



INDIAN SCHOOL AL WADI AL KABIR



CLASS: VI	DEPARTMENT: SCIENCE 2024-2025	DATE: 08.05.2024
WORKSHEET NO: 1 WITH ANSWERS	TOPIC: COMPONENTS OF FOOD	NOTE: A4 FILE FORMAT
NAME OF THE STUDENT:	CLASS & SEC:	ROLL NO.

I. OBJECTIVE TYPE QUESTIONS:

1. Which of the following is not a nutrient?

- a) Carbohydrates
b) Fats
c) **Water**
d) Vitamins

2. Read the following statements about diseases.

- (i) They are caused by germs.
(ii) They are caused by a lack of nutrients in our diet.
(iii) They can be passed on to another person through contact.
(iv) They can be prevented by taking a balanced diet.

Which pair of statements best describes a deficiency disease?

- a) (i) and (ii)
b) (ii) and (iii)
c) **(ii) and (iv)**
d) (i) and (iii)

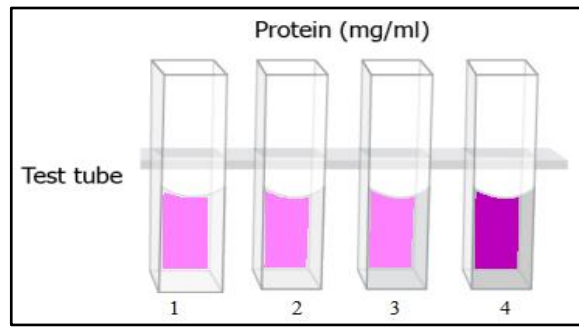
3. The food components needed by our body are called-

- a) Ingredients
b) **Nutrients**
c) Fragments
d) Ornaments

4. Which of the following conditions will occur if a person eliminates the food items that are rich in Vitamin D from his diet?

- a) Beriberi
b) Goitre
c) **Rickets**
d) Scurvy

5. A group of students conduct an experiment to study the amount of protein in four different food items. They placed the paste of each item in a different test tube and added a few drops of copper sulphate and caustic soda solution to each of the test tubes. After shaking, the test tubes were allowed to stand for a few minutes. The appearance of violet colour indicates the presence of proteins. The observation from the experiment is as shown. Based on the observations, which test tube has food items with maximum protein content?



- a) Test tube 1
c) Test tube 3

- b) Test tube 2
d) Test tube 4

6. The table lists some food items. Which option correctly indicates a balanced diet?

Soyabean, Sweets Spinach, Poori Samosa, Jaggery Banana, Cold drinks
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- a) Samosa, poori, sweets, jaggery
b) Poori, jaggery, banana, cold drinks
c) Soya bean, sweets, spinach, cold drinks
d) Spinach, jaggery, banana, soya bean

For question numbers 7 to 12, two statements are given- one labelled Assertion (A) and the other labelled Reason (R).

Select the correct answer to these questions from the codes (i), (ii), (iii) and (iv) as given below:

- (i) Both A and R are true and R is the correct explanation of the assertion.
(ii) Both A and R are true but R is not the correct explanation of the assertion.
(iii) A is true but R is false.
(iv) A is false but R is true.

7. Assertion (A): Vitamins help protect our body against diseases.

Reason (R): Roughage does not provide any nutrients to our body.

ii] Both A and R are true but R is not the correct explanation of the assertion.

8. Assertion (A): The bread slice when tested with iodine solution gives a blue-black colour.

Reason (R): Blue-black colour confirms the presence of fat.

iii] A is true but R is false.

9. Assertion (A): Avoid washing of vegetables and fruits after cutting and peeling.

Reason (R): It will lead to loss of some vitamins.

i] Both A and R are true and R is the correct explanation of the assertion.

10. Assertion (A): Growing children require more protein compared to others.

Reason (R): Proteins are obtained from both animal and plant sources.

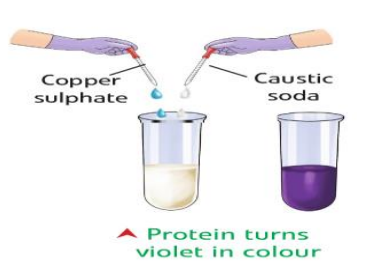
ii] Both A and R are true but R is not the correct explanation of the assertion.

II. VERY SHORT ANSWER TYPE QUESTIONS (2M):

1. a) Name two energy-producing nutrients. **[Hint: Carbohydrates, Fats]**
b) In which of the deficiency diseases will you advise the intake of iodised salt? **[Hint: Goitre]**
2. Why are fats also called 'energy banks' of our body? **[Hint: Fats provide more energy. The excess fats get stored in our body and will be broken down to release energy when needed.]**
3. Name two sources of plant and animal fats. **[Hint: plant sources-vegetable oil, nuts and animal sources-meat, butter]**
4. In Africa, due to a shortage of food, children do not get enough protein and energy giving food. Explain the symptoms of the disease. **[Hint: A person becomes very lean and thin and so weak that he/she may not even be able to move, growth may stop completely.]**
5. Why do we consider proteins as the 'bodybuilding food'? **[Hint: Proteins are required for making new cells. Thus, it helps in the growth of a person and also the development of muscles.]**
6. Minerals and vitamins are needed in very small quantities compared to other nutrients. Yet they are an important part of a balanced diet. Explain. **[Hint: Protects our body from diseases, helps in growth and maintaining good health.]**
7. a) Which vitamin is produced in our body when the skin is exposed to sunlight?
[Hint: Vitamin D]
b) Write the symptoms of disease caused due to the deficiency of proteins in the diet.
[Hint: Stunted growth, swelling of face, discolouration of hair, skin diseases and diarrhoea.]

III. SHORT ANSWER TYPE QUESTIONS (3M)

1. a) What is roughage? Why is it necessary to include roughage-containing food in our diet?
[Hint: Roughage is the fibrous matter in food which cannot be digested. Roughage or dietary fibre is mainly provided by plant products. It does not provide any nutrients to our body but is an essential component of our food. It adds bulk to our food. It helps our body to get rid of undigested food.]
b) State a few dietary sources of water. **[Hint: milk, juices, watermelon]**
2. How will you test the presence of fats in a given sample of food material? **[Hint: Take a small quantity of a food item. Wrap it on a piece of paper and crush it. Now, straighten the paper and observe it carefully. An oily patch on paper shows that the food item contains fat. Hold the paper against the light. We were able to see the light faintly, through the oily patch. If no oily patch shows up after this, the food item does not contain any fat.]**
3. How will you test the presence of protein in a given sample of food material?
**[Hint: a. Take the crushed food sample in a test tube.
b. Add 2-3 drops of copper sulphate solution and shake the test tube.
c. Add 10 drops of caustic soda solution and shake the test tube.
The sample turns violet in colour which confirms the presence of proteins.]**



4. a) A few sailors after sailing for a month in sea started suffering from bleeding gums. Which nutrient do you think was missing from their diet? Name the disease they are suffering from. **[Hint: Vitamin C. Scurvy]**
- b) People of a particular region eat a diet of only polished rice. They were suffering from extreme tiredness and weak muscles. Name the disease. How can it be cured? **[Hint: Beriberi, Supplementing Vitamin B1]**
5. Boojho was having difficulty 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? **[Hint: Loss of vision/Night blindness]**
- b) Which nutrient may be lacking in his diet? **[Hint: Vitamin A]**
- c) Suggest any two food items that he should include in his diet. **[Hint: Carrot and papaya]**

IV. LONG ANSWER TYPE QUESTIONS (5M):

1. Give reasons:

- a) We should prefer consuming whole fruit instead of fruit juices. **[Hint: Fruits contain dietary fibre whereas fruit juices do not contain fibres.]**
- b) An athlete is usually given glucose after a race. **[Hint: Glucose provides instant energy.]**
- c) Our body will not function without sufficient water. **[Hint: Water is essential for absorbing nutrients from food and also helps in the removal of waste materials from our body in the form of urine and sweat.]**

2. Complete the blanks in the given table:

SL. NO.	VITAMIN/MINERAL	DEFICIENCY DISEASE/DISORDER	SYMPTOMS
a.	<u>Vitamin A</u>	Loss of vision	Poor vision, loss of vision in darkness.
b.	Iron	<u>Anaemia</u>	Weakness
c.	Vitamin D	Rickets	<u>Bones become soft and bent</u>
d.	<u>Calcium</u>	Bone and tooth decay	<u>Weak bones, tooth decay</u>

V. SOURCE-BASED/ CASE STUDY-BASED QUESTIONS:

1. Farzin and Kaizad wanted to test the nutrients present in potatoes as well and they needed to prepare a dish out of potatoes too. They peeled some potatoes and cut them into small pieces. First, they took one piece of potato to test the nutrient content and the remaining pieces were washed

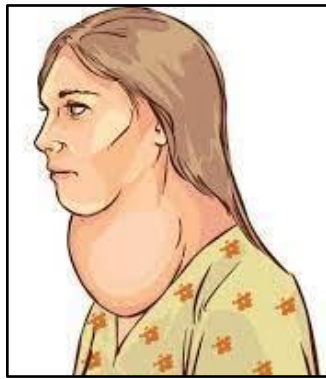
and boiled in water. They threw away the excess water and fried them in oil adding salt and spices. Although the potato dish tasted very good, its nutrient value was less.

a) Name the major nutrients present in our food. [Hint: The food we eat contains certain chemical substances called nutrients. The major nutrients in our food are carbohydrates, proteins, fats, vitamins and minerals. In addition, food also contains dietary fibres and water.]

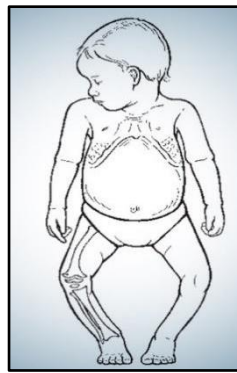
b) Food should not be overcooked. Give reason. [Hint: The essential nutrients like vitamin C will get destroyed on heating, Taste of the food will be affected.]

c) Kaizad wants to know whether potato chips contain starch or not. How can he identify the starch content in his food item? [Hint: Take the food sample and add a few drops of iodine solution to it. If the colour changes to blue-black, we confirm that the given food sample is rich in starch.]

2. Observe the figure A and B answer the following questions:



A



B

a) Identify the disease the person is suffering from in A and B.

[Hint: A - Goitre, B - Rickets]

b) The deficiency of which mineral/vitamin leads to this condition.

[Hint: A - Iodine, B - Vitamin D]

c) What are the symptoms of the disease shown in A and B?

[Hint: A - Glands in the neck appear swollen, mental disability in children,
B - Bones become soft and bent.]

d) Explain why people who eat seafood do not suffer from goitre. [Hint: Seafood is a rich source of iodine and prevents the occurrence of goitre.]

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