 \frac{1}{2}$ ". Join shoulder 4-8.
9-7 $=$ about $2.5 \mathrm{~cm}(1 ")$.
$10-1=1 / 4$ of chest $+2^{\prime \prime}$
Shape scye 8-9-10 for front armhole. Square down from 10 to 11 .
$12-11=1.5 \mathrm{~cm}(1 / 2 ")$.
$13-3=$ Same as 10 to $1+2$ ".


Fig.7.15 Draft of nehru kurta (front and back)
$14-13=3 / 4$ "
Shape bottom 3-14.
Shape side seam 10-12-14.
Draw line 15-16 at a distance $1 / 4$ " from 5-2.
$16-15=4$ "
Cut the upper layer at 15-16, thus keeping the right side wider than the left.
Back: $17-4$ = $1 / 2$ "
Shape neck 0-17.
$18-8=$ Same as 17 to 4 .
Join 17-18. Shape scye $18-9-10$

## Chest Pocket:

Width $=1 / 8$ chest $+1 / 2$ "
Length $=4 "+1 / 2 "$
Side pocket marks: $20-12=1 \frac{1}{2}$ " to 2 "
$21-20=1 / 6$ of chest. Pocket opening
$22-21=1 / 8$ of chest
$22-14=$ is the slit (i.e. opening)


Fig.7.16 Pocket draft

## Side pocket lining:

Square lines from 0.Fold at 0-3.
$1-0=1 / 6$ of chest $+3 / 4$ "
$2-1=1 / 6$ of chest $+1 / 2$ "
$3-2=1 / 6$ of chest +1 "
Square out from 1, 2 and 3.
$4-0=1 / 12$ of chest.
Square down from 4 to 7
8-0 = about 2"
$9-5=$ about $2 "$
Join 8-9 by straight or outer curve line

## Sleeve :

Chest = 36"
Sleeve Length $=22 "$
Square lines from 0, fold at 0-2
$1-0=1 / 4$ of chest -1.5 cm
$2-0=$ sleeve length from shoulder $+3 / 4^{\prime \prime}$ for seams
$3-2=$ same as 1 to 0. Join 3-1.
$4-1=1 / 8$ of chest $-1 / 2$ "
$5-0=1 \frac{1}{2}$ "
Join 4-5, shape back side 4-6-5-0 as shown
Square up from 4 to 7
$7-4=1 / 12$ of chest
Taking $1 / 4$ " above point 4, shape front side 4-7-0 as shown $8-2=1 / 8$ chest $+21 / 2$ "
Join $4-8$ by straight line. Keep $11 / 2$ " out-side $2-8$ for hem or in-turns.


Fig.7.17 Sleeve draft

Stand Collar (Proportions for cloth):


Fig.7.18 Stand collar draft

Square lines from 0. Fold at 0-1
$1-0=2$ "
$2-0=$ half neck $+2 \mathrm{~cm}(1 / 4$ ")
$3-1=$ same as $2-0$
$4-0$ and $5-2=1 / 2$ " each.
$6-2=1 / 2$ "
$7-3=3 / 4$ ". Join 6-7
Shape 6-8-4 and 7-9-1 as shown

The layout of this garment with 36 " chest and 32 " width of cloth. The material required is 2.5 meters (i.e. twice the full length plus sleeve length, both with inlays).


Fig.7.19 Layout of Nehru kurta

## PANT PAJAMA

This pyjama, used as an indoor or outdoor garment, is prepared with a casing arrangement for inserting a cloth tape (i.e. nadi), at the waist. If it is to be prepared with a fly-button arrangement, waist-round should be reduced. This bottom-round of a night dress pyjama should be little less compared to an outdoor pyjama. If required, attach one pocket on the right side or two pockets on both the sides.


Fig.7.20 Pant Pajama Design

## Measures:

1. Seat - 32"
2. Full length $-36 "$
3. Bottom $-24 "$

## Instructions for Drafting

## Front:

Draw line 0-1-2 at a distance of $1 / 2$ " from the selvedge
$1-0=1 / 4$ seat $+3 "$
$2-0=$ full length $+1 / 2 "$
$3-1=1 / 4$ seat $+21 / 2 "$
$4-0=3-1$. Join 3-4
$5-3=1 / 12$ seat
$6-3=1 / 6$ seat
$7-3=$ half of 5 to $3+1 / 4 "$

Shape fork 6-7-5
$8-2=5-1-3 / 4 "$, or half bottom
$9-5=3 / 4$ "
Join 9-8 and shape $5-10$ as shown

## Back:

$11-0=1 / 4$ seat $+11 / 2$ ")
Join 9-11 and produce $1 \frac{1 / 4 "}{}$ to 12
Join 12-0
$13-5=1 \frac{1}{2} / "$
Shape fork 12-11-13 as shown
$15-8=1$ "
Shape inseam 13-15
Keep $11 / 2$ " above 0-4 and 0-12 for casing
Keep 2" below 2-8 and 2-15 for in-turns
Pocket marks: $16-0=7.5 \mathrm{~cm}\left(3^{\prime \prime}\right)$
$17-16=1 / 6$ seat


Fig.7.21 Draft of pant pyjama

## Waist Coat

It is a single breast waistcoat, without a collar and generally prepared with 3 or 4 outside welt pockets and 1 or 2 inside cut pockets. The opening and length measures are taken from the centre of back neck and not from the shoulder.

## Measurements:

1. Chest .38"
2. Waist 34"
3. Waist opening .........14"
4. Waist length .............19"
5. Shoulder .................17"
6. Full Length................. 25"


Fig.7.22 Waist coat

Vest opening: Measure from the centre of back neck, over the shoulder to the required opening where the fronts overlap.

Vest length: Measure from the center of back neck, over the shoulder, to the required full length of the waistcoat.

## Instructions for Drafting

## Front part

$0-1=$ full length
$0-2,4-3=1 / 2$ of shoulder +1 "
$0-4,3-2$ and $1-9=1 / 2$ of shoulder
$2-13,1-14=1 / 4$ chest +2 "
0-10 $=$ Waist length
$1-28=4 "$
$28-29=3 "$

Give a slight curve by joining 1, 29 and 14
$0-6=3.5 "$
$0-31=9$ " (may vary as per choice)
Join 31-6 for front neckline
4- $5=3 / 4$ ". Join 6 to 5 for shoulder sloper
7 is the centre point of 4-3
$7-8=1 "$
$3-12,13-30=1$ "
Shape the front armhole by joining 5-8-30
$2-13,10-15,1-14=$ are equal
$10-17=1 / 4^{\text {th }}$ of waist +2 "
10-15 = $1 / 4$ of chest +2 "
$15-16,15-17=3 / 4^{\text {th }}$ on each side
Shape the side seam by joining 30, 17, and 14
11 is Slit pocket cut is of 4 " length and the width is 1 "

## Back

20-21 = full length
20-23 $=1 / 2$ of shoulder
$23-13,21-14=1 / 4$ of chest +2 "
$20-26,23-19=1 / 2$ of shoulder
$20-22$ = waist length
$20-25=3.5 "$
$25-24=1 / 2 "$
$19-18=1 "$
Join 24-26 for back shoulder sloper

Shape the back armhole by joining 26, 27, and 30.


Fig.7.23 Draft of waist coat (front and back)

## Step by Step Procedure

1. Cut the lining for both two fronts and one back piece.
2. Stitch the shoulder of waist coat front and back.
3. Stitch shoulders of the lining and the main piece.
4. Finish the edges of slit pocket as the pocket is not seen from the back side too.
5. Place the wrong side of waist coat fabric and lining fabric.
6. Stitch close to the edge centre front
7. Finish the edges of neckline and armhole.
8. Stitch both front and back lower edge of the waist coat along with lining on wrong side of fabric
9. Turn both the fabric on right side and iron it to smooth the curve edges.
10. Complete the stitching by joining the side seams on front and back of the waist coat.

## EXERCISE

## Assignment

1. Prepare draft and construct Nehru kurta (on full scale).
2. Prepare draft and construct Pant pyjama (on full scale).
3. Prepare draft and construct Waist coat (on full scale).

## ASSESSMENT

## Answer the following questions:

1. Explain the drafting and construction steps of Nehru kurta along with diagram.
2. Describe the drafting and construction steps of pant pyjama along with diagram.
3. Explain the drafting and construction steps of Waist coat along with diagram.

## SESSION 5: DRAFTING AND CONSTRUCTION OF PLAIN SKIRT, PETTICOAT, NIGHTIE AND SALWAR

## PLAIN SKIRT

This skirt, with two darts at each side of back, is very popular now a day. It is plain at the waist, as there are no gathers at the belt-join. If wider bottom is required, increase the bottom width 6-3 accordingly.

As the back-pattern is $5 \mathrm{~cm}(2$ ") wider than the front (see $4-1$ and $5-2$ of both the patterns), the front pattern can be easily used to cut back, by placing it (i.e. front pattern) at a distance of 5 cm (2") from the fold-line 1-2-3 of back.


Fig.7.24 Plain skirt

## MEASUREMENT:

Round Waist $=28$ "
Round Hip = 36"
Waist to Hip = 8"
Waist to Knee $=18 "$

## Back Part

Square both ways from 0
$0-1=$ Skirt length +2 "
$0-2=$ Waist to hip $=8 "$
$2-3=1 / 4^{\text {th }}$ hip $+11 / 2^{\prime \prime}$
$0-6=1 / 4^{\text {th }}$ waist $+11 / 2^{\prime \prime}$
$0-7=1 / 2$ "
Join 6 and 7 with a curve
$5-8$ = 1"
Draw side Seam 6, 3, and 8
Curve hipline outward and blend with 3 to 8
9 is mid way of 6 and 7
Construct a dart $1 / 4$ " or $1 / 2$ " at this point and the length of the dart is 4 " Curve hemline $1 / 2$ " at point 8
Join 8-1 for hem line with a slight curve


Fig.7.25(a,b) Drafting of plain skirt (front and back)

## Front Part

Square both ways From 10
10-11= skirt Length +2 "
$10-12=$ waist to Hip $=8$ "
$12-13=1 / 4 \mathrm{hip}+1 \frac{1}{2}$ "
$10-16=1 / 4$ waist $+1 \frac{1 / 2 "}{}$
$10-17=1 / 2 "$
Join 16 and 17 with a curve
15-18 = 1" Draw side seam $16,13,18$
Give a curve at hip line $\&$ Blend with 13 to 18
$18-19=1 / 2$ "
Join 19-11 for hemline
20 is midpoint of $16-17$
Construct a dart width $1 / 2$ " or 1 " and the length of the dart is 4 "

## STEPS OF CONSTRUCTION

1. Stitch the darts
2. Join the front and back with a side seam leaving the placket opening at one side
3. Finish the placket
4. Join the waist belt with a backing
5. Finish the lower hemline.

## Six Piece Petticoat

This petticoat is used inside a saree. It is prepared with six pieces, which are narrow at the waist and broad at bottom. If lace or frill is to be attached at bottom, reduce the length accordingly. A casing (nefa) is attached at the waist, for inserting a cloth, tape (nadi). The front opening should be 10 to 12.5 cm ( 4 to 5 ") long. The total girth at the top is 10 to $12.5 \mathrm{~cm}(4$ to $5 ")$ more than the waist measure and the bottom round is about twice the full length.

## Measures:

| Round waist | $=$ | $28 "$ |
| :--- | :--- | :--- |
| Round Hip | $=$ | $36 "$ |
| Full Length (waist to floor) | $=$ | $40 \prime$ |
| Casing Width | $=$ | $1.5 "$ or $2 "$ (Belt) |

## Instructions for Drafting

$0-1$ and $2-3=$ full length +2 "
$0-2$ and $3-1=1 / 2$ of round waist +4 "
$0-4=1 / 12$ of hip
$3-5=1 / 6$ of hip
Join 4 - 5
$4-6$ and $5-7=1 / 2 "$
Join 1-7 and 2-6 with a slight curve for lower hemline of petticoat.

## Belt drafting

$0-1$ and $2-3=2$ " width of the belt
$0-2$ and $1-3=1 / 2$ of waist $=2$ " for length of the belt


Fig.7.26 Drafting of six piece petticoat

## Steps of construction:

1. Cut two center pieces and 4 side pieces (kalee)
2. Join 1 center piece with 2 side pieces for both front and back
3. Give a top stitch to all six pieces
4. Join the side seams leaving space for placket opening at one side
5. Finish the placket
6. Attach the nefa/casing
7. Finish the lower turning of petticoat

## NIGHTIE

This is a loose fitting garment which is worn during the night before going to bed that is why it is called Nightie or Night dress. It is a chemise type of garment with or without sleeves. The full length varies according to choice. A Nightie can also made by giving some gathers and yoke at front and back with ample of ease allowance for making it more comfortable. Cotton fabric is preferred for Nighties.

## Measures:

1. Chest ...................................34"
2. Waist .................................. 28"
3. Full length ........................... 50"
4. Shoulder .............................. 14 "
5. Hip........................................ $36 "$

Instructions for Drafting of A-line Nightie


Fig.7.27 Drafting of nightie
$0-2=$ Full length $+2 "$ (fold)
$0-5,1-6=1 / 2$ of the shoulder
$0-1,5-6=1 / 2$ of armhole
$0-9=1 / 4$ of bust +2 "
$2-10=1 / 4$ of hip +3 "
Join $9-10,10-11=1$ "
Join 11-2

## Neckline:

$0-3=31 / 2 "$ (standard)
$0-12=1$ " (as per requirement)
$0-4=5$ " (as per requirement)
Shape back neckline by joining 3-12
Shape front neckline by joining 3-4
$5-7=3 / 4$ ". Join $7-3$ for shoulder slope
8 is the centre point of $5-6$
$8-13=3 / 4$ "
$6-14=1 "$
Give a curve to front armhole by joining 7-13-14-9
Give a curve to back armhole by joining 7-8-9

## Sleeves:



Fig.7.28 Sleeve
$0-1,2-3=7^{\prime \prime}$
$1-3,0-2=1 / 2$ of around the arm
$2-4=4$ ". Join 4 to 0 .
5 is the centre point.
$5-6=3 / 4 "$
$5-7=1 / 2^{\prime \prime}$
Give a curve to front armhole 0-7-4
Give a curve to back armhole 0-6-4
$1-8=1 / 2$ of armhole +1 "
Join 8-4
Fold allowance is 1 " included in the sleeves.

## SALWAR

In Plain Salwar, there is too much fullness at the waist and seat. To eliminate bulging of material at the waist in a single length salwar, the length is divided into 2 parts, which are joined at the seat. The upper part of waist piece is converted into belt and joined with lower part of salwar which has gathers in front only, which gives a good fall to the salwar. There are different variations of salwar for e.g. dhoti salwar, patiyala salwar etc.

## Measurements

Full length $=40$ "
Lower waist $=30$ "
Hip $=36$ "

This garment requires 2 waist pieces (belt or upper portion of salwar); 2 center pieces; 4 side pieces (kalees) and 2 separate pieces for finishing the bottom of salwar with interfacing.

## Instructions for Drafting

## Belt/Waist pieces

$0-2=1 / 2$ of round hip +3 "
$0-1=10$ " (includes seam allowance and fold allowance)

## Lower portion of salwar

$4-5=($ center panel) full length - belt $+2 "(40-8+2=34$ " $)$
$5-7 \& 4-6=13 "$ (standard)
$8-10=12 "$ (side piece or kali)
$10-11=7$ "
$8-9=34$ " (same length as center panel/kali)
$9-13=1 "$
Join 13-11,
Cut 2 pieces of fabric of belt
Cut 2 pieces of fabric of center panel
Cut 4 pieces of fabric of side piece

Stitching process: As per fashion, the back side is kept plain, while gathers are taken at the front. One center piece is joined with two side pieces (kali) and it is done for both the portion of legs.

1. Join the center panel 6-7 with side panel of 8-9 on one side and for other side join the second side piece (kali) with center panel with $4-5$. Repeat the same for the other leg portion.
2. After completing the stitching of both the leg potion of salwar.
3. Take the gathers at the waist line at front only by keeping the machine at number 5 for long stitches which can be pulled to convert into gathers, which is adjusted in front.
4. After putting the gathers at the lower portion of the salwar it is than joined with belt the upper portion of the salwar.
5. Join the leg seams of both the left and right sides separately.
6. Complete stitching of the upper portion and folded at the waist 2 " and insert a cloth tape or elastic.

(a) (b)

Fig. 7.29 (a) Salwar (front and back view), (b) Drafting of salwar


Fig.7.30 Salvar on single fold
In diagram 1 is kali piece, 2 is side piece, and 3 is belt piece.

## EXERCISE

## Assignments

1. Draft and construct plain skirt
2. Draft and construct petticoat
3. Draft and construct nightie
4. Draft and construct salwar

## ASSESSMENT

## A. True or False

1. Nightie/Night dress is a garment worn in night.
2. Petticoat is an outerwear.
3. Dart is given at the waist while stitching a skirt to attain proper fitting.
4. Dhoti salwar is a type of salwar.

## B. Answer the following questions:

1. Explain in detail the drafting of nightie.
2. Explain the drafting and steps of construction of plain skirt.
3. Explain the drafting and steps of construction of six-piece petticoat.
4. Explain in detail the drafting and construction steps of salwar.

# UNIT-408: WORK INTEGRATED LEARNING 

## INTRODUCTION

Apparel industry has different departments, some common departments are: personal, finance, legal, merchandising, design and development, etc., each department has its own activities and importance. Personnel working in these departments should understand their roles and responsibilities according to the activities of the departments. This unit also explaining the roles and responsibilities of fashion designer e.g. observe fashion trends, creating design, meeting with buyers, etc. To work as a successful fashion designer he/she should understand and able to perform the tasks of fashion designer.

## SESSION 1: DEPARTMENTS OF APPAREL INDUSTRY

## Employment Opportunities

Indian apparel industry is categorized in two major sections i.e. Domestic and export market both are closely connected to the fashion industry, both export and domestic market has their own strength and equally join hands in growth of Indian economy in term of foreign return and employability. Organization is a group of people working together towards a mutual objective. Various functions and operation have to be shared out among the workers. Each department has its manager, each section has its supervisor and each function has its individual operator.

The department of an apparel industry varies from one company to another and is depended on the Size of the organization. (Large scale manufacturer have more department then small scale).

Some common departments are given below:

1. Personal/Human Resource: This department performs activities like manpower planning, highway, salaries, employee relation, exit formalities and appraise and performance judgment.
2. Finance: The main functions of the finance department are:

- Budgeting
- Accounting
- Clearing of Bills

3. Legal: This department deals in understanding and active for the legal system.
4. Merchandising: In this department, mostly exchange of all information is online these days. Merchandiser is a link between the buyer and the production and sampling department.

## 5. Commercial Department

Purchasing: Purchasing fabric and components are necessary to make garments. Also Purchase official things like office stationary, furniture, computer, machinery and fans etc. purchase department also negotiates the most competitive price from the suppliers.

Sales: Sales team is responsible for making links with retailers to sell the companies, products and for negotiating prices from retailers.

## Marketing

- Marketing is mainly combined with sales department.
- Marketing deals with advertisement, labeling and market study etc.

6. Design \& Development: A factory may have one designer or a design team of more than one person depending on the size of company. Some do not have in-house designer dealt with freelance designers.
7. Production Department - The two basic function which are perform in each section of production are

Planning: It involves -

- Production Planning
- Quantity Planning
- Time and Capacity Planning
- Order Introduction
- Order Chasing

Cutting Department: It involves -

- Cutting Room In-charge
- Marker Planner
- Cutting Operator/master
- Helpers


Fig.8.1 Cutting operator/master

## Sewing Department

There are many people involved in sewing section/department. The highest manpower works in the department of garment industry. People involved are:

- Floor Manager
- Supervisor
- Line Supervisor
- Production planning supervisor
- Inline checkers
- Operators / tailors


Fig.8.2 Operator/tailors
Quality Control: Factories mostly employee more than one personnel for quality control, depending on the size of the company and work.

## Responsibilities of a Quality Control

1. Checking the standard of merchandise being produced
2. Visit to the factory for in-work checks, ends of line checks
3. Comments on technical aspects, fitting \& packaging
4. Communication with manufacturer
5. Checking that the garment follows the laws, standards of the country of origin and export

## Finishing

The final group of operation in the production of garment prepares finished products for delivery to the customer. A good finished product is the first impression on the customer to motivate to purchase the particular garments. So, finishing is very important as it increases the overall look of the garment and gives a neat $\&$ clean finished look to the garment. This will in turn trigger sales of any company

Manpower in finishing department is involved at different stages of finishing as a team or single worker. Following are the main operations of finishing department:
a. Thread Cutting
b. Stain removing
c. Washing/Dry cleaning (if required)
d. Pressing
e. Inspection - final
f. Label attachment
a) Thread Cutting: It includes cutting of all loose hanging threads on the garments with the help of trimmers and cutters. So that the garment is neat and clean to pack.
b) Stain removing: The solvent or other chemicals (as per requirement) are used on the stains of the garment (stains got during production process) to remove them.
c) Washing/Dry cleaning: Process of removing and cleaning the unwanted dirt and stain from garments in an aqueous bath is called washing. Sometimes washing/dry-cleaning may be required to finish garments especially light coloured products. Dry-cleaning is carried out in a dry cleaning machine. A process by which dirt and dust particles or the stains etc. may be removed in a machine using common chemical for dry-cleaning.
d) Pressing:

- Pressing improves the look of a garment
- It can hide defects like puckered seams and collars which do not lie flat
- Pressing can be done with dry or steam irons.
e) Inspection:
- Once the final garment is ready to be packed inspection is done to ensure quality control.
- Standards such as size measurements, color, fabric quality, trims and raw material etc. are the quality parameters. So, final inspection is done in which a quality is checked of the outgoing shipment.
f) Labels attachments: Labels gives the details of the product is attached to the garment.


## EXERCISE

## Assignment

1. Visit a garment industry, observe the different departments and prepare a report with photographs.

## ASSESSMENT

## Answer the following questions:

1. Write about commercial department of garment industry.
2. Describe the production department of garment industry.
3. Explain finishing of the garment.

## SESSION 2: ROLES AND RESPONSIBILITIES OF A FASHION DESIGNER

## Fashion

The global fashion apparel industry is one of the largest significant sectors of the financial system in terms of investment, revenue, and trade and generating employment entire world. Apparel industry has short product life cycles, due to incredible product variety, volatile and changeable demand, long and rigid supply processes. The industry has been in a transition over the last 20 years. A style accepted and used by the majority of groups at any time no matter how small that group is called a fashion. It is not only garments it can be anything like; shoes, caps, hair style etc.

Fashion can be categorized in the following:

## High Fashion

Those styles or designs accepted by a restricted group of fashion conscious people, these are the consumers who are $1^{\text {st }}$ to accept fashion change. High fashion styles or designs are generally introduced in small quantity and relatively at high prices.

## Mass Fashion

Those styles or designs that are widely accepted, these fashions are usually manufactured and sold at moderate price in large quantities.

## Style

Style is any particular characteristics or look in apparel or accessories. Designer creates fashion ideas new styles and offers them to the public. The manufactures allots a style number to each new design in each collection, which is used to identify it throughout the manufacture, marketing and retailing. Or Style is the look of a garment and the blend of features that make the style and that make the garment different from others. For example men's shirt is a style and Women's kurti is another style.

## Design

A design is a specific version of style for example the shirt is a style in men's clothing many variations in shirt is available in its design, for example, pleated short shirt or shirt with different types of yoke.

## Change

What make fashion interesting is that it is always changing and there is nothing safe forever in fashion. Fashion is a train that waits for nobody, get on it, or it's gone.

Fashion changes mainly because:

- It reflects changes in people's lifestyle and current events.
- People's needs change.
- People get bored with what they have.


## Roles of Fashion Designer

Observe Fashion Trends: The final objective of fashion designer is to manufacture things that distributors and consumers buy. The initial point is to observe fashion trends and sales forecasts to produce profitable designs. While designers want to create original and exclusive styles, an excessively artistic design that doesn't sell is no good to anyone in the industry.

Creating Designs: One of the main task of a fashion designer is to create product designs. Most of them use computer-aided design which permits for more efficient, accurate and functional designs than the traditional pen-and-paper methods of creating designs. After making preliminary sketches, designer may discuss with members of their teams or industry buyers to make required changes.

Meeting with Buyers: Designers go to trade shows and meet up with manufactures and dealers to look at the potential fabrics, accessories and garment accessible for addition in a designs production. These meeting allow the designer to include certain textures garment styles, colours and accessory details for a more convincing or unique look. Designer also work with a team to choose the best fabrics and to develop a prototypes of a particular product that the company can market at trades shows and present to buyers.

Market and Sell Designs: Top designers also have an aptitude for marketing and sales. This is especially right for the self-employed designer who is accountable for receiving product to market. Designer may deliver proficient presentation, including prototypes, to wholesale and retail buyers. During this time, the designer combines forecast data and design benefits to create buying interest. Some designers sell directly to customers to get greater profit margins. Designer may also supervise final production.

- Develop idea and create design by hand or using computer-aided design (CAD).
- Update with up-and-coming fashion trends and wide-ranging trends related to fabrics, colours and shapes.
- Cooperate with design team, buyers and forecasters to develop products
- Develop and keep relations with sales, buying and production teams on an ongoing basis to make sure item suits client, market and price points.
- Study and evaluate design from industrial viewpoint involving producing patterns and requirements for designs.
- Explore select, order and buy fabrics, trims, fastenings and embellishments.
- Adapt existing designs for mass production.
- Develop pattern that is cut and sewn into sample garments and supervise constructing these garment including fitting, detailing and alterations.
- Handle marketing, finances and other business activities working on a selfemployed basis.
- Cooperate with sales and management executives and clients to discuss design ideas.
- Develop collection of products and accessories and sell them through boutiques and mail-order catalogues.
- Head, direct and organize workers involved in drawing, cutting patterns and making samples or finished garments.
- Identify target markets for designs based on age, gender, and socioeconomic status.
- Research styles and eras of clothing required for film or theatrical productions.
- Stay side by side on various contemporary styles.
- Create prototypes and sketches.
- Select materials.
- Attend fashion shows.
- Execute business administration responsibilities.
- Marketing products.
- Supervise and work with team of designers.
- Visualize and then prepare a design with the help of Computer aided Design or by hand.
- Plan and develop collections.
- Coordinate with buying, sales and production teams to make sure that the item goes well with the market, customer and cost points.
- Supervise production.
- Acclimatize the present designs for a mass production.
- Source, select and buy trims, fabrics, embellishments and fastenings.
- Understand design from a practical and technical outlook.
- Work with design team members like forecasters and buyers, so as to develop products that will meet the requirement of a customer.


## EXERCISE

## Assignment

1. Prepare a chart of roles and responsibilities of fashion designer and paste in your classroom or laboratory.

## ASSESSMENT

## A. Answer the following questions:

1. Describe different fashion categories.
2. Explain roles of fashion designer.

## Answer Key

## Unit - 1 <br> Session-1 <br> Fill in the blanks:

1. Professional, 2. Conflicts, Misunderstanding, 3. Productivity, 4. Thoughts, Minds, 5. Feelings, Reciprocate

## Session-2

Jumble words
(a) Hygiene, (b) Environment, (c) Grooming, (d) Neat, (e) Health, (f) Clean, (g) Tidy (h) Germs, (i) Spreads, (j) Diseases

## Unit - 2

Session-1
Fill in the blanks:

1. Hatching, Cross Hatching, 2. Reflection, 3. Perspective, 4. 60 degree, 5. Ground

## Session - 2 <br> Fill in the blanks:

1. Fiber, 2. Knitted, 3. Weaving, 4. Grain,

Jumble words
(a) Texture, (b) Yarn, (c) Fiber, (d) Fabric, (e) Weave, (f) Finishes, (g) Filament

## Session - 3 <br> Match the Column:

1. (c), 2. (a), 3. (e), 4. (b) 5. (d)

Unit - 3
Session - 1
Fill in the blanks:

1. Upper lid's, 2. 7, 3. Leg, 4. Knee, Ankle

Session - 2
Match the column:

1. (d), 2. (c), 3. (b), 4. (a), 5. (e)

## Session - 3

Maze:


## Unit - 7

Session - 1
Fill in the blanks:

1. Waist, 2. Horizontally, Floor, 3. Shoulder, Wrist

Session - 1
Fill in the blanks:

1. Kurta, 2. Chudidar Pyjama, 3. Panels

## Session - 3

Fill in the blanks:

1. Rajasthan, 2. Circumference, two

## Session - 5

True or False:

1. T, 2. F, 3. T, 4. T
