# PART-B

# HOME MANGEMENT

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#### PART-B (GATE-1)

## HOME MANAGEMENT

## HOME MANGEMENT INTRODUCTION AND GOALS

#### MANAGEMENT AND ITS IMPORTANCE

- 1. Management refers to the knowledge of using, spending and saving useful things like money, time and other items consciously or unconsciously.
- 2. Usage of resources for achieving goals is known as management.
- 3. <u>NICKLE DORICE:</u> Home Management refers to planning resources for achieving family's goals. To have restriction on this planning, to take overview of their result or to plan resources according to income and needs, to control it and consider its result to achieve family's goals is called Home Management.
- 4. <u>CRANDELL</u>: Whereas, according to Crandell, the process of home management is based on a connected of decisions chain which helps in the struggle to achieve family's goals successfully. There are three aspects of this.
  - a. Planning.
  - b. To have control on different factors while planning.
  - c. Evaluate and criticize the previous planning to help in planning in future.

#### **RESOURCES**

Every work which is done with the process of thinking and planning is called management. Work can be either clumsy or organized. If work is done with clumsiness, there are more chances of wastage of resources and less chances of achieving goals. Ever work in which there is less usage of resources brings more satisfaction and happiness is called organization or in other words it is known as Management. Incredible thinking and process is the name of Better Management. Human resources are limited and by using them properly we can benefit and get satisfaction through them. Those who have the talent of management and planning, they use their resources properly and spend their life with satisfaction and happiness. Whereas those who are unaware of management, usually end up wasting their resources and are unable to gain benefit and satisfaction from their resources. A home is which its management is done properly, its family spends their lives with satisfaction and happiness.

Management is an individual process. When this process is used for home resources it is known as Home Management in which family's goals are kept in mind while using its resources. Therefore, management is the process of thinking. By better management, the situation of financial and social status a family and society can become better.

## SIGNIFICANCE OF MANAGEMENT

Nowadays, every other family problem is that they don't have a living and through which we get to know their needs and resources are not balanced. Their income, time and other resources are very short and limited, whereas human needs and requirements are unlimited. In troubleshooting this background, thinking and management is very important. Short and limited resources can also provide better quality and happiness with better management, whereas without thinking money, time, energy etc. and every resource is wasted and the mismanagement and awkwardness of the family is displayed. And this is the significance of management that it encourages to reserve the waste and even so with short and limited resources it supports to achieve goals, other than that it provides better management and bail to happiness, success and raises financial and social status of a family.

## MANAGERIAL PROCESSES

Management is a process of thinking and organizing. This process includes three parts:

- 1. Planning
- 2. Controlling
- 3. Critical Evaluation

**<u>1. Planning</u>**: It means that to consider the plan very well, to know its pros and cons and to examine its result before doing it. For example: to calculate income and expenses or divide different house chores into separate timing etc. Planning should be pure from any problem and struggles and every important aspect should be considered. And write it down on a paper.

**<u>2. Controlling</u>**: Management, plan or strategy refers to the project put into practice. The success of the plan depends on proper and correct use of resources. This must be committed to the following actions.

- a. <u>Organization:</u> Work should be divided between different members. It is better to divide the work according to age, experience and talent.
- b. <u>**Custody:**</u> To keep an eye on those who are doing the work to make sure the work is done properly and no one is being lazy. Work divided according to age and talent are usually done correctly.
- c. <u>Instruction</u>: Guide those who need help while working, teach them, give some ideas etc. are included in instruction of work.
- d. <u>Connection</u>: Have a connection with those who are working so that the quality and speed of work is determined. Other than this, have a good and loving connection with people who are working so that the work is done properly.

**<u>3. Critical Evaluation</u>**: Analyze the work after it completed. Results achieved (success or

failure) in the light of first two steps of the analysis, planning and strategy, to be free from an defects and flaws in the policies and strategy.

## **VALUES**

#### **DEFINITION OF VALUES**

- 1. Values are collected which means the quantity or value of the estimate. It means to give importance and priority.
- 2. The experts define values in these words, "Passion and interest in anything are the properties of values".
- 3. Value is an amazing concept, desire and enthusiasm that governs the procedures and objectives of our lifestyle choices
- 4. Every environment, practices and materials that are pleasant choice or can afford the importance become part of our lives.

#### **IMPORTANCE OF VALUES**

- 1. Value is the name of feelings which provide power to a person and he values, gives importance and it provides pleasure and delivers peace of mind, are his values.
- 2. Actually, values are the name of likings, the things, conditions which are beneficial and which provides peace and comfort are fixed as our values and we start to like them. And they are dominating our lives and our behavior.
- 3. Values highlight human goals.
- 4. And with specific philosophy, values help to support the living of life.
- 5. Values are our strength and power to guide the selection process and to develop ways of life.
- 6. With values and behavior, any person, family or society can easily be identified.
- 7. Every person and family have its own special values and they think it as pride and respect for themselves.

#### **PROPERTIES/CHARACTERISTICS OF VALUES**

Like every action, every motion and everything, values also have few properties. They are:

- 1. <u>INDIVIDUAL VALUES</u>: it means that every person's own values and liking which is based on personal thinking. For example; in one house there is one average simple boy and other one is bright and playful boy. One girl is simple and the other one is fashionable
- <u>SOCIAL VALUES</u>: Social values refers to the combined values of a group, family or society. Few favorite preferences and values of households headed personalities which they like to see it in their group or family.
- 3. <u>TRANSFERABLE VALUES</u>: Whether values are for single person or for a family or society, they transfer to families and societies from one generation to another. For example; to marry someone, a family caste or community, the rituals of saying Bismillah, Ameen etc. these are always transferred from one generation to another. Values or living of an Islamic society are simple, modesty in clothing, truthfulness, loyalty etc. which are transferred seamlessly and are still available.
- 4. <u>CHANGEABLE VALUES</u>: Time is never the same. Time changes and always changes its requirements. These requirements are the motion and source for changing the values of a person, and these changes often occur in the traditions and practices and which cause the changes in values. Today's new technology, education, new fashion, new trends and ways of living are a prominent evidence of changeable values.

- 5. <u>DIVISION AND COLLISION IN VALUES</u>: Everyone have their own choice which is different from the others. Whenever two values of a person meet, there will be difference and if there is difference, definitely they will collide with each other. Children say that the stereotype, traditions, customs of their parents are rotten. There is 15 to 20 years of age gap between parents and their children. The gap between two generation is called Generation Gap. This gab is not between age only but this gab is also in between values.
- 6. <u>OPERATIONAL VALUES</u>: Values are born at those events, circumstance and with experience which are comfortable, likable and beneficial. The values which are determined are applicable and if values are har to apply then they are not long lasting. For example; Value of marrying people from a same caste is still present but it is disappearing day by day. The reason for this is either medical science or new generations are getting tired of this.

#### **KINDS/TYPES OF VALUES**

There are three kinds of values.

- 1. Intrinsic/Basic Values
- 2. Instrumental/Objective Values
- 3. Contributory Values

<u>**1. INTRINSIC/BASIC VALUES:</u>** Intrinsic values are only important on their own. They are naturally present within us and they are liked only because of that. For example; beauty, loyalty, truthfulness etc. Every human like beauty regardless of its quality. Art has its own value. those values which have its own importance and are not affected by other values are called Intrinsic Values or basic values.</u>

**<u>2. INSTRUMENTAL/OBJECCTIVE VALUES</u>:** These values are the means to achieve other values. Actually, these values own a status like goals through these, other values are also achieved. For example; skills, qualification and interests etc. By searching for these values, not only they are gained but also constructive goals are achieved.

<u>3. CONTRIBUTORY VALUES</u>: The third kind of values in which both intrinsic and objective values are involved. Contributory values are those which are also important for every species and through these, other goals can be achieved like health, resting, love, intelligence, amusements etc. These values have its own importance and also garrantees a better person, better family and better society which leads to their prosperity and welfare.

#### VALUES OF PAKISTANI FAMILIES

Pakistan is an Islamic state. Despite of being divided into different provinces and areas, where different practices, traditions and languages are quite deep. Every Pakistani family appreciates Islam and Islamic values.

- 1. <u>**RELIGION:**</u> Muslims believe in the Islamic worship and beliefs and tries to fully embrace their religious values in their behavior.
- 2. <u>ELDERS RESPECT:</u> Islam sees the elders with great respect and expects them to be treated with dignity and respect. It teaches to take good care of them and do not insult or be rude to them. Our goals are that it should be taught to every child to respect the feelings of elders/parents and love and care for them by heart.
- **3.** <u>LOVE AND CARE</u>: Love is a basic need of every human and without love, the world is worthless. To love and being loved is one of the symptoms of a healthy person. Every other

person wishes for love. So, parents, children, sisters, brothers, friends, family, a nation or a country and all humanity is connected to a relationship of love.

- 4. <u>HEALTH:</u> From all the blessings of Allah, health is the greatest blessing. With good physical and mental health, a person can thoroughly enjoy his life.
- 5. <u>EDUCATION</u>: To gain education is our religious belief. The Hoy Prophet (P.B.U.H) said; "Gain knowledge even if you have to travel to china" and "Gain education from cradle to grave". Every person is increasing their knowledge and intelligence through education and is getting lessons through each other which is a cause of satisfaction for him.
- 6. <u>COMFORT AND SILENCE</u>: Every human wish to spend a luxurious life with comfort and silence.
- 7. <u>SUCCESS</u>: Every person wants to spend a successful life.
- 8. <u>EXTRA CURRICULAR ACTIVITIES</u>: Extra-curricular activities are necessary while working. It helps in developing mental and physical health.
- 9. <u>SKILLS:</u> Work done with capability and expertise is a value of every talented/skilled person.
- **10.** <u>KNOWLWDGE</u>: This process gives satisfaction to a person that he is better through his wisdom and knowledge.

## <u>GOALS</u>

Human desires are unlimited. From the hundreds of wishes or desires, only few desires a human may have. To fulfil every desire is impossible. Every person chooses only few from his hundreds of desires which he thinks are the best and important for his life. And these important desires become his mission and all his attention is on achieving them. So, goals are the desires or values which require struggle and hard work to achieve them. And under a theory, we use the resources to achieve our goals. Goals become philosophy of life. Their acuquition is a continuous process which remains throughout the whole life.

#### KINDS OF GOALS

Some goals soon reach to completion and some requires a period of time for achieving them. In this sense they are divided into three types:

- 1. <u>IMMEDIATE GOALS</u>: Immediate goals are achieved immediately. They require short period of time and less amount of resources. Like eating food, cleaning a room, ironing clothes, washing clothes etc. are the desires which can be fulfilled immediately.
- 2. <u>SHORT TERM GOALS</u>: The goals which requires a fixed period of time are called short term goals like; B.A degree requires four years of college education etc. Hence, the goals which requires few fixed months or few fixed years for achieving are called short term goals.
- 3. <u>LONG TERM GOALS</u>: The goals for which there is no fixed period of time for achieving them. These can be achieved immediately or they can take a very long time. Usually these goals can take ten to twelve years or more to achieve them. Therefore, they are known as long term goals. For example, building a house, etc. requires uncertain period of time. Whether goals are short or long term, without struggle they cannot be achieved. Every goal's achievement requires the process of struggling. Every desire for which we are ready to sacrifice and struggle and try hard becomes our goal.

#### **IMPORTANCE OF GOALS**

As we got to know, desires create goals. Every person chooses some desires from his hundreds of desires, which are important and best for his life and turn into his goals. Goals have a lot of importance in every human's life. Like:

- 1. Goals keep a person happy.
- 2. They create enthusiasm in a person.
- 3. For these desires, a person struggles to achieve them.
- 4. A person remains committed all the time.
- 5. Desires keeps a person motivated.
- 6. Because of desires, substances of searching, dedication are created in us.
- 7. For achieving our desires, we set goals.
- 8. Goals are an unending series of life. These series go on and on. This is a prominent feature of goals.

Another quality of goals is that they change under different situation, time and circumstances. Family's problems, complications and struggles cause change in their goals. And these changes lead to genuine process of goals and success.

## **RELATION BETWEEN VALUES, GOALS AND HOME MANAGEMENT**

Every experience of life creates an approach in human. By which human values are transformed into specific direction. These experiences have led to the decline of human value in a template. From this every individual and every family's likes and dislikes and helps configure the selection process. From these values, few of them are very important, main objectives and they become mission of a human to get peace, success and happiness in life. And that missions are called goals, thus our values become our goals. A way a person, group or a family chooses to achieve goals depends on the availability of resources and the ability to use them. The ability to use resources is called management. Thus, human's way of thinking or philosophy, values, goals and management are related to each other. This relationship is so strong which cannot be broken. To reach the determined destination, these three should be kept together to gain success.

Our goals are unlimited and needs are endless. To achieve goals, resources are required, now when resources are limited and needs are endless, then the correct use of these resources can help to achieve goals and helps to spend a peaceful life. Whereas, if home management is not done in a correct way, the goals are not achieved as desired and life will get complicated rather than peaceful. Therefore, values, goals and home management have a strong relation.

PART-B (GATE-2)

## RESOURCES

The literal meaning of resources is basic things through which we achieve our goals. The ways and facilities which help in achieving goals are called resources. Every family's resources and income are different from each other and these resources are very important in household management. In home economics, resources refer to those things and power, energy capacity etc. that help us run the system of house. Not only we need things and money to run the system of a house but we need time, manners and intelligence to use them. We can achieve any of our goals by only using them. Everything which a human use for the survival of life and for achieving goals is included in resources.

#### KINDS OF RESOURCES

Resources are divided into two kinds:

#### 1. HUMAN RESOURCES

These are the resources which are available for human by nature. Like;

- **a.** Energy: For working, playing and also while resting body, it helps to continue various actions of the body.
- **b.** Time: Twenty-four hours a day span. In which everyday information is divided.
- **c. Interest:** Stitching, crotehing, drawing, baking, poetry, philosophy, painting, writing, reading etc.
- d. Qualification and Competence Skills: Good physical and mental abilities.
- e. Knowledge and Information: Information about electricity and electric appliances, knowledge about car engine and its important parts, computer and I.T information, knowledge about Islamic principles etc.
- f. Attitude and behavior: To find way of life, ideas and solve problems in Islamic philosophy. Constructive approach, destructive approach negated etc.

These resources are non-materialist; therefore, we can't see or touch them. Every person has time in

#### 2. MATERIAL RESOURCES

These are the resources which are found in material form. Therefore, we can touch, see and feel them. Many facilities and material things are called non-human resources. For example:

- **a. Money:** Property, house and market income, bond certificate, insurances etc.
- **b.** Charitable Facilities: Mosque, school, adult education schools, library, market, mail box, bank, police station, welfare houses, hospitals, I.T park etc.
- **c. Material things:** scooter, house, mansion, jewelry, computer, furniture, property etc.

#### VALUES/PROPERTIES OF RESOURCES

Human Resources and Material resources have three values in common. For example, all resources are limited, useful and have mutual relation of resources.

1. <u>LIMITED RESOURCES:</u> Resources can be of any type but there is some limited amount of resources. Like; energy is present in humans in limited amount. After working for a long time, the energy gets low. Same as this, if we look at money, we can clearly understand its

limits. And we cannot expand the 24 hours a day. It is same for knowledge, experience and other resources. Each source is exhausted after a certain limit, whether it's your storage of information or your money.

- 2. <u>USEFUL RESOURCES:</u> Material or non-material, both resources are very useful for us. Time or energy, knowledge or money, talent, interest or facilities, everything is important in their own way to fulfil our desires and achieve our goals. For example; no work can be done without time, and with no energy we will start to depend on others. Without talent, skills and interest we cannot do anything. The better use of resources in order to provide each family a better life.
- 3. <u>MUTUAL REALATION OF RESOURCE AND MEANS</u>: Whether resources are human or nonhuman, they cannot be seperated from one another. They have a strong relation between them. Like, every work done with expertise requires less time and energy which saves our time and energy. When one resource is saved then it impacts on other resource. For example, without time and energy talented is wasted or only material things are available by without talent, knowledge and skills, these material things are useless. Like that, human and material resources have a strong relation between them.

## USE OF TIME AND ENERGY MANAGEMENT

Household responsibilities challenge a house-maker's use of time and energy because there is no work which does not require use of time and energy. Even when a person is resting, he requires time from 24 hours span and to regulate the respiratory system, energy is required.

If special consideration is given to the usage of these two human resources, then positive results are gained. The importance of these resource cannot be ignored throughout the life. The inventions of new types equipment also save importance time and energy. Every house-wife should have the knowledge of using a correct and suitable method of saving time and energy and make her performance better and better.

#### TIME MANAGEMENT

Time is an important value of life. We have time in the form of days, hours, minutes and years. For example; we have 24 hours in a day, it cannot be less or more than 24 hours. Time is included in human resources and like energy, we can see and touch time, it is limited human resource. Hence why, management is very important for it. The goal of time management is that to choose the ways in which we can finish a lot of work in less period of time so that we can save time. Suitable time plan highlights its important principles.

## MAIN STEPS OF PROPER USE OF TIME

Following steps are necessary for proper use of time and energy:

- 1. Time plan for house work.
- 2. To organize the work and setting up (organization) of equipment and devices.
- 3. To organize the work place.
- 4. Label the things which will be used.
- 5. To have limited movements from the shortest distance.
- 6. To use the equipment which save time and energy.

#### **1. TIME PLAN FOR HOUSE WORK**

Time is the most precious treasure which has no substitute. Lost money can be gained back but time never comes back. Time is a limited human resource in which daily work and amusements are done. Therefore, time planning is necessary. The goal of time plan is that to use the easy ways in which the work is done quickly and saves time and energy.

Today, in modern times, our Pakistani women consider time planning as a new and odd thing. Only few of these women have the knowledge of its importance and advantages. Some women think that planning is a for rich and educated people, although among all of them, these women who con at middle or lower financial status should consider the importance of time plan. It is also important for women who do jobs. Some women unintentionalily plan a time table but for completion of work, proper time planning is compulsory.

For time planning, it is important to identify daily, weekly and occasional work, by doing this, it will get easier to determine the times for work.

Following methods can help in identification of different works.

**a.** <u>EVERY-DAY WORK</u>: It is important to do every day work. It is important to remember that a plan should have some flexibility so if someone asks us to do their work, we could do it for them without hesitating.

- i. Cleaning the house, sweeping, dusting
- ii. Cooking Food
- iii. Taking care of children.
- iv. Teaching children.
- v. Watching shows, dramas etc. on television.
- vi. Taking children out for a long walk.
- vii. Ironing/pressing clothes, polishing shoes.
- viii. Making bed, exercising and daily jogging.

**b.** WEEKLY WORK: Some works of a house are not necessary to do every day but it is important to do them once in a week

- i. Remove spider webs, proper cleaning of house, washing and cleaning Kitchen.
- ii. Repairing and cleaning clothes.
- iii. Washing clothes.

**c.** <u>MONTHLY WORK</u>: Some works, if not done weekly but once a month can help to improve house. Like,

- i. Arranging closet/wardrobe.
- ii. Dusting furniture.

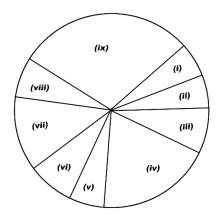
**d**. **OCCASIONAL WORK**: If some works of a house are done once or twice a year then it can improve the look of a house. Like,

- i. Changing /dusting carpets, mats and cleaning tiles.
- ii. Cleaning curtains.
- iii. polishing furniture
- iv. repairing and Sewing clothes (according to seasons)
- v. Painting the house.

All these works require time for completion. Therefore, it is necessary to divide and make an imaginary map 24 hours of a day. For example, a few students spend 24 hours of a day according to following sections.

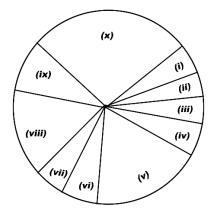
#### **DISTRIBUTION OF 24 HOURS FOR STUDENTS**

- i. Prayer Time
- ii. Getting ready
- iii. Eating Breakfast
- iv. Going to college
- v. Resting or spending time here and there.
- vi. Helping in house chores
- vii. Studying or doing homework
- viii. Watching television, reading newspaper or magazine.
- ix. Nap time/break.



#### **REVISED DISTRIBUTION OF 24 HOURS FOR STUDENTS**

- i. Praying.
- ii. Morning walk/ jogging.
- iii. Getting ready.
- iv. Eating breakfast.
- v. College/sports/playing games.
- vi. Helping in house chores.
- vii. Doing College work
- viii. Watching television, reading books/stories and discussing magazines and newspaper.
- ix. Nap break.



#### HOW TO PLAN A TIME TABLE

Every member of a house should plan his personal and social time table. Every family member should plan his time table by keeping his every day work and duties in mind. Write all the works like, praying, preparing for school, house work, learning, watching TV etc. on a paper and write days of a week on one side of paper and then write time next to every work so that it gets easier to know on what time which work should be completed and apply it on daily life.

Every family's time table is different from others and according to number of family member, timing and needs. To make an applicable time table, following three principles are selected, if these are used it will help in saving time.

- 1. Plan works according to time.
- 2. Income of a house should be given special consideration while planning a time table.
- 3. Divide time and do work on time selected.

Planning should have flexibility so that if one member is not available to do the work, the other can do it for him and it will not affect function of a house.

**<u>POWER/ENERGY</u>**: Power is one of the huge parts of human resources. Every day work is done by these power or energy. And we get these energy and power from food. Same as time, we can't see and touch energy and measuring the quantity of energy is a difficult process.

To evaluate energy emissions, house and every day work are divided into three groups.

- a. Light Activities: Such as, knitting, sewing, reading, writing, cooking vegetables, cleaning tables, doing any work while sitting etc. these activities require light energy.
- b. **Medium Activities:** Such as, dusting, washing dishes, cooking, making beds, pressing clothes etc. these activities require more energy than light activities.
- c. **Heavy Activities:** Such as, washing clothes, cleaning the floors, cleaning carpets with brush, carrying heavy objects etc. these activities require more energy more than light or medium activities.

## 2. TO ORGANIZE THE WORK AND SETTING UP (organization) OF EQUIPMENT AND DEVICES.

This is the second important principle of time and energy planning. By using equipment, a work becomes easier to do and saves time and energy. To keep equipment and devices according to convenience and usage is very important and useful.

Both time and power/energy are the most important limited resources for humans. Proper management is compulsory to use limited resources.

The management of power/energy has three major goal;

- 1. Use power/energy in such a way, where more work can be done in less time, power and energy.
- 2. After finishing work, there should be plenty of energy in a person rather than getting tired.
- 3. Health should not be affected by excess of work.

While planning time and energy, select ways which prevent wastage of energy while doing work. By which the house manager can complete the work with organized way or method.

There are so many devices and equipment invented with advanced science and technology which are found at markets that make our works so much easier and save time and energy. For example, washing machine, sewing machine, grinder for spices, chopper for vegetables etc. After using these devices like these, it is necessary to have a specific place for them to keep. By using these devices and things, a lot of different work can be done at one time. For example, while cooking we can wash clothes etc. by which work is completed properly and time and energy are saved.

### **3. TO ORGANIZE THE WORK PLACE**

This is the third important principle of using time and energy in a proper and correct way. By using this, we can finish our work and save a lot of time and energy. Whatever the work is, few equipment and devices are required to complete or finish it and organizing the work place is also necessary. For example, thread, needle, scissors, measuring tape and sewing machine etc. for sewing. Books, ink, pen, paper, notebook etc. for studying.

For completion of all these works, it is necessary to know and apply some principles of saving time and energy.

- 1. Those specific devices and equipment that are necessary for doing work should always be kept at one place.
- 2. Equipment and devices should be kept at a place where it is easy to find when needed. This principle should be applied for kitchen management.

Kitchen management is also compulsory. Messy and clutter in the kitchen cause problem and waste a lot of time and energy. Keep everything on its own specific place, organize the things according to space. After organizing a perfect work place, it is important to keep these few points in mind.

- a. <u>To know the nature of work</u>: There are three types of work such as light, medium and heavy. A light work requires less time and energy. The heavier the work, the more time and energy are required. For example; working while sitting on a comfortable chair requires less energy but heavy work requires a lot more energy.
- **b.** <u>Physical position:</u> Bending down to work requires more energy than doing work while sitting. Doing work while standing requires the least amount of energy.
- **c.** <u>Recovery of physical position</u>: If a person is staying in one position without moving while working, he requires less energy than changing positions now and then.
- **d.** <u>Work surface height:</u> In view of a working surface, a person has to sit, stand or bend down to work. A work which is done by bending down is a reason of spending more energy and a person gets tired quickly. Working at a surface which do not stress or strain the body parts leads to less tiredness and saves energy.
- e. <u>Working speed</u>: There is a strong relation between working speed and emission of time and energy. The faster the working or playing speed the more energy and power is used. While slow speed of working saves energy but wastes time.
- f. <u>Maximum height and minimum depth:</u> Work is not done by only one family member, rather every member does work and everyone's height is different from one another. Meaning that, the things and equipment of the house should be kept according to the height of members who do work in the house. For example; when a "house-wife" is working in kitchen, it is necessary that everything should be kept where it is easy for her to reach and she can get the things she needs without jumping and while standing she can carry things without bending down.
- **g.** <u>Left to right:</u> It means that while doing any work such as washing dishes, sewing, washing clothes etc. incomplete work should be kept on one side (right) and completed work on the other side (left). It helps to save energy and a person will not get tired.
- **h.** <u>Music:</u> It is proven by experiments that while listening to music, we can finish more work in less amount of time without getting tired.
- i. <u>Traffic route</u>: Place of doing any work is like traffic route, there should be nothing in between these routes. Otherwise it will require useless walking and cause tiredness.

#### 4. LABEL THE THINGS WHICH WILL BE USED.

One more principle of saving time and energy is labelling things, because time and energy are wasted if things stored in kitchen are not labelled. For example; to find one type of lentil, all the containers of lentils are opened and searched, to find spoons, forks, knives etc. from drawers, at least three drawers are opened. Therefore, it is extremely necessary to label all products and medicines in a kitchen. To avoid complication of labelling these products of kitchen, put all the products or things in clear/transparent plastic containers so that we can easily see through them

without opening. But it is not possible for medicines because they cannot be identified and recognized without their labels because they all taste and look the same. Therefore, it is necessary to label them.

#### 5. TO HAVE LIMITED MOVEMENTS FROM THE SHORTEST DISTANCE.

This is the fifth important principle of saving time and energy. To use it properly, it is necessary that the from one work to another should be short and limited, so that time and energy are saved. For example; by using tray or trolley to keep all the things and take it to serve will help in avoiding unnecessary rounds/trips to kitchen. After washing clothes, put them all in a basket to take them to hang rather than taking one piece of clothing at a time. Working while standing at one position instead of moving or bending saves energy as well as time.

#### **6. TO USE THE EQUIPMENT WHICH SAVE TIME AND ENERGY.**

The equipment which save time and energy are proven helpful for making work easy, provide facilities as well as help in completing it quickly. Therefore, their purpose is to make house work easy and accomplished. A simple example for it is that, hands start to hurt by using unsharpened knives, scissors etc. and it consumes time. Nowadays, there are a lot of facilities available for a house-wife by which work is done easier than before and work consumes less time. Gas stove is a blessing for women, same as that, using pressure cooker, grinding machine for spices, electronic iron, electronic toaster, refridgerator and washing machine etc. help in saving time and energy. As well as minimize and reduce mental and physical stress.

Therefore, by applying these principles and steps we can properly plan time and energy and reduce excess wastage of time and energy. And get protected by physical and mental stress/tiredness by doing that.

PART-B (GATE-3)

## **FATIGUE AND ITS EFFECTS**

#### **INTRODUCTION**

Fatigue or tiredness is directly related with energy. It lowers one's capacity for doing work. In home management, without discussing fatigue and its effect, management's positive points cannot be highlighted because basic goal of management and planning is to help a home-maker to get rid of excess fatigue.

It is said about fatigue that this word is used for different meanings. It does not indicate towards one specific feeling, but identifies work and effects of doing it that are proven to be harmful and fatal. And these effects are caused by excessiveness of work and doing work for long time without taking breaks. But by taking some rest and sleeping, these effects are prevented.

#### TYPES OF FATIGUE

Fatigue lowers one's capacity of doing work. Fatigue means a feeling in which calories are consumed in such large amount from a human body that there is no more energy to do any work other work is left. There are two types of fatigue.

- i. <u>Physiological Fatigue:</u> According to Haggard and Geenberg's research, physical work which causes weariness, discourage and laziness etc. result in physiological fatigue. When oxygen in human body meet cells through blood, then process of burning is caused. This process is called oxidation through which carbon dioxide, water and calories/heat are produced. If a work is heavy and physically hard, breathing and blood circulation get faster and burning process accerlarate and increase extrusion force. Besides that, physical strength is abundant if process of oxidation is incomplete. According to Bart let, incomplete oxidation produces lactic acids, which are the cause of weariness in fibers of body and decrease physical strength that cannot be fixed without resting.
- Psychological Fatigue: Psychological fatigue relates to human's mind, in which physical strength is maintained but a person becomes uninterest and find ways to escape from work. In this fatigue, the phenomenon of anxiety, boredom and escaping from work occurs. Complaints and excuses from environment and work are symptoms of this fatigue. Besides that, in condition of mental stress, boredom etc. a person is more likely to feel mental weariness. The main reason of this fatigue is feelings and fear of failure and embarrassment. For a person going through this situation, changing of environment is very important.

#### **EFFECTS**

Experts describes four different types of effects which are caused by excess work and are called as fatigue or weariness.

- 1. Laziness and Depression
- 2. Weariness and fatigue, pain and desire to work.
- 3. Gradual decline or decrease in interest and ability to do work. (Frustration)
- 4. Frailty and weakness which are caused by different physical changes such as chemical changes for formation of blood, glandular secretion etc.

#### **CAUSES/REASONS OF FATIGUE**

To consider mental and physical aspects of fatigue, we evaluate everyday situations and incidents, that are the cause of fatigue. And these incidents relate to laziness and weariness. For example;

- 1. By tight space and staying in an uncomfortable position for a long time.
- 2. By standing while working for a long period of time.
- 3. By motion sickness such as travelling through bus, car, van etc.
- 4. By doing hard and heavy work.
- 5. By not having any interest in doing particular work.
- 6. By doing work that we are not used to doing. Or doing it for the first time.
- 7. By doing a work that requires to be done with intelligence and efficiency and requires to pay extra attention.
- 8. By doing work under pressure. (having a deadline for work).
- 9. By lack of information and expertise.
- 10. By doing work under emotional pressure and unstability.

It has been proven by research that fatigue is not same in different individual even if they go through same situation or circumstances. Individual difference is also prominent in this case. Fatigue can be caused by different people by different methods and due to different situations.

#### POINTS OF AVOIDING FATIGUE-NESS

Effects of fatigue and tiredness can be decreased if special reasons and its background are avoided, so that capability and speed of work are not affected. It is important to learn about how to properly use energy and power to avoid physical fatigue. While doing work, if your seat and dismiss are estimated correctly then physical fatigue will be low. A better process for house-wives is that they use their energy and power properly to avoid feelings and effects of fatigue and tiredness. Positive results can be gained by applying few following points:

- 1. Taking a break for a rest or nap while working can reduce fatigue-ness.
- 2. Things or equipment needed and used while working should be kept where it's easier to grab without bending or leaning down because this causes unnecessary strain or stress on body parts and moving and bending them can cause fatigue.
- 3. Using equipment and devices which save energy and power. For example; using electronics machines to do heavy work and do light work by yourself will avoid fatigue. Doing work like cleaning room, washing clothes and ironing them at one time will cause excessive fatigue and tiredness. Therefore, take a rest or nap after cleaning room and then wash clothes and iron them, it will cause less tiredness. Or wash and iron clothes on separate days.
- 4. There are less chances of fatigue if two people work together. Like; while washing clothes, one put detergent on clothes and the other one washes with water.
- 5. To have interest in work or to give it to a person who has talent or expertise of doing it.

PART-B (GATE-4)

## **INCOME AND EXPENSES**

### <u>INCOME</u>

Literal meaning of budget is income and expenses. Usually, from income we think of money but in reality, family's Income refers to the source and support beside money, which are available for a family. Meaning, we can estimate entire house's income and expenses with a help of budget. Budgets are not only made for homes or families but yearly are also made for governmental level. Annually, it is estimated that how much is each province's income and expenditure.

The purpose of making a budget is to divide income in such a way that family's every needs and each family member's needs can be achieved. Although limited income cannot help in accomplishing these expenses, amusements and expensiveness but house wife can avoid this problem by listing these needs and with salary, income and expenses at least. These needs can be divided into different tiers by guessing whether they are important or not.

An important aspect of income is that the things like money or services are called income which are used continuously and fulfill our needs constantly. In the view of these features of income, it is divided into different kinds:

#### **KINDS/TYPES OF INCOME**

Following are the types of income;

- 1. <u>MONEY INCOME</u>: This income is in the form of cash and has an ability to purchase things. Like; salary, rent, interest, profit, savings, pensions etc. are included in this.
- 2. <u>**REAL INCOME:**</u> It is defined by economists as a flow of commodities and services available for the satisfaction of human wants and needs over a given period of time. Like; house equipment which complete needs of a home-maker and provide satisfaction. Besides that, the service of home-maker like talent, interest, expertise through which a home maker is eligible to do a lot of work. There are two major types of real income.
  - a. Direct Income: It consists of those materials and services available to the family members without the use of money. Example; such as home-grown vegetables and fruits, wood from trees etc. besides that, services of a home-maker who cares for her/his family members, prepares food, sews and washes clothes and cleans house etc. are included in this income. And also, the services which is provided by the community through library facilities, parks public schools, roads, fire and police protection etc. are included in real income.
  - **b. Indirect Income:** Indirect income consists of those material goods and services which are available for a family after some means of exchange like food, dress, all home equipment, personal things, motor cycle, scooter etc. Newspaper, magazines, phones, medicines for treatment etc. that are purchased with money and are beneficial for the family are included in real income.
- **3.** <u>PHYSIC INCOME:</u> Physic income refers to the satisfaction and relief that is gained through money or by using our talent and skills. Every person who gains satisfaction and comfort by using equipment and items available at home is called physic income.

Physic income is an attitude of satisfaction of mind which a person gets from using his experience, power, interests, talents, real income and economic income. Peace is the most important income of life.

- <u>TOTAL INCOME</u>: Total income includes both cash and real and income of every resource of family. This does not include physic income because it does not lead to the fulfillment of need instead it is gained by completion of needs.
- 5. <u>MONEY MANAGEMENT</u>: The importance of money is clear to everyone. Every person knows that without income and money, we cannot even buy a single needle. Management of money is very important. Instead of spending or wasting money on useless and unnecessary things, try to spend money on useful things which is beneficial for family and will help them to achieve their goals and make them happy.

Money management refers to planning income and expenses of a house. To implement this and to control your desires and needs, to consider its result and to critically evaluate it is included in this management.

#### METHODS OF MONEY MANAGEMENT

Every family has different income of their house, likewise their methods of managing it are different too. Following are some specific methods;

- 1. <u>HAND-OUT METHOD:</u> In this method, only one person has the responsibility of income and expenses, and it usually the one who earns the money in a family. Money is spent on needs and expenses according to his desires. All house-hold's incomes are in his hands and whole family is under his obedience. A status of his subordinates helps him to provide services and responsibilities. This method is old and traditional. It is common in joint family system which causes many psychological/mental complications. This method is unacceptable for todays advanced generation.
- 2. <u>ALLOWANCE METHOD</u>: This method is quiet delicate than Handout method. In this method, firstly house expenses are evaluated and then responsibility of few expenses in given to house-wife along with some amount of money so that she can complete those specific needs. For example; husband brings all dry ingredients for whole month at one time and give some money to wife for her to get vegetables, milk for every day and other daily expenses. This method is less trouble maker for a house-wife than Hand-out method.
- 3. <u>EQUAL SALARY METHOD:</u> In this method, whole salary is divided equally into two sections. The responsibility of expenses inside of house is given to the wife whereas the responsibility of expenses outside of house is given to the husband. This method provides self-confidence to the wife and the responsibilities of the husband is decreased. By this method, there are more chances of happiness and peace in the house. Mental stress is decreased and support of the wife is included.
- 4. <u>FIFTY-FIFTY METHOD</u>: This is similar to equal salary method. In this, salary of a family is divided equally in two, but division of expenses is not necessary, instead the expenses of the house are completed by the mutual understanding of both. From this method, mental stress and complications are decreased.
- 5. <u>BUDGET:</u> In this method, all the house-hold's income and expenses are evaluated, then a balance in income and expenses is created. Husband and wife together plan it after thinking, that is income and expenses. And then, according to this plan everything is applied. This method includes many advantages because in this, the needs of every person in a family is carefully considered. This method is a test of experience for a home-maker and provides a

chance of mental exercise that increases abilities of home-maker and helps in making real and authentic plan without any space for imagination.

### <u>BUDGET</u>

Planning of income is usually called Budget. Budget refers to the balance of money, income and expenses. Budget saves us from unnecessary spending on expenses. We get have a better picture of income and expenses through budget. Budget is not only important for house expenses but are also made on governmental level. An important goal of budget is to divide income to try to achieve all the needs of every family member which is not possible 95% of a time.

Making budget isn't a difficult process but to strictly apply it is quite hard because human and psychological desires become a hurdle in following it. Budget can be made for any financial status but to apply it and follow is a compulsory process.

#### **PRINCIPLES OF BUDGET**

While calculating a budget for house, following principles should be committed.

- 1. To make a list of everything the family needs while making a budget for specific period of time like; weekly, monthly etc.
- 2. To know how much money is needed.
- 3. To be aware of expected revenue for the budget for a specific time.
- 4. Income and expenses should be balanced while making budget.
- 5. After making the budget, suitable modification should be made.
- 6. There should be flexibility in a budget so that anything new can be added or removed at any time without complications.

#### KINDS OF BUDGET

A budget can be made for a long or short period of time. There are two ways/kinds of making a budget.

- <u>OUTLINED BUDGET</u>: This budget is made for long period of time like for a year of two, therefore, some small or minor expenses are not added in it instead big/major incomes of expenses are evaluated. This budget is not beneficial for "homely" expenses. However, this budget is used in calculating the yearly expenses and profits for factories and companies or is made to calculate major expenses of marriages ceremony etc.
- 2. <u>DETAILED BUDGET</u>: For homely calculations, defined/detailed budget is used and is beneficial. In this budget every source or way of incomes and every minor expenses of a family are calculated with detail. This budget is made for shorter period of time like, daily, weekly or monthly budget for a house. In this every income and expenses are deeply calculated to make a budget. Aspects of saving and balancing can also be added according to needs and conditions.

- <u>BALANCED BUDGET:</u> A budget in which income and expense are equal. For example; rs.10,000 income and rs.10,000 expenses, is called Balanced budget.
- <u>BUDGET IN LOSS</u>: A budget in which income is less than expenses. For example, rs10,000 income and rs.10,900 expenses, is called Budget in Loss.
- <u>BUDGET IN PROFIT</u>: A budget in which income is more and expenses are less. For example; income rs.10,000 and expenses rs.9000 is called Budget in profit.
- <u>IMPORTANT PERIOD OF BUDGET</u>: In this, food, clothes, rent, salary, education, health, happiness, sadness, travelling, customs, traditions, hosting guests, entertainment, electricity, water, gas etc. are included.
- <u>THINGS THAT PROVIDE PLEASURE</u>: After completing basic needs, everyone likes and wants to spend a small amount of remaining income on fulfilling their desire of comfort and rest. Like, new lights, fans, chairs, sofas, curtains, some entertaining/amusement things that brings pleasure in life. But their excessive use can be included in unnecessary luxury things. No more than 20% of the total income should be spent on things of comfort/pleasure.
- <u>LUXURIOUS THINGS</u>: After completing both, basic needs and things of comfort, remaining extra money is spent on things of luxury like, scooter, bike, hotel, makeup etc. but these expenses should be less in anyways possible because excessive use of these things can lead to addiction to luxuries, which creates many complications and problems.
- <u>EMERGENCY EXPENSES</u>: Every person has to face many accidents or incidents which he never knew about before like, diseases, deaths, crisis case etc. we should always be ready to face these unfortunate events therefore, it is important to have some space and flexibility in our budget for these particular expenses. It may cause a lot of complication and trouble for a home-maker if the budget does not have space for these expenses.
- **EXPENSES OF MEETINGS AND VISITINGS:** Entertainment, hosting guests, parties, travelling etc.

#### METHOD OF MAKING A BUDGET

Making budget is important but to follow and apply on it is more important and difficult because human desires become successful over dominating our mind and conscience. In this case, increasing the income can be given some attention. But a housewife and her family should have attention on balanced budget with increasing income as well as decreasing unnecessary expenses. Budget is an easy process and following tips are helpful for it.

- 1. To determine the income.
- 2. To make a list of expenses.
- 3. To specify/divide the income according to the list.
- 4. To create balance in income and expenses.
- 5. To have some space in income for emergency expenses.
- In every category, less or more categories should be selected. Always try, that the expenses do not increase. In this case, an unwanted or unnecessary category should be removed.

Every family is different from one any due to their different financial needs. One specific or ideal budget is unable to help all the families to complete their needs. Every family is different from others in stages of family members, numbers of members, their needs and goals and spending under their economic income. And every family's long term and individual goals are different and unique. Although an exemplary ideal budget cannot fulfil every needs of a family but it helps in making a budget. Therefore, some methods and principles can be provided to help make a budget which can be used by every or family by altering and editing according to their needs.

People are divided into three classes according to their income and needs because of non-equality of money in a country.

- 1. Low Class
- 2. Average/Middle Class
- 3. High Class

A budget for middle/ average class family of an income of rs10,000 is given below.

INCOME	<u>EXPENSES</u>	DIVIDED INCOME
RS.10,000	Food 45%	Rs.4,500
	House rent 12%	Rs.1,200
	Clothes 11%	Rs.1,100
	Education 7%	Rs.700
	Health 4%	Rs.400
	Amusement 4%	Rs.400
	Misc. things 5%	Rs.500
Total Expenses: rs.8,800		
Total Income: rs.10,000		

4 Family Members, 2 school going children, husband and wife.

#### Following changes can be created in a budget of an average class family.

- 1. If a related person whose budget is to be considered is doing a governmental job, he can get a house from the government. Therefore, write in conditions (Govt. Alintment).
- 2. This family can spend some on the means of transportation.

Savings: rs.1,200

- 3. One maid/servant can be kept in this income, in conditions, it will be written as a maid/servant of doing specific work in a day.
- 4. This family can spend some money for humility. All these changes can be created in their budget.

Following are some examples of a budget of a college student according to her pocket money and her needs.

**<u>EXAMPLE-1</u>**: Exemplary budget according to rs500 monthly pocket money of a student.

LIST OF THINGS	DIVIDED INCOME
Canteen	Rs.200.00
Gifts and magazines etc. for friends	Rs.100.00
Things for glamour	Rs.100.00
Paper, pencil etc.	Rs.100.00
Total:	Rs.500.00

**EXAMPLE-2:** Exemplary budget according to rs.500 monthly pocket money of a student.

LIST OF THINGS	DIVIDED INCOME
Things for glamour	Rs.150.00
Paper, pencil etc.	Rs.100.00
Canteen	Rs.150.00
Gifts and magazines etc. for friends	Rs.100.00
Total:	Rs.500.00

From these given examples, we get to know that every month students divide their pocket money differently and spend it on their own needs. By this planning, students can fulfill and complete few of their needs evidently.

#### **USES/BENEFITS OF BUDGET**

Budget has endless benefits and uses that helps in both homely calculation and is also used in large businesses and factories. Following are some uses of budget;

- 1. Budget enhances goals of a family through which many needs and every resource of future is evaluated.
- 2. From budget, financial situation and home management can get better.
- 3. Through budget, detailed overview of expenses and resources is taken through which knowledge about resources, expenses, courage of balancing budget and possibilities of unnecessary spending are decreased.
- 4. With budget, love for achieving goals is created and encourages to stay strong if shortage of resources occurs.
- 5. A budget is made with mutual consultation therefore, members of the family understands each other.
- 6. Budget protects future and encourages to save for emergency needs.
- 7. Budget protects from the curse of loans.
- 8. Budget creates confidence and self-control.

## <u>SAVINGS</u>

Savings is a part on an income which is kept after every expenditure and paying of taxes etc. the basic goal of saving is to protect the future. And achieving this goal demands many sacrifices.

#### PRINCIPLES OF SAVINGS

- 1. One specific amount of money should be determined and selected for savings which should be saved at any cause.
- 2. Savings can be done daily, weekly or monthly but it should be done consistently and regularly.
- 3. Savings should be spent on beneficial scheme to get profit.
- 4. Savings should be started as soon as possible.
- 5. While saving, every member of a family should co-operate otherwise it cannot be done.

#### SAVINGS PLANS/METHODS

There are several ways of savings in which home and bank method are included. For example;

- 1. Money can be added daily in a piggy bank
- 2. Committee can be added with other people or neighbors.
- 3. Specific savings can be added by opening saving account in a bank.
- 4. Saving is done continuously by doing life insurance.

#### **IMPORTANCE OF SAVINGS**

By giving consideration to physical and financial needs in life of every family/house, saving income is compulsory and its importance can never be neglected. It is said that a habit of saving money is a sign of simplicity. This saying is somewhat true because simplicity gives birth to saving. A habit of savings is the motto of developed nations/countries. Savings habit protects from over spending and saves from taking loans in emergency times. Simplicity is one of the important rules in Islamic style of living as well as this training saves us from social flaws.

## TIPS/METHODS OF INCREASING INCOME

The methods to overcome decrease of income and create balance in expenses and income are;

- 1. Increase of income
- 2. Decrease of expenses

#### **INCREASE OF INCOME**

Increase of income on house-hold level is not difficult. By using different skills, trying and hardworking can increase income. Following are some methods can help in increasing income;

- 1. Grow your own vegetable on domestic level. By using home-grown vegetables will increase income or decrease expenses.
- 2. Having a hobby of poultry. By getting eggs and using meat from this is another way of increasing income.
- 3. By preparing cake, biscuits, chips, pickles or chutneys for domestic use or selling them on order which will save expenses and increase income.
- 4. By stitching and sewing clothes and selling on order.
- 5. By knitting woolen sweater etc. on machine or hand-made.

- 6. Decorative things like; fake flowers, clay utensils, paintings, papier-mache, shoes or carpets etc.
- 7. Doing work by yourself can save extra expenses on maids.
- 8. Teaching children by yourself to save extra expenses of tuitions.
- 9. By working overtime, to increase income. And wife can do a job too. This depends on situation, decisions and values of a family.
- 10. By taking loans from bank and spending it on a profitable scheme.
- 11. By preparing clothes, jewelry, lamp-shades, hand bags and sandals according to fashion.

A plan for increasing income can be made but facilities are not always provided for this increase. Therefore, to create balance in a budget, decrease in expenses is effective and suitable. Related to this, a philosopher said, "Increase in happiness does not require increase in income but requires decrease in needs and expenses for which simplicity helps to cope with".

#### **DECREASE OF EXPENSES**

- 1. A family decreases their expenses by their desire and forceful condition. But are several lines to improve this. For example; by keeping all the categories in a budget and omitting/decreasing some expenses from each category.
- 2. To create balance in budget, a second method to decrease expenses is that few things which are unnecessary and least important from a group of things that are unwanted list should be completed omitted or deleted. This will help in decrease of expenses.
- 3. The third simple way is that to find cheap or free alternative of things for example; instead of spending lavish things, take homemade food that is much better than many hazardous and unhygeinic food which will prevent disease and save a lot of money.
- 4. A most easy way of decreasing expenses is that instead of buying books, newspaper, magazines and novels, we can take advantage of libraries which provides free books and saves money.

#### **CRITICAL EVALUATION**

At the end of every month, if we evaluate and take a good look at our savings, many useful things come in front of us. For example; if a budget is successful then find its reason and commit to them. And if it is unsuccessful then after knowing its reasons and defects, refuse to use it for a next budget. Besides this, if savings are more than expected then its supporting factors can easily be detected. And if savings are less, then consider different methods of increasing income. This is known as Critical evaluation.

#### PART-B (GATE-5)

## **HEALTH CARE**

It is important for a successful family that the home-maker should take care of the health of her/his family. The first step of taking care of the health is, knowing the age, physical needs, financial needs of the family members and provide balanced diet accordingly keeping all the information in mind so that diseases are prevented. And if any of the family members still get sick, it is important for a good home-maker to have the knowledge of nursing a patient. And if she/he is not capable of nursing anyone, it is important to prepare other person (member of the family) who is capable of doing this.

Taking care and visiting is very important as well as proper medication. Better balanced diet, providing peaceful environment, keeping patient clean and happy are included in nursing. Better nursing and taking care save a patient from emotional and mental stress and helps him to get healthy soon. Usually people arrange a professional nurse for nursing but arrangement of a nurse gets quite expensive. An intelligent woman who has knowledge of nursing and hygiene can easily take care of a patient according to instructions of a doctor. Therefore, every woman should know about the basic rules of nursing a patient.

Members of a family take cares of a patient with love because they are emotionally and mentally attached and related to him. Hence why, they are busy in taking proper care of him.

For nursing, it is important to be emotionally, mentally and physically healthy as well as determined. She/he should have knowledge about condition of family member along with that during illness she should know about different symptoms and conditions of diseases. A nurse has to give attention to three aspects at once, meaning that she should keep giving attention to health of every family member and try to strictly follow principles of health care. Knowing the art of nursing is also very important and compulsory, for this it is necessary to be expert in organizing so that necessary changes can be made according to conditions and everyday work. It is also necessary to do physical examination time to time to maintain health. Sleeplessness and burden of excessive work make a nurse tired. For a nurse, it is important for her to be aware of types, prevention, protection of diseases and precautions during illness. Some illness is caused by contagious disease ( $y_{yy}$ ). For example, flu, cold, pneumonia, cholera, measles etc. whereas some diseases do not have effects of contagious disease like, cancer, heart diseases, apendex etc.

First important goal of knowing the talent of nursing is to tell the patient to take rest as much as possible until he gets healthy. And secondly take care of other members so that the germs of the patient do not transfer from him to any other family member.

#### TAKING CARE OF A PATIENT AT HOME

#### 1. TO KNOW THE SIGNS OF DISEASE FOR NURSING

A sick person has effects and symptoms like, pale skin, swollen eyes, runny nose, feeling pain and difficulty in breathing, continuous coughing and headache indicate a disease. Effects of disease and its consultation on time can help a doctor to easily identify the disease and can also reduce duration of the disease. A nurse can easily estimate these signs through a sick person's face, his feelings and physical activities. In some situations, eyes are an avatar of a sickness, eyes become watery or eyes become either extremely red or yellow, swelling around eyes. Same as this, tongue color becomes extremely red and creates a white layer on top of tongue, throat irritation, speaking complications, changes in complexion of skin, high temperature of body etc. could be signs of fever.

In view of these signs or symptoms, it is important to immediately provide first aid to the patient. This first aid can be given at home or after consulting a doctor but it must be decided immediately. Presence of few signs/symptoms indicate a disease which is why it is compulsory to visit a doctor.

#### 2. <u>PROCTECTION TACTICS</u>

In overview of any disease, a nurse should apply following tactics to take care of the patient and protect other family members at home.

- i. It is necessary to be peaceful and conscious during a condition of sickness at home by doing this a nurse can easily understand advices of a doctor to follow them and can prevent the patient from further hopelessness and disappointment.
- ii. Complete satisfaction should be provided in series of taking care of patient and family members so that unnecessary feelings of stress and burden can be prevented.
- iii. Provide complete comfort to the patient after laying him on bed so that he feels comfortable and creates immunity against the disease.
- iv. Prevent much traffic in patient's room and keep other family member away from the patient's room.
- v. Make a complete list of every signs/symptoms.
- vi. It is important to narrate all the symptoms to the doctor and follow according to doctor's advice. Medicines consulted by doctor should be given on time.
- vii. It is compulsory to take proper care of self-hygiene. Hand and clothes sanitization have a lot of importance in self-hygiene.
- viii. To have a proper and complete record of fever, pulse and breathing. It is better to make a chart so that it gets easier for a doctor to treat and diagnose.

#### 3. SELECTION OF PATIENT'S ROOM

During illness, a patient's room is his/her small world. Therefore, to keep his environment and surroundings comfortable and pleasant are an important aspect for a nurse. Convenience in room, color of room, surrounding and cleanliness in patient's room are proven be effective in regaining patient's health. A patient's room should be on part of the house which is convenient for a nurse so that he/she can comfortably and conveniently take care of the patient. It is better for a patient to stay in his room because knowledge of environment and protection of things and their easy availability provide mental satisfaction.

- i. Patient's room should be separate and away from noise and riots of the house.
- ii. Room should be near washroom/toilet. It is a lot better if the toilet is attached with the room.
- iii. Room should be on ground floor so that it is better and convenient for nurse and a doctor and also for that patient to easily go outside for a walk.
- iv. Patient's room should have a window for sunlight and fresh air. There should be curtains on these windows so that bright light cannot irritate the patient.
- v. There should be a medium sized table near to the bed on which important things are kept. Like; glass of water, a bell for calling, table lamp, radio, magazines and books.
- vi. There should be a comfortable chair beside the table. This chair is used for visitors or for the patient to sit.
- vii. Get rid of carpets, mats, rugs etc. from this room so that it is convenient while cleaning.
- viii. If required, keep a small stool under the bed so that it is easier to go up or down the bed.

#### Things to have for a patient's room:

- Table, chair, bed and cupboard/wardrobe for clothes.
- Small table for medicines.
- Thermometer.
- Cups, plates, spoons and saucer.
- Urinal
- Bucket
- Vase for flowers.
- White bedsheet with pillow covers and mackintosh.
- One notebook to write all the record of patient's health.
- Small stool.

#### 4. CLEANING OF PATIENT'S ROOM

It is important to keep patient's room clean and pure from any germs to help the patient get healthy again. Cleanliness and hygiene are much more important in infectious diseases to prevent the germs from spreading on other parts of house which can be unsafe for other family members.

Following are principles of cleanliness/hygiene.

- i. Floor/tiles of patient's room should be washed with disinfectant water and dried with wiper daily.
- ii. Patient's washroom should also be washed with disinfectant water daily.
- iii. The used clothes of patient like, towel, bedsheet, pillow covers etc. should be boiled for 10minutes before washing.
- iv. Blankets, pillows should be kept in direct sunlight to kill germs before using them.
- v. The used utensils of patient should be boiled every day.
- vi. Patient's spitting pot and utensils to be cleaned daily.
- vii. Burn all the unnecessary used things like, medicines, tissues, magazines, newspaper etc. on which disinfectant cannot be used.
- viii. Remaining food should also be burned after putting them in envelopes.
- ix. After using urinal, add disinfectant medicine and cover it with newspaper for specific time.
- x. Open doors and windows of the room for some time, it creates feelings of freshness by fresh and clean air. Sunlight helps to kill germs.

#### MAKING BED WITHOUT THE PATIENT

Remove the bed and put it at one side. Put bedsheet and mackintosh after folding them. By holding the mattress, get rid of all creases from the cover. First put mackintosh and then put bedsheet over it. Bigger section of bedsheet should be kept on the upper side of the mattress where the pillows are kept and its excess parts should be tucked under the mattress. Dust off the pillows and put them on their place. Fold blanket and spread it on lower section of the bed and tuck it under the mattress. When the bed is completely made, there should be no crease or wrinkle on it.

#### MAKING BED WITH THE PATIENT

To prevent unnecessary movements of patient, two people should make the bed. For making the bed, it is necessary to have the things needed, bedsheet, pillow covers and blankets etc. present near you. Pick clothes that are one the bed by folding them three times and put them on a chair near the bed.

To remove lower sheet, firstly move the patient on one side and roll the sheets under him/her and by moving the patient to another side of the bed, remove the sheets. By this method, spread a clean

bed- sheets, mackintosh and small sheets on half side of the mattress. Then move the patient on other side and spread bed-sheets, mackintosh and small sheets on remaining half side of the mattress. Lay the patient in the middle of the bed on his back. Put clean sheets also under the blankets and tightly tuck its corners underneath the mattress. Then change pillow covers and repeatedly put them under patient's neck in a comfortable position. Also, tuck all the corners of bedsheets under the mattress tightly.

## TAKING CARE OF A CONTAGIOUS PATIENT

بيمارى كى چهوت or contagious diseases refers to diseases that transfer from one person to another through physical contact. To keep a patient of contagious disease, separate from other family members is an important aspect. A patient room should be selected which is away from other room or section of the house but also has convenience of attached washroom. All unnecessary things should be temporarily removed from this room. It is very important to disinfect existing important things in this room immediately.

Things for cleaning the room should be kept inside in this room in some cupboard. Useless newspapers, spoons and utensils with lids in which clothes etc. can be boiled are included in important precaution and prevention. Nurse should wash his/her hands repeatedly and should wear a white coat and hair cap while nursing. It is compulsory for a nurse to have suitable rest so that she/he can do all the work gracefully and properly.

### **TO PREVENT INFECTIOUS GERMS**

Germs are mostly spread through particles excluded from nose, throat and body therefore, things in patient's room that other family members also use should be pure from any germs. For sterilization and disinfecting, heat, sunlight and medicines are used. Following are few methods of disinfecting and sterilizing different things.

#### 1. DISINFECTION OF CLOTHES

- It is important to make all the clothes that are used like, towels, patient's clothes and bedsheets etc. to be free from any germs.
- A spoon, big pot or vessel which is used to boil clothes, fill it half way with water then add some disinfectant medicine in it. Now keep this utensil near patient's bed.
- Put patient's clothes in it immediately after removing them. Likewise, also put bed-sheets and pillow covers in this mixture. And as soon as the patient is free from taking a shower, add his/her used towels in it too.
- Now put a lid on this vessel. Put it on stove to boil it for 20minutes straight. Afterwards, wash these clothes with regular washing method.
- Add disinfectant medicine in water used for taking a shower/bath and leave it for specific time. After washing your hands and removing your overalls, hang it and then take this water vessel to the toilet to flush this mixture. Properly wash a soap or that vessel in which this water was used with soap. Keep these utensils in patient's room at one side.

#### 2. DISINFECTION OF URINAL AND BED PAN

- Add disinfectant medicine in urinal and bed pan after using them and cover them with newspaper for specific time.
- Remove your overalls and hang it on a door knob. And empty urinal and bed pan in the washroom.
- Now properly wash them with soap and water. Cover and put them back in the patient's room.

#### 3. DISINFECTION OF UTENSILS

- Take a vessel or pot, fill it half way with water, add disinfectant medicine in it and put this mixture at one side in patient's room.
- Put leftover food in an envelope and add these utensils for eating like, spoons, forks etc. in the mixture pot/vessel. Take them in kitchen, put it on stove and leave it to boil for 10 minutes straight. Burn those leftover food which was kept in an envelope.
- Remove and hang your overall and cap.
- Wash dishes/utensils with warm water and put them on a sperate shelf in the kitchen. These dishes should not be used by other family members.

#### 4. DISINFECTION OF ROOM

To make a patient heathy, there comes a stage of disinfection of room. According to health minister's advice, room should be clean from all the moisture and air vapor and it is important to clean the room according to following methods;

- i. Give patient a health wash. Properly clean and wash his finger and toe nails. Change his clothes and take him to another room.
- ii. The things on which we cannot use disinfectant medicines like; medicines, tissue papers, magazines and other little things, should be burned.
- iii. Wash thermometer and other plastic-made things with disinfectant medicine and leave it for 4 to 5 hours.
- iv. Boil dishes and trays for 20 minutes. Then wash them with warm water and keep them after drying.
- v. Likewise, boil bed-sheets, clothes and curtains for 20 minutes and afterwards wash them with usual method.
- vi. Put blankets, pillows and mattresses in direct sunlight for several hours.
- vii. Wash furniture and wooden things with soap and water and them polish them.
- viii. Open windows and doors of the room for several hours so that fresh and clean air creates feelings of freshness in the room.

Anyways, health massively effects human personality. Human personality indicates a principles and regulations in everyday life. For example; A person's attitude, co-ordination with situations and determination and expressing of feelings everything depends towards human personality. Those people who have admirable physical, mental and emotional health, those people usually have joyful and full of spirit personality. Whereas, unhealthiness creates bitter and unlikable habits and attributes.

Joyful and full of spirit people are necessary for a family to complete few important needs of a person. In these needs, top need is Health. For a proper completion of a personality, it is important to fulfill basic needs a person according his timing and needs. Any further delaying in these needs can create unlikeable defect in personality.

#### PART-B (GATE-6)

## FIRST AID AT HOME

First aid means giving the medical aid immediately after an incident or on time which saves the patient from many complications.

Sometimes, some sudden unexpected incidents take place which is called accidents. It is important to work with consciousness and cautions on sudden accidents and because of unconsciousness many complications are formed. In some cases, death may occur, therefore, it is important to call the doctor. But the aid which is given to a patient immediately after an incident to reduce his discomfort is called First Aid. In some cases, there is no need of going to the doctor if the first aid is given immediately and on time. Therefore, it is the responsibility of adult members to do some arrangements in the house which helps to reduce accidents and provide first aid to the person if accidents happen.

Burning accidents in houses, for example, kids playing with matches, short circuit, exploding of stove etc. these accidents are caused by fire. Unconsciousness and carelessness are the causes of these accidents.

## FIRST AID KIT

To immediately deal with accidents at home and to give immediate aid on time, it is compulsory to have first aid kit. The purpose of this kit is to provide aid during accidents. It includes all the basic medicines and things which are needed for first, aid in a box. Everything should be organized in this kit. Every bottle and pockets should be labelled. Medicines should be fresh and new. Following things should be included in first aid kit:

- 1. Surgical cotton wool.
- 2. Surgical gauze.

This muslin fabric is open. It is cut into small pieces. Four or five pieces are folded to cover the wound.

- 3. Roller bandages.
  - It is used for tying and covering the wound.
- 4. Elastic plaster and adhesive plaster.
- 5. Safety pins.
- 6. Scissors.
- 7. Matches, candles, torch.
- Small enamelware cup.
  For putting boiling and sterilization of scissors, pins and others tools, so that they are pure from any germs.
- 9. Dettol or any disinfectant medicine.
- 10. Rubber tourniquet.
- 11. Methylated Spirit.
- 12. Paracetamol tablets.
  - To reduce high fever and pains.
- 13. Tincture iodine. Disinfectant mixture for wounds and scratches.
- 14. Anti-Histamine tablets.

For fly and mosquito bites. (Mosquito repellent)

- 15. Burnol. For burned wounds.
- Potassium permanganate.
  A mixture for infected wounds, wounds caused by dog bites and for washing the wounds cause by snake bite.
- 17. Spirit of Ammonia For bring consciousness to the fainted person.
- Thermometer.
  For checking fever.
- Spirit lamp.
  Acriflavine.

Yellow disinfectant medicine.

## <u>WOUNDS</u>

Wounds means the injuries which is caused by accidents. There are many types of wounds but if its three basic types are understood, then the process of aiding becomes easy.

- Punctured Wound/Simple Wound: These are the wounds which are caused by falling on pointy things. In this, the wound does not bleed but sometimes the wound is deep. There is a doubt of germs tetanus germs caused by these wounds. It is hard to clean these wounds because the real wound is inside of the skin. While giving first aid, some blood should slightly press out from the wound but be careful while pressing so that the wound does not get effected.
- 2. <u>Splintered Wound</u>: This is pretty much same as first wound and also has the danger of tetanus, therefore it is important to consult a doctor. In this, the pieces of glass or rock is stuck and hidden inside the skin. They are taken out with clean tweezers a bandage is dipped into disinfectant medicine then it is rubbed on the wound to clean it.
- 3. <u>Deep Wound:</u> It is guessed with the pressure of bleeding. If the bleeding is less and is periodic then the vein is slightly damaged/cut. But if the bleeding is fast, then the vein is completely damaged/cut. To stop bleeding, put sterilized pad on the wound and press hard until bleeding stops. After that clean the wound, put an antibiotic cream and wrap the bandage but do not wrap it tightly otherwise the blood circulation may stop.

## BURNING, SWELTER AND BLISTERS

A person can be burned by fire, electricity, steam, hot water, chemical compound like acid and alkalinity. The wounds which are caused by burning are of different types. It is determined by the intensity of wound.

#### 1. First level of burning:

In this the upper layer of skin is burned but fibers are not damaged. The skin becomes red, swollen and causes a lot of irritation but after putting medicine it is recovered.

#### 2. <u>Second level of burning:</u>

In this, two layers of skin sperate from each other and in middle the liquid is filled and creates a blister. By applying burnol on it, the blister becomes soft. And if the blister is about to pop, then with a help of disinfected needle, pop the blister and cover it with a piece of cloth after putting medicine on it.

#### 3. Third level of burning:

In this, the tissues are badly affected and the skin bursts and is badly damaged. The lower layer of skin is also affected and the flesh charred. It is so painful that it can lead the person to shock. In this case, first the condition of shocked patient should be treated and then approach to the doctor. Never put any medicine on these wounds, doing that can cause infections.

#### 4. Fourth level of burning:

In forth level of burning or swelter, the skin disappears completely and the organs, muscles become visible. With intense burning, the bones also get damaged and deep wounds are formed.

#### TREATMENT OF BURNED SKIN

When somebody gets burned then he first needs consideration to treat his panic attack and shock. For this, the patient should be kept warm and take the heat out of his body.

Deep wounds should be treated by a good doctor. Only first and second level of burning should be treated at home. It means that the fibers are not burnt and the painted has not fainted. If the wound is intense and a doctor is not available then immediately following treatment should be given:

- 1. Conditions of shock and unconsciousness should be given attention immediately. Patient should be given blanket carefully. Do not crowd the place around the patient and try to provide comfort to the patient.
- 2. Try to minimize the pain of wounds by adding sodium bicarbonate, dip a cloth in this mixture and put it on the wound. By doing this, pain is minimized.
- 3. Penicillin is very helpful for deep and intense wounds. By using it the wounds are healed quickly.
- 4. By burning from electricity, put salty water or medicine. If the patient has fainted then treat him.
- 5. If the clothes are burned then quickly lay the patient down on the floor, by doing this the directions of flames goes up. Do not run here and there, because it may provide oxygen to the flames which may cause it to spread quickly. Put blanket on the body of the patient after laying him down and wrap him carefully with it.

## ELECTRIC SHOCKS

#### A. Prevention from Electric shocks:

Following precautions should be chosen for the prevention of electrical instruments.

- 1. Electrical wires should not be put on the floors.
- 2. Only touch the electrical instruments when the plug is switched off.
- 3. Those sockets which are down and reachable for children, then after using them, put safety plugs in those sockets.
- 4. Do not wipe or touch the electrical instruments and switches with wet hands or cloth.
- 5. Do not put naked wires in the socket instead of that use plugs.
- 6. Check all the electrical instruments of the house every once in a while.
- 7. Sometimes, also check wires and fuses of the house.
- 8. To check or repair the electricity at home, always take safety precautions. Wear rubber shoes and hands should be dry and use equipment.

#### TREATMENT OF ELECTRIC SHOCKS

If someone touches electric wires, in some cases due to electric shock, death may occur. There are two types of electrical shocks:

- 1. First type in which the person falls away on the ground.
- 2. Second type in which the person sticks there.

In case of sticking, immediately turn off the main switch to cut down the waves of electricity. If it's not possible, then the helper should stand in a place where there are no waves of electricity. For e.g. wood, rubber or any non-metal things should be used. These things should be completely dry.

If these things are not available then make trapper with dry rope and tie it on the patient's body and drag him.

If the electrical wires are burnt then do not put water on it, otherwise the life of the person gets in danger. Immediately turn off the main switch or put sand on fire. Sand helps to extinguish the fire.

Electrical shock can reduce breathing, in that case artificial respiration should be given to the patient and consult a doctor if needed.

#### **B. Prevention from sharp knives and goods:**

- 1. Keep the sharped things like knives, blade and scissors out of reach of children after using.
- 2. Keep glass and chine crockery away from children. If anything breaks then immediately clean it carefully so that it doesn't injures the hands or feet.
- 3. Keep needles, thread, nails, paper, pen etc. out of reach of children. If any of these fell on carpet then search for it with a help of magnet.
- 4. Be careful while handling opened tins and smooth out its sharped edges because there are chances of deep wounds from its sharped edges.

## <u>SHOCK</u>

Human lives are filled with accidents and shocks. There are some accidents and shocks in life which we can handle and forget about them. But in some case accidents or shocks leads a person to death. These shocks are caused by happy or sad sudden news, infections, electric shocks or by excessive bleeding.

#### Signs of Shocks

Usually these are the signs of shock.

- 1. The patient's face becomes pale.
- 2. Heavy and fast breathing.
- 3. Regular pulse becomes fast and weak.
- 4. The body of the patient becomes cold and there are signs of seating on forehead.
- 5. Senselessness may occur and sometimes in a condition of semi-senselessness the patient can see and hear but is unable to function.
- 6. Intense senselessness and shock can lead to death.

#### TREATMENT OF SHOCKS

- 1. Put a blanket etc. on the patient to provide heat. And put a bottle of warm water on bed.
- 2. Blood circulation should be towards the head to help reach the brain. It means the head should be downward and spine should be upwards.
- 3. Arrange for fresh and open air.
- 4. There should be no crowd around the patient.
- 5. Patient should be taken to a doctor.

## **PREVAILING OF SENSELESSNESS**

Because of sudden change in nervous system, the brain stops working which cause unconsciousness/senselessness. Usually there are two types of senselessness:

- 1. Complete Senselessness
- 2. Semi-Senselessness.

There are many reasons of unconsciousness, for example; electric shock, suffocation, poisonous gas, epilepsy, weakness, starving or by shock.

A person feels dizzy before fainting. His body gets out of his control. His face becomes pale and his body sweats a lot.

To prevent unconsciousness, following instructions should be applied;

- 1. Do not let a crowd form around the patient. Try to provide him fresh and clean air.
- 2. Take the patient to open pair and lay him down, head should be stretched and feet should be slightly upwards. It makes easier for him to breathe.
- 3. Loosen the patient's clothes so that he can breathe easily.
- 4. Sprinkle some cold water on the patient's face and forehead and provide him some air through a fan. If the body is cold then cover it with blanket.
- 5. Give the patient a medicine like smelling salt or spirit of ammonia to make him conscious. Put that in front of patient's nose until he becomes conscious.

- 6. After he has come to his senses, save the patient from cold. Wipe the sweat from his body and give him warm milk.
- 7. If there is trouble in breathing then provide him artificial respiration to regulate breathing.
- 8. See that if the ways of breathing like nose or mouth are not clogged. Fresh air should be properly arranged. Now if he cannot breathe then give him artificial respiration.
- 9. Consult to the doctor.

## **DROWING**

The incidents of drowning near the sea, hose, river, stream etc. always occur. The drowning person can only be saved by an experienced person. Anyways, to save a drowning person, not a single minute should be wasted. By drowning, the water enters the lungs through respiration. If a glass of water enters to the lungs then it is severely fatal and is difficult to save the drowning person.

#### TREATMENT OF DROWNING

- 1. After taking out the drowning person from the water, check if he is conscious or not. If he is unconscious, it is important to bring back the patient to consciousness =.
- 2. Lay the patient down straight, slightly lift up the shoulders by keeping something down them, loosen the clothes and provide him artificial respiration of Silvester method.

## FRACTURES OF BONES

Usually accidents happen in life which is why fracture of bones are caused. From which we or loved ones have to suffer. Therefore, it is important to know about them otherwise one misunderstanding leads to many complications.

There are usually six types of fractures of bones:

- 1. Simple fracture
- 2. Compound fracture
- 3. Complicated fracture
- 4. Green stick fracture
- 5. Comminuted fracture
- 6. Impacted fracture
- <u>Direct Method</u>: This is the method which is the cause of pain on the place of wound/fracture.
- <u>2.</u> <u>Indirect Method</u>: In this the infection or wound is on some other place but the bone is fractured on another place. For example; falling down because of twisted feet but spinal bone has fractured. Or by slipping, shoulder bones get fractured.

#### <u>Signs of Fracture</u>

- 1. Severe pain on the place where the bone has fractured.
- 2. Feeling pain when/while moving any body part.
- 3. Huge difference can be seen on the broken part of the body.
- 4. Unevenness on that part is felt by touching it.
- 5. Sometimes, the sound of broken bone can also be heard while moving the broken body part.
- 6. Patient can get in a shock by this situation.

#### KINDS/TYPES OF FRACTURES OF BONES

- 1. <u>Simple Fracture</u>: In this the bone is broken in simple way and divided into two pieces. There is no wound on the skin.
- 2. <u>Compound Fracture</u>: In this, the pieces of broken bone enter into skin and cause wounds and the broken pieces of bones rip out of the skin.
- **3.** <u>Complicated Fracture:</u> The broken bone injures the skin. For example, broken pieces of ribs enter into lungs. Disorder in blood circulation and nervous system is felt. Sometimes this effects brain, lungs and spinal cord.
- **4.** <u>**Green stick Fracture:**</u> in this, bone is fractured like a wet branch. There are chances of this fracture when the bones of children or ribs of old people are broken. The bone is completed connected to roots but is divided from upwards like a branch/twig.
- <u>Comminuted Fracture</u>: In this, the bone becomes comminuted. It means that the bone divides into different pieces/sections. Because the flesh/meat is soft therefore, these pieces enter into the skin.
- 6. <u>Impacted Fracture:</u> Broken bones impact into each other.

#### TREATMENT OF FRACTURE

- 1. Lay down the patient in a comfortable position.
- 2. Try to stop bleeding of the patient.
- 3. Take care of the patient and try to find the place where the bone has fractured. Support the broken bone by tying a loose bandage.
- 4. Try to minimize the patient's pain. Do not crowd the place around the patient. Spread a blanket to maintain normal temperature.
- 5. After providing first aid, consult a doctor immediately to put plaster on the broken bones after doing X-ray. Plaster is a best method of fixing broken bones.

#### <u>SPRAIN</u>

A ligament is the fibrous connective tissue that connects bones to other bones. A sprain, also known as a torn ligament, is damage to one or more ligaments in a joint, often caused by trauma or the joint being taken beyond its functional range of motion. The severity of sprain ranges from a minor injury which resolves in a few days to a major rupture of one or more ligaments requiring surgical fixation and a period of immobilization. Sprains can occur in any joint but are most common in the ankle and wrist.

Sprains typically occur when the joint is taken beyond its functional range of motion.

#### CLASSIFICATIONS:

- 1. First degree sprain (mild) the fibers of the ligament are stretched but intact.
- 2. Second degree sprain (moderate) is a tear of part of a ligament, from a third to almost all its fibers.
- 3. Third degree sprain (severe) is a complete rupture of the ligament, sometimes avulsing a piece of bone.

#### TREATMENT

The first modality for a sprain can be remembered using the acronym RICE. The treatment of sprains depends on the extent of injury and the joint involved. Medications like non-steroidal anti-inflammatory drugs can relieve pain.

- **<u>Protect</u>**: It is important to protect the injured site from repetitive injury.
- <u>**Rest:</u>** The sprain should be rested. No additional force should be applied on site of the sprain. In case of, for example, a sprained ankle, walking should be kept to a minimum.</u>
- <u>Ice</u>: Ice should be applied immediately to the sprain to reduce swelling and pain. It can be applied for 10–15 minutes at a time, 3-4 times a day. Ice can be combined with a wrapping to minimize swelling and provide support. Ice to numb the pain is effective, but only for a short period of time (no more than twenty minutes.) Longer than 20 minutes can reduce the blood flow to the injured area and slow the healing process. [medical citation needed]
- <u>Compression</u>: Dressings, bandages, or ace-wraps should be used to immobilize the sprain and provide support. When wrapping the injury, more pressure should be applied at the far end of the injury and decrease in the direction of the heart; the reason for this is that it more easily causes unnecessary fluid to be flushed back up the blood stream in order to be recycled. Compression should not cut off the circulation of the limb.
- <u>Elevation</u>: Keeping the sprained joint elevated (in relation to the rest of the body) will also help minimize swelling.

## <u>STRAIN</u>

In this, the injury is caused to a muscle instead of to a ligament. A strain is an acute or chronic soft tissue injury that occurs to a muscle, tendon, or both.

Typical signs and symptoms of a strain include pain, functional loss of the involved structure, muscle weakness, contusion, and localized inflammation. Strain can be felt by putting pressure on the specific part of the injury and when the patient moves, he feels pain. The pain increases even after injury. A strain can range from mild annoyance to very painful, depending on the extent of injury. In this case, rest is necessary to accelerate healing and reduce the potential for re-injury and It is recommended that the person injured should consult a medical provider (doctor) if the injury is accompanied by severe pain.

### **DISLOCATION**

A joint dislocation, also called luxation, occurs when there is an abnormal separation in the joint, where two or more bones meet. A partial dislocation is referred to as a subluxation. Dislocations are often caused by sudden trauma on the joint like an impact or fall. Joint dislocations are caused by trauma to the joint or when an individual fall on a specific joint. Great and sudden force applied, by either a blow or fall, to the joint can cause the bones in the joint to be displaced or dislocated from normal position. With each dislocation, the ligaments keeping the bones fixed in the correct position can be damaged or loosened, making it easier for the joint to be dislocated in the future. A joint dislocation can cause damage to the surrounding ligaments, tendons, muscles, and nerves. Dislocations can occur in any joint major (shoulder, knees, etc.) or minor (toes, fingers, etc.). The most common joint dislocation is a shoulder dislocation.

Treatment for joint dislocation is usually by closed reduction, that is, skilled manipulation to return the bones to their normal position. Reduction should only be performed by trained medical

professionals (doctors), because it can cause injury to soft tissue and/or the nerves and vascular structures around the dislocation.

## **ARTIFICIAL RESPIRATION**

When someone is unable to breathe and gets unconscious, then by providing artificial respiration the breathing can be restored. Usually there are **four** methods of artificial respiration.

- 1. Shaffer's Method
- 2. Silvester's Method
- 3. Mouth to Mouth Method
- 4. Eve Method.

### 1. Shaffer's Method

This method is known because of its name. In this method of artificial respiration, lay the patient upside down. And after correcting his arms and head, sit near his back in a way that your face is near the patient's head. Sit down on your heels like when we sit while praying.

Then put your both hands slightly lower to shoulder blade and by joining your thumbs, put them on the back and keep his back and keep your arms straight. And move forward in a way that your body's weight is kept on the patient and repeat this process until the breathing process regulates but remember that the patient's face is bend on left or right side. And your pressure should be for few seconds. And after 3 seconds remove your pressure.

#### 2. Silvester's Method

In this method of artificial respiration, lay the patient down straight instead of upside down and sit down near his head. Patient's feet and legs should be slightly upwards. Patient's head should be in between your knees and loosen his clothes. Besides that, pull out the tongue of the patient with a clean cloth so that it does not bend inside the mouth which can create problem in breathing. And now start the process of artificial respiration by moving the arms pf the patient to his chest and rotating them from head to chest and by pressing your elbows, bring them down from his chest and its pressure should be like first method which stops after 2 to 3 seconds. Repeat this process until the breathing of the patient regulates.

#### 3. Mouth to Mouth Method

in this method the artificial respiration is given by mouth to mouth. Close the nose of the patient and breathe in his mouth and exhale. Because the breathing process of a healthy person is better therefore the probability of time is not needed. Continue this process until the breathing starts. While giving artificial respiration to a child, do not close the nose.

#### <u>4. Eve Method</u>

This method is for giving artificial respiration to a person who is on stretcher. Loosen the patient's clothes and tie his both arms and legs with stretcher. Tie one strip on both sides of the stretcher to support the head. Support the stretcher with some wood or bench so that both sides are divided. After that bend the stretcher to the head for two seconds. By doing that all the weight of the body is on the lungs and air will come out, then bend it to the legs for three seconds. By doing that the weight is not felt oxygen will pass on the lungs. Repeat these steps until the patient feels better.

#### PART-B (GATE-7)

## **PRINCIPLES OF ART AT HOME**

## **DEFINITION OF HOME**

Home is a place which provides a space for living to a family. This place can be a cave, a small hut or some luxury castle or palace. According to expert's opinion, home is place where all members of a family live together with harmony therefore, a sterling, comfortable and beautiful home refers to a home in which helps to fulfill all the desire and aspirations of every family member and every member spends their lives peacefully. To spend a comfortable and peaceful life, presence of different types of things, devices etc. are required along with presence of things for playing, entertainment/amusements etc.

Whether house is small or big, is at city or countryside, highly decorated or average family lives here, every standard should have following features.

- 1. A house should be safe and comfortable.
- 2. A house should be clean and beautiful.

#### 1. SAFE AND COMFORTABLE HOME

Basic goal of a house is to provide protection to the people living in it and should feel safe in any way possible. For example; they are safe from stranger's interference while sleeping, waking up and working. Likewise, they should be protected and safe from any animals especially wild animals. A home helps in coping up and gives refuge from seasonal acuteness.

If we consider, a luxurious but empty house is not called home. But an ordinary small house in which a family lives is called home.

By considering family member's needs, lifestyle, financial and social aspects and family's income and resources, we can make our home more and more safe and comfortable.

#### 2. CLEAN AND BEAUTIFUL HOME

Under financial situation, it is not possible to make every house and its decoration ideal. But is possible to make a house as much beautiful and comfortable by considering the principles of beauty and decoration.

It is true that we are unable to make walls and ceilings bigger and wider but can make a place open or congested by things available in it. To make any place spacious, it is important to give attention to arrangement of furniture, table, chair, sofa etc. usage of suitable colors and style of curtains, bed, porch, blanket, mattress and decoration things.

Principles of decorations are necessary to make a house comfortable and beautiful and its basics are specific principles and necessary basic information. Although, after thinking and considering to make a home comfortable and beautiful, a plan is made and principles of visible décor things are prioritized.

The basic principle of home décor is to give more importance to personalities of family members rather than things of decorations. It is possible only in a state where family member's needs, likes and dislikes are considered while decorating an interior of a house. By doing this, the things of home décor (decoration) and its arrangement leads to their happiness and comfort. The second principle of home decoration is to create an environment by using things and products which will help to provide better quality of living to the family members. This does not require a lot of income or resources to fulfill.

## FURNITURE AND ITS ARRANGEMENT

Furniture has a special importance in home decoration. Therefore, its arrangement should also be b given proper consideration. Following principles helps in arrangement of furniture.

- Size of the furniture should be determined according to the size of the room. If a room is big and spacious then the size of the furniture used for this room should also be big. A medium sized furniture will create correct balance in a spacious or big room but if a small sized furniture is kept in a big room, then this room will look empty and spacious.
- 2. With the help of furniture, the unlikable section of the room can be made smaller or bigger according to your taste.
- 3. For talking and sitting with each other, divide and organize a tight and long room into sections and different groups. A long room will visibly look less longer by this organizing.
- 4. Heavy and large size furniture should always be kept near a wall. This method maintains the balance in the surroundings of the room. Hence why tall cupboards should be kept nearer to the walls. In bedroom, blanket and pillows should also be kept according to sides and near the wall.
- 5. Keep one more principle in mind that other than TV set and one light/small chair, never move or change angles of heavy/big furniture
- 6. Furniture should be arranged according to different work and activities.
- 7. Furniture should be arranged in such a way that does not create any problem in walking or moving.
- 8. If furniture is more than needed for the room then select few furniture from that to keep in the room.

### **STORAGE SPACE**

Things that are stored includes things from clothes to books, from kitchen to children's toys, from record player cassette to electricity, water, gas and telephone bills, from gardening equipment to playground things etc. With passage of time, these things increase day by day or emotional attachment with these things and in some cases, laziness is also occurred. A solution to all these problems is to keep these things in a safe method is to organize a suitable space/place to keep these things.

Management of storage space is an important aspect of home management and decoration and It should be given attention from the very start. Nowadays, organizing of sperate warehouse is seen to be a difficult problem. Following principles are important to follow while storing things properly.

- a. Everything should be kept according to and nearer to the work place which are easily reachable.
- b. Things should be arranged and kept separately to make them easily accessible.
- c. To save space and according to the place, hang the things with hooks on the wall. These take less space and provide facility to use.
- d. Arrange things in such a way that can be daily cleaned easily without distorting or messing other things.
- e. It is compulsory to divide home equipment and products for specific areas into different groups, which requires thinking and requires planning to create balance in it.
- f. It is important to have extra space for keeping/putting things needed for work in any workplace, therefore, in houses there are sperate rooms for different works. For example, kitchen for cooking, dining room for eating, washroom for bathing or showering and bedroom for resting or sleeping etc. and these room should all the basic and necessary things and should be kept according in their specific places.

Following points/tips help to create the management of store easy, organized and balanced;

#### 1. THINGS SHOULD BE KEPT ACCORDING TO USE

According to this issue, it is better to say that the suitable place to keep a toaster is dining table or nearer to this. Salt is needed in kitchen therefore, if salt is kept in a glass jar with a label on it in the kitchen provides facility while using it.

- i. Likewise, by keeping sheets, pillow covers, towels and blankets etc. in cupboards nearer to bedroom provides facility and easily available when needed. Clothes and other things for everyday usage can also be kept nearer to the place according to their use.
- ii. Sarees, suits, clothes, scarves, dupatta, handbags, hand kercheives and small jewelries etc. should also be kept in regularly used wardrobes shelves so that it is easily available when needed. Likewise, children's clothes, under garments, vests, scarves, socks, uniforms and other important things, all of them should be kept in a separate drawer or a separate wardrobe so that they are easily available for children to find their clothes and other things without any difficulty.
- iii. All things used for washing should be kept together on a same place.
- iv. Napkins, tea cozy and tray cover etc. should be kept in a same drawer so that that they are easily available when needed.

#### 2. THINGS SHOULD BE KEPT ON A SUITABLE HEIGHT

It is better to keep the things that are used daily or regularly on a height which is easily reachable and should not cause any strain or pain such as body pressure or stretching. According to the principle of "Maximum or Minimum Height", the things that are used less frequently and should be kept on the maximum height (for e.g. top shelves or drawers of a cupboard) whereas the things that are used regularly and more frequently should be kept on low or minimum height (for e.g. lower or bottom shelves or drawer of a cupboard).

#### 3. MERGE THE THINGS

All things needed for one specific work should be kept and merged on a same place so that unnecessary movements are prevented which saves time and energy.

#### 4. STORAGE OF PRESHIBLE FOODS

Nowadays, it is common to keep food and drinks in a deep freezer and refrigerator but pantries still have an importance in the places where there are no sources of electricity. In it, food can be kept for some period of time but milk, meat, yogurt and other perishable foods etc. cannot be kept for a longer period of time.

<u>MILK:</u> Germs are killed by boiling milk and the milk gets protected for 24 hours/a whole day. After boiling the milk, reduced it room temperature and should be kept in a refrigerator if available. And if it's not available, them keep the milk at a cold place after covering it with a clean muslin cloth. Slightly boil the milk again in the evening.

**<u>MEAT</u>**: To preserve meat for several days, it should be kept in the freezer section of a refrigerator for it to freeze. If refrigerator is not available then put meat in a polythene bag and keep it on ice. Meat does not easily get destroyed in winters. If meat is bought in the morning for it to be cooked at evening, then it should be kept in a cool place and cover it with a clean muslin cloth which is dipped in vinegar. It will help to keep the meat fresh and clean.

<u>VEGETABLES:</u> Potatoes: Keep them in an airy and cool place. They will stay fresh for a week or 10 days. **Onions:** keep them in a cool place after spreading them. They will stay fresh for almost 15 days. **Tomatoes:** When they are cheap, keep them in fridge or freeze them.

Seasonal vegetables can be kept for a week in a refrigerator. Wash the vegetables, dry them and then keep them on the vegetable compartment of the fridge.

# PART-C

# ART

**INCLUDES** 

● <u>GATE-1:</u> **DESIGN** 

## • <u>GATE-2</u>: ELEMENTS OF DESIGN/ART

## • <u>GATE-3:</u> **PRINCIPLES OF DESIGN OR ART**

## PART-C (GATE-1) DESIGN ART OR DESIGN

#### **INRODUCTION**

Everything in the universe around us have beauty in them and we acclaim according to our knowledge and likes. Likewise, we choose and select things according to their color, design, size, texture and structure in our everyday life. Our selections are according to our aesthetic sense or artistic sense. These aesthetic and artistic sense leads to joy in human life. Every person sense of art is different from others, hence why every person's like and dislikes are different from one another, which a person shows in every profession. For example, clothes, jewelry, hairstyle and to choose or select things for interior/home decoration, art has a very deep relation in every aspect of life. With help of it, we become capable of decorating every aspect of life with simplicity and beauty.

#### **DESIGN**

#### **DEFINITION**

Everything in the universe has its own design. Whether a thing is small or big, it definitely has its own shape, texture, color, size and presence. This is the process by which one particular sample or design of things is made. In other words, making a structure of anything is called a design. For example, according to the structure of things, shape or size of it can be round, flat, oval, rectangular, hexagon, pentagon or diamond shaped. When lines, shapes, color and structure are arranged in any way, a design is created. To enhance beauty and attractiveness in things, it is important to understand elements and principles of art. Along with that, it is also important to have knowledge about types of design.

## TYPES OF DESIGN

While making a design of anything, we make draft of it in our mind. It is related and limited only to our thinking and afterwards it transfers onto a paper in a solid form. It is called visual design. For example, before sewing a shirt (kameez), we visualize the neck design and style of it in our mind.

When we transfer visual design on a paper which a solid form, then this turns into Material deign. For example, sewing a shirt according to the one thought beforehand.

Every design has its own uniqueness. Following are the four types of design.

#### 1. NATURAL OR REALISTIC DESIGN

Natural things present in the universe like; fruits, vegetables, animals, humans, mountains, clouds etc. have their own natural shape and design. Natural or realistic design are those in which natural things are so realistically copied like they are captured through a camera. To paint a realistic design, it is important to have a lot of hard work, time and talent. That is why realistic designs are not made very often. To make a realistic design captured through a camera is a lot easier, requires less work, and cheap.

#### 2. ADAPTED AND STRUCTURAL DESIGN

Structural design refers to the design that is made with little changes or by rearranging realistic/natural design and shape, and is made according to person's own likings and needs. For

example, on an oval shaped vase, instead of drawing flowers in their realistic or natural form, oval-shaped flowers which are slightly altered/changed are made on it. But it is important to be careful with colors while making these shapes so that they recognizable. These rearranged or altered shapes of flowers is called Structural Design.

As compared to realistic and structural design, adapted design has a middle quality status because structural design has its own significance due to similarity and strong relation with natural and realistic design.

#### 3. GEOMATRICAL DESIGN

This design is made with combining shapes like circle, square, long, oval and triangle lines. It is considered as one of the types of structural and abstract design. Geometrical design can be made by either with altering/reshaping realistic design or by making the design completely unrealistic and unnatural. Geometrical design can be of two types.

i. Those designs which have the correct proportions in shapes such as they should be proportional according to geometry angles.

ii. Those designs which have geometrical shapes but the lines are not proportioned according to geometry, instead its pointy corners are slightly curved into circular or round shapes. Geometrical design, like adapted and abstract design, can also be made with slight alteration and reshaping of natural or realistic design or it can be completely unrealistic and unnatural. Although these designs are a part of abstract design but their one prominent feature is that their appearances in any form or shape are made with angulated or geometric angles. Their many common examples are found on designs of many things on our day to day to life. For example, plushies, kites, table clothes, blanket and designs made on corners of curtains, borders of Sindhi Ajrak, tile designs of mosques like, Shahi mosque, Shahi fort and tile designs made on Jahangir's tomb, kitchenware like, pottery, glasses, kitchen tiles etc.

#### 4. ABSTRACT DESIGN

Abstract design is a result of an individual's thoughts, imaginations and inventions. Abstract design can be derived and made from realistic/natural design and can also be unrealistic/unnatural. This design is made in a weird and unique form or shape that only the person who made it can explain the thought behind the design.

Model or sample made with abstract design can be seen from any angle or side. An ordinary person visible incapable of understanding and he is only able to see colors used on this design. This is the significance of abstract design that every person will try explain this design through their own understanding and imaginations but it is difficult to guess about what the artist was exactly trying to deliver through this design.

Nowadays, structural and abstract art are given more importance than realistic/natural art because they are a lot easier to design and make. For example, splashing and spreading different colors on a piece of paper and swiping brush here and there creates a model/sample for abstract art. Those people who are completely unaware of elements and principles of art can also make this design because of its easiness and effortlessness.

Due to individual thoughts and processes, models of abstract design are completely different from one another and it is very difficult to exactly copy or recreate it.

In clothing, textiles and other house products, abstract art is given a lot of importance. These samples can be made on a small or big things different purposes. For example, tie and dye on clothes and scarves (dupattas) can create beautiful abstract design. Other than this, Batik's designs are a great sample/model of abstract art.

Usually, sample of abstract art is the result of an individual's thoughts and imaginations but if this design is derived from any natural design then at the time of making it, it is distorted in such

a way that these realistic/natural designs are impossible to recognize in the finished/completed artwork.

These designs are made by following methods:

- 1. By laying natural/realistic design in very simple shape and make it in a way that original appearance of this design is completely changed or turned into something different. For example, children's artwork.
- The artist organizes and rearranges natural shapes according to his thought and imaginations in such a way that the appearance and shape of the design is completely changed and distorted. Exaggerating and changing facial and physical features.
- 3. The artist shows and presents things of natural design in such an exaggerated form that the shape and appearance of the original design is impossible to recognize in this finished artwork or design.

## **ELEMENTS OF DESIGN/ART**

#### <u>DESIGN</u>

Appearance or shape of anything is called its design. Design refers to appearance, shape, size, width, length, color and texture of anything. To create or make a better and good quality design, it requires skills which are made with specific style, arrangement and organized orders under the knowledge of principles and elements of art to create and build beauty and elegance in the design. There are two types of design.

#### 1. STRUCTURAL DESIGN

A draft or solid product that is made with size, color, shape and structure of things is called as Structural design. Construction or building of anything depends on its design. Whether a draft is present in a piece of paper in a flat two-dimensional form or whether this design is kept on any place in a solid three-dimensional form like, glass, table, chair, vase etc.

It is important that the structural design or basic design of anything is always according to its goal and usage. The more the thing helps to achieve its purpose and provide comfort and peace, the more its importance will be increased. For example, if a glass' mouth is smaller and tighter than its body then instead of looking expensive, it loses its utility purposes and in terms of usage, its structural design becomes useless. Likewise, if a vase's body is too tight or thin then it is unable to lift and hold the heaviness of the flowers in it and will eventually fall down. The solid ingredients or things that are used for making structural design, they should also be selected according to the use and purpose of the design.

#### 2. DECORATION DESIGN

The decoration and painting that is created with a mixture of colors, lines and texture on the surface of any basic design to create attractiveness and beauty is called Surface or Decoration design. For example, beautiful flowers painted on vases, flowers, leaves and other decorative designs created on pottery is a great sample of Decoration Design.

There is a balance in decoration design. The surface of anything should not be filled with design and be over decorated instead decoration design should be made on some parts/section and the other parts should be kept empty.

Basic design and decoration design of a thing should have balance in them. For example, small tiny flowers will not look good on a huge vase.

Decoration design should be made by considering the texture and solid material of a thing because sometimes some materials within itself create such a beautiful texture on their surface that further decoration on them is not needed. For example, things made with crystals and besides that, things that are used and washed constantly and regularly like, decorative designs made on kitchenware fades away by washing and rubbing them constantly and are destroyed. Therefore, beauty should be created in the basic designs of these things.

## ELEMENTS OF DESIGN/ART

The relationship among the components/elements of a design gives it individuality. It is therefore, i mpossible to look at any particular design as a unit or a whole without considering the pattern of int errelationship among color, line, form pattern, texture and shape.

The elements of design or art are:

- 1. Lines
- 2. Colors
- 3. Texture
- 4. Shape

## 1. <u>LINES</u>

Although most designs are composed of many lines, there is often a predominance of one that contribute to the character of the design. Lines compel our eyes to follow them. Some lines of things are prominent. With prominent or visible lines, things look different from one another. Lines for home decoration create different feelings, different behavior and different attitude. Following are the types of lines.

- i. <u>HORIZONTAL LINES:</u> Horizontal lines are the balance of the floor and move our eyes from one left to right and right to left. The sideways line creates and suggests response and relaxation. It tends to increase the width of the room and give feeling of informality. The horizontal line is provided by tables, benches, desks or sofas in a room. While selecting clothes, horizontal lines are extremely helpful and suitable for tall and thin women/men. likewise, by putting horizontal lines curtains on the windows of a room with tall ceilings will help to create an illusion of lower or less tall ceilings.
- **ii.** <u>VERTICAL LINES:</u> An erect, upward line expresses strength and forcefulness. It is likely to be dignified, masculine and formal. Vertical lines tend to suggest the apparent height of the room. Tall windows and floor to ceiling draperies "point" up and down to make a room seem loftier. These lines move our eyes towards upward to downwards. Vertical lines clothes are suitable and better for bulky and short women/men.
- iii. <u>DIAGONAL LINES</u>: Diagonal lines are the most difficult to use. They are lines of action that seem to be pointing into space; therefore, they are likely to keep the eye moving. These lines create feelings of uneasiness. Diagonal lines used in clothes and interior designing create interesting impressions.
- iv. <u>CURVED LINES</u>: These lines are circular or wavy which create feeling of harmony. These lines have softness and politeness. In homes, these lines are present in curtains, accessories and furniture.

Curved lines are useful in expressing many different moods or ideas. The circle or any full voluptuous curve may give a feeling of gaiety.

A softer type of curved line is found in the S curve, which is more likely to express gracefulness and refinement. However, too many curved lines in a room produce a restless and chaotic effect. While selecting things for home decoration, their shape, appearance and effects prominent lines should be considered so that significance is created.

## 2. <u>COLORS</u>

We cannot think about the world without colors. Color makes our life joyful and happy. Color is the most effective and most exciting of all elements. It is the most important element that combines furnishings into a whole. It adds a unifying factor and has the ability to blend unrelated objects together. It acts as a catalyst that brings the room to life because it introduces real beauty into an interior. Color also Creates the moods and atmosphere of every room e.g. quiet, dramatic or subdued and can make you feel depressed or happy.

#### **CLASSIFICATION OF COLORS**

All the colors in the world are divided into some specific groups. Colors groups are with combining one another. If these groups are kept next to with each other, it creates a star like shape which is also called as color wheel. The simplest way to understand color relationships is to study a color wheel based on three primary colors.

- <u>Primary Colors</u>: There are three basic or primary colors that are Red, Blue and Yellow. Every other color in the world are made mixing or combining these three colors. They cannot be mixed from any other pigment.
- <u>Secondary Colors</u>: Secondary color is made by mixing any two primary colors. For example, yellowish blue produces green, blue and red produces purple and, yellow and red produces orange. Hence orange, green and purple are secondary colors.
- Intermediate Colors: By mixing a primary color with a secondary color in equal quantity, will produce the intermediate color. Like, Yellow+ Green= yellowish green, Blue+ green= Blueish green. Likewise, reddish purple, reddish orange, yellowish orange etc.
- <u>Tertiary Colors</u>: By mixing two secondary color in equal quantity will produce the tertiary color. Like, Green+ purple= purplish yellow, etc.

Colors are different from one another due to these properties. These properties are known as relative of colors. It has three aspects.

- i. <u>HUE:</u> Hue is the term name used for the real name of any color which creates a feeling of coldness or warmness.
- ii. <u>INTENSITY OF COLORS:</u> Intensity is the saturation or purity of a color, its brightness or dullness. A color in its purest form has greatness brilliance. To dull a color when mixing segments, add complements (the color directly opposite to it on the color wheel). Gray, black will also dull q color. And by adding white color when brighten up the color. For example, by adding few drops of white color in red will produce Pink color whereas by adding few drops of black color in red will produce a dark red or Maroon color. Tint is when a color is lightened and when it is darkened then it is called shade. Creating a tint or shade reduces saturation.
  - **Tint:** Tint describes the colors that are more-white in values. Pink is a tint of red, white has been added in it.
  - **Shade**: A shade describes colors that are closer to black in value. Shades are made by mixing the hue with black, navy blue is a shade of blue.
- iii. <u>VALUE OF COLORS:</u> Value is the lightness or darkness of a color. The lightest value of a color is almost white and the darkest almost black. By adding water in a color, its intensity decreases and for this color the word "value" is used. By mixing black, white color or water in the original color will change it, likewise by mixing contrast colors in equal quantity will produce the darkest color. If these colors are mixed by adding different quantities, will

create many different colors which are called as Neutral colors that work as a background color in any arrangement.

#### **KEYING BY CONTRAST**

The natural scenes that produce feelings of peace and relaxation by looking at them are the result of pleasant contrast and harmony of colors. We can learn a lot from all the natural contrast of colors. Beautiful contrast of colors makes our life colorful and attractive. Experts have declared four special contracts of colors.

- i. <u>KEYING BY CONTRAST</u>: These are the colors that are opposite to each other on the color wheel. Such as orange and blue, red and green, or yellow and purple. The use of these creates combination contrast.
- ii. <u>KEYING BY TRIADS</u>: Any three color equidalant from one another on the color wheel are known as triads colors. The use of these colors creates keying by triads. For example, red yellow and blue, purple, orange and green are triads colors.
- iii. <u>KEYING BY RELATED COLORS:</u> By using any three equidalant (that are next to one another) colors on the wheel will create contrast of related colors.
- iv. MONOCHROMATICS: Mono Chrome is when light and dark shade of one color are used. These colors create feelings of harmony and also maintain rhythm. These mixtures create quality of peace and happiness. If this mixture is not used gracefully, it may create feeling of tiredness and restlessness.

#### **EFFECTS OF COLOR HUES**

- i. <u>WARM AND COOL COLORS</u>: The term warm and cool hues are frequently used in connection with color.
  - Warm Hues/Colors: The warm hues are those that are associated with fire, heat and the sun which are red, yellow and orange. Warm hues tend to raise the spirit and attract attention. Studies show that people are more active and productive in rooms decorated with warm colors. Excess use of warm colors in interiors will create confusions in nature of people.
  - **Cool Hues/Colors:** The cool hues are those that are associated with ice, grass, shade, sky and water which are blue and green. Cool hues tend to calm the emotions in rooms where a restful feeling is found. Cool colors help to feel fresh and calm and avoid tiredness. Whereas excess use of cool colors produces depressed and sad feelings in the environment.
- ii. <u>ADVANCING AND RECEDING HUES:</u> The term advancing and receding hues are also used in connection with color. If a color creates a feeling of advancing, creates an illusion of extended space and moving forward. Hence why these colors are perfect and suitable selection for tiles and carpets. These provide strength and stability to the room and also creates harmony among the things kept in it.

Light colors increase the volume of things, which create a feeling of extra space in a small tight room. Other than this, they also create feeling of distance and extension. If a ceiling of room is painted in white color then it will make it look tall and high.

#### **IMPORTANCE OF COLOR IN DAILY LIFE**

Colors create happiness and excitement in life. Beauty of universe and environment all because of colors. Some important features are related with colors.

- 1. <u>EMOTIONAL IMPACT</u>: Colors have a huge impact on our emotions. Different colors are attached with our different emotions and feelings. We use and choose different colors according to different occasions and situations. For example, for happy occasions, bright and sparkly colors are selected. Hence why in Pakistan a bride wears bright color dress for her special occasion like, red or hot pink color is selected. Whereas to express sadness or seriousness, black or grey color is selected. White color shows purity and elegance.
- 2. <u>PSYCHOLOGICAL IMPACT</u>: Colors also have psychological impact and by looking at different colors create different effects on our mind and vision. For example, bright red, bright orange feels stingy and irritate our eyes. Whereas some colors like, pink, light blue and light green create feelings of calmness and coldness to our eyes.
- 3. <u>EFFECTS OF WARMTH AND COLDNESS</u>: Colors contain effects of warmth and coolness. Hence why some colors are not used in every season. For example, bright red, bright orange and their other similar colors create feelings of warmth and heat. Therefore, they should be used in cold season/weather. Whereas blue, green, purple and similar colors of these creates effect of coldness. Therefore, they should be used in warm and hot weather/season.
- 4. <u>CREATES DIFFERENT IMPRESSIONS:</u> Colors also have a property which is capable of changing impressions of things. For example, some colors look bright and clear whereas some colors create feelings of dullness and blurriness. Warm colors tend to have impressions of light hence why white and beige colors should be used in low/dim lighted room. Whereas cold colors like, blue, greyish blue or purple should be used in high brightness room.
- 5. <u>FEELING OF SHRINKING AND SPREADING</u>: Colors also create feelings or impressions of shrinking and spreading by which things and room look shrunk or wide spread from their original size. Therefore, warm and dark colors in big or spacious room, and cool or light colors should be used.
- 6. <u>FEELING OF MASCULINE AND FEMININE:</u> Colors also masculine and feminine impressions. Every dark shade of colors like, brown, grey and greyish black colors have impressions of strength and masculinity. Light shades of colors consist of feminine properties, softness, delicate and shyness.

### 3. TEXTURE

Texture refers to the physical and visual qualities of a surface. Everything is made from some materials and every material has its own special surface or texture. This texture is felt by touching and looking at it. For example, rough, soft, dull, hard, thick and thin etc. Aside from the own texture of a material, talent or skills of a craftsman have an interference in the finished process and both skills and end process collectively are responsible for changing of materials impressions and beauty of these things is increases. Texture can be used to attract or repel interest to an element, depending on how pleasant the texture is perceived to be. Texture can also be used to add complex detail into the composition of a design.

Every homely thing like, curtains, carpet, furniture, decoration things, utensils and other things contain some texture. While using them, it is important to have harmony according to their texture. For example, high quality texture will never have combination with rough texture because extreme contradiction is found in them. To create harmony among high quality and rough textures, use a medium type of texture with them which has combined qualities of both and has harmony with both of these textures.

#### TYPES OF TEXTURE

- i. <u>TACTILE TEXTURE</u>: also known as "actual texture", refers to the physical three-dimensional texture of an object. Tactile texture can be perceived by the sense of touch. A person can feel the tactile texture of a sculpture by running their hand over its surface and feelings its ridges and dents.
  - Painters use impasto to build peaks and create texture in their painting.
  - Texture can be created through collage. This is when artists assemble three dimensional objects and apply them onto a two-dimensional surface, like a piece of paper or canvas, to create one final composition.
  - Papier collé is another collaging technique in which artists glue paper to a surface to create different textures on its surface.
  - Assemblage is a technique that consists of assembling various three-dimensional objects into a sculpture, which can also reveal textures to the viewer.
- ii. <u>VISUAL TEXTURE</u>: also referred to as "implied texture", is not detectable by our sense of touch, but by our sense of sight. Visual texture is the illusion of a real texture on a two-dimensional surface. Any texture perceived in an image or photograph is a visual texture. A photograph of rough tree bark is considered a visual texture. It creates the impression of a real texture on a two-dimensional surface which would remain smooth to the touch no matter how rough the represented texture is.

In painting, different paints are used to achieve different types of textures. Paints such as oil, acrylic, and encaustic are thicker and more-opaque and are used to create threedimensional impressions on the surface. Other paints, such as watercolor, tend to be used for visual textures, because they are thinner and have transparency, and do not leave much tactile texture on the surface.

## 4. SHAPE AND FORM

#### <u>SHAPE</u>

Shape refers to a 2-dimensional, enclosed area, that is limited to being flat or limited to width and height. Shapes could be geometric, such as squares, circles, triangles etc. or organic and curvaceous. Shape is a flat, enclosed area of an artwork created through lines, textures, colors or an area enclosed by other shapes such as triangles, circles, and squares. A shape is defined as a two-dimensional area that stands out from the space next to or around it due to a defined or implied boundary, or because of differences of value, color, or texture. Shapes are recognizable objects and forms and are usually composed of other elements of design.

For example, a square that is drawn on a piece of paper is considered a shape. It is created with a series of lines which serve as a boundary that shapes the square and separates it from the space around it that is not part of the square.

#### TYPES OF SHAPES

- <u>Geometric shapes</u> or mechanical shapes are shapes that can be drawn using a ruler or compass, such as squares, circles, triangles, ellipses, parallelograms, stars, and so on. Mechanical shapes, whether simple or complex, produce a feeling of control and order.
- **Organic shapes** are irregular shapes that are often complex and resemble shapes that are found in nature. Organic shapes can be drawn by hand, which is why they are sometimes subjective and only exist in the imagination of the artist.

• <u>Curvilinear shapes</u> are composed of curved lines and smooth edges. They give off a more natural feeling to the shape. In contrast, rectilinear shapes are composed of sharp edges and right angles, and give off a sense of order in the composition. They look more human-made, structured, and artificial. Artists can choose to create a composition that revolves mainly around one of these styles of shape, or they can choose to combine both.

#### **FORM**

Form is described as the way an artist arranges elements in the entirety of a composition. It may also be described as any three-dimensional object. Form can be measured, from top to bottom (height), side to side (width), and from back to front (depth). Form is also defined by light and dark. It can be defined by the presence of shadows on surfaces or faces of an object. There are two types of form, geometric (artificial) and natural (organic form). Form may be created by the combining of two or more shapes. It may be enhanced by tone, texture or color. It can be illustrated or constructed. Three-dimensional form is the basis of sculpture. However, two-dimensional artwork can achieve the illusion of form with the use of perspective and/or shading or modelling techniques. Formalism is the analysis of works by their form or shapes in art history or archeology. PART-C (GATE-3)

## **PRINCIPLES OF DESIGN OR ART**

To make any design elements of art or design are used i.e. lines, texture, colors, form and shape. But to make standard and beautiful design, principles of art or design are used under some rules and regulations, their knowledge and awareness become responsible for highlighting those skills/talent of a person which motivates him to use elements of design in the most suitable and correct method. These rules are called as Principles of Art or Design in which balance, rhythm, harmony, emphasis and proportion are included.

The designs that are made with considering principles of art/design are extremely balanced, rhythmic and proportional and they have properties of beauty and grace.

Principles and elements of Art/design have a strong relationship. Elements like, lines, colors, shape and texture have a status of raw material whereas as to cover a raw material into a beautiful design, rules of art or principles of design i.e. balance, rhythm, harmony, emphasis and proportional are proven to be helpful and affective. Following are the descriptions of principles of design or art.

## 1. BALANCE

Balance is the principle of art which refers to equal balance in things or equal quantity of attractiveness and charms. An explanation of balance in art is same as a scale, which is important to have equal weight of things on both sides of the components of the scale to create balance. To create balance in art, force, attractive and weight of things can be determined through vision/eyes. For this, competing properties of colors, size of things and format among one another and can be tested/checked through eyes so that both things are balanced. For interior decoration of home, balance can be created by three types.

#### 1. FORMAL BALANCE

If something is kept on the middle of a fireplace and then equal/same things are kept one both sides of it then Formal Balance is created. For example, putting a picture frame in the middle and then putting two vases, one on each side of the picture. Formal balance has properties of happiness, peace and elegance. More than needed use of formal balance creates feelings of inconvenience, tightness and closure in the environment. Capacity of this type of balance is limited to only decorating different types of things.

#### 2. INFORMAL BALACE

if different types of things are kept on both sides/edges of a fireplace that are relatively different in color, size, shape and texture from one another, then this is called as Informal Balance.

Formal Balance is more peaceful and satisfying as compare to informal balance. This type of decorations has feelings of warmth and unproblematic. This has more capacity of decorating different types of things.

#### 3. <u>RADIAL BALANCE</u>

Radial balance is a visual balance based on a circle with its design extending from center. Radial balance utilizes a central focal point that design elements radiate outward or inwards to the central point. This type of balance is obtained by keeping different things with same/equal attractiveness and charms on the all four sides/corners of any room. To create quality of balance in furniture during interior decoration of the house, suitable arrangement is compulsory and for it following things should be considered.

- i. Before arranging the furniture, construction, windows and doors of the room should be considered.
- ii. Bigger furniture should be arranged first. To create interest and balance in between them, smaller furniture should be arranged.
- iii. By arranging bigger furniture on a wall next to a door will create balance.
- iv. In a balance room, all the interactive/interconnection walls should have equal attractiveness and beauty.
- v. Beauty should be created with the combination of both formal and informal balance.

### 2. <u>RHYTHM</u>

Rhythm refers to the arrangement of things which have connection, balance and rhythm and our sight, instead staying or stuck at one place, it moves from one side to another side with comfort and without causing any distractions and rotates to all areas of decoration.

In art, rhythm is created with the help of colors, lines and shapes. Things should be arranged with the help of these elements which easily moves our eyes from one decoration to every angles or areas and can easily reach to the end.

Rhythm can be continuous and also paused. For example, an empty place does not have any movements, this creates feelings of calmness and quietness but as we put a thing on this place, it immediately creates movement in this salient place and our eyes/sight move according to lines created with structure and design on this. This is continuous rhythm and when rhythm is stopped or broken, then it is paused rhythm.

Rhythm can be created by three types in interior decoration.

#### i. <u>RHYTHM FROM REPEADTEDLY USING COLOR OR SHAPE</u>

When some appearance, color, lines are used on any place with suitable spacing and repeated in such a way that our eyes/sight move from one place to the second and then to third without distractions then rotate all around the room by itself and does not create feelings of separating one thing from another so using these things like these repeatedly create interesting and beautiful rhythm. For example, Less or more amount of colors in curtains, sofas cover, pictures and other things will have feelings of rhythm.

#### ii. RHYTHM FROM GRADUALLY EXTENDING SIZE OF THINGS

In this type of rhythm, gradually putting bigger and bigger thing or pictures with smaller size will create movement in the eyes and it will move from one side of bigger to smaller side of things in a rhythm.

#### iii. RHYTHM FROM SPREADING LINES FROM THE CENTER/MIDDLE

The movement of eyes that spread from middle to outside of a thing, this creates rhythm in structure and decorations of things. This type of rhythm is used less frequently but presence of this rhythm creates element of beauty in the environment. Decorative plates/platters are an example of rhythm spreading from the middle/center.

To create harmony in interior design/decoration, size, structure, texture and colors of things should be compatible with each other so that element attractiveness is created in the environment. Exact same shape, same color and same form of everything will create feelings of uncomfortable and uniformity instead of looking attractive. This creates slight unsuitable impressions.

## 3. <u>HARMONY</u>

Harmony is the most important in principles of art which depends on mutual contact and similarity. It refers to the arrangement in which things are similar, related and harmonized with one another.

To create harmony whether it is home decoration or dress design, color, size, texture and lines are helpful and they are related and suitable with each other.

#### 1. HARMONY WITH COLORS

Harmony with colors refer to combination, mixture or match of colors that immediately pleases the eyes, which create emotions of happiness and joy and produce feelings of peace and comfort in our heart. In interior decorations and dress designs, harmony with colors can be created by two methods.

- i. <u>MONOCHROMARIC HARMONY</u>: In this, one color is selected and its different grades/shades are used. to change a color into different grades, white, grey and black colors are added in it. There should be prominent and visible difference in these grades otherwise the environment becomes effected by uniformity and silence. To achieve light color, add white color and to achieve greyish color add black color in the original color.
- **ii.** <u>CONTRAST HARMONY:</u> To create harmony with contrast colors, it is important to have expertise and basic information about colors. Using these colors can help to create attractiveness and warmth in the environment. Success in contrast harmony depends on changing colors into different grades and then using them. For example, while using and mixing red color with it contrast color(green), it is important to consider that if it is needed to be used bright and with full intensity, then less quantity/amount should be used. Red should be mixed with green in such a way that it creates a reddish-brown color.

#### 2. <u>HARMONY WITH SIZE</u>

Principle of creating harmony with size depends on principle decoration and rhythm. For example, a small and tiny furniture in a big and spacious room is completely unsuitable. Likewise, a big and heavy furniture in a small and tight room will create feelings of tightness and stuffiness in the environment.

#### 3. <u>HARMONY WITH TEXTURE</u>

Texture is meant by the surface of things which can be soft, medium hard, stiff and rough. Things used in home/interior decoration are of different textures. By successfully using them with one another in harmony, beauty in the environment can be created. For example, silk material curtains/draperies will look attractive with velvet material sofas. It should never be done that silk cushions are kept on rough material sofas.

#### 4. <u>HARMONY WITH LINES</u>

In any arrangement, harmony in lines can be created with three methods.

- i. <u>HARMONY WITH REPETITION LINES</u>: If similar lines are repeatedly used in a sample/model then it is known as repetition lines which create harmony. Repetition shows harmony.
- **ii.** <u>HARMONY WITH CONTARSTING/OPPOSING LINES</u>: The lines by which corners are formed are known as contrasting or opposing lines. These lines can create interesting harmony.
- iii. <u>HARMONY WITH TRANSITIONAL LINES</u>: Softens and modifies other lines. It is usually curved, graceful line which connects two or more opposing lines. These lines provide comfort and peace to the mind.

## 4. <u>EMPHASIS</u>

Emphasis is the principle of art by which one certain interesting thing is kept on a specific place in the arrangement of the whole room is given. Our eyes immediately move toward this place or thing and then through law of attraction, they slowly move towards other places or things.

Simplicity is compulsory in the principle of emphasis because excessiveness of colors or designs create confusion and panic in our eyes. Other than this, the thing which is selected to emphasize, it is important that its background is simple so that things standout and emphasize.

To emphasize the impressions/feelings of any decoration or arrangement, it is important to plan everything before it to know the limits and section or place that should be emphasized so that excessiveness of decoration is prevented which can cause feelings/impressions of uneasiness and anxiety.

To create priority in the arrangement of a room, it is not necessary to buy an expensive vase or other decorations things instead of this, cheap vase with fresh domestically grown flowers in it can be emphasized. With simple mats, floral plates or kitchenware can be used on the dinning table. Likewise, on a simple shirt, embroidery with contrast colors threads can be done and will emphasize the designs.

Artist use emphasis to make certain parts of their artwork standout and grab your attention. It may be the outline, form, color, texture, size, idea, or value of an object/artwork.

### 5. PROPORTION

Proportion is the fifth important principle of art or design. This principle of art is also known as principle of relation because when different things are arranged together under this principle then these things develop a special relationship and contact which produce and create feelings of happiness and fulfilment.

In everyday life and during interior decoration, attractive and proportion can be created by three methods.

#### 1. PROPORTION BY EFFECTS OF LINES AND COLORS

Lines have an important role in creating feelings or impressions of maximizing or minimizing the size of anything or area and make it look taller or wider, bigger or smaller. For example, horizontal lines widen the area and vertical lines create the impression of bigger and taller area. Same as lines, colors also can create different impressions during the arrangement of a room. For example, by using dark colors on tall height ceiling, it will create impression of less tall ceiling. Likewise, for short height ceilings, using lighter colors will maximize the height of the ceilings. To expand the width of a room, carpet or tiles should be spread in such a way that moves the eyes from one area to another and create impressions of wider room.

#### 2. PROPORTION BY SIZE AND MEASUREMENTS OF THINGS

According to this aspect of principle of proportion, different ingredients or elements of structure of a thing should be proportioned with one another according to measurements. For example, if legs of a chair are different than ordinary or usual size then it will look extremely distorted. Besides this, size, shape, form and measurement of specific thing should be according to things next to it. For example, if a small vase is kept next to a huge picture then it will look even more smaller. They are not compatible with each other therefore the decoration will be known as extremely unsuitable. Big and heavy furniture should be kept in a big and spacious room and small pictures should be kept on short and small walls, this will create impressions of proportion and feelings of joy and attractiveness in the environment.

#### 3. PROPORTION BY DIVIDING AREAS

Element used in a design or things kept in a room arrangement, divides the area or design of it. Attractiveness of this division depend on the methods used for putting things. For example, things for fireplace decoration should be kept on same or equal distance then it will create uniformity and will not attract our sight and eyes will move from one area to another with distractions. Whereas if there is an area has unequal division then impressions of extreme beauty and attractive will be created.

## **DEVELOPMENT DURING ADOLESCENCE AND YOUTH**

#### 1. PHYSICAL AND MOTOR DEVELOPMENT

Adolescence is usually associated with the teenage years (13 to 18/19), but its psychological, physical or cultural expressions may begin earlier and end later. For example, puberty now typically begins during preadolescence, particularly in females.

Adolescence is the period of development that begins at puberty and ends at emerging adulthood; the typical age ranges from 13 to 18 years.

Puberty involves distinctive physiological changes in an individual's height, weight, body composition, sex characteristics, and circulatory and respiratory system. These changes are largely influenced by hormonal activity.

During puberty, the adolescent develops secondary sex characteristics (such as a deeper voice in males and the development of breasts and hips in females) as their hormonal balance shifts strongly towards an adult state.

The adolescent growth spurt in rapid increase in an individual's height and weight during puberty resulting from the simultaneous release of growth hormones, thyroid hormones and androgens.

Because rates of physical development vary so widely among teenagers, female and males, puberty can be a source of pride or embarrassment.

#### 2. MENTAL/COGNITIVE DEVELOPMENT

Brain maturation and environmental stimulation play important parts in attaining this stage. Due to rapid increase in physical development, children also start to feel more mentally stable and strong. They give important to same age-group friends and parents opinion, respect and love. At this age, skills to play any game/sport and exercise are almost fully developed. Boys this age want/like to look strong and more masculine, whereas girls this age like to groom themselves to look more feminine.

According to Elkind, immature thought patterns can result from adolescents' inexperience with formal thinking. These thought patterns include idealism, criticalness, argumentativeness, indecisiveness, apparent hypocrisy, self-consciousness, and an assumption of specialness and invulnerability.

#### 3. SOCIAL AND EMOTIONAL DEVELOPMENT

Social and emotional changes show that a child is forming an independent identity and learning to be an adult.

#### SOCIAL CHANGES

You might notice that the teen is;

- Searching for identity: young people are busy working out who they are and where they fit in the world. This search can be influenced by gender, peer group, cultural background, media, school and family expectations.
- Seeking more independence: this is likely to influence the decisions a child makes and the relationships he has with family and friends.
- Seeking more responsibility: both at home and at school.
- Looking for new experiences: the nature of teenage brain development means that teenagers are likely to seek out new experiences and engage in more risk-taking behavior. But they are still developing control over their impulses.
- Thinking more about "right" and "wrong": child will start developing a stronger individual set of values and morals. Teenagers also learn that they are responsible for their own actions, decisions and consequences.

- Influenced more by friends, especially when it comes to behavior, sense of self and self-esteem.
- Starting to develop and explore a sexual identity.
- Communicating in different ways: the internet, cell phones and social media can significantly influence how your child communicates with fiends and learns about the world.
  EMOTIONAL CHANGES

You might notice that the teen:

- Shows strong feelings and intense emotions at different times. Moods might seem unpredictable. These emotional ups and downs can lead to increased conflict. Child's brain is still learning how to control and express emotions in a grown-up way.
- Is more sensitive to someone's emotions: young people get better at reading and processing other people's emotions as they get older. While they are developing these skills, they can sometimes misread facial expressions or body language.
- Is more self-conscious, especially about physical appearance and changes. Teenage self-esteem is often affected by appearance or by how teenagers think they look. As they develop, teens might compare their bodies with those of friends and peers of same age.

PART-A (Gate-1)

## **CHILD DEVELOPMENT**

## CHILD DEVELOPMENT

Human development is a lifelong process of physical, behavioral, cognitive and emotional growth and change. Although the development process is continuous, the rate or speed of development varies at different ages of the child. The term growth and development both refers to dynamic process. Often used interchangeably, these terms have different meanings. Growth and development are interdependent, interrelated process. Growth generally takes place during the first 20 years of life; development continuous after that.

**<u>GROWTH</u>**: It refers to the increase in the size of a child, and development refers to the process by which the child develops his or her psychomotor skills

- Is physical change and increase size.
- It can be measured quantitatively.
- Indicators of growth include height, weight, bone size and dentition.
- Growth rates vary during different stages of growth and development.
- The growth rate is rapid during the prenatal, neonatal, infancy and adolescence stages and slows during adulthood.
- Physical growth is minimal during adulthood.

**DEVELOPMENT**: It implies overall changes in the individual. It specifies maturation of functions. It is related to the maturation and myelination of the nervous system and indicates the acquisition of a variety of skills for optional functioning of the individuals.

- Is an increase in the complexity of function and skill progression.
- It is the capacity and skill of a person to apt to the environment.
- Development is the behavioral aspect of growth.

For example; While strengthening, a child slowly learns how to sit, crawl, stand, eat/drink, walk and hold things tightly etc. are reasons of quantitative changes. Development is a chain of changes which slowly and steadily helps any living being to completely grow and strengthen and makes complete gender.

Inherited skills, environmental changes and time urgencies strongly affects child development. A child's physical and mental development is greatly affected by environmental changes, that can be determined by looking at his personality which goes through different stages in his 2 years of childhood after birth.

## TWO ASPECTS OF HUMAN DEVELOPMENT

Human growth and development are a continuous process in which all the body parts of a person reach the maturity with their own speed. Following are the two very important aspects of human development.

#### 1. CEPHALOCAUDAL GROWTH (FROM HEAD TO TOE)

The cephalocaudal pattern is where the greatest development takes place at the top of the body. i.e. the head, and the physical development moves gradually downward; e.g. neck, shoulders, trunk, etc. It is also the trend of infants learning to use their upper limbs before their lower limbs.

**Direction:** The process of cephalocaudal direction from head down to tail. This means that improvement in structure and function come first in the head region, then in the trunk and last in the leg region.

#### 2. PROXIMODISTAL GROWTH (OUTWARDS)

The proximodistal pattern of development is where growth starts at the center of the body and moves towards the extremities. An example of such a pattern is the early development of the trunk and arms relative to the hands and fingers. It is the tendency for more general functions of limbs to develop before more specific or fine motor skills.

<u>Direction</u>: The process in proximodistal from center or midline to periphery direction. Development proceeds from near to far-outward from central axis of the body toward the extremities.

## FACTORS AFFECTING GROWTH AND DEVELOPMENT

As individuals go through life their health and well-being are affected by a number of different factors that will affect an individual's growth and development, positively and negatively. These include physical, emotional, social, economic and environmental factors. Knowledge of factors is needed to be able to understand the affects they have on the physical, intellectual, emotional and social development, as well as an individual's self-concept.

#### 1. INDIVIDUAL FACTORS

Individual factors affect the individual characteristics of any individual. Every person has different personality traits. All these characteristics are developed under special circumstances and environment in which a person is brought up. Individual personality traits include intelligence, knowledge and abilities, way of talking, control over feelings and emotions, different viewpoints and natural behavior.

#### 2. BIOLOGICAL FACTORS

All the hereditary characteristics like physical body structure health, face and features, mind, control over nerves and the working of glands, all are included in the biological factors. The growth and future chances of all these factors are highly influenced by the environment. Human development and growth are a result of heredity and environment. For example, if a child is intelligent and wise but he does not get proper education and brought up, then his mental growth will be very slow. In the same way, inadequate food supply leads to poor mental and physical growth and body structure.

#### 3. SOCIAL FACTORS

The thoughts, feelings and traditions of a society highly affect the growth of an individual. These factors also include the climate, the availability of natural and material resources, fertile land,

excess of economic resources and ease of living conditions etc. These factors affect the social growth of an individual and helps in shaping the personality of a person. The environment of home, school, neighbors, teachers and other persons also affect the personality of a person. Peer relationship and social links help a child in building a point of view and in setting goals for his future.

## ROLE OF GENETICS AND ENVIRONMENT ON HUMAN DEVELOPMENT

There are two factors which greatly affect the human growth and development. These are:

#### 1. GENETICS OR HEREITY

Heredity is a biological process through which the transmission of physical and social characteristics takes place from parents to off-springs. It greatly influences the different aspects of growth and development i.e. height, weight and structure of the body, color of hair and eye, intelligence, aptitudes and instincts.

However, environment equally influences the above aspects in many cases. Biologically speaking heredity is the sum total of traits potentially present in the fertilized ovum (combination of sperm cell and egg cell), by which off-spring have resemblance to their parents and fore parents.

#### 2. ENVIRONMENT

Environment plays an important role in human life. Psychologically, a person's environment consists of the sum total of the stimulations (physical and psychological) which he receives from his conception. There are different types of environment such as physical, social and psychological environment.

Physical environment consists of all outer physical surroundings both in-animate and animate which have to be manipulated in order to provide food, clothing and shelter. Geographical conditions i.e. weather and climates are physical environment which has considerable impact on individual child.

Social environment is constituted by the society-individuals and institutions, social laws, customs by which human behavior is regulated.

Psychological environment is rooted in individual's reaction with an object. One's love, affection and fellow feeling attitude will strengthen human bond with one another.

So, growth and development are regulated by the environment of an individual where he lives. **a.** <u>PHYSICAL GROWTH</u>: Physical growth refers to an increase in body size (length or height and

- weight) and in the size of organs. From birth to about 1 or 2 years, children grow rapidly. After this time, growth slows down. As growth slows, children need fewer calories.
- **b.** <u>MUSCULAR GROWTH</u>: Muscular growth refers to the growth of tissues and muscles of a human body through which he becomes able to do different tasks like running, jogging, eating, etc. The appropriate growth of these muscles helps an individual to control his body parts and maintain the balance of his body.
- **c.** <u>MENTAL GROWTH</u>: The interaction of an individual leads to the mental growth of an individual. According to H.H. Goddard, intelligence is basically the ability to immediately solve the present problems and understanding the future problems.
- **d.** <u>SOCIAL GROWTH:</u> Social growth is the mutual interaction of persons along with the way of living and communicating. The difference of domestic environment, discipline, parents, age, mates, friends, teachers and relatives, all are responsible for the better social growth of an individual.
- e. <u>EMOTIONAL GROWTH</u>: The first 5 years of life are critical for the foundation of the skills which are developed in the following periods of the child's life. A newborn starts with no knowledge

and learns a great deal during his/her first year of life. It is very important to realize that a child is a growing and developing human being right from birth. He ought to be treated very carefully, with love and respect, so that he can develop normally. He needs full emotional support. There are eight basic needs for a healthy emotional development of a child. These are, Love; Security; Acceptance in an individual; Self-respect (self-esteem); Achievement; Recognition; Independence; Authority.

## DIFFERENT AREAS OF DEVELOPMENT

Child development entails the biological, psychological and emotional changes that occur in human beings between birth and the end of adolescence, as the individual progresses from dependency to increasing autonomy. It is a continuous process with a predictable sequence, yet having a unique course for every child.

There are various definitions of periods in a child's development, since each period is a continuation with individual differences regarding start and ending. Some age-related development periods and examples of defined intervals are: newborn (ages 0-4 week); infant (ages 4 weeks-1 year); toddler (ages 1-3 Years); preschooler (ages 4-6 years); school aged child (ages 6-13 years); adolescent (13-19).

#### 1. PHYSICAL DEVELOPMENT

Physical Development is the process that starts in human infancy and continues into late adolescent concentrating on gross and fine motor skills as well as puberty. Physical development involves developing control over the body, particularly muscles and physical coordination. A child's physique, weight, height, health, eyes and hair color and skills etc. are included. The peak of physical development happens in childhood and is therefore crucial time for neurological brain development and body coordination to encourage specific activities such as grasping, writing, crawling and walking height. As a child learns what their bodies can do, they gain selfconfidence, promoting social and emotional development.

#### 2. MOTOR/MUSCULAR DEVELOPMENT

This development is related to muscles and nervous development. Motor development refers to changes in children's ability to control their body's movement from infants' first spontaneous waving and kicking movements to the adaptive control of reaching, locomotion and complex sport skills. The term motor behavior describes all movements of the body, including movements of the eyes (as in the gaze), and the infant's developing of the head. Gros motor actions include the movement of large limbs or the whole body, as in walking. Fine motor behaviors include the use of fingers to grasp and manipulate objects. Motor behaviors such as reaching, touching and grasping are forms of exploratory activity.

#### 3. MENTAL/COGNITIVE DOVELOPMENT

Cognitive development is a field of study in neuroscience and psychology focusing on a child's development in terms of information processing, conceptual resources, perceptual skill, language learning, and other aspects of brain development and cognitive psychology compared to an adult's point of view. In other words, cognitive development is the emergence of the ability to think and understand.

#### 4. SOCIAL DEVELOPMENT

in different stages of life, a child's social relationships within the family or with friends and through children's participation in the culture around them involves with social development. Three things are important in this development;

- i. To accept others requires strength of toleration.
- ii. To meet people's expectations, require to have good gestures.
- iii. To have friendly behavior, which requires love, affection and sacrifice.

#### 5. PERSONALITY AND EMOTIONAL DEVELOPMENT

Emotional development involves learning what feelings and emotions are, understanding how and why they happen, recognizing one's own feelings and those of others, and developing effective ways of managing and controlling them. As children grow and are exposed to different situations their emotional lives also become more complex. Developing skills for managing a range of emotions is therefore very important for their emotional wellbeing. Parents and care takers have an important role to play in supporting children's emotional development.

## **STAGES OF DEVELOPMENT**

#### 1. PRENATAL

The process of growth and development within the womb, in which a single-cell zygote (the cell formed by the combination of a sperm and an egg) becomes an embryo, a fetus, and then a baby. The first two weeks of development are concerned with simple cell multiplication. This tiny mass of cells then adheres to the inside wall of the uterus. The next three weeks see intense cell differentiation, as the cell mass divides into separate primitive system. At the end of eight week, the embryo has taken on a roughly human shape, and is called a fetus.

#### 2. INFANCY AND TODDLERHOOD

Infants (birth to age 1) and toddlers (ages 1 to 2) grow quickly; bodily changes are rapid and profound. Important aspects that determine the progress of physical development in infancy and toddlerhood include physical and brain changes; development of reflexes, motor skills, sensations, perceptions, and learning skills; and health issues.

#### 3. EARLY CHILDHOOD

Early childhood is defined as the period from three to five years old. A time of remarkable brain growth, these years lay basis for subsequent development.

#### 4. MIDDLE CHILDHOOD

Middle childhood (usually defined as 5 to 13) is a time when children develop foundational skills for building healthy social relationships and learn roles that will prepare them for adolescence and adulthood.

#### 5. ADOLESENCE

Adolescence typically describes the years between ages 13 and 19 and can be considered the transitional stage from childhood to adulthood. However, the physical and psychological changes that occur in adolescence can start earlier, during the preteen or "tween" years (ages 9 through 12).

#### 6. EARLY ADULTHOOD

Early adulthood (also called "emerging adulthood") is a stage of life between 18 and 25 years, when adolescents become more independent and explore different life possibilities. Early adulthood or emerging adulthood may also refer to: young adulthood stage in Erik Erikson's model between early and middle adulthood.

#### 7. MIDDLE ADULTHOOD

This time period in the life of a person can be referred to as middle age. This time span has been defined as the time between ages 45 to 65 years old. Many changes may occur between young adulthood and this stage. The body may slow down and the middle aged might become more

sensitive to diet, substance abuse, stress and rest. Chronic health problems can become an issue along with disability or disease.

#### 8. <u>OLD AGE</u>

Old age is when a person is old and near the time when he or she dies. These people are usually retired from work and spend their time in other ways like helping take care of small children who are kin to them in some way. Often people of old age have wrinkly skin. They will move slower, and become constantly cold.

## DEVELOPMENT DURING INFANCY AND TODDLERHOOD

This is the period from dependency to independency (from birth to 3 years). A child becomes independent in eating, grabbing things and talking.

#### 1. PHYSICAL DEVELOPMENT

A child's growth is very rapid during the time from birth to 3 years of age. From development of brain cells and nerves, the child reaches the level of independency which indicates that he became strong enough to convey his physical skills like, able to blink his eyes, yawning, being to swallow some of the food, lift his head, crawling before being able to walk, etc. that are revealed till 13 to 15 years. Inherited skills, talent and environment together affects the development of a child. Some genetic forces are such that reflect personality and intelligence of the child which also depend on environment.

#### 2. MENTAL/COGNITIVE DEVELOPMENT

During initial stage of age, children have the ability to think and understand which include mental image and replicate objects in their mind. The imaginations which occur in initial years, these imaginations include shapes, place, size and timings. In other words, children can create mental images of objects and store them in their minds for later use.

Speaking and language skills depend on proper practice and principle of rhythm. For example, 2 months old baby starts cooing, six months old starts babbling, 12 or 18 months old delivers his first word and after saying his first word he starts to deliver more words very rapidly. At the age of 3, he properly learns to pronounce and use more words.

#### 3. MOTOR DEVELOPMENT

Motor or muscular development is related to child's muscles and nerves. To learn any bodily movements, a child requires muscles and bones strength. All children cannot learn motor skills all at once or altogether, every child has its one speed of development which is different form one another.

Newborn baby cannot sit by itself he cannot lift his head. Approximately 5 months later, he starts to lift his head with strength. At this age, children roll over with the help of their stomach and make movements by stretching the body. Slowly and gradually they try to grasp and hold things. At the age of 5 months, they start to sit but at 9 months almost all children can sit properly without any support.

To learn physical movements for walking, he learns movements of sitting and crawling, from which he starts to stand by his own and slowly starts to walk.

4. <u>SOCIAL AND EMOTIONAL DEVELOPMENT</u>. Emotional development refers to growth of all emotions and feelings and suitable methods of expressing these feelings and have the ability to control and manage them. For example, love, anger, hate, fear, happiness and sadness etc. are included in emotions.

Social development refers to have healthy relationships with people and positive friendship attitude. It depends on environment behavior and meeting people.

Emotional well-being during early years has a powerful impact on social relationships. Children who are emotionally healthy are better able to establish and maintain positive relationships with adults as well as peers. Social-emotional development is essential to a young child's sense of well-being. Their first relationships help shape who they are, who they become and their understanding of the world.

#### 5. <u>PERSONALITY DEVELOPMENT</u>

Experiments and development in early years of a child depends on his all life, in which first important role is his mother. After that mother-father (parents) and other family members are important because parents should know how to treat their children because the behavior and attitude which children adopt at early age, stays with them for the rest of their lives. According to expert's viewpoint, for personality development, trust, confidence and peaceful environment are important affects personality development. At this age, a child starts to play. His playing has passion for struggle and search. He grasps and carefully observes everything. Manipulator child is self-centered and contend with himself and while playing he likes to be separate from other children and plays alone by himself. He is busy in analyzing his environment with the help of his motor skills and intellectual therefore his playing method gets more visible. Personality recognition is based on self-awareness.

## DEVELOPMENT DURING EARLY CHILDHOOD

It is also known as preschool period. This ranges from the ages of 3 to 5 years.

#### 1. PHYSICAL DEVELOPMENT

At the ages of 3 to 5 years, physical and motor development is very rapid. At this period, development of motor and coordinated abilities are rapid and fast. By this time, a child gets capable of different movements and balancing or controlling them, which at some rate depends on his environment. Hence why children's motor skills are recognized and are visible by this age. For example, walking, running, jumping, throwing, catching or kicking a ball, etc.

#### 2. MENTAL/COGNITIVE DEVELOPMENT

At this age, a child only understands his own viewpoint and does not understands others which is called ego-centrism and he makes this visible by playing alone with his own toys near other children while during playing.

By this time a child starts to capable of delivering and speaking a whole sentence rather than babbling some words like early age and these sentences are pronounced correctly. He adapts better eating manners and etiquettes, is fully toilet trained, adapts healthy everyday principles. For example, difference and balance between working and resting.

#### 3. MUSCULAR/MOTOR DEVELOPMENT

children ages from 3 to 5 years become capable of climbing the stairs but cannot jump with one leg before the age of 4 or 5 years or 3 to 5 years children can throw a ball but cannot throw a ball at a specific aim/target before the ages of 6 years. Children of this age are very hyperactive, they run a lot and are able to doge any hurdles or obstacles in their ways. They properly and fully use all their muscles. For example, running, jumping, catching, opening buttons or zippers etc. of their clothes, make toys, drawing creates ability of physical balance.

#### 4. PERSONALITY, EMOTIONAL AND SOCIAL DEVELOPMENT

Any child's or person's methods of expressing his feelings or emotions at different times depend on emotional development. With the passage of time when motor skills are developed then methods of expressing and conveying feelings and emotions get visible and change. For example, a child runs and hides behind his mother to feel safe from a fear of strangers in his surroundings and the things he dislikes. Cries when he gets hurt. In conditions of envy and anger, he breaks things, throws tantrum and curses/swearing. He expresses his feelings of happiness and joy by laughing and giggling loudly. Emotions of jealousy and envy are also built at this age, which are usually conveyed through relationships and behavior among siblings. Self-concept of children this age rapidly develops with collective process of family members, children of same age and nursery school teachers. Relation and friendship with classmates are proven to be effective in increasing self-confidence and social skills. Presence of children and staying with them, a child adapts behaviors like cooperation, respect and sympathy. At some circumstances, love and friendship among contemporary children also create hope for going ahead, also create ability to accept competitions and challenges with confidence. At this age, because of muscular/motor and cognitive development, children are exposed to social aspect due to playing. A child's social skills are shown while he/she is playing with his friends and siblings. He adopts behaviors from his siblings, friends or teachers. Therefore, is it important for them to be a perfect role model in every aspect for these children so that, his personality becomes a good example for other children and inspire them. Children this age make imaginary things in their head like friend/s to play with them and give more attention to running and jumping and their concentration span widens.

## **DEVELOPMENT DURING MIDDLE CHILDHOOD**

#### 1. PHYSICAL DEVELOPMENT

At this age (5 to 13 years), physical development slows down but motor skills are rapidly increased. A 6 years old child can participate in actions/skills that require necessary use hands, arms and legs. His/her height grows, his broken teeth start to grow, muscles of arms and legs become extra strong and he starts doing different works with his hands. He learns sports and physical works from people of same age-group. For example, cycling, playing football, climbing stairs, helping in personal or domestic chores.

It has been proven by research that a child's usage and knowledge of his/her physical skills greatly affect his/her attitude and self-concept, meaning that positive attitude leads to self-confidence and trust whereas negative attitude leads to low self-confidence and trust issues.

#### 2. MENTAL/COGNITIVE DEVELOPMENT

At this stage of life, mental/cognitive development is quite rapidly. Consistent and continuous cognitive development create these skills in a child that he become increasingly killed understanding logical and concrete information, especially the information that are related to some standard, shapes, sizes, status, amount and situations. However, they still struggle to grasp hypothetical or abstract concepts.

At this age, children are able to focus on multiple aspects of a problem or situation and become less egocentric, meaning that they are able to think about and understand things from different viewpoints.

Speaking and talking at this age have three important characters.

1. Children tend to be more focused on the "here and now" and less on the future consequences.

- 2. Cognitive abilities such as concentration and memory improve significantly during the middle childhood years. kids this age have much better attention spans than they did in early childhood and they are better able to remember information for longer spans of time. Not only is their ability to pay attention for longer periods much improved, their selective attention is also much better. This means that they are capable of tuning out irrelevant distractions in order to concentrate only on silent details.
- 3. Most important and sufficient development is conveying of sentences, in which verbs and nouns are used. Special accent in speaking and adapt personal style depend on parents' profession, child's age, geographic situation and social status.

#### 3. MOTOR DEVELOPMENT

6 to 8 years of a child becomes very smart and energetic. He can stand straight still and sit properly, he gets capable of doing his own work and does minor personal work like brushing teeth, combing hair, tying shoe laces, buttoning his shirt etc. joyfully. If given permission or chance, he is capable of helping in doing minor domestic chores. For example, putting empty dishes in sink, cleaning table, passing plates etc.

8 to 10 years of a child wants to have a better position in society and his/her group of people. He/she tries hard to learn different skills/talents and gain expertise in them, which helps him/her gain self-confidence.

At the ages of 10 to 13 years, due to strong their immune system and motor skills, children especially boys tend to prefer hardcore sports and happily participate in them with.

#### 4. EMOTIONAL, PERSONALITY AND SOCIAL DEVELOPMENT

A child evaluates himself/herself at this age, questions his self-concept and skills. For example; self-respect, identity and feeling of personality development. Relationship with same aged friends affect social development massively. Every teen's social and emotional development is different. Social changes and emotional changes show that your child is forming an independent identity and learning to be an adult.

6 to 8 years old child's games are mostly created and based on his/her imaginary world. Children start to understand the difference between reality and imagination and are informed by that. Child of this age knows about place and limits and he uses the things provided to him/her correctly and properly. Parents should try to understand their child's height of imagination because these imaginations are very important for his/her mental/cognitive development. Children ages of 10 to 13 years, tend to participate in interests outside the house and enjoy playing games with teams and groups. They enjoy spending time with children of same agegroup and necessarily keep one to two friends.

8 to 10 years old child learns to work with everyone and consider that friends decisions are important to apply. Now he remains interested in work for a longer time, he will surely complete any work he starts to do. Feelings of justice and human right starts to develop at this age. A child this age wants and likes to become a leader of small groups therefore, it is important to provide types experiences like these.

Personal skills are very prominent of a child at the age 10 to 13 years old. They are different from one another due to their physical development and also their temperament and nature change. At this age, physical growth is rapid but heart strength does not develop, hence why they feel tired quickly.