

## COMPETENCY BASED QUESTION

1. Give reasons for the following:
  - a. Mushroom is a saprotrophs.
  - b. Sun is the ultimate source of energy for all living organisms.
  - c. The leaf of a plant 'dies out' if its stomata are blocked.
  - d. Leaf is known as the food factory of the plant. When is a 'living partnership' between a fungus and an alga and this 'partnership' is beneficial to both.

ANSWER:

- a. Because it grows on dead and decaying matter and take nutrients from it.
  - b. The solar energy is captured by the leaves and stored in the plant in the form of food.
  - c. Because the stomata is responsible for the process of exchanging gases.
  - d. In partnership between algae and fungi both help each other and live together here fungi provides shelter and water to algae and in return the algae provide food which is prepared by photosynthesis. (algae contains chlorophyll)
2. The teacher told her students the story of two friends. She told them that, in the story, the friendship, between a visually challenged boy and a lame boy, helps them both to face, and overcome, the very many challenges of their day-to-day life. She went on to compare their friendship with the 'symbiotic relationship' between two organisms.
    - a. Suggest any two 'values' that, according to you, must have been there in the two friends.
    - b. In what way is the friendship, between the two boys, similar to the 'symbiotic relationship' between two organisms?
    - c. Give one example of a 'symbiotic relationship' between two organisms.

ANSWER:

- a. Empathy and helping nature
  - b. They live together and help each other
  - c. Lichen and rhizobium bacteria
3. Consider the following organisms
    - a. Sundew
    - b. Lichen
    - c. Mushroom
    - d. Cuscuta
    - e. Green plants
    - f. Humans
      - An autotroph
      - A symbiotic plant
      - A parasite
      - A heterotroph
      - A saprophyte
      - Insectivorous plant

ANSWER

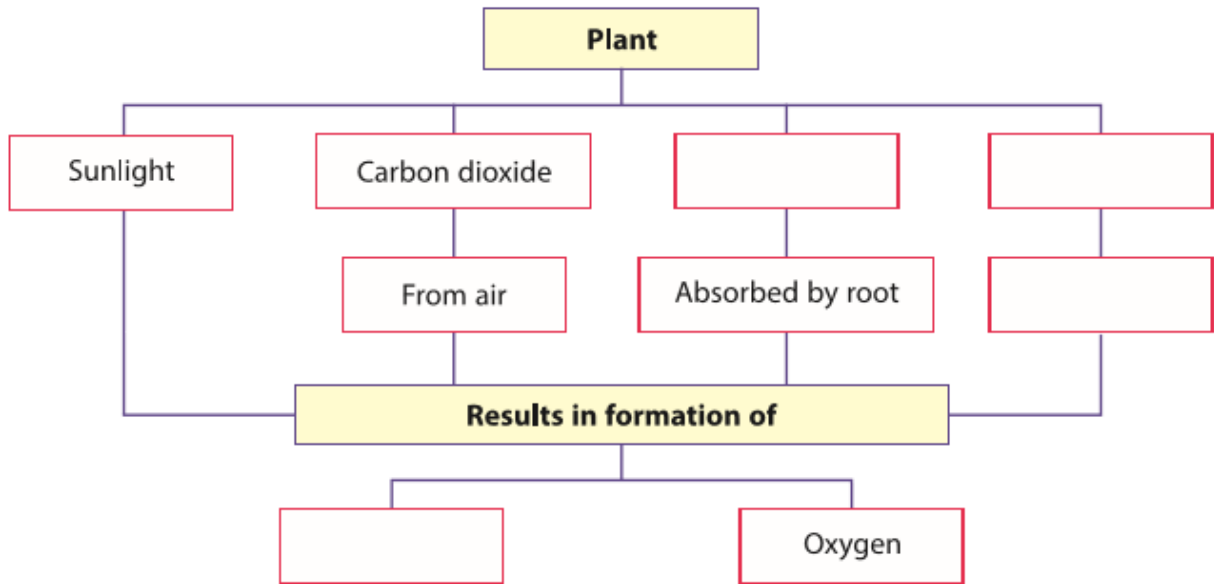
- a. Insectivorous plant
- b. A symbiotic plant
- c. A saprophyte
- d. A parasite
- e. An autotroph
- f. A heterotroph

4. Rajini observed the cuscuta plant on the stem of a tree in his garden, it was growing on the tree. He asked his gardener to remove it
- Why it was important to remove the cascuta plant from the tree
  - What values are displayed by Rajini in this course of action?

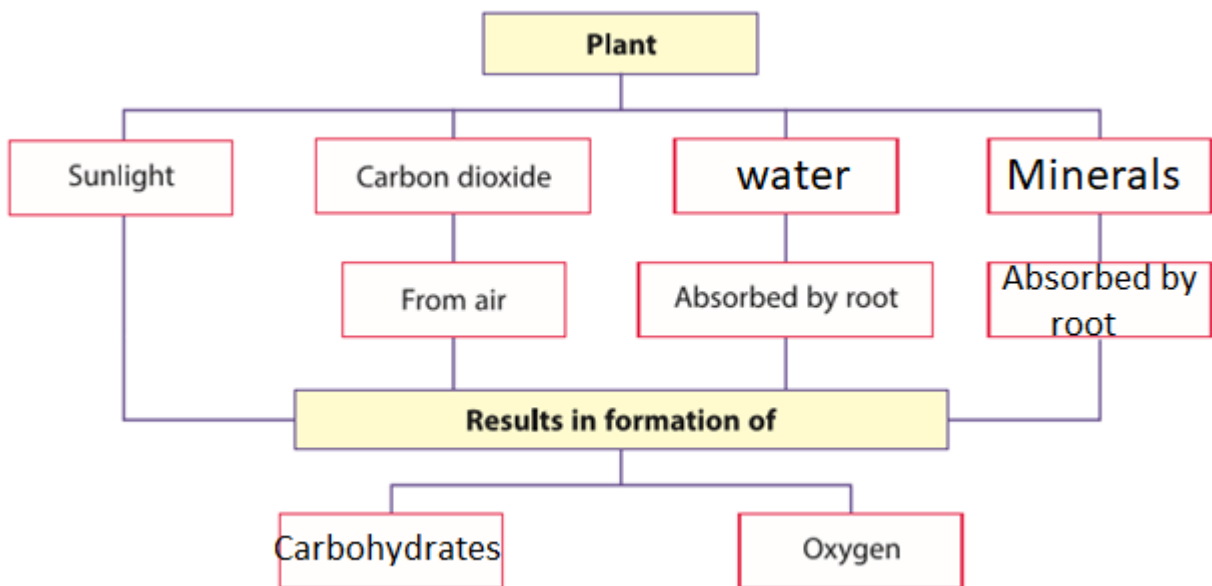
ANSWER

- Because cuscuta is a parasitic plant it does not have chlorophyll pigment it takes readymade food on plant on which it is climbing it deprives the cost of valuable nutrients so it affect the host plant
- Responsibility towards nature.

5. Complete the web chart



ANSWER:



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