

## **TEXTBOOK ANSWERS Objective Type Questions**

### **Name the following:**

- (a) Carbohydrates and fats (b) Proteins (c) Starch (d) Vitamin A  
(e) (i) Iron, (ii) Iodine (f) Dietary fibre and water (g) Junk foods  
(h) Jowar, bajra, ragi, foxtail millet (i) Iodine solution  
(j) Vitamin C

### **Fill in the blanks with suitable words:**

- a) Anaemia (b) Balanced (c) Goitre (d) Junk (e) Food miles  
(f) Food wastage

### **State whether the following statements are true or false:**

- (a) False (b) True (c) False (d) True (e) True (f) True

## **Subjective Type Questions**

### **Short Answer Type Questions**

1. Fats provide energy to our body and serve as a rich source of stored energy. Sources of fat are butter, ghee, and groundnut oil.
2. The major nutrient provided by the following foodstuffs are:  
(a) Butter – Fats (b) Potatoes – Carbohydrates (c) Chapati – Carbohydrates (d) Fish – Proteins (e) Sugar – Carbohydrates
3. Energy-giving foods are foods rich in carbohydrates and fats, which provide energy for daily activities. Examples: Rice and butter.
4. Proteins are essential for the growth and repair of our body, which is why foods containing proteins are known as body-building foods. Five protein-rich food items are eggs, milk, fish, pulses, and soya beans.

5. Vitamin B1 is essential for growth and proper functioning of the digestive system, heart, nerves and muscles. Two sources of vitamin B1 are Whole grains and Potatoes.

6. The body needs minerals for proper functioning, normal growth, and good health. Minerals are needed to build bones and teeth, formation of blood, coagulation of blood; and functioning of muscles, nerves, thyroid gland, etc. Five important minerals required in the body are Calcium, Phosphorus, Iron, Iodine, and Sodium.

7. Take a small amount of the food sample and add a few drops of iodine solution. If the food turns blue-black, starch is present.

8. Crush the groundnuts on a piece of paper and observe. If a greasy spot appears, it confirms the presence of fat.

9. A growing child needs more protein because proteins are essential for growth, development, and making body tissues.

10. A labourer performs intense physical work, which requires more energy. Carbohydrates provide quick energy for their activities.

11. Two pre-cooking practices which lead to the loss of nutrients in food materials are: (a) Repeated washing of rice and pulses, (b) Washing fruits and vegetables after they have been peeled and cut.

12. We should include fresh fruits and raw vegetables in our diet because they provide essential vitamins, minerals, and dietary fibres that promote overall health.

13. The deficiency of vitamin D in the diet leads to a disease called rickets, especially in small children. The symptoms of the

disease called rickets are weak bones, bow legs, and pigeon type chest.

14. The disease caused by the deficiency of: (a) Vitamin A – Night blindness (b) Vitamin B1 – Beri-Beri (c) Vitamin C – Scurvy (d) Vitamin D – Rickets

15. The person is suffering from goitre. The cause of this disease is a deficiency of iodine in the diet.

### **Long Answer Type Questions**

1. The main components of our food are carbohydrates, fats, proteins, vitamins, minerals, fibre, and water. Carbohydrates act as the primary source of energy for our bodies. They provide instant energy, which is essential for carrying out various bodily functions and physical activities. Some common sources of carbohydrates in our diet include rice, wheat (chapati, bread), and potatoes.

2. Vitamins are necessary for good eyesight; healthy teeth, gums and bones; proper digestion; normal growth; and good health. Vitamins help protect our bodies against diseases. Vitamin A protects the eyes, skin and hair. So, vitamin A is necessary for good eyesight and healthy skin and hair. The various sources of vitamin A are foods such as Milk and butter.

3. Water provides a liquid in which other substances can dissolve and move within the body or be eliminated from the body. Water is needed by our body: (i) To transport digested food to the body cells (ii) To transport important chemicals such as hormones around the body (iii) To get rid of waste products from the body through urine and sweat (iv) To control and regulate the temperature of the body by the process of sweating

and evaporation. We get most of the water that our body needs by drinking water, milk, tea, coffee, and juice, etc. Fresh fruits and vegetables also provide us with a lot of water. For example, tomatoes, melons, cabbage and lettuce contain a lot of water.

4. Dietary fibres (or roughage) are the fibrous matter in food which cannot be digested in our body. Dietary fibre is needed for the normal working of our digestive system. This happens as follows: Dietary fibre provides bulk to the food, due to which the food and waste matter of the body (feces) keep moving along the intestines and help to prevent constipation. The two sources of dietary fibre in our foods are Fruits and vegetables.

5. Two foods each rich in: (a) Fats Butter, Groundnut oil (b) Starch Potatoes, Rice (c) Dietary Fibre Whole grains, Fresh fruits (d) Protein Fish, Pulses

6. A diet which contains adequate amounts of all the nutrients such as carbohydrates, fats, proteins, vitamins and minerals (sufficient for the normal growth and development of the body) is called a balanced diet. A balanced diet also contains sufficient amount of water and dietary fibre. The balanced diet of a child differs from that of a grown-up man because children require more proteins for growth and body development, whereas adults need proteins mainly for maintaining body functions. Children also need more carbohydrates and fats for energy as they are more active and growing, while adults require a diet that helps maintain energy levels and prevent diseases. Additionally, children need more calcium and vitamin D for strong bone development, while adults require these nutrients to maintain bone strength and prevent deficiencies like osteoporosis.

7. The presence of proteins in a food material is tested based on the fact that proteins give a violet colour with an alkaline solution of copper sulphate. The presence of proteins in a given

foodstuff can be tested as follows: (i) Take 2 mL of the given foodstuff solution (or suspension) in a test tube. (ii) Add a little of dilute sodium hydroxide solution till the mixture clears. (iii) Add 2 or 3 drops of copper sulphate solution and shake the test tube. (iv) If a violet colour appears in the solution, then protein is present in the given foodstuff. If, however, the solution remains blue (which is the colour of copper sulphate solution), then protein is not present in the given foodstuff.

8. Junk foods are foods that are high in calories, fats, sugars, and salts but low in essential nutrients like vitamins, minerals, and fibre. These foods provide instant energy but lack the necessary nutrients required for a healthy body. Some of the examples of junk foods are: Potato wafers (or Potato chips), Candy (Lollies and Sweets), Fries, Burgers, Pizzas, Donuts, Cakes, Chocolates, Ice cream, Carbonated drinks and Energy drinks. Regular consumption of junk foods can lead to obesity, which increases the risk of health problems such as diabetes, heart disease, and high blood pressure.

9. Millets are a group of small-sized food grains which have been an important part of the Indian diet in some parts of our country for centuries. Millets are highly nutritious food grains which are rich in proteins, vitamins (such as B-vitamins), minerals (like calcium and iron), and dietary fibre. Millets include a variety of grains. The examples of important millets are: (i) Pearl millet (Bajra), (ii) Sorghum (Jowar), (iii) Finger millet (Ragi), and (iv) Barnyard millet (Sanwa).

10. When food meant for human consumption is thrown away carelessly due to avoidable habits or situations, it is called wastage of food. Here are some common ways food is wasted in our country: (i) Leaving Food Un-eaten in Plate (ii) Over-Eating (iii) Over-Ordering Food at Restaurants (iv) Cooking

## Too Much Food at Weddings and Other Social Functions. (v) Improper Storage of Leftover Food

11. The entire distance travelled by a bag of wheat (or any other food) from the producer to the consumer is called its 'food miles.' Journey of Food from Farm to our Plate: (i) Growing Wheat Crop: Farmers sow wheat seeds in the fields. (ii) Harvesting: The ripe wheat crop is cut down. (iii) Threshing and Winnowing: Wheat grains are separated from the harvested crop. (iv) Storage of Grains: Wheat grains are packed in gunny bags and stored in godowns. (v) Grinding and Packing: Wheat grains are ground into flour at flour mills and packed in bags. (vi) Transport to Wholesaler: Bags of wheat flour are sent to wholesalers and then to retailers. (vii) At the Retail Shop: Consumers buy wheat flour from grocery shops. (viii) Food on Our Plate: Flour is used to make chapatis, which are eaten with vegetables or pulses.

### **Multiple Choice Questions**

1. (d) starch 2. (a) vitamin D 3. (a) A 4. (c) iron 5. (c) to release energy 6. (d) vitamin D 7. (c) vitamin D 8. (b) a piece of bread 9. (a) milk 10. (c) fat 11. (b) starch 12. (b) yellow of an egg 13. (b) vitamin D 14. (c) rajma 15. (b) chickpea