

# **QUESTION BANK\_ NEW STEWART SCHOOL**

## **A TEXT BOOK OF ICSE HOME SCIENCE CLASS –IX OSWAL PRINTERS & PUBLISHERS**

### Chapter-1

#### SHORT ANSWER TYPE QUESTIONS-

1. Mention various names given to 'Home Science'.

A- The various names given to 'Home Science' are Domestic Science, Domestic Arts, Domestic Economy, Household Science, Household Arts, Household Economy, Household Administration or Home Craft.

2. Define Home Science.

A- According to Dr. A H Richard, Home Science is a special subject dealing with income and expenditure of the family, cleanliness of food, adequacy of clothing, proper choice of house, etc.

3. Mention the main function of the study of Home Science.

A- The main function of Home Science is the creation of an environment and outlook which will encourage, motivate and enable the common man to live a richer and more purposeful family life.

4. Mention various topics related to Home Science.

A- Domestic Science, Domestic Arts, Domestic Economy, Household Science, Household Arts, Household Economy, Household Administration or Home Craft are the various topics related to Home Science.

5. What do you understand by Home Management?

A-Home management is the vital factor in every family contributing to the overall health, happiness and well being of the family. The concept of management deals with achieving desired goals through planned activity.

6. Mention any three benefits of the study of Home Science.

A- (i) Home Science trains the student for not only the role of a homemaker but also as a member of other vocations such as catering, teaching, etc.

(ii) It helps in the creation of an affectionate and systematic home environment for the members of the home.

(iii) It helps in maximum utilization of resources in a family.

### LONG ANSWER TYPE QUESTIONS-

1. Define Home Science. What is the purpose of the study of Home Science?

A- Dr A. H. Richard defines Home Science as a special subject dealing with income and expenditure of the family, cleanliness of food, adequacy of clothing, proper choice of house, etc.

The study of Home Science was initially Art based which emphasized the beauty and appearance of the home as well as on the basic requirements like food preparation and stitching clothes. The outlook has now changed completely and has gained a scientific vision.

2. Explain how Home Science has changed from being an Art based subject to a Science support field. Explain it with suitable examples.

A- Home Science education deals with all aspects of home and family management. It is both an art and science. Home Science was initially Art based subject as it emphasized the beauty and appearance of the home as well as on the basic requirements like food preparation and stitching clothes.

Gradually the outlook has now changed completely and has gained a scientific vision. The same food preparation has now turned into Food science and Technology, Textile chemistry is included instead of stitching clothes.

3. “The work of a home-maker is most diversified in nature”. Explain with suitable examples.

A- The work of a home maker is the most diversified one. The home maker must plan wisely to provide the best possible food, clothing, shelter, health, education and recreation for the members of the family out of the available resources. A home maker is a multitasking person. She has to pay bills, wash the dishes and

dresses, buy the vegetables and fruits for cooking, clean and decorate the house during the festivals. A home maker takes care of all the children and people in the house.

4. “Family Resource Management” is the basic concept of Home Science. Explain in brief, the various topics related to family resource management.

A- Family Resource Management is the basic concept of Home Science. For better management, all the members of the family must work in coordination and set up common goals, make plans and contribute towards the efficiency and happiness of the home. The home maker must plan wisely to provide the best possible food, clothing, shelter, health, education and recreation for the members of the family out of the available resources. The basic facts about housing designs, its proper furnishing to save money and labour, and methods of getting the maximum work done through the minimum equipment are the various topic related to family resource management.

5. Explain various career options available for a home science student?

A-Home Science has a wide scope. It offers varied opportunities in careers.

<b>Foods and Nutrition</b>	Dietician, Catering, Food preservation, Bakery and Confectionery, Director of Health clubs, Hotel Management
<b>Human Development</b>	Counsellor, Care of elderly, Teaching, Research
<b>Communication and Extension</b>	Public relations, Extension worker, Adversiting, Journalism, Mass Communication, Community Service and Welfare
<b>Resource Management</b>	Personnel Management, Marketing Management, Financial Planner, House keeper in hotels, Interior decoration
<b>Textile and Clothing</b>	Merchandiser, Garment exporter, Textile designer, Fashion designer

6. How did Home Science come up in the curriculum of Indian studies? **OR**

Explain in brief the history of introduction of Home Science to the curriculum in India.

A- Home Science was first introduced by the king of Baroda, MS Gaekwad in the year 1913 to the curriculum of higher school. This idea guided women engaged in domestic chores like housekeeping, decoration, cookery, stitching, child rearing etc. Gradual and continuous changes have come to the Home Science curriculum like no other field. Now these subjects have become Interior Designing, Food Technology, Textile and Fashion Technology, Human Development and Early childhood care.

7. Describe shortly, how the role of women has changed in a family in recent times than it was in olden days.

A- In olden days, the education of the girl child was badly neglected in India. However, the time has now changed. In many households, now both parents are home makers. Men now understood that a balance between the work and home-making is the key to uniform development of all family members. Earlier women were restricted in household course. They did all the work inside the house and did not have freedom to give their opinion in any matter. They were looked upon as objects. But now the mindset of the society has changed. Women are given equal status as men in all aspects of society. They are given respect and they have earned dignity and self- respect.

## Chapter-2

### SHORT ANSWER TYPE QUESTIONS-

1. What do you mean by food?

A- Food is anything solid or liquid which when swallowed, digested and assimilated in the body helps to keep the body well.

2. What do you mean by Nutrition?

A- Nutrition is a combination of processes by which living organisms receive and utilize the material necessary for the maintenance of its functions and for the growth and renewal of its components.

3. Explain the meaning of nutrients. Explain in short about their digestion.

A- Nutrients are the chemical substances present in food which perform different functions relating to body growth and development and maintenance of good health.

4. What are the important functions of nutrients?

A- (i) The body requires nutrients for energy for all voluntary and involuntary activities. Energy giving nutrients are carbohydrates, fats and proteins.

(ii) The nutrients build and maintain body tissues.

(iii) Some nutrients are needed for regulating body processes.

(iv) All the nutrients, except carbohydrates, play an important role in the regulation of body process such as circulation of blood maintenance of body temperature, digestion etc.

5. Explain balanced diet.

A- A balanced diet is one which contains different types of foods in such quantities and proportions that the need for calories, minerals, vitamins and other nutrients is adequately met.

6. What are the important functions of food?

A- (i) Food supplies nutrients for health

(ii) Food is a source of power.

(iii) Food is a source of security

(iv) It is a sum of culture and traditions.

7. Mention the physiological functions of food.

A- (i) The body requires nutrients for energy for all voluntary and involuntary activities. Energy giving nutrients are carbohydrates, fats and proteins.

(ii) Some nutrients are needed for regulating body processes. Water helps in regulating body processes like digestion, excretion, maintenance of body temperature and electrolyte balance, Roughage helps in normal bowel movements.

(iii) Protective foods are required for safeguarding the body against diseases and disorders Eg- vitamins and minerals.

(iv) All the nutrients, except carbohydrates, play an important role in the regulation of body process such as circulation of blood maintenance of body temperature, digestion etc.

8. How does food serve the social needs of a person? **OR**

How can sharing food build social well being?

A- Food is always the central part of our social life. It presents an expression of love, friendship and happiness at social get-togethers. Food served in social events like marriages, parties, official meetings, etc. serves as a powerful and effective instrument for developing social rapport. Sharing food among children provides a feeling of togetherness and unity.

9. Name important constituents of a balanced diet.

A- The important constituents of a balanced diet are proteins, fats, carbohydrates, minerals, vitamins and fibre.

10. Define health and its significance in the life of a man.

A- Health is defined as a state of complete physical, mental and social well being and not merely the absence of disease or infirmity. It has the following significance in the life of a man:

- (i) physical fitness
- (ii) mental and emotional well-being
- (iii) Sound health enables human to work more and add to the assets of the nation.
- (iv) Keep our mind calm

11. How does food affect mental and emotional well being?

A- Food affects mental and emotional well being to a great extent. When we hear depressing news, we lose our appetite. On the other hand, when our mind is calm and happy, we eat well. When children are undernourished or hungry, cannot focus on studies, nor can adults do their work efficiently.

## LONG ANSWER TYPE QUESTIONS-

1. Explain, how food performs its chief functions, namely to meet the physiological needs of the body? Also show, how foods serves the social and psychological needs of a person?

A- Food supplies nutrients for health. It is a source of power and security. It is a sum of culture and traditions. Food served in social events like marriages, parties, official meetings, etc. serves as a powerful and effective instrument for developing social rapport. Sharing food among children provides a feeling of togetherness and unity. The body requires nutrients for energy for all voluntary and involuntary activities. Energy giving nutrients are carbohydrates, fats and proteins. Some nutrients are needed for regulating body processes. Water helps in regulating body processes like digestion, excretion, maintenance of body temperature and electrolyte balance, Roughage helps in normal bowel movements. Food satisfies certain emotional needs of the human being. It gives genuine satisfaction to the consumer. Children who are ill and lonely make demands for food to gain attention.

2. Describe food and balanced diet by defining them.

A- Anything, solid or liquid which when swallowed, digested and assimilated in the body, helps to keep the body in a state of health is defined as food. Food after ingestion, digestion and absorption is utilized by the body for its proper functioning. It provides the nutrients which helps us to maintain our health. A balanced diet is one which contains different types of foods in such quantities and proportions that the need for calories, minerals, vitamins and other nutrients is adequately met.

3. Give the various functions of food.

A- (i) Food supplies nutrients for health.

(ii) Food is a source of power.

(iii) Food is a source of security.

(iv) Food is a status symbol.

(v) Food is a symbol of hospitality and friendship throughout the world.

(vi) Food is an outlet for emotion.

(vii) It is a sum of culture and traditions.

4. Why are fruits and vegetables of different colours important in our diet?

A- Fruits and vegetables get their colour from phytochemicals, natural bioactive compounds. The most vibrantly coloured fruits and vegetables are rich in variety of vitamins, minerals, essential fatty acids and fibre. They also provide different antioxidants that help the body to resist disease caused by lifestyle factors like smoking, pollution, obesity, etc.

5. What are the health benefits of herbs and spices? Explain.

A- Herbs that are used in cooking possess some medicinal value. It acts as antioxidants and antiseptics help to fight cough and cold, and help in digestion. It supports the body's immune system to maintain health.

Spices have a pleasant aroma. It helps in treating many diseases like colic, dysentery, and diarrhea and prevents cancer. It helps in reducing stress and fatigue.

### Chapter-3

#### SHORT ANSWER TYPE QUESTIONS-

1. What are the fat- soluble vitamins?

A- Fat-soluble vitamins are vitamins that require fat to dissolve and be usable in the body. Vitamins A, D, E, and K are called the fat-soluble vitamins, because they are soluble in organic solvents and are absorbed and transported in a manner similar to that of fats.

2. Name the diseases caused by the deficiency of each of the vitamins.

A- (i) Vitamin A- Night blindness, Xerophthalmia

(ii) Vitamin D-Rickets, Osteomalacia

(iii) Vitamin E- Reproductive failure



(iv) Vitamin K- Haemorrhage

(v) Vitamin B- Beriberi

(vi) Vitamin C- Scurvy

3. Give names of two sources of every fat- soluble vitamin.

A- (i) Vitamin A- Carrots, Dairy products

(ii) Vitamin D- Eggs, Fish

(iii) Vitamin E- Green vegetable, Nuts

(iv) Vitamin K- Spinach, mustard green

4. Which food will you prescribe for the patients suffering from:

(a) Scurvy- Fruits

(b) Beri-beri- Chickpeas, Seafood

(c) Anaemia- Liver, meat products and egg yolk

5. Which nutrients are referred to as body- building foods?

A- Proteins and Minerals are the nutrients that are referred to as body- building foods.

7. State how each of the following nutrients contributes to good health:

(a) Iron- 'Heme' present in Iron is an important part of haemoglobin in the blood. Haemoglobin combines with oxygen in the lungs to form oxyhaemoglobin and is carried to all parts of body tissues by blood circulation.

(b) Calcium- Calcium is the most important factor in building skeleton and teeth and is more important during the growing years.

(c) Vitamin A- Vitamin A is required for normal vision. It is also important in the body's resistance to infection.

(d) Protein- Proteins are important for body- building functions as every cell in the body is composed of proteins.

8. Give one good source for each of nutrients mentioned above.

A- a) Iron- Liver, meat, egg yolk

b) Calcium- Milk and Milk products

c) Vitamin A- Liver, whole milk, egg

d) Protein- Milk, egg, cheese, cereals

9. Why are animal protein supposed to be better than vegetable protein? Give three examples of each.

A- Animal proteins are the complete proteins. These proteins are found in those foods which have all the essential amino acids in significantly quantities. These proteins have a high biological value, which means these are easily and completely used by the body.

Animal protein- Milk, egg, cheese

Vegetable protein- Cereals, legumes, vegetables

### LONG ANSWER TYPE QUESTIONS

1. By the deficiency of which nutrients is Kwashiorkor caused? What are the preventive measures of this disease?

A- Kwashiorkor is caused by the deficiency of Vitamin A. The main cause is not eating enough protein or other essential vitamins and minerals. It is most common in developing countries with a limited food supply, poor hygiene and lack of education about the importance of giving babies and children an adequate diet.

Kwashiorkor can be prevented by including protein rich food such as meat, fish, dairy products, eggs, soy and beans in our diet. Equal amount of calories intake from carbohydrates, sugar, fats, proteins can be helpful in treating Kwashiorkor.

2. (a) Choose four of the following nutrients and state how each contributes to good health:

- (i) Calcium                      (iii) Iron                      (v) Carbohydrates.  
 (ii) Vitamin                      (iv) Proteins

(b) For each nutrient, name the two common foods which are good sources of nutrient.

A-

<b>Nutrients</b>	<b>(a)Contribution</b>	<b>(b) Common foods</b>
(i)Calcium	<ul style="list-style-type: none"> <li>• Bone and teeth formation</li> <li>• Constriction and relaxation of blood vessel, Blood clotting</li> </ul>	Dairy Products, Green Vegetables
(ii)Vitamin	<ul style="list-style-type: none"> <li>• Prevention of diseases</li> <li>• Participation in regulations of body processes</li> </ul>	Citrus Fruits, Vegetables
(iii)Iron	<ul style="list-style-type: none"> <li>• Growth and Development</li> <li>• Immune function. Wound healing</li> </ul>	Eggs, Meat
(iv)Proteins	<ul style="list-style-type: none"> <li>• Gives energy</li> <li>• Maintain the fluid balance</li> </ul>	<ul style="list-style-type: none"> <li>• Animal protein like eggs , meat, milk</li> <li>• Vegetable protein like Cereals, legumes, green vegetables</li> </ul>
(v)Carbohydrates	<ul style="list-style-type: none"> <li>• Regulation of fat metabolism</li> <li>• Heart Function</li> </ul>	Sugars, Cereal

3. Food is vital for performing various functions. State the functions.

A- (i) Food supplies nutrients for health.

(ii) Food is a source of power.

(iii) Food is a source of security.

(iv) Food is a status symbol.

(v) Food is a symbol of hospitality and friendship throughout the world.

(vi) Food is an outlet for emotion.

(vii) It is a sum of culture and traditions.

4. (a) What do fats, proteins and water provide to the human body?

A- Fats are a concentrated source of energy. They supply energy of 9 calories per gram. They are organic compounds made up of carbon, hydrogen and oxygen.

Proteins are made up of amino acids. Most food proteins are composed of 12 to 22 amino acids. It has contribution of 10% to 15% of energy value of the most well-balanced diet.

Water acts as a solvent for several products during digestion. It plays an important role in the regulation of body temperature.

(b) Give three sources, each of Calcium, Iron, and Vitamin A that are essential for daily diet.

A- Calcium- Dairy Product, Green vegetables, Tofu

Iron- Eggs, Fruits, Nuts

Vitamin A- Carrots, Dairy Products, Green leafy vegetables

5. (a) Classify food according to its functions.

(b) Give two examples of each.

A- ICMR has recently classified the different food items into different food groups according to their functions:

i) Energy Giving Foods: Fats and Carbohydrates

ii) Body Building Foods: Proteins and Minerals

iii) Protective Foods: Vitamins and Minerals

iv) Regulatory Foods: Water and Roughage

(c) What are the uses and sources of Vitamin C?

A- Uses:

- It helps in immune function and wound healing.
- It helps in collagen and connective tissue formation.

Sources:

- Fruits- Kiwi, Citrus Fruits
- Juices- Oranges, Grapefruit. Tomato
- Vegetables- Broccoli, Sprouts, Peppers

6. (a) What do you understand by nutrition?

A- Nutrition is a combination of processes by which living organisms receive and utilize the material necessary for the maintenance of its functions and for the growth and renewal of its components.

(b) Lack of nutrients lead to deficiency disease. Give reasons.

A- Lack of nutrients lead to deficiency disease as nutrients plays a vital role in proper functioning of body. It gives us energy and immunity to fight against the diseases.

7. (a) Why is Ascorbic acid important for body?

A- Ascorbic acid is essential for the healthy development of teeth, bones, cartilage and connective tissues. It plays an important part in healing of wounds and improves the ability to withstand stresses of injury and infection.

(b) What are the sources of Ascorbic acid?

A- Fresh citrus fruits like lemon, orange, grape, amla, pineapple, guavas are excellent sources of Vitamin C. Spinach, green chillies, cabbage and turnip also contains adequate amount of Vitamin C even when cooked.

(c) State the function of Vitamin C.

A- i) It is an antioxidant.

ii) It helps in collagen and connective tissue formation.

iii) It helps in strengthening the immune system.

(d) Name a disease caused by the deficiency of Vitamin C and give its symptoms.

A- Disease caused by a deficiency of Vitamin C is called Scurvy. The main symptoms of Scurvy are restlessness, loss of appetite, general soreness to touch, sore mouth and gums with bleeding and shaking of the teeth, haemorrhages and swelling of legs with problems of knee joints.

8. (a) State the functional classification of food.

A- Food is classified into four major groups according to their functions:

i) Energy Giving Foods: Fats and Carbohydrates

ii) Body Building Foods: Proteins and Minerals

iii) Protective Foods: Vitamins and Minerals

iv) Regulatory Foods: Water and Roughage

(b) Classify Vitamins under their two groups.

A- Vitamins are classified into two groups:-

i) Fat- Soluble Vitamin- Vitamin 'A', 'D', 'E', 'K'

ii) Water- Soluble Vitamin- Vitamin 'B- complex', 'C'

#### Chapter-4

#### SHORT ANSWER TYPE QUESTIONS

1. Define the growth of a child.

A- Growth is the progressive increase in body dimensions of a child or parts of a child.

2. What do you understand by development?

A- Development refers to the different aspects of a child's personality. According to Clarke, "the developmental changes are systematic, progressive, and permanent and occur over a period of time."

3. What does social development mean?

A- Social development of a child refers to the ability of a child to develop affection, love, friendship, anger and other emotions with people around.

4. What do you understand by emotional development?

A- Emotional development means the ability to control emotions and express them in a way that is acceptable to society. Joy, anger, fear, happiness are some of the emotions that can be noticed even among small children.

5. Write short note on cognitive development?

A- Cognitive development refers to the ability of the child to think and find solution to problems.

6. Write short note on language development?

A- Language development is the ability to communicate through the use of meaningful words and sentences. Language helps us to convey our feelings. It also helps us to understand what others express or tell us.

### LONG ANSWER TYPE QUESTIONS

1. Discuss 'Growth' and 'Development'. What are the types of development in the life of a child up to the age of 5 years?

A- Growth and Development is the overall development of a person and involves both physical and mental development. Growth indicates an increase in body dimensions. These changes can be measured in terms of height, weight and

circumference. On the other hand, development refers to the different aspects of a child's personality.

The different types of development in the life of a child up to the age of 5 years are:

- Physical development
- Cognitive development
- Emotional and Social development
- Language development
- Sensory and motor development

2. Describe the characteristics of growth and development.

A- Characteristics of Growth:

Growth indicates an increase in body dimensions. These changes are measured in terms of height and weight and head circumference.

Characteristics of development:

- It is a continuous process starting with conception and ending with death.
- Development proceeds from generic to specific.
- It is a systematic process.
- Each development phase has characteristic traits of its own.

3. Explain various stages of growth and development of a child.

A- The various stages of growth and development of a child are:

- Infancy: first 4-6 months to 2 years
- Childhood: 2 to 12-13 years
- Adolescence: 12 to 18 years
- Adulthood: 18+

4. Describe the process of language development from birth to two years.



A- Language development is the ability to communicate through the use of meaningful words and sentences. Little ones are not born with the ability to speak. From 0 to 3 months, the only sound that the child can produce is crying. By crying, they communicate to their mother.

From 4 to 6 months, the children start producing flat 'a-a' sounds and gradually produce various sounds like pa, ma, ta, ba, na.

From 6 to 9 months, the child starts producing double flat sounds like baba, mama, papa. Gradually the baby learns to associate meaning with an object and then a word becomes a symbol or label for the object.

When the infant are 10 to 12 months old, they start speaking simple sentences. Their language skills develop with repeated usage. They reproduce sound by imitating.

When a child is 1 to 2 years, they start using three to four word sentences. An 18 to 20 month old child can speak about 50 words.

5. Describe the three stages of prenatal development in brief.

A- The prenatal stage is the time period from conception to birth which is as long as 280 days. This phase can be divided into three phases to study the details.

i) Germinal stage- This is the period from conception until implantation and can be approximately 1-2 weeks long.

ii) Embryo stage - This period lasts from the beginning of the third week to the end of the eighth week. All major organs are formed and the heart begins to beat in this period.

iii) Foetus stage- It is the final phase which lasts from the third prenatal month until the birth. Organ systems begin to function and growth of the foetus is rapid.

6. Write a short note on vision development in early infancy.

A- At birth, the baby's vision is blurry and it can see only a few inches far. The brain is unable to process the vision and make a clear picture of the object seen. However, the vision develops steadily and rapidly in the first few weeks of life.

## Chapter-5

### SHORT ANSWER TYPE QUESTIONS-

1. Explain play.

A- Play is one of the most powerful tools that help children to develop new skills, concepts and experiences. It helps children gain the knowledge they need to connect in meaningful ways to the challenges they encounter in school.

2. Write a note on outdoor play material.

A- Outdoor play materials help the children in the physical and motor development, and contribute to the overall development of a child. Some of the outdoor play material are climbing equipment, jungle gym, tubs for water play, tricycle, wagons, swings, sliding boards, see saw.

3. What are the different kinds of play schools? Give names only.

- Nursery school
- Day care nursery
- Pre- school
- Kindergarten nursery
- Montessori nursery

4. Name the equipment for Indoor play.

A- Blocks, bells, drums, jigsaw puzzles, scissors, crayons, building blocks, play dough, kitchen sets, doll house, mini market.

5. Name the equipment for Outdoor play.

A- Sand box, climbing equipment, jungle gym, tubs for water play, tricycle, wagons, swings, sliding boards, see saw.

### LONG ANSWER TYPE QUESTIONS-

1. Explain the role of play in the development of children.

A- i) Play supports Holistic development: Children learn by playing through imitating. The process of play facilitates the physical, cognitive and socio-emotional development of children.

ii) Play supports physical development: Play is essential in the development of perceptual motor co-ordination and it helps children attain and maintain good health.

iii) Play supports Socio-Emotional Development: In play children express and work through their fears, anxieties and desires. They resolve personal problems. They feel that they control the world, which gives them a sense of dominance.

iv) Play supports cognitive development: Play helps to develop various skills in children – imagination, creativity, various concepts, logic, reading, writing, reasoning learning.

2. Write down the basic principles of pre- schools.

A-i) They should be allowed to manipulate the objects in the environment around them.

ii) Variety of teaching tools may be used by the teacher to stimulate their intellectual growth.

iii) The materials and strategies used should match the level of each child's development and learning.

iv) It is to stimulate, enforce and polish the mental development of the child.

3. Why do children play?

A- Play stimulates brain growth in children at the most critical time in their development. It is through play that children develop life skills. They learn how to interact with the peers and adults, they learn how to choose friend, they learn how to run around and play team games. They also learn to be creative.

4. Explain classification of play in detail.

A- i) Active Play- Play that involves movement and physical activity is termed as active play. It keeps children busy and happy.

ii) Co-operative Play– It is a play for a child and a group of friends. It takes place either outside the house or in the house or school premises.

iii) Creative Play – Play that explores child’s imagination and makes something out of nothing is called creative play. Providing a child a creative outlet will lead to many amazing things.

iv) Dramatic Play -Play that involves pretend and make believe or whatever the imagination dreams.

v) Manipulative Play –It is a play that involves hand-eye co-ordination and motor skills. It develops the sense of co-ordination.

vi) Quiet Play – Play that keeps children focused. Children need quiet time to intently understand the concepts of activities. It provides children an opportunity to think and reason.

vii)Motor/Physical Play – Motor play provides critical opportunities for children to develop both individual gross and fine muscle strength and an overall integration of muscles, nerves and brain functions.

vii)Social Play – It is the best mechanism for processing through the different social stages. Children learn social rules, moral reasoning to develop a mature sense of values.

ix) Constructive play – Constructive play is when children create or manipulate their environment to build imitative things. It gives children a sense of productivity, accomplishment and empowers them to control their imaginary play world or environment.

x)Fantasy Play – Children learn to abstract, to try out new roles and possible situations and to experiment with language and emotion with fantasy play.

5. Why is it important to not compel a child to play?

A- It is important not to compel a child to play because play is process-oriented. Compelling a child to play can make him/her avoid playing completely as there is no fun involved when they do it for others willingness. It rather becomes a punishment and becomes a performance presentation for the child.

6. What are different types of play? Which is the best according to you? Specify with reasons.

A- The different types of play are: - Active Play, Co-operative Play, Creative Play, Dramatic Play, Manipulative Play, Quiet Play, Motor/Physical Play, Social Play, Constructive play, Fantasy Play.

Social play is the best. Children get a variety of opportunities. By interacting with other in play settings, children learn social rules such as give and take, cooperation and sharing.

7. Give reasons why play school play important roles in the development of a child?

A- Play schools ensure ample games, activities, and exercises along with factual knowledge. The aim of education during play school age is to stimulate, enforce and polish the mental development of the child. They are allowed to manipulate the objects in the environment around them. There is a rapid growth and development between the age of one to three years. They learn to respond to simple commands, learn to express their feelings of love, anger and sorrow.

## Chapter-6

### SHORT ANSWER TYPE QUESTIONS-

1. Define immunisation.

A- Immunisation is the process whereby a person is made immune or resistant to an infectious disease or fortified against an agent. It controls and eliminates life threatening infectious diseases.

2. Write a short note on Diphtheria.

A- Diphtheria is a bacterial infection that affects the nose and throat. This is caused by *Carynebacterium diphtheria*. It is highly contagious. The bacteria spread when an infected person coughs or sneezes and droplets of their saliva enter another person's mouth or nose.

3. Why is immunisation important?

A- a) Immunisation helps to protect us from getting infected from the infectious diseases.

b) It helps in eradication of diseases in future.

c) If children are not vaccinated, they get infected from the diseases, which results in weak immune system.

d) Immunisation cost is less than the treatment of diseases.

4. What are the common symptoms of the diseases in day to day life?

A- Some of the common diseases and their symptoms are:

- Allergies- eye irritation, runny nose, puffy and water eyes, itchy nose and throat, head aches
- Cold and Flu- fever, headache, fatigue, head aches
- Diarrhea- frequent bowel movement, pain in abdomen, bloating, nausea, head aches

5. Name the vaccines of the following:

<b>Disease</b>	<b>Vaccine</b>
(a) Mumps	MMR
(b) Measles	MMR
(c) Chickenpox	Varicella
(d) Polio	IPV (Inactivated polio virus vaccine) OPV( Oral Polio Virus vaccine) Salk's vaccine
(e) Rubella	MMR

### LONG ANSWER TYPE QUESTIONS-

1. Vaccination at an early age is a boon to the health of the child? Explain giving examples.

A-Vaccination at an early age is a boon to the health of the child. It is not only to protect the child from deadly diseases like polio, tetanus and diphtheria but also to keep other children safe by eliminating the dangerous diseases that used to spread

from child to child. Vaccines are some of the safest and most effective medicines we have and they have made many dangerous childhood diseases rare today.

2. Describe the following diseases along with their vaccines in brief:

(a) Tuberculosis- Popularly known as 'TB' is a disease caused by the bacteria "Mycobacterium tuberculosis". This bacterium is destroyed by the rays. TB affects the lungs but can affect other parts of the body.

BCG should be given to children within in one month of their birth.

(b) Tetanus- It is an infection characterized by muscle spasms. The spasm begins in the jaw and then progresses to the rest of the body. It typically arise from a skin wound that becomes contaminated by a bacterium called clostridium tetani, which is often found in soil.

It is vaccinated with Tetanus toxoid. In children, it is administered as a combined vaccine, DPT/DTap vaccine.

(c) Pertussis- Also known as whooping cough is a highly contagious respiratory disease. It is caused by the bacterium Bordetella pertussis. It is an air borne disease which spread easily through cough and sneezes of an infected person.

Pertussis vaccine is a part of a DTap immunization. DTap are given in five doses before a child's sixth birthday.

3. Describe the importance of vaccination in the life of an individual in the present context.

A- Vaccination is very safe and effective. Vaccines are also given to children after a careful research by the doctors and scientists. In the present context, Covid vaccines can save the future of the nation and thus help in making the environment, people and nation healthy by protecting from the Novel Corona virus.

5. "Prevention is better than cure". Explain giving examples.

A- "Prevention is better than cure". Prevention means to avoid and cure means to correct anything that is troublesome. We do not stick to the power of prevention. Troubles or problems can be averted or made mild by prevention. Lubricating a ceiling fan is easier and cheaper than rewinding a burnt fan.

## Chapter-7

### SHORT ANSWER TYPE QUESTIONS-

1. Define a triad colour scheme.

A- Any three hues equidistant from one another on the colour wheel are known as triad colour scheme.

2. What are cool colours? Give two examples.

A- Cool colours have the element of vegetation or water in them. They project a soothing effect. These are peaceful colours as they bring in freshness and a relaxed feeling into any space. They also create a visual impact of enhanced size and length. Example: Shades of blue, green.

3. State two reasons for using warm colours in a house.

A- i) Warm colours have the elements of fire or sun within them. These colours are generally associated with a bright, energetic and rich look.

ii) They create a visual impact of reduced size and are often used in rooms that admit little or natural day light.

4. Differentiate between secondary and tertiary colours.

<b>Secondary colour</b>	<b>Tertiary colours</b>
i) The colour formed by mixing of two primary colours in equal quantities.	i) The colour formed by mixing of primary and a secondary colour in equal quantities.
ii) Example- Orange, Green, Purple.	ii) Example- Yellow -Orange, Red- Purple, Blue- Green.

5. What is meant by intensity of a colour?

A- Intensity refers to brightness or dullness of a colour. A highly intense color is bright and a low-intensity color is more neutral.

6. Name two neutral colours that highlight the use of other colours.

A- Two neutral colours that highlight the use of other colours are black and white.



7. What are primary colours? Give two examples.

A- The colours which are not obtained by the combinations of colours are called primary colours. Examples- red, yellow.

8. What is the difference between a related colour scheme and contrasting colour scheme?

<b>Related colour scheme</b>	<b>Contrasting colour scheme</b>
Related colour schemes are composed of one or several neighbouring hues, which generally provide an effect of unity and harmony.	In contrasting colour schemes, arrangements are made by using complimentary colours.

9. How can you make a ceiling appear lower with the right choice of colour?

A- Ceilings that are lighter in tone than the walls feel higher, while darker colors will make the ceiling feel lower. That doesn't necessarily mean the room will feel claustrophobic, however. As when choosing wall colors, consider the source and strength of light the room receives during the time you're most often using it. Bright white is generally considered the safest choice for ceiling paint colors.

10. What is meant by value of a colour?

A- Value of a colour is the lightness or darkness of a colour.

11. Define a complimentary colour scheme?

A- A scheme in which any two colours are opposite to each other on the colour wheel is called complimentary colour scheme.

12. What do you mean by a colour scheme?

A- A colour combination that matches and looks pleasing to the eye and creates a unified aesthetic space is called a colour scheme.

13. What are tertiary colours? Give any two examples.

A- Tertiary colours are formed by mixing of a primary and secondary colour in equal quantities.

Example: yellow+ green=yellow green

Red+ purple= red purple

### LONG ANSWER TYPE QUESTIONS-

1. Discuss the three dimensions of colour.

A- i) HUE- The hue represents the colour itself . It is simply the colour quality.

ii) VALUE- Value is the lightness or darkness of a colour.

iii) INTENSITY-It refers to brightness or dullness of a colour.

2. What are related colour schemes? Explain the schemes falling under this category.

A- Related colour schemes are composed of one or several neighbouring hues, which generally provide an effect of unity and harmony. The schemes falling under this category:-

i) Monochromatic colour scheme: In this scheme, one colour is used but it varies both in value and intensity. This colour scheme is easy to manage and looks balanced and visually appealing.

ii) Analogous colour scheme: It is made by mixing of adjacent or neighbouring colours on the colour wheel.

3. What are warm colours? How do they change the mood of any interior?

A- Warm colours have the element of fire or sun within them. They are associated with bright, energetic and rich look. These colours exude the sense of coziness, warmth and comfort to the space. These are very commonly used in traditional Indian embroideries. Example -shades of red, orange, yellow and brown.

4. What are warm and cool colours?

A- Warm colours have the element of fire or sun within them. They are associated with bright, energetic and rich look. These colours exude the sense of coziness, warmth and comfort to the space. These are very commonly used in traditional Indian embroideries. Example -shades of red, orange, yellow and brown.

Cool colours have the element of vegetation or water in them. They project a soothing effect. These are peaceful colours as they bring in freshness and a relaxed feeling into any space. They also create a visual impact of enhanced size and length. Example: Shades of blue, green.

5. What is a colour scheme? Explain the colours on it.

A- A colour combination that matches and looks pleasing to the eye and creates a unified aesthetic space is called a colour scheme.

- Primary colours – Red, yellow, blue
- Secondary colours – Orange, green, purple
- Tertiary colours – Blue -green, red-orange.

6. Write a short note on the monochromatic colour scheme.

A- In monochromatic colour scheme, one colour is used but it varies both in value and intensity. Tints, shades and tones of one key colour are used to enhance this scheme. This colour scheme is easy to manage and looks balanced and visually appealing. It gives an ambiance, which is elegant, soothing, quiet, restful and relaxing. It emphasizes spaciousness and continuity.

7. A- i). LIVING ROOM- Sophisticated colours are often toned down or grayed so that they look neutral.

ii).BEDROOM-Shades of medium to dark brown, greens and browns are classic combinations.

iii).DINING ROOM-Peach, pink, and other tints in red and orange, pale tint of yellow.

iv).KITCHEN-White or light coloured walls. One vital colour, primary or secondary can be used. For kitchen ceiling,white colour is preferable.

v).BATHROOM- White , green, blue, violet, or grey.

## Chapter-8

### SHORT ANSWER TYPE QUESTIONS-

1. Name any two sources of light in a home.

A- The two sources of light in a home are sunlight and LED lights.

2. Mention two disadvantages of direct lighting.

A- (i) Direct lighting creates harshness of shadow.

(ii) It causes discomfort and eye fatigue.

3. Differentiate between general lighting and local lighting.

A-

<b>General lighting</b>	<b>Local lighting</b>
i- A basic form of lighting that replaces sunlight.	i- It provides extra fixture material placed in task areas.
ii- It provides a comfortable level of brightness.	ii- It is placed at high or low levels but need to be shaded in accordance with the comfort of the dwellers.

4. What types of lights are suitable for a bedroom?

A- In a bedroom, ceiling or wall fixtures are used for general illumination. An adjustable bedside lamp can give a comfortable task light. A mirror light above the dresser acts as a local light.

5. How is direct lighting different from indirect lighting?

<b>Direct lighting</b>	<b>Indirect lighting</b>
i) The light falls directly on the objects.	i) The light is thrown against a surface from which it is reflected .
ii) The source of the light emits the highest percentage of light downwards.	ii) It is considered better for general illumination.
iii) It creates harshness of shadow and causes discomfort, eye fatigue	iii) The reflected light is soft, uniform and shadowless.

6. Name two areas in a house that need to be well- lit.

A- The entrance of the house should be well- lit. The study room should be properly lit or else it will affect our eyesight.

7. What kind of lights are efficient?

A- Halogen, Incandescent lights, Compact Fluorescent Lamps (CFL) and Light Emitting Diodes (LED) are efficient.

8. Why are LED lights used mainly for lighting today?

A- LED lights have become the most popular lights. The LEDs are not only of many colours and shades of light, but also have a much greater life than other lights. They also consume lesser power and provide better illumination.

9. Name some lighting fixtures used in interiors.

A- Some lighting fixtures used in interiors are recessed lighting, under cabinet lighting, floor lamp, table lamp, desk lamp, wall sconces, ceiling lights.

10. What is the purpose of general lighting at home?

A-General lighting is used to illuminate a room uniformly. It gives equal emphasis on design and colour of the entire room. It provides a comfortable level of brightness. It is accomplished with ceiling or wall mounted fixtures, track lights, and floor and table lamps. It can be both direct and indirect lighting.

### LONG ANSWER TYPE QUESTIONS-

1. Discuss the choice of lighting in various rooms in a house.

A- In homes, we use two kinds of lighting general and local. The light fixture is functional as well as decorative. For different rooms we have different lighting arrangement.

- a) Entrance – The entrance should be well- lit with general lighting preferably white light. Name plates or art pieces can be focused on with accent lighting.
- b) Living room – We should combine general and local lighting. Yellow indirect light can be given to the area where we watch television or do other general activities. We can also use direct or indirect white light. Task light

can be used for specific activities. Accent lighting may be given on textured wall or over a picture frame.

- c) Passages – They should be lit with general lighting to provide uniform illumination.
- d) Kitchen – This room should have white direct light for clear visibility and for purpose of hygiene.
- e) Bedrooms – We can use general illumination for ceiling or wall fixtures. An adjustable bedside lamp can be a task light.
- f) Bathroom – We can use white direct or indirect light for general illumination.

2. How should we calculate the amount of light required in each room? Suggest giving examples.

A- A lumen is a measure of the total amount of light visible, emitted by a source. A sitting room or a bedroom require around 10-20 lumens per square foot. While a bathroom or kitchen requires a bright light, i.e. around 70- 80 lumens per square foot.

3. Discuss the sources of light in detail.

A-Light comes from two different sources namely: natural and artificial. While planning interiors both sources of light are considered. The two major sources of light are ---

- a) Day Time Light, Sunlight, Natural light: The major source of natural light is the sun. The amount of daylight entering a room depends on the size, shape, number and direction of the windows in a room. On a sunny day, the light available is more than a cloudy day. Large window permits the greater entry of daylight into a room. The windows on the western or eastern aspect provide more light than windows on the northern or southern direction.
- b) Artificial Light: Any light produced from man-made sources is termed as artificial lighting. It ranges from a Diya to a candle to all the light fittings we use in our home in the form of ceiling lights, wall lights, lamps etc. , to either light up the house in the absence of natural light or to provide additional lighting .

4. What are the types of lighting? What kind of lighting should be provided in a living room and kitchen?

A- The two types of basic lighting are general lighting and local lighting .

- a) **General Lighting:** It is used to illuminate a room uniformly. It gives equal emphasis on design and colour of the entire room. It provides a comfortable level of brightness. It is accomplished with ceiling or wall mounted fixtures, track lights and floor and table lamps. It could be direct or indirect lighting. In direct lighting, light falls directly on the objects. The source of light emits the highest percentage of light downward. While in indirect lighting, the light is thrown against a surface (usually ceiling) from which it is reflected. Indirect lighting is considered better for general illumination.
- b) **Local Lighting or Task Lighting:** It is required to increase the efficiency of work. It has to be provided for carrying out different activities like reading, cooking, studying etc. The local lights could be placed at high or low level. Generally, local lighting is provided through movable lamps, pelmet lights or desk lamp. Local lights help to create the right mood, emphasize important objects. Accent light is a light used over decorative art pieces etc. to enhance or accentuate particular objects.

**Living room** – We should combine general and local lighting. Yellow indirect light can be given to the area where we watch television or do other general activities. We can also use direct or indirect white light. Task light can be used for specific activities. Accent lighting may be given on textured wall or over a picture frame.

**Kitchen** – This room should have white direct light for clear visibility and for purpose of hygiene.

## Chapter-9

### SHORT ANSWER TYPE QUESTIONS-

1. What does L.P.G. stand for?

A- L.P.G stands for Liquefied Petroleum Gas.

2. What is conservation?

A- Conservation is the proper management of a natural resource to prevent its exploitation, destruction or degradation.

3. State four ways in which electricity serves home.

A- The four ways are-

- It is used for lighting and heating.
- It is used for cooling and refrigeration.
- It is used for operating appliances.
- It is used for computers and other electronic gadgets.

4. Enumerate some important tips for saving energy.

A- Some important tips are:-

- We should turn off unnecessary glowing of lights
- We should use natural light more
- We should close the tap while brushing teeth, taking bath and washing hands
- We should unplug unused electronic gadgets

5. How does an earth wire ensure safety in a home?

A-The Earth is a good conductor of electricity. All electrical appliances should be properly earthed so that in case of any leakage of current or short circuiting with the body of the appliance, it is conducted away to the Earth and the person touching it, is saved from electric shock.

6. Name four important precautions that should be observed while using an electrical appliance.

A-i) The switch should be put off when the plug of the appliance is put in.

ii) The electrical connections must be secure.

iii) Never touch an electrical appliance with wet hand as it can be extremely dangerous.



iv) Do not attempt to repair any electrical appliance unless you know the job exactly.

7. Mention the modern methods of cooling a home.

A- The modern methods of cooling a home are – central air conditioners, room air conditioners, evaporative coolers, ductless mini split air conditioners.

8. How can you minimize the use of energy by Air-conditioners?

A- 1) Set the thermostat of the room air conditioner at 25°C (77°F) for comfort at the least cost.

2) A good air-conditioner will cool and dehumidify a room in about 30 minutes. Then leave the unit off for some time.

3) Keep the doors and windows closed.

4) Clean the air conditioner filter every month to enable the unit to cool down quickly.

5) It's better to buy a new energy efficient air conditioner if the old air conditioner needs repair.

9. Give two common causes of electrical accidents.

- Sub standard wiring can lead to electrical fires and shocks.
- Flammable materials left near exposed electrical wiring in the work place.

10. What are the natural sources of water?

A- Various sources of water: - Rainwater or snow water, Surface water, Ground water or subsoil water, wells and springs, Sea water

11. Discuss rain water harvesting.

A- Rainwater harvesting essentially means collecting rainwater on the roofs of buildings and storing it underground for later use. It not only recharges the groundwater depletion, but also raises the declining water table.

LONG ANSWER TYPE QUESTIONS-

1. Define gaseous fuel. Write in detail about the advantages of L.P.G.

A- Gaseous fuels are obtained either naturally or by the treatment of solid or liquid fuel. Among the naturally occurring gaseous fuels, natural gas and liquefied petroleum gas are most important.

The advantages of L.P.G are

- i)Its calorific value is higher than that of other fuels.
- ii)Properly designed burners ensure complete combustion of the fuel with no smoke.
- iii)Cleanliness in handling and ease of control .
- iv)It is safe to use.
- v)Easy transport even to remote places.

2. One evening on entering the house you find a strong smell of gas .Explain , what will you do to avoid an accident.

A- 1)Immediately turn off the electric supply by switching off the main switch.

2)Turn off the gas cylinder.

3)Open all the windows and doors wide.

4)Evacuate the space for a while.

5)Call for professional help with gas cylinder connection and fittings

3. Name three use of electricity. Show its important in home.

A- Three use of electricity:

i)Electricity has made life easier and simpler.

ii)It enables us to have a great deal of enjoyment and reduces labour in day –to-day tasks.

iii)Makes life comfortable and enjoyable

Electricity has many uses in our day to day life. It is used for lighting rooms, working fans and domestic appliances like using electric stoves, A/C. All these provide comfort to people. Essential items like food, cloth, paper and many other things are the product of electricity.

4. Write in brief how these appliances reduce energy use: water heater, oven, refrigerator, and computer.

#### **A- WATER HEATER:**

- To help reduce heat loss, always insulate hot water pipes, especially through unheated area
- By reducing the temperature setting of water heater from 60 degree to 40 degree could save over 18 percent of the energy used

#### **REFRIGERATOR:**

- Keep refrigerator away from all sources of heat.
- Allow enough space, airflow around refrigerator.
- A full refrigerator is a fine thing, but be sure to allow adequate air circulation.
- Think about what you need before opening the refrigerator door.

#### **MICROWAVE OVEN:**

- It saves energy by reducing cooking time.
- If we are cooking more than one item, place larger and thicker items on outer edges.

#### **COMPUTER:**

- Turn off your computer when not in use.
- Turn off the monitor as it consumes half the system's energy.
- Setting it to sleep mode, consumes 40% energy.
- When chargers are not in use, pull out the plug and save energy. 5) Shut down the computer when you are not using it.

5. Name four important precautions that should be observed while using an electrical appliance and two common causes of electrical accidents.

A- 1) The switch should be put off when the plug of the appliance is put in.

2) The electrical connections must be secure.

3) Never touch an electrical appliance with wet hand as it can be extremely dangerous.

4) Do not attempt to repair any electrical appliance unless you know the job exactly.

6. How do microwave save energy?

- It saves energy by reducing cooking time.
- If we are cooking more than one item, place larger and thicker items on outer edges.

7. Discuss various sources and uses of water.

A- Various sources of water: - Rainwater or snow water, Surface water, Ground water or subsoil water, wells and springs, Sea water

Uses of water: -

i)It serves our physiological need.

ii)It has a high place in the healthy maintenance of the body.

iii)It is required for many domestic and community purposes like cooking, bathing, washing etc.

iv)It is a source of power.(hydroelectricity)

v)It is a means for fighting fire.

8. Discuss ancient Indian methods of water conservation.

- In ancient times, houses were built so that each had a rooftop water harvesting system. Rainwater from these rooftops was drained into underground tanks.
- Underground baked earthen pipes and tunnels to maintain the flow of water and to transport it to distant places.

9. Explain various techniques used to reduce the demand of water.

A- Various techniques are:

- Soil covered by crops, slows down the drain-off and minimizes evaporation losses. Hence more land should be given away to farmers.
- In contour farming the land is ploughed in steps instead of continuous plain land. This method allows water conservation and complete use of rain water in farming. It also prevents soil erosion and water flowing away. The water seeps into the strips completely and thereby floods are also prevented.
- Ploughing helps to move the soil around so that it retains more water.
- Planting of trees, grass and bushes breaks the force of rain and helps rainwater penetrate down the soil.

10. Explain the following:

(a) Rainwater Harvesting - Rainwater harvesting essentially means collecting rainwater on the roofs of buildings and storing it underground for later use. It not only recharges the groundwater depletion, but also raises the declining water table.

(b) Water Conservation –

- Use only the amount of water you actually need.
- Promote water conservation in community by a group of people.
- Make sure your home is leak free.
- Do not leave the tap running while you are brushing your teeth or soaping your face.
- When washing a car, use water from a bucket and not a hose pipe.
- Do not throw away water that has been used for washing vegetable, rice or dal. Use it to water plants or to clean the floors.
- Collect water and store it

### Chapter-10

#### SHORT ANSWER TYPE QUESTIONS-

1. Why we should keep our home and our surroundings clean?

A- Regular cleaning keeps our home free of dust and makes it a much better environment for our family.

2. What is the role of sanitation inside and outside the house?

A- Sanitation provides a healthy living environment for everyone. Sanitation system aims to protect human health by providing a clean environment that will stop the transmission of diseases.

3. What is the meaning of the term “Waste”?

A- Waste is nothing but a material that someone no longer wants or needs. It also means material that is discarded after primary use, defective or is not useful.

4. What is biodegradable and Non-biodegradable waste? Give examples.

A- Biodegradable wastes are the wastes which can be decomposed by bacteria or other natural organisms and not add to pollution. Eg Paper and cowdung are biodegradable. Non- biodegradable wastes are substances that cannot be changed to a harmless and natural state. Eg- plastic, electronic wastes, etc. These wastes pose risk of extreme health hazards and should be handled with utmost care.

5. What is Waste Management?

A- Waste management is the collection, transport, processing, recycling or disposal and monitoring of waste materials.

6. Write a short note on “Swachh Bharat Abhiyan”.

A- Swachh Bharat Abhiyan is the biggest ever cleanliness mission run in India. It was initiated by Hon. PM Shri Narendra Modi. It was launched on 2nd October, 2014. The campaign is running across 4,401 cities, towns and villages of India. It involves the construction of toilets, provision of dustbins in public areas in each household, segregating wastes separately (green dustbin for wet kitchen waste and red dustbin for dry waste.) It also includes promoting sanitation programs, cleaning streets, roads, and changing the infrastructure of the country. This mission is politics free mission who is boosted by patriotism and willingness to change and improve India and its citizens. It is promoted and supported by celebrities, business tycoons and other countries.

## LONG ANSWER TYPE QUESTIONS-

1. Why is waste management essential?

A- Waste management is carried out

i. To reduce the effect of waste on health, environment, or aesthetics.

ii. To recover resources from it.

iii. To control pollution.

iv. To collect and sort kitchen waste, solid waste, dry waste and medical waste, and recycle them accordingly.

2. What is the role of hygiene inside and outside the house? Explain in detail.

- A healthy and adequate housing includes facilities for personal and domestic hygiene. The cleanliness and tidiness of houses helps to reduce direct exposure to microorganisms. It will help stop the spread of diseases. If we maintain home hygiene that will be no room for diseases to spread. People should be educated about hygienic practices. Bodily cleanliness is very important, particularly washing hands thoroughly with soap after defecation is absolutely necessary as it will help to break the chain of various infections and reduce the occurrence of skin and eye diseases.
- Keeping our surroundings clean will help in the betterment of society. Waste or garbage should be thrown in trash bins. Throwing garbage all over the place will make our surroundings dirty and pollute the environment. Controlling the use of plastic bags will help to keep our surrounding clean.

3. What is biodegradable and Non-biodegradable waste? Give examples and explain in detail. Differentiate between them and explain in detail.

A- Biodegradable wastes are the wastes which can be decomposed by bacteria or other natural organisms and not add to pollution. Except industrial and building material wastes, most other wastes can be utilised for generation of electricity, manure by adapting the biodegradation process. It can transform the waste into simpler, harmless, and useful substances after a period of time. Eg Paper and cowdung are biodegradable. Non- biodegradable wastes are substances that cannot

be changed to a harmless and natural state. Neither chemical action nor bacterial disintegration helps to make them harmless. They are harmful to environment and our health. On burning, they emit poisonous gases, thus they pollute land, water or air in any form. Eg- plastic, electronic wastes, etc. These wastes pose risk of extreme health hazards and should be handled with utmost care.

<b>Biodegradable waste</b>	<b>Non- biodegradable waste</b>
1. Degradation process is rapid.	1. Degradation process is slow.
2. Biodegradable waste is decomposed and degraded by microbes.	2. Non- Biodegradable waste cannot be decomposed by microbes.
3. It is not accumulated but is used up in a short time.	3. It often accumulates.
4. It is used to produce energy manure, compost and biogas.	4. It can be separated and recycled but the process is very expensive.

4. What is the difference between Biodegradable and Non-Biodegradable waste? What is the difference between sanitation and hygiene? Explain in detail.

A-

<b>Biodegradable waste</b>	<b>Non- biodegradable waste</b>
1. Degradation process is rapid.	1. Degradation process is slow.
2. Biodegradable waste is decomposed and degraded by microbes.	2. Non- Biodegradable waste cannot be decomposed by microbes.
3. It is not accumulated but is used up in a short time.	3. It often accumulates.
4. It is used to produce energy manure, compost and biogas.	4. It can be separated and recycled but the process is very expensive.

<b>Hygiene</b>	<b>Sanitation</b>
1. It is focused on keeping us clean.	1. It focuses on what to do with the waste we produce..
2. It aims to improve the health of an individual human being.	2. It focused on the health of all the people in a community.
3. It refers to behaviors that can improve cleanliness and lead to good health.	3. It encompasses the facilities, behaviors and services that prevent diseases caused by contact with human waste.



## Chapter-11

### SHORT ANSWER TYPE QUESTIONS-

1. What are the 5 'R's?

A- The 5Rs of sustainability mean living on our planet without wasting our natural resources by reusing, reducing, recycling, renewing and refusing materials so that our environment will be preserved for future generations.

2. List some waste reduction ideas.

A-i) Shop carefully: Buy in bulk to reduce the amount of packaging required.

ii) Avoid over- packaged products and unnecessarily packaged food

iii) Choose durable articles that will last a long time.

iv) Buy- products with a recycled content.

3. Define recycling.

A- Recycling means breaking down waste into raw materials to use it again.

4. Two examples of replacement of eco- friendly products.

A- Water Bottles. Waste bag/ Carry bag

### LONG ANSWER TYPE QUESTIONS-

1. Explain in detail the 5 'R's of sustainability.

- Reduction: Reduction is the golden goal of sustainability. It is also the area in which each and every one of us. The two main areas in which we can and we should reduce our consumption are energy and water.

- Reinvent means restructuring our demand and supply system to promote sustainability and reduce CO<sub>2</sub> emissions. It also includes changing our mindsets, attitudes and habits. We need to integrate the environmental factor into our lives and make ourselves environmental friendly. We ought to take care and love nature and take steps to save it. Eg- rainwater harvesting.
- Replace: Replacing a conventional product with an environmental friendly one, without giving up on performance. Eg- replacing old light bulbs with CFLs or LEDs reduce energy bill. They last longer and are safer. Triclosan, chlorine, phenols, quaternary ammonium, PVC, flame retardants, etc are toxic chemicals that can be replaced with green products. Fertilizers and pesticides can be replaced by compost, manure and natural pest controls which make our diet organic and save us from many diseases.
- Reuse: Reuse is a pollution prevention strategy in which a product is used for the same or new purposes without undergoing any physical change.
- Recycling means breaking down waste into raw materials to use it again.

## 2. Write in short on:

(a) Reduce: Reduction is the golden goal of sustainability. It is also the area in which each and every one of us. The two main areas in which we can and we should reduce our consumption are energy and water.

(b) Reinvent: Reinvent means restructuring our demand and supply system to promote sustainability and reduce CO<sub>2</sub> emissions. It also includes changing our mindsets, attitudes and habits. We need to integrate the environmental factor into our lives and make ourselves environmental friendly. We ought to take care and love nature and take steps to save it. Eg- rainwater harvesting.

(c) Replace: Replacing a conventional product with an environmental friendly one, without giving up on performance. Eg- replacing old light bulbs with CFLs or LEDs reduce energy bill. They last longer and are safer. Triclosan, chlorine, phenols, quaternary ammonium, PVC, flame retardants, etc are toxic chemicals that can be replaced with green products. Fertilizers and pesticides can be replaced by compost, manure and natural pest controls which make our diet organic and save us from many diseases.

## 3. Write a note on electronic waste.

A- Electronic waste or e-waste describes discarded electrical or electronic devices. Used electronics which are destined for refurbishment, reuse, resale, salvage recycling through material recovery are also considered as e- waste. Informal processing of e- waste in developing countries can lead to adverse human health effects and pollutions.

## Chapter-12

### SHORT ANSWER TYPE QUESTIONS-

1. Define fibre.

A- Fibre is the very fine hair-like smallest unit and basic building block for making all textile products.

2. Define vegetable fibre.

A- Vegetable fibres are obtained from the cellulose of one or the other parts of the plant. Eg- Cotton, linen, jute, coir, kapok, sisal, pina, ramie, etc.

3. What is man- made fibre?

A- Man-made fibres are synthetic fibres made artificially from a variety of raw materials under controlled conditions.

4. Give two uses of cotton and polyester.

A- COTTON:-

- Because of its good absorption power, it is an ideal summer wear.
- Used as medicated gauze for bandage.

POLYESTER:-

- Used in every form of clothing like dresses, blouses, jackets, suits, etc.
- Used in curtains, draperies, floor coverings, etc.

5. Give two chemical properties of wool.

- Wool does not affect in organic solvents.

- Wool affected by insects.

6. What is meant by blended fibres?

A- Blended fibres are the fibres formed by the blend of two or more types of fibres to get the desired quality of cloth.

7. Which fibre is not affected by moth and mildew?

A- Synthetic fibres are not affected by moth and mildew.

8. Give two thermal properties of silk

- Silk is a poor conductor of heat
- Silk stretches with ironing

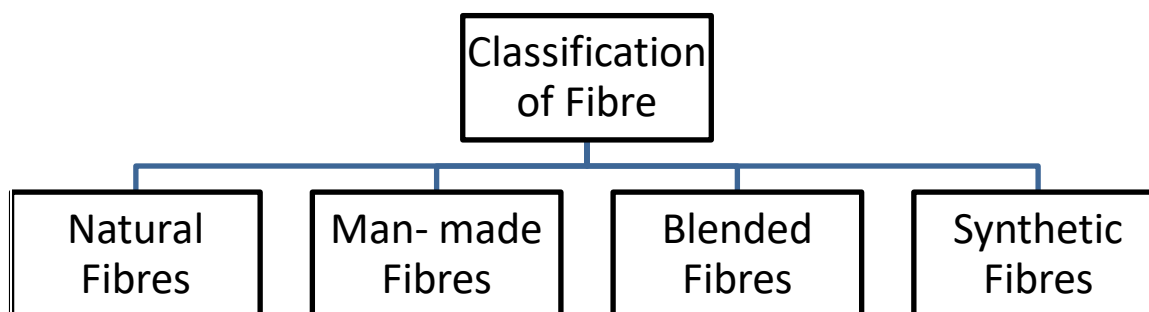
9. Give two physical properties of rayon.

- Rayon is highly absorbent and dyes
- Rayon can be easily elongated

10. Which is considered to be the oldest and the most used natural fiber since ancient times?

A- Flax fibre is considered to be the oldest and the most used natural fiber since ancient times.

11. Provide details of the classification of fibers.



12. What is the difference between silk and cotton fiber?

A-

SILK	COTTON
i- Silk is a protein fibre made by silkworms.	i- The processed cotton fibre consists of nearly pure cellulose.
ii- Silk fibre are soft, fine, smooth, lustrous, warm and strong.	ii- Cotton plant produces large showy, white, cream or yellow flowers.

13. What are the differences between regenerated and synthetic fibers?

A-

REGENERATED	SYNTHETIC
i- Textile fibre is produced by dissolving a natural material (cellulose) and then regenerating it by extrusion and precipitation with viscose.	i- These fibres are made from synthesized polymers or small molecules. The raw materials such as petroleum based chemicals or petrochemicals to make these fibres.
ii- Rayon	ii- Nylon, Polyester

14. What are synthetic fibers? Give two examples.

A- Synthetic fibres are man-made fibres and consist of a small unit or a polymer which is made from many repeating units known as monomers.

15. Why is wool used in making of the woollen clothes?

A- Majority of the woollen clothes are made from wool as wool absorbs moisture and insulates against cold.

16. Why is cotton widely used in hospitals?

A- Cotton is widely used in hospitals as it can be easily boiled and disinfected.

17. Why is nylon easy to wash?

A- Nylon resists absorbing moisture and dries easily; therefore it is easy to wash.

18. Write about any two blended fibers.

A- Cots wool and Terry silk

### LONG ANSWER TYPE QUESTIONS-

1. Differentiate between natural and man-made fiber.

A-

Natural fibre	Man- made fibre
i- These are produced by plants, animals and geological processes.	i- These are produced from the polymerization of various monomers.
ii- Some of the natural fibres are vegetable, wood, animal, mineral.	ii- Man- made fibres consists of regenerated and synthetic fibre.

2. Cotton clothes are best suited for the summers. Justify the statement.

A- Cotton is a very good conductor of heat so it is widely used in summers. We wear cotton clothes during summer as cotton absorbs sweat from the body, exposing to the atmosphere for easy evaporation. As we tend to sweat more during summer, cotton fabrics absorb sweat and help to cool down. Since cotton is a good absorbent, it is also used to make towels.

3. Sunita was working in the kitchen and suddenly her dupatta caught fire. What could be the reason for the same? What precautions should she take to prevent it?

A-Sunita was working in the kitchen and suddenly her dupatta caught fire because the dupatta was made from nylon or polyester, which is a bad conductor of heat. We can use clothes made from cotton fibres when working in the kitchen. Cotton is a very good conductor of heat.

4. Provide details of the physical, thermal, biological properties of rayon.

A- Rayon is manufactured as regenerated cellulose fibre. Some of the properties of rayon are:

- Physical properties – Rayon is soft, comfortable, and drapes well. It is highly absorbent and dyes and prints well. It can be easily elongated. It has non-static and no pilling problems. It has good moisture absorbance. It has shrunk appreciably.

- Thermal properties – These fibres are thermoplastic in nature, heat sensitive, soften and melt on the application of heat. It is a bad conductor of heat.
- Biological properties – The colour, strength, dyeing properties and lustre of rayon are affected by microorganisms like moulds, mildew, bacteria, etc and silverfish.

5. Describe the uses, care and maintenance of polyester in detail.

A- USES:

- Polyester is used in every form of clothing like dresses, blouses, jackets, etc.
- It is used in curtains, draperies, floor coverings, etc.

Care and Maintenance:

- Polyester absorbs oil stains easily. It is best wash and wears fabric. It is washable and dry-cleanable. It should be ironed at low temperature to get maximum durability.
- It requires warm iron.
- It can be dry- cleanable with no hassles.

6. Explain the different types of natural fibers.

A- Natural fibres are hairlike raw materials directly obtainable from an animal, vegetable or mineral source and convertible into non- woven fabrics. Some of the natural fibres are cotton, silk, fur, jute, flax, wool, kapok, hemp.

7. How can we take care of woollen clothes?

A- Wool is washable and absorbent. The garments should be turned inside out before washing wool. For washing wool, we should use neutral mild soap or mild liquid detergent. We should dry the garment at room temperature away from direct sunlight or heat. We should wash dark and light colours separately.

8. ‘Silk is known as the queen of fabrics.’ How can we take care of this?

A- Silk fabrics are soft, fine, smooth, lustrous, warm and stronger than wool and thus called ‘the Queen of the Fibres’ and used for formal wear.

Silk fabrics are very delicate. It is recommendable to do hand wash or dry-clean. We should not use bleach. We should not use dryer. It has poor resistance to prolonged exposure to sunlight.

9. Compare the physical properties of cotton and wool.

A-

COTTON	WOOL
i- Natural cotton fibre is stronger when wet.	i- Wool is one of the weak natural fibres. When it is wet, its strength decreases.
ii- It is low in resiliency, elastic recovery and elongation and the fabrics wrinkles and absorbs moisture easily.	ii- It is good insulator, wrinkle resistant and easy to dye. But wool tends to shrink and absorbs moisture to a high degree.
iii- It is the smallest fibre and its length varies from ½” to 2 ½”.	iii- The length of the fibre varies from 1-15 microns and width from 15-40 microns.
iv- It is prone to wrinkling as it regains its shape after several processes.	iv- As wool regains its original shape it does not require much pressing.

10. Explain in detail, the properties of rayon, its uses and care.

A- Rayon is made from purified cellulose, mainly from wood pulp, which is chemically converted into a soluble compound. Some of the properties of Rayon are:-

- Physical properties – Rayon is soft, comfortable and drapes well. It is highly absorbent and dyes and prints well. It can be easily elongated. It has good moisture absorbance.
- Thermal properties – These fibres are thermoplastic in nature, heat sensitive, soften and melt on the application of heat. Prolonged exposure to sunlight also weakens the fibre due to moisture and ultraviolet light of the sunlight. It is a bad conductor of heat.
- Biological properties – Rayon can get damaged due to silverfish and microorganisms.

USES OF RAYON:



- Rayon fibres are used in apparel industry such as alphashirts, blouses, dresses, jackets, lingerie, scarves, etc.
- Some rayon fibres are used for filling in zippo lighters and furnishings.

**CARE:**

- Rayon is sensitive so it requires gentle detergent or warm water for washing.
- It should be ironed on low or medium temperature.

11. How are the fibers identified? Briefly explain the common types of tests used for the identification of fibers.

A- There are many methods available for the identification of the structural, physical and chemical properties of fibres. Various methods are used for fibre identification like microscopic method, density and staining. End- use property characterization method often involve the use of laboratory techniques which are adapted to simulate actual conditions of average wear on the textile.

The common type of tests used for identification of fibres:-

- Microscopic Test- Microscopic Test is a technical test that involves identifying the fabric with the help of a microscope with a magnification of a minimum 100 powers.
- Appearance Test- The feeling or appearance test requires perception it is to be of any value. Skilled perception is acquired only after handling many different fabrics over a period of time.
- Burning Test – One end of the sample should be put directly into the flame to determine its burning rate and characteristics. The burning odour should be noted and the characteristics of ash such as amount, form, hardness, and colour should be examined.

### Chapter-13

#### SHORT ANSWER TYPE QUESTIONS-

1. What is fabric?

A- - When a yarn is knitted or felted together, it becomes a fabric. Fabric is a flexible material consisting of a network of natural or synthetic fibre. Fabric is an artifact made by weaving, felting or knitting.

2. Define:

- a) Warp- Warps are standing or vertical yarns or parallel to selvedge.
- b) Fabric- Fabric is a flexible material consisting of a network of natural or synthetic fibre. Fabric is an artifact made by weaving, felting or knitting.
- c) Selvedge- A selvedge is a “self-finished” edge of fabric, keeping it from unraveling and fraying.

3. What do you mean by knitting?

A- Knitting is a technique to turn thread or yarn into a piece of cloth. It is a process of fabric forming by the intermeshing of loops of yarns. When one loop is drawn through another, loops are formed in a horizontal or vertical direction.

4. Name the different types of knitting.

A- There are two types of knitting:

- Weft knitting- It is a method of forming a fabric in which— the loops are made in horizontal way from a single yarn and intermeshing of loops take place in a circular or flat form on across wise basis.
- Warp knitting- It is a method of forming a fabric in which— the loops are made in vertical way along the length of the fabric from each warp yarns and intermeshing of loops take place in a flat form of length wise basis.

5. What are non- woven fabrics?

A- Nonwoven fabric is a fabric-like material made by bonding or felting fibres together.

### LONG ANSWER TYPE QUESTIONS-

1. Explain types of basic weaves.

A- a) Plain weave- In this weave, the weft yarn is alternatively passed over and under one warp yarn. Right and wrong sides of fabric look alike. If coloured threads or yarns are used, good designs can be created. The surface of the cloth is

smooth. This weave is the simplest and is very commonly used. Eg- poplin, cambric, muslin, organdy, linen, Rayon, silk, chiffon, wool, crepe, etc

b) Twill weave- In this weave, the weft or warp yarns interlace with more than one warp yarns at regular intervals but never more than 4 warp yarns. By changing the intervals of warp yarns, many attractive patterns can be made. This weave is characterized by diagonal lines on the face of the fabric and is quite durable. Eg- Denim, flannel, drill, jersey, gabardine, etc.

c) Satin weave- In this weave, one side surface of the cloth is very smooth and plain. The weft is woven leaving one or two, two-two or four-four warp yarns. This weave is achieved by floating the warp or weft yarn over four or more of the opposite yarn. It is not very durable. The cloth is super smooth, soft and drapes well.

2. What do you mean by a decorative weave?

A- a) Spot weave- Extra yarn weaves requires extra yarn warp and/or filling yarns to create the design. The extra warp and/or filling yarns are inserted during the weaving process. The surface figure weave is spot weave. Clip-spot, clip-dot, spot-dot is a weaving technique that involves extra weft yarns, usually of a contrasting fibre and/or colour from the plain ground. The extra yarns are woven into the ground in a generally small pattern. Later the wefts, carried on the back of a fabric, are clipped. The surface will appear to be embroidered, and the back will show these cut ends.

b) Pile weave( cut or uncut ) – This weave is used to make a soft pile fabric which is absorbent, insulating and durable. The cut and uncut piles will be found on one side or either side of the fabric. The uncut or loop piles has loops on the face and back of the fabric. Ground yarns and additional yarns for the pile are used. This cloth is used for towels, napkins, sports-shirts, etc.

3. Give the construction method of woven fabrics.

A- Woven fabrics are made by weaving yarns. Weaving is the intersection of two sets of straight yarns, warp and weft, cross and interlace at right angles to each other.

4. Give the end uses of non- woven fabrics.

A- i) Used to make personal hygiene products such as diapers and sanitary napkins.

ii) Used to make medical products

iii) Used to make household goods and home furnishings

iv) Used to make clothing and apparels

5. Give the uses of knitted fabrics.

A- i) Used to make casual wear, party wear, sportswear, undergarments.

ii) Used to make household articles such as bedsheets, bed covers, blankets.

### Chapter-14

#### SHORT ANSWER TYPE QUESTIONS-

1. What do you mean by communication?

A- Communication is the act of transferring information from one place to another and the information transferred must be understandable to the receiver.

2. Define interpersonal communication.

A- Interpersonal Communication is the process of sending and receiving information between two or more people. It differs from other forms of communication in that there are fewer participants involved, the communicators are in close physical proximity, there are many sensory channels and the feedback is immediate.

3. Explain the elements of communication.

A-i) Communicator/Source/Encoder- A communicator is a person who takes the decision to encode a message or to communicate. He encodes the message by speaking, writing, gesturing or smiling. While doing so, he receives message from himself and other person. The art of producing messages is termed as encoding.

ii). Message- Messages refer to the information/ideas/appeals which have to be communicated to the audience or receiver.

iii) Channel- Channel is the medium through which the message passes. It includes verbal or non-verbal forms of communication. The channels are based on 5 sense organs.

a. Vocal/Auditory

b. Visual/Gestural, Pictorial

c. Chemical/Olfactory

d. Cutaneous/Tactile e. Taste/Gustatory

iv) Receiver- Receiver is the person who receives the message or for whom the message is meant for.

v). Feedback- Feedback is the return message transmitted from the receiver to the sender, in the opposite direction. It is action-reaction interdependence.

4. What is the last link of the communication process? Explain.

A- Feedback is the last link of the communication process. Feedback is the return message transmitted from the receiver to the sender, in the opposite direction. It is action-reaction interdependence.

5. What is 'medium' in a communication process?

A-Medium or Channel is the medium through which the message passes. It includes verbal or non-verbal forms of communication. The channels are based on 5 sense organs.

### LONG ANSWER TYPE QUESTIONS-

1. Why is communication important in our day- to- day life?

A-

- Information- This function is primarily performed by mass media which increases our understanding and problem solving ability; enhances social status and gives economic benefits. People learn about news, products, ideas and changes in policy through mass media.
- Influence- The receiver's general beliefs, attitudes, values and understandings can be altered in a desirable way. It creates a common pool of ideas and strengthens togetherness among people.
- Instruction- Instructions from a person in a higher position to a person in a lower position provides knowledge, skill expertise and direction to participate.
- Integration- At the interpersonal level, the purpose of actively in public life.

Eg- offices and businesses Communication is self- integration.

- Bonding- People sharing common values and interests can gather in public forums and bond amongst themselves.

## 2. Explain interpersonal communication.

A- Interpersonal Communication is the process of sending and receiving information between two or more people. It differs from other forms of communication in that there are fewer participants involved, the communicators are in close physical proximity, there are many sensory channels and the feedback is immediate.

## 3. Explain the principles of interpersonal communication.

A- a. IPC is inescapable- We are in a constant state of communication with those around us, through words, gestures, facial expressions, posture and tone of voice.

b. IPC is irreversible- The message sent cannot return to its sender. The effect is inevitable.

c. IPC is complicated- The variables involved in a communication between two persons are multiple.

Eg -refer to the '6 people' theory of communication between two persons.

d. IPC is contextual: Communication does not happen in isolation. There is a psychological context, a relational context, a situational context, an environmental context, and a cultural context.

4. How to improve interpersonal communication? Explain.

A- a. Be assertive: We should be willing to communicate. We should not be passive, withdrawn or inactive while communicating.

b. Be considerate: We should be aware of the other person's background, personality and life experiences.

c. Listen: We should practice 'active listening'. Active listening focuses, voluntary and intentional in nature. The goal is to acquire information, understand a person or a situation, and experience pleasure.

d. Speak: We should follow the 7Cs for effective speaking.

e. Read and Write: Reading improves our comprehension, writing ability and speaking skills. Deep reading implies the ability to connect dots, link thoughts, think critically, and evaluate what we are reading. We should write in the appropriate language. We should improve our writing skills in order to create a better impression on the people.

5. Explain the sender and the medium as an element of communication in detail.

A- A sender is a person who takes the decision to encode a message or to communicate. He encodes the message by speaking, writing, gesturing or smiling. While doing so, he receives message from himself and other person.

Channel is the medium through which the message passes. It includes verbal or non-verbal forms of communication. The channels are based on 5 sense organs.