

Class 6 Science Ch 2 Components of Food

Short Question and Answers:-

B. Give one word for the following.

1. Substances needed by our body for proper growth and healthy body functions

Ans: Nutrients – Substances needed by our body for proper growth and healthy body functions

2. A condition caused due to excess body fat.

Ans: Obesity – A condition caused due to excess body fat

3. Minerals that are needed by the body in larger amounts

Ans: Macro-minerals – Minerals that are needed by the body in larger amounts

4. Diseases caused due to lack of nutrients in the diet over a long period of time

Ans: Deficiency diseases – Diseases caused due to lack of nutrients in the diet over a long period of time

5. A disease caused by lack of iron in the diet

Ans: Anaemia – A disease caused by lack of iron in the diet

III. Short answer type questions.

1. Define nutrients. List the nutrients present in food.

Ans: Nutrients are substances in food that are essential for the growth, development, and proper functioning of our body.

The main nutrients present in food are:

a)	Carbohydrates	b)	Proteins	c)	Fats
d)	Vitamins	e)	Minerals	f)	Water
g)	Dietary fibre (roughage)				

2. Why do we need carbohydrates? Name three sources of carbohydrates in our food.

Ans: Carbohydrates are the main source of energy for our body. They help us perform daily activities and bodily functions.

Three sources of carbohydrates are:

a)	Rice	b)	Potatoes	c)	Wheat
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3. Differentiate between saturated and unsaturated fats.

Ans: a) **Saturated fats:** These are solid at room temperature and are mainly found in animal products like butter and ghee.

b) **Unsaturated fats:** These are liquid at room temperature and are mainly found in plant-based oils like sunflower oil and olive oil.

4. What is a balanced diet? Why is it important to have a balanced diet?

Ans: A balanced diet is a diet that contains all the essential nutrients—carbohydrates, proteins, fats, vitamins, and minerals—in the right proportion.

It is important because it helps maintain good health, supports growth, provides energy, and protects the body from diseases.

5. What are deficiency diseases? Name any two deficiency diseases and their causes.

Ans: Deficiency diseases are diseases that occur due to the lack of essential nutrients in the diet over a long period of time.

Examples:

a) **Scurvy** – caused by the deficiency of Vitamin C

b) **Rickets** – caused by the deficiency of Vitamin D

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Long Question and Answers:-

IV. Long answer type questions.

Q.1 What is a balanced diet? Discuss the different food groups that should be included in a balanced diet.

Ans: A balanced diet is a diet that includes all the essential nutrients in the right proportions required for the healthy functioning of the body. It provides energy, supports growth, and protects the body from diseases.

A balanced diet should include:

- * **Carbohydrates:** Main energy-giving food (e.g., rice, wheat, potatoes).
- * **Proteins:** Body-building food, important for growth and repair (e.g., eggs, pulses, milk).
- * **Fats:** Provide energy and help absorb certain vitamins (e.g., butter, oil, nuts).
- * **Vitamins and Minerals:** Protect the body from diseases and maintain proper body functions (e.g., fruits, vegetables, milk).
- * **Water:** Essential for digestion, temperature regulation, and transport of substances.
- * **Roughage (Dietary Fibre):** Helps in proper digestion and bowel movement (e.g., whole grains, vegetables).

Q.2 Why are minerals important for the body? Describe the two groups of minerals.

Ans: Minerals are essential nutrients required by the body in small amounts to perform various important functions like bone formation, blood production, nerve function, and maintaining fluid balance.

The two groups of minerals are:

- * **Macro-minerals:** Required in larger amounts. Examples:
 - * **Calcium:** For strong bones and teeth
 - * **Phosphorus:** Helps in bone development
 - * **Magnesium, Sodium, and Potassium**
- * **Micro-minerals (Trace elements):** Required in very small amounts. Examples:
 - * **Iron:** Helps in the formation of hemoglobin in blood
 - * **Iodine:** Important for thyroid function
 - * **Zinc and Fluoride**

Q.3 Write a short note on roughage.

Ans: Roughage, or dietary fibre, is the indigestible part of plant food. Although it does not provide nutrients or energy, it is essential for maintaining a healthy digestive system.

Functions of Roughage:

- * Helps in proper bowel movement
- * Prevents constipation
- * Aids in removing waste from the body
- * Keeps the digestive tract healthy

Sources: Whole grains, fruits, vegetables, and legumes.

Q.4 What is PEM? List the common symptoms of PEM in children.

Ans: PEM stands for **Protein-Energy Malnutrition**. It occurs due to the lack of adequate protein and calories in the diet, especially in growing children.

Common types of PEM:

- * **Kwashiorkor** – Caused by protein deficiency
- * **Marasmus** – Caused by both protein and calorie deficiency

Symptoms of PEM in children:

- * Severe weight loss
- * Weakness and fatigue
- * Swollen belly (Kwashiorkor)
- * Thin limbs with visible bones (Marasmus)
- * Stunted growth
- * Poor immunity and frequent infections

Q.5 Explain the causes and symptoms of each of the following deficiency diseases:

Ans: (a) Rickets

Causes:

- * Rickets is caused by a deficiency of **Vitamin D**, calcium, or phosphate in the diet.
- * It leads to poor absorption of calcium and phosphorus needed for bone development.

Symptoms:

- * Soft and weak bones
- * Bowed legs or knock knees
- * Delayed growth and development
- * Pain in the bones and muscles
- * Dental problems

Prevention:

- * Adequate intake of Vitamin D through sunlight exposure, milk, and fish
- * A balanced diet rich in calcium and phosphorus

(b) Beriberi

Cause: Deficiency of Vitamin B1 (Thiamine).

Symptoms:

- * Weak muscles and fatigue
- * Nerve damage leading to tingling or loss of sensation in hands and feet
- * In severe cases, difficulty walking, shortness of breath, and heart failure

(c) Anaemia

Cause: Deficiency of **iron**, which is needed to produce haemoglobin in red blood cells.

Symptoms:

- * Fatigue and weakness
- * Pale skin and shortness of breath
- * Dizziness or headaches

(d) **Goitre**

Cause: Deficiency of iodine, necessary for thyroid hormone production.

Symptoms:

- * Swelling in the neck due to an enlarged thyroid gland
- * Difficulty swallowing or breathing in severe cases
- * Fatigue and weight gain (if associated with hypothyroidism)
