### #634254

Topic: Nutrition, nutritional requirement and disorders

Name the following:

- (a) The nutrients which mainly give energy to our body.
- (b) The nutrients that are needed for growth and maintenance of our body.
- (c) A vitamin required for maintaining good eyesight.
- (d) A mineral that is required for keeping our bones healthy.

#### Solution

(a) Carbohydrates are one of the main types of nutrients found in food. They are the most important source of energy for the body of many organisms, including humans. Carbohydrate provides about 4 kcal per gram and is the energy that is used first to fuel muscles and the brain. Fat is also one of the three main macronutrients, along with carbohydrate and protein. Compared to carbohydrate and protein, each gram of fat provides more than twice the amount of calories (9 kcal per gram).

So, the answer is Carbohydates and Fats.

- (b) Protein is the major structural component of cells and is responsible for the building and repair of body tissues. Proteins are organic molecules made up of amino acids th building blocks of life. These amino acids are joined together by chemical bonds. They do most of the work in cells and are required for the structure, function, and regulation of the body's tissues and organs.
- So, the answer is Proteins.
- (c) Vitamin A is a fat soluble vitamin that is also a powerful antioxidant. Vitamin A plays a critical role in maintaining healthy vision, neurological function, healthy skin, healthy immune system, and cell growth.
- So, the answer is Vitamin A.
- (d) Minerals are components of foods that are involved in many body functions. For example, calcium helps to maintain and build strong bones and teeth and iron is needed fo our red blood cells to transport oxygen.
- So, the answer is Calcium.

### #634262

Topic: Nutrition, nutritional requirement and disorders

Deficiency diseases can be prevented by eating a balanced diet.



True

**B** False

# Solution

Deficiency disease is a disease caused by a lack of essential dietary elements and especially a vitamin or mineral. A balanced diet is the diet that focuses on providing all the nutrients that the body needs. It comprises of macronutrients like protein, carbohydrates and fat along with micronutrients like vitamins and minerals. Hence, by eating a balanced diet, deficiency diseases can be prevented.

So, the given statement is true.

# #634264

Topic: Nutrition, nutritional requirement and disorders

A balanced diet for the body should contain a variety of food items.



True

False

# Solution

A balanced diet is the diet that focuses on providing all the nutrients that the body needs. It comprises of macronutrients like protein, carbohydrates and fat along with micronutrients like vitamins and minerals. All these nutrients can be found in a variety of food items. Hence, A balanced diet for the body should contain a variety of food items. So, the given statement is true.

# #634271

Topic: Nutrition, nutritional requirement and disorders

...... is caused by deficiency of Vitamin D.

# Solution

Vitamins help to regulate chemical reactions in the body. There are 13 vitamins, including vitamins A, B complex, C, D, E, and K. Deficiency of vitamin D results in reduced absorption of calcium and phosphorus, making it difficult to maintain proper calcium and phosphorus levels in bones, which can cause rickets. It is found in children and adolescents.

Hence, rickets is caused by deficiency of Vitamin D.

#### #634277

Topic: Nutrition, nutritional requirement and disorders

Deficiency of vitamin C causes a disease known as

#### Solution

There are 13 vitamins, including vitamins A, B complex, C, D, E, and K. A condition caused by a severe lack of vitamin C (ascorbic acid) in the diet is known as scurvy. Symptoms of scurvy include bruising, bleeding gums, weakness, fatigue and rash.

# #634279

Topic: Nutrition, nutritional requirement and disorders

Night blindness is cause due to deficiency of ...... in our food.

#### Solution

Night blindness is cause due to deficiency of Vitamin A in our food.

Vitamin A is a fat soluble vitamin that is also a powerful antioxidant. Vitamin A plays a critical role in maintaining healthy vision, neurological function, healthy skin, healthy immune system, and cell growth. Night blindness is caused by deficiency of vitamin A in blood and tissues.

### #634282

Topic: Nutrition, nutritional requirement and disorders

Why should a meal have different food items?

# Solution

Human body needs different kinds of nutrients for proper functioning. A single type of food item does not have all the nutrients we need in the optimum amounts. Eating a variety of foods items provides all the necessary nutrients in required amounts.

Hence, a meal should have different food items.

# #634293

Topic: Nutrition, nutritional requirement and disorders

Name two nutrients which protect the body from diseases.

# Solution

Vitamins and Minerals are the two nutrients that protect the body from diseases.

# #634299

Topic: Nutrition, nutritional requirement and disorders

Name various types of vitamins.

# Solution

Vitamins help to regulate chemical reactions in the body. There are 13 vitamins. They are: Vitamin A, Vitamin B complex, Vitamin C, Vitamin D, Vitamin E, and Vitamin K. Vitamin are not a source of energy.

# #634300

Topic: Nutrition, nutritional requirement and disorders

Name a vitamin which represents a group of vitamins.

# Solution

Vitamin B-complex are a class of water-soluble vitamins that play important roles in cell metabolism. Vitamin B- complex consists of a group of vitamins including, Vitamin B1, Vitamin B2, Vitamin B3, Vitamin B5, Vitamin B6, Vitamin B7, Vitamin B9 and Vitamin B12.

#634301	
Topic: Nutrition, n	utritional requirement and disorders
Name two sources of vitamin A.	
Solution	
Vitamin A is a fat	soluble vitamin that plays a critical role in maintaining healthy vision, neurological function, healthy immune system, and cell growth. The sources of vitamin
are:	
(i) Fish oil	
(ii) Carrots	
(iii) Spinach	
(iv) Milk	
#634303	
Topic: Nutrition, n	utritional requirement and disorders
Write two sources	of vitamin B.
Solution	
Vitamin B are a c	ass of water-soluble vitamins that play important roles in cell metabolism. The sources of vitamin B are:
	cts- fish, poultry, meat, eggs
(ii) Soy	
(iii) Beans	
#634304	
Topic: Nutrition, n	utritional requirement and disorders
Write two sources	of vitamin C.
Solution	
Vitamin C (ascort	ic acid) is a water-soluble vitamin that helps to repair and regenerate tissues, protect against heart disease and aid in the absorption of iron. The sources of
vitamin C are:	
(i) Citrus fruits like	e orange, grapefruit, lime
(ii) Kiwi	
(iii) Amla	
(iv) Strawberries,	raspberries, blueberries, and cranberries
#634305	
	utritional requirement and disorders
Write two sources	, ot vitamin ט.
Solution	
	o a group of fat-soluble vitamins, responsible for increasing intestinal absorption of calcium, magnesium, and phosphate. The sources of vitamin D are:
	o a group of fat-soluble vitamins, responsible for increasing intestinal absorption of calcium, magnesium, and phosphate. The sources of vitamin D are: tuna, mackerel, salmon
Vitamin D refers t	tuna, mackerel, salmon

- (iv) Egg yolks

# #634321

**Topic:** Nutrition, nutritional requirement and disorders

What are nutrients? Name major nutrients.

# Solution

Nutrients are components in food that an organism uses to survive and grow. They are needed by our body for growth and development. The major nutrients in our food are carbohydrates, fats, proteins, vitamins and minerals.

# #634386

**Topic:** Nutrition, nutritional requirement and disorders

What are the functions of minerals?

# Solution

Minerals are components of foods that are involved in many body functions and are needed in small amounts. They do not provide any energy. They are essential for proper growth of the body and to maintain good health. For example, calcium and magnesium are important for bone structure, and iron is needed for our red blood cells to transport oxygen.