

Section A

Answer1: B. Managing home and family life

Answer2: C. Parents and their children

Answer3: D. Skills

Answer4: C. Proteins

Answer5: B. Planning

Answer6: B. Use of modern technology in daily life

Answer7: Resource management

Answer8 : biodegradable

Answer 9: cold

Answer 10: Family

Answer 11: Management

Answer 12: Time

Answer 13: C. A is true, but R is false.

Answer 14: C. A is true, but R is false.

Answer15 : C. A is true, but R is false.

Section - B

Ans:16. Animal fibers are called **protein fibers** because they are made of proteins. Examples include **wool** (from sheep) and **silk** (from silkworms).

Ans:17 The fat-soluble vitamins are **Vitamin A, D, E, and K**. These vitamins are stored in the body's fat tissues and liver.

OR

Ans: Vitamin C is also known as **Ascorbic Acid**. It is a water-soluble vitamin essential for immunity, wound healing, and iron absorption.

Ans: 18. A balanced diet is a diet that contains all the essential nutrients — **carbohydrates, proteins, fats, vitamins, minerals, water, and roughage** — in the right proportions to maintain health, growth, and proper body functioning.

Ans: 19. Wool is obtained from the **hair or fleece of animals** such as **sheep, goats, yak, camel, alpaca, and rabbit** (Angora). These animals have a thick coat of hair that provides the wool fibers.

Ans: 20. According to Super and Keller, *“The family is a social unit consisting of a man and a woman who are married, and children, if any, born or adopted, living together and sharing a common household.”*

OR

Ans: According to McIver and Page, *“Family is a group defined by a sex relationship, sufficiently precise and enduring to provide for the procreation and upbringing of children.”*

Ans: 21. Social development refers to the **process of learning to interact** with others, building relationships, and understanding social norms. It helps individuals develop **communication skills, cooperation, empathy, and responsible behavior** in society.

Ans: 22. The five main fields of Home Science are:

1. **Food and Nutrition**
2. **Human Development**
3. **Clothing and Textiles**

4. **Resource Management**
5. **Communication and Extension**

Section -C

Ans:23.

1. **Empowerment:** Girls' education empowers them to become independent and make informed decisions.
2. **Economic Growth:** Educated girls contribute to the economic development of their families and the nation.
3. **Improved Health and Well-being:** Educated women are more likely to ensure better health, hygiene, and nutrition for themselves and their families.

Ans:24.

1. **Meaning:** Growth refers to the **physical changes** in the body such as increase in height, weight, and size. Development refers to **overall changes**, including physical, emotional, social, and intellectual abilities.
2. **Measurement:** Growth is **quantitative** and can be measured (e.g., in centimeters or kilograms), while development is **qualitative** and cannot be measured easily.
3. **Scope:** Growth is a **part of development**, whereas development is a **wider concept** that includes growth and other progressive changes.

Ans: 25.

The development of teeth in children occurs in two stages:

1. **Milk Teeth (Primary Teeth):** These begin to appear around **6 months of age** and are usually **20 in number**. They help in chewing and speech development.
2. **Permanent Teeth:** These replace milk teeth starting around **6 years of age** and are usually **32 in number**.

Proper nutrition and dental hygiene are essential for healthy tooth development in children.

Ans: 26.

Nutrients are the chemical substances present in food that are essential for the body's growth, development, and maintenance of health.

The main nutrients found in food are:

1. **Carbohydrates**
2. **Proteins**
3. **Fats**

4. **Vitamins**
5. **Minerals**
6. **Water**
7. **Roughage (dietary fiber)**

OR

Ans:

1. **Provide Energy:** Carbohydrates are the main source of **energy** for the body. They are quickly broken down into glucose, which fuels body functions and physical activity.
2. **Protein Sparing Function:** Carbohydrates prevent **proteins** from being used as an energy source, allowing them to perform their primary role of body building and repair.
3. **Helps in Fat Metabolism:** Carbohydrates help in the **complete breakdown of fats**, preventing the formation of harmful substances like ketones in the body.

Ans: 27.

Fibers are classified into two main types based on their length:

1. **Staple Fibers:** These are **short-length fibers** that vary in size and require spinning to form yarn.
 - *Examples:* Cotton, Wool.
2. **Filament Fibers:** These are **long, continuous fibers** that can be used directly to make yarn.
 - *Examples:* Silk (natural filament), Nylon and Polyester (synthetic filaments).

OR

Ans:

1. **Soft and Comfortable:** Cotton fiber is soft to touch, breathable, and comfortable to wear, especially in hot climates.
2. **High Absorbency:** Cotton can absorb moisture well, which helps in keeping the body cool and dry.
3. **Good Strength and Durability:** Cotton fibers are strong and can withstand regular washing and wear, making them long-lasting.

Ans:28

1. **Utility:** Resources must be useful and help in fulfilling human needs or goals.

2. **Limited Availability:** Most resources are limited in supply and must be used wisely and efficiently.
3. **Manageability:** Resources can be planned, organized, and controlled to achieve personal, family, or societal objectives effectively.

Ans:

1. **Use Both Sides of Paper:** Always print or write on **both sides** of the paper to reduce waste.
2. **Go Digital:** Use **electronic documents, emails, and online notes** instead of paper wherever possible.
3. **Recycle and Reuse:** Reuse old paper for rough work and ensure **used paper is recycled** properly.

OR

Ans : Duties of Primary Caregiver or Primary assistant

1. **Health Monitoring and Medical Support:**
They regularly observe the patient's health, provide basic medical care, and ensure timely medication.
2. **Emotional and Physical Care:**
They support the emotional well-being of the individual and assist with daily activities like bathing, feeding, and mobility.
3. **Liaison and Guidance:**
They coordinate with doctors or health services when needed and educate the family about proper health care practices.

Section -D

Ans:30.

Main Sources of Protein:

1. **Animal Sources:** Meat, fish, eggs, milk, cheese, and curd – these provide complete proteins containing all essential amino acids.
2. **Plant Sources:** Pulses (like lentils, chickpeas), nuts, seeds, soybeans, and whole grains – these provide incomplete proteins but are important in a vegetarian diet.

Functions of Protein:

1. **Body Building:** Proteins are essential for the **growth and repair** of body tissues.
2. **Maintenance of Body Cells:** They help in the **formation and replacement** of worn-out cells.
3. **Production of Enzymes and Hormones:** Proteins are involved in producing **enzymes and hormones** that regulate body functions.
4. **Immune Function:** Proteins help build **antibodies** that fight infections and boost immunity.
5. **Energy Supply:** When carbohydrates and fats are insufficient, proteins provide **energy** to the body.

OR

Ans:

The physical functions of food are related to the **growth, development, maintenance, and repair** of the body. These include:

1. **Growth and Development:** Food provides essential nutrients like **proteins, minerals, and vitamins** that help in the **formation of new tissues** and support overall body growth.
2. **Energy Supply:** Carbohydrates and fats in food act as **fuel**, providing the **energy** required for daily activities and body functions.
3. **Body Repair and Maintenance:** Nutrients, especially **proteins**, help in **repairing damaged tissues** and maintaining healthy body cells.
4. **Regulation of Body Processes:** Food helps regulate **internal processes** like digestion, blood circulation, and temperature control through vitamins and minerals.
5. **Protection Against Diseases:** Nutrients in food, like **vitamins A, C, E, and minerals**, help in **boosting immunity** and protecting the body from infections and illnesses.

Ans:31

Source of Silk:

Silk is a **natural animal fiber** obtained from the **cocoon of the silkworm**, mainly the *Bombyx mori*. The silkworm spins the cocoon using a protein called **fibroin**, which forms the silk thread.

Main Physical Characteristics of Silk Fiber:

1. **Lustrous Appearance:** Silk has a **natural shine and smooth texture**, making it attractive and luxurious.
2. **Soft and Smooth:** It feels **soft against the skin** and drapes well, providing comfort and elegance.
3. **Strong Fiber:** Silk is one of the **strongest natural fibers**, though it loses strength when wet.

4. **Elasticity:** Silk has **moderate elasticity**, which helps it resist wrinkling to some extent.
5. **Absorbent:** Silk can **absorb moisture** well, making it comfortable to wear in different climates.

OR

Q: Explain physical properties of wool fiber. (5 marks)

Ans:

1. **Soft and Warm:** Wool is a **soft** fiber that provides **excellent insulation**, keeping the body warm in cold weather.
2. **Elasticity:** Wool has good **elasticity**, allowing it to **stretch and return to its original shape** without wrinkling easily.
3. **Absorbency:** Wool can absorb up to **30% of its weight in moisture** without feeling wet, making it comfortable to wear.
4. **Crimped Texture:** Wool fibers are naturally **crimped (wavy)**, which helps trap air and enhance insulation.
5. **Resilience:** Wool is **resilient** and **resistant to wear and tear**, making it durable for long-term use.