

HOME SCIENCE(216)
TUTOR MARKED ASSIGNMENT

1. Answer any one of the following questions in about 40-60 words.:

A) Identify any two natural fibers from your surroundings. Why is it advisable to use garments made from natural fibers?

Answer:-

Fibres from Natural Sources:

All the fibres obtained from nature, i.e., plants or animals, are known as natural fibres.

e.g., cotton and linen. The fibres that come from animal sources are also known as protein fibres, e.g., wool and silk. Sources of commonly used natural fibres are shown below in Fig. 10.2.

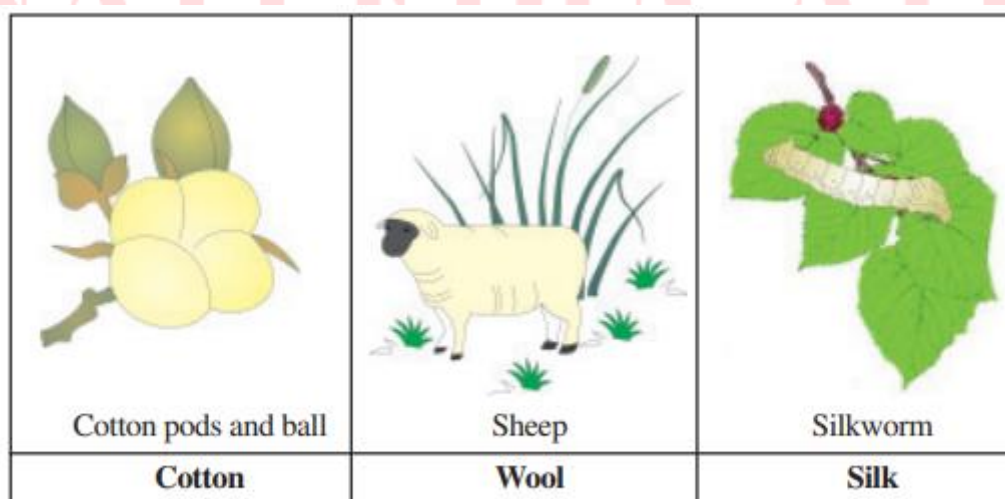


Fig. 10.2: Sources of natural fibres – Cotton, Wool and Silk

It is advisable to use garments made of natural fibres which are eco-friendly in nature. Sometimes synthetic fibres may cause allergies if worn next to skin.

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Table 10.1 Commonly used natural and man-made fibres

Type of fibres	Name of fibre	Sources
NATURAL FIBRES		
Plants (cellulosic)	cotton	cotton ball
	linen	bark of flax stalk
Animal (protein)	wool	hair of sheep, goat, rabbit, llama etc.
	silk	silk worm
MAN-MADE FIBRES / MANUFACTURED		
Regenerated	rayon (viscose, acetate)	cotton linters or wood pulp + chemicals
Synthetic	nylon	chemicals
	polyester	chemicals
	acrylic	chemicals

2. Answer any one of the following questions in about 40-60 words.

B) Sheena's foot accidentally touched a naked wire from the socket and she got an electric shock. State any two appropriate ways for the safe use of electricity at home.

Answer:-

Sheena was enjoying dancing to the music. Accidentally his foot touched the wire and the naked wires came off the socket. Remembering how his father fixed it; he tried to insert the naked wire into the socket; only to get an electric shock

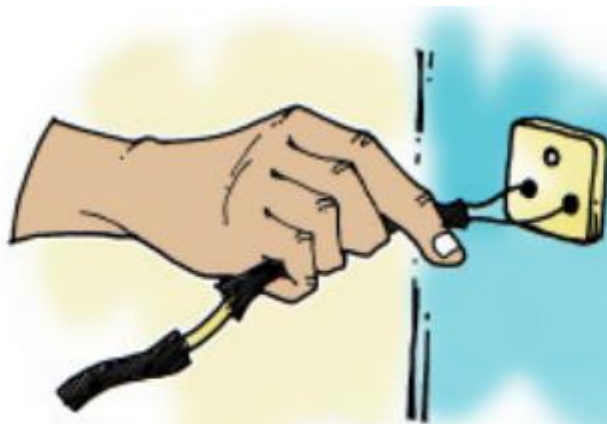


Fig 13.3

Safe use of electricity at home

- i. Do not attach too many appliances on a single socket. It will overheat the wires and cause short circuit.
- ii. Do not touch any electric switch or appliance with wet hands as the water is a good conductor of electricity and will cause a shock.

3. Answer any one of the following questions in about 40-60 words.

A) Baby Mridula is 8 months old. Mention any two characteristic features each of growth and development of children of her age.

Answer:-

Growth and development involves the processes that are genetically programmed as well as those that are influenced by the environment. Development takes place in all aspects such as physical, cognitive, language, social, emotional and others. For example child's increased ability to adjust in groups and make friends is a social aspect of his development.

Characteristic features each of growth and development of children of her age:

- i. Most babies start crawling , while some babies start walking.
- ii. Most babies can sit on their own , while others need a little support.

4. Answer any one of the following questions in about 100-150 words.

A) Define Immunity. How is natural immunity different from acquired immunity? Mention two ways by which we can acquire immunity.

Answer:-

You are exposed to a large number of disease causing agents every day. Your body is able to ward off most of these foreign agents. This overall ability of the body to protect itself against the foreign agents including the disease causing organisms is called immunity.

It is of two types:

- a) Natural immunity
- b) Acquired immunity

a) **Natural immunity**

It is present from the time of birth and provides a general protection against the entry of any foreign agents into our body. Some of the components of natural immunity are the various types of barriers such as the skin and the mucous membranes that prevent entry of foreign agents into the body. Hydrochloric acid in the stomach kills the germs entering our body along with food.

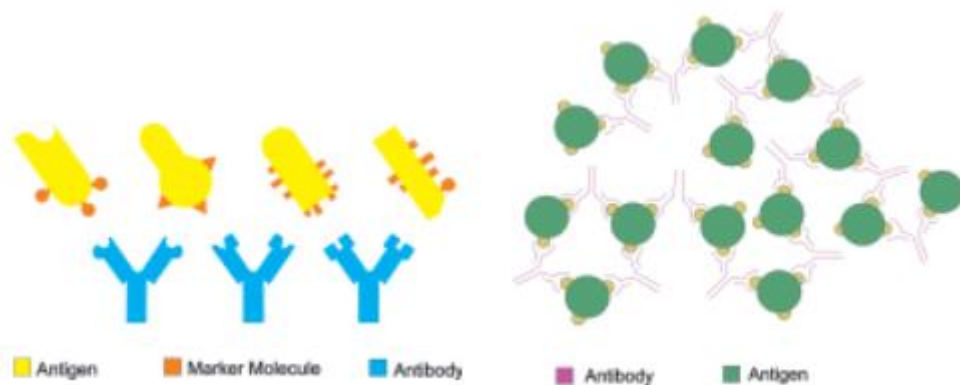


Fig.7.14

b) **Acquired immunity-**

It develops during one's life time and is therefore known as acquired immunity. It works on the simple principle of producing antibodies in response to antigens .

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We can acquire immunity :

- 1) **Through exposure:**
Any previous infection or exposure to a disease gives immunity against the disease. This is the natural way to acquire.
- 2) **By vaccination:**
Vaccines are inactivated or weakened pathogens or their products that function as antigens or foreign agents.

5. Answer any one of the following questions in about 100-150 words.

- A) Tarun is a student of class 12th. He wants to pursue his career as a Engineer. Help him to identify the four steps of management to use his resources effectively to achieve his goal.**

Answer:-

Resources are always limited. The money available to us is limited. To achieve our goals, we have to manage within the limited resources. Each one of us has limited resources to achieve the goals. It is therefore, important to use them wisely. Given below are some guidelines to use resources efficiently:

- i. Do not waste resources.
- ii. Conserve resources.
- iii. Try alternative ways of using resources.
- iv. Learn ways to make resources last longer.
- v. While conserving resources make sure you do not deprive others.

6. Answer any one of the following questions in detail.

- B. Each nutrient has a specific role in keeping us healthy. If we start eating the food with missing nutrients, symptoms of the disease will start appearing.**
- Write any two functions of the following nutrients that are important to sustain life. Dietary fiber, water, vitamin A**
 - Make a diet plan for yourself in terms of inclusion of food groups and balanced diet in a tabular form.**

Answer:-

(i) Functions of the Nutrients

1. **Dietary Fiber:**

- Promotes Digestive Health:** Dietary fiber is essential for promoting regular bowel movements and preventing constipation. It adds bulk to the stool and helps food pass smoothly through the digestive system.
- Helps Maintain Healthy Cholesterol Levels:** Soluble fiber, in particular, can help lower cholesterol levels by binding to cholesterol particles in the digestive system and removing them from the body, reducing the risk of heart disease.

2. **Water:**

- Maintains Hydration and Fluid Balance:** Water is vital for maintaining the body's hydration levels, which is necessary for every cell, tissue, and organ to function properly. It helps maintain fluid balance, which is crucial for circulation, digestion, and temperature regulation.
- Supports Metabolic Processes:** Water is involved in many metabolic processes, including digestion, nutrient transport, and the elimination of waste products. It acts as a solvent for biochemical reactions and aids in the absorption of nutrients.

3. **Vitamin A:**

- Supports Vision:** Vitamin A is essential for the maintenance of normal vision. It is a component of rhodopsin, a protein in the eyes that absorbs light in the retinal receptors, which is crucial for low-light and color vision.
- Enhances Immune Function:** Vitamin A plays a critical role in maintaining the integrity of the skin and mucous membranes, which act as a barrier to infections. It also supports the production and function of white blood cells, which help fight infections.

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(ii) Sample Diet Plan in Tabular Form

MEAL	FOOD GROUPS INCLUDED	EXAMPLE FOODS	NUTRITIONAL BENEFITS
BREAKFAST	Whole Grains, Fruits, Protein	Oatmeal with berries, Scrambled eggs, Whole-grain toast	Provides energy, fiber, vitamins, protein, and healthy fats
MID-MORNING SNACK	Dairy, Fruits	Low-fat Yogurt, Apple	Source of calcium, probiotics, fiber, and vitamins
LUNCH	Vegetables, Protein, Whole Grains	Grilled Chicken, Brown Rice, Mixed Salad (spinach, tomatoes, cucumbers)	High in protein, fiber, vitamins, and minerals
AFTERNOON SNACK	Vegetables, Healthy Fats	Carrot Sticks, Hummus	Rich in fiber, vitamins, and healthy fats
DINNER	Lean Protein, Vegetables, Whole Grains	Baked Salmon, Quinoa, Steamed Asparagus	Provides essential fatty acids, fiber, vitamins, and protein
EVENING SNACK	Nuts, Fruits	Mixed Nuts, Orange	Offers healthy fats, fiber, vitamins, and antioxidants