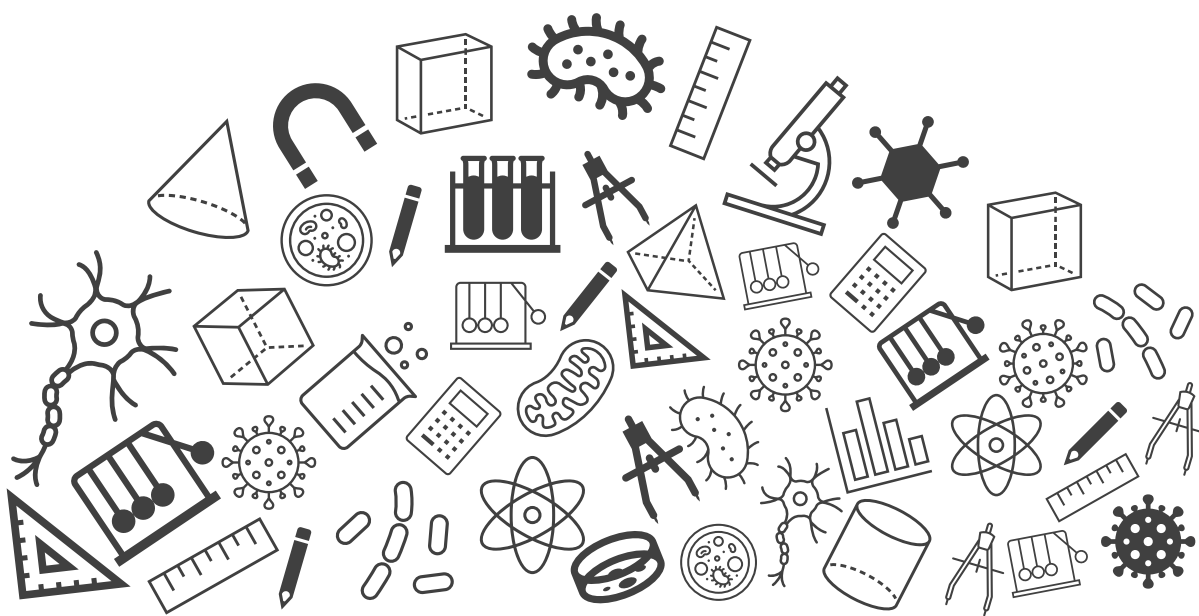




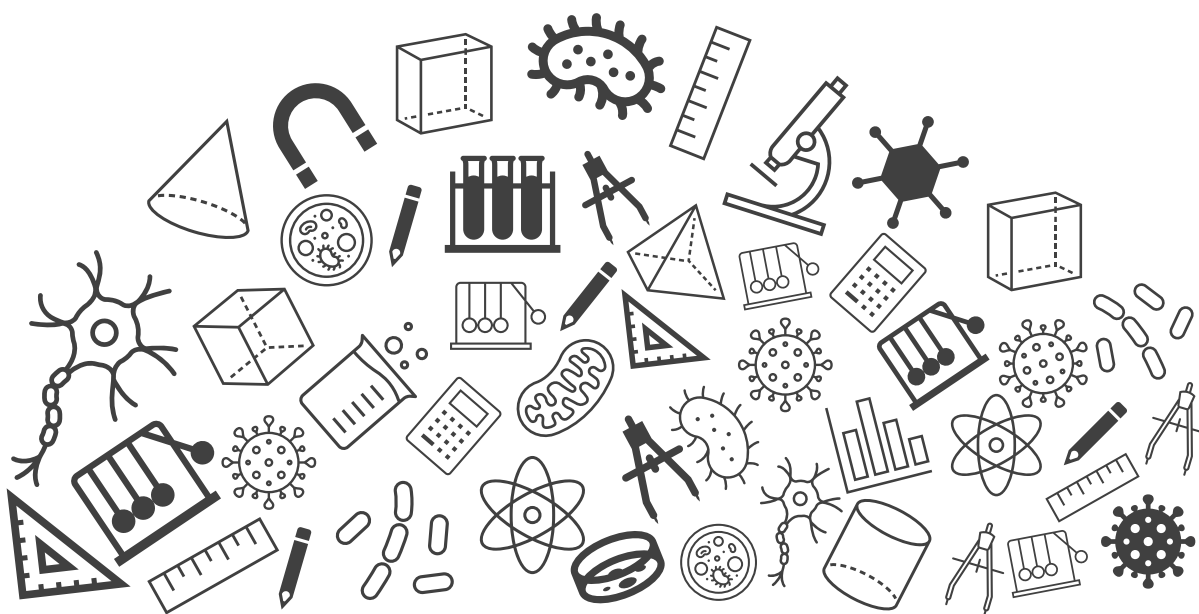
Grade 06 : Science

Exam Important Questions





Components of Food



Exam Important Questions : Components of Food

1. Two friends Varun and Sujal visited a general physician for their symptoms. Doctor examined them and prepared a chart as shown to keep a record of their illness.

Select the correct option based on the information given below.

[2 marks]

Name	Symptoms	Suggested Diet
Varun	Weak body , stunted growth	Meat, fish, egg, paneer
Sujal	Weak body, Dry skin, excessive hair fall	Wheat, rice, potatoes

- ☐ A. Varun is suffering from deficiency of fats only and, its sources include meat, fish, egg and paneer.
- ☒ B. Sujal is suffering from deficiency of carbohydrates and fats and, its sources include rice, wheat and potato.

Solution:

The correct answer is Option B: Sujal is suffering from deficiency of carbohydrates and fats and, its sources include rice, wheat and potato.
 (2 marks)

- Carbohydrates are found in wheat, rice, potatoes.
- Fats are found in oil, butter, nuts etc.
- Both of them essentially provide energy and if they are not taken in optimum quantity, our body becomes weak and hair fall will also increase.
- Due to the deficiency of fat, the skin will also become dry.
- On the other hand, proteins are found in meat, fish, egg, paneer and essentially help in bodybuilding.
- If proteins are not taken in optimum quantity, it will hamper normal growth and will lead to stunted growth, also causes discolouration of hair and in a few cases even diarrhoea.

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2. Boojho was having difficulty in seeing things in dim light. The doctor tested his eyesight and prescribed a particular vitamin supplement. He also advised him to include a few food items in his diet.

- (a) Which deficiency disease is he suffering from?
 - (b) Which food component may be lacking in his diet?
 - (c) Suggest some food items that he should include in his diet. (Any four)
- [3 marks]

Solution:

- (a) Boojho is suffering from night blindness. (1 mark)
- (b) The food component which may be lacking in his diet is vitamin A. (1 mark)
- (c) The food items that he should include in his diet to overcome the deficiency of vitamin A are green vegetables, carrot, papaya, milk, mango and fish liver oil. (1 mark)

3. Is meat alone sufficient to provide all nutrients to the body? Discuss.
- [2 marks]

Solution:

- The major nutrients in our food are carbohydrates, proteins, fats, vitamins and minerals. In addition, food containing roughage and water are also needed by our body. (1 mark)
- All these nutrients are required to fulfill the nutritional requirements of our body. (0.5 marks)
- Meat is mainly composed of proteins and fats. Hence, meat alone is not sufficient to provide all nutrients to the body. (0.5 marks)

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4. When the suspension of a food-stuff is made alkaline by adding a little of sodium hydroxide solution and then a few drops of copper sulphate solution are added, a violet colour is produced. Name the constituent of food indicated by this test.

[1 mark]

Solution:

- To a food substituent, sodium hydroxide is added and few drops of copper sulphate is added. Appearance of violet colour shows the presence of protein.
- Thus, the food constituent present is protein. (1 mark)

5. 'Minerals and vitamins are needed in very small quantities by our body as compared to other components, yet they are an important part of a balanced diet.' Explain the statement.

[3 marks]

Solution:

- Minerals and vitamins are needed in very small quantities by our body but are an important part of the balanced diet because:

(i) Vitamins help in protecting our body against diseases. These are necessary for good eyesight (Vitamin A), growth (Vitamin B), keeping teeth, gums and joints healthy (Vitamin C) and for normal growth of bones and teeth (Vitamin D). (1.5 marks)

(ii) Minerals are needed in our body for building bones and teeth (calcium and phosphorus), formation of blood (iron), coagulation of blood and functioning of muscles (calcium) and functioning of the thyroid gland (iodine). Thus, they assist in the proper functioning, normal growth and good health. (1.5 marks)

6. Which mineral is needed to make haemoglobin present in our red blood cells.

[1 mark]

Solution:

- Iron is a mineral that is needed to make haemoglobin protein present in our red blood cells. (1 mark)

Exam Important Questions : Components of Food

7. Paheli avoids eating vegetables but likes to eat biscuits, noodles and white bread. She frequently complains of stomach ache and constipation. What are the food items that she should include in her diet to get rid of the problem? Give reasons for your answer.

[2 marks]

Solution :

- Paheli seems to lack roughage in her diet.
(0.5 marks)
- Roughage is the fibrous matter in the food which cannot be digested. It has no nutritive value but its presence is essential for normal functioning of the digestive system.
(0.5 marks)
- Therefore, Paheli must include whole grains, pulses, fresh fruits and vegetables in her diet, as fibre (roughage) is found in these food items.
(1 mark)

8. Which of the following food item does not provide any nutrient?

Milk, Water, Orange juice, Tomato soup

[2 marks]

- Among the given food items, water does not provide any nutrient, but is needed by our body for various functions such as the transportation of digested food, controlling and regulating body temperature. (1 mark)
- The other food items, such as milk provides proteins, fats and vitamins, while orange juice and tomato soup provides vitamin C. (1 mark)