



Brain International School

Vikas Puri, New Delhi

ASSIGNMENT NO. 1

SUBJECT: SCIENCE

CLASS-VII

APRIL'2025

Chapter -1: Nutrition in Plants

1. Choose the correct option:

- i. The plant which traps a feed on insects is-
a) Cucuta b) Rose c) Pitcher plant d) sunflower
- ii. Amarbel is an example of –
a) autotroph b) parasite c) heterotroph d) host

2. In each of the following questions, two statements are given- one labeled Assertion (A) and the other labeled Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below:

- a) Both A and R are true, and R is correct explanation of the assertion.
 - b) Both A and R are true, but R is not the correct explanation of the assertion.
 - c) A is true, but R is false.
 - d) Both assertion and reason are false.
- (i) **Assertion:** The green pigment present in the plant is called chlorophyll.
 Reason: The only function of chlorophyll is to provide green colour to the plant.
- (ii) **Assertion:** Carbon dioxide is produced during photosynthesis.
 Reason: Oxygen released in photosynthesis is utilized by all the living organisms for their Survival.

4. Answer the following question.

1. Nitrogen is an essential nutrient for plant growth. But farmers who cultivate pulse crops like green Gram, black gram etc. do not apply nitrogenous fertilizers during cultivation. Why?
2. Describe the parasitic and saprophytic mode of nutrition.
3. How would you test the presence of starch in leaves?
4. Wild animals like tiger, wolf, lion and leopard do not eat plants. Does this mean that they can

survive, without plants? Can you provide a suitable explanation?

5. Differentiate between autotrophic and heterotrophic modes of nutrition with the help of example.
6. Explain the mode of nutrition in saprotrophs. Give two examples of saprotrophs.

4. Case study-based questions

Proteins are nitrogenous substances that contain nitrogen. Nitrogen is present in abundance in gaseous form in the air. However, plants cannot absorb nitrogen in this form. Soil has certain bacteria that convert gaseous nitrogen into a usable form and release it into the soil. The bacterium called Rhizobium can take atmospheric nitrogen and convert it into a soluble form. These soluble forms are absorbed by the plants along with water. The plants such as gram, peas, and pulses are called leguminous plants. These plants have root nodules in them which have a symbiotic association with bacteria such as Rhizobium. Farmers also add fertilisers rich in nitrogen to the soil to make nitrogen available to the plants. Plants can synthesise components of food other than carbohydrates such as proteins and fats.

1. How does plant get nitrogen for making proteins?
2. Can plant use nitrogen in the manner they use carbon dioxide?
3. Explain the symbiotic relationship?

Chapter -2: Nutrition in Animals

1. Choose the correct option:

iii. Which of these glands help in digestion?

- a) Liver b) Pancreas c) Oesophagus d) Both a & b

iv. Cud is the name given to the food of ruminants which is

- a) swallowed and undigested.
b) swallowed and partially digested.
c) properly chewed and partially digested.
d) properly chewed and completely digested.

- 2. In each of the following questions, two statements are given- one labeled Assertion (A) and the other labeled Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below:**

- a) Both A and R are true, and R is correct explanation of the assertion.
 - b) Both A and R are true, but R is not the correct explanation of the assertion.
 - c) A is true, but R is false.
 - d) Both assertion and reason are false.
- (i) **Assertion:** Ruminants can digest cellulose.
Reason: ruminants have cellulose digesting bacteria in their stomach.
 - (ii) **Assertion:** Scavengers are called nature's cleaners.
Reason: Scavengers feed on the body of dead animals.

3. Answer the following question

1. State the function of tongue.
2. Mention the parts of human digestive tract or elementary canal.
3. What is ingestion? Mention the various modes of feeding in different animal what is the mode of ingestion in humans?
4. Describe the various steps in the animal nutrition
5. Briefly explain the process of feeding and digestion in amoeba.
6. 'A' got her gallbladder removed surgically as she was diagnosed with stones in her gallbladder after the surgery, she faced problems in the digestion of certain food items when consumed in bulk. Can you tell which kind of food items would they be and why?

4. Case study-based question

As Rishabh is fond of eating chocolates his mother always discusses the importance of teeth in us life and taking care of them Rishabh is reluctant to follow the instruction given by his mother, he never washes his teeth after having meals One day while biting a guava he saw a blood patch on one of its molar teeth. his mother took him to dentist immediately the doctor observed a tiny hole in $\frac{1}{2}$ his Molar teeth the doctor filled the hole with some chemicals and advised him to take a few medicines.

1. What could be the problem in Rishabh teeth which caused toothache?
2. How can we take care of teeth?
3. Which type of food items should be consumed in limited quantities for healthy teeth?