LIVING SCIENCE CLASS6 SOLUTION CHAPTER 8. GETTING TO KNOW PLANTS

P. 80 Oral Questions For Formative Assessment

1. 2 systems, root system and shoot system

2. the fibrous root system; maize, wheat

3. water and mineral salts

4. a. rose b. carrot c. banyan

5. they provide extra support to the branches or the stem

P. 84 Oral Questions For Formative Assessment

1. water, minerals, food; water and minerals: from roots to the leaves, flowers and fruits food: from leaves to all other parts of the plant

2. potato; stem stores food; Cactus: prepares food and stores water

3. Because the glucose prepared by leaves changes into starch before the plant stores it.

4. Parallel venation

5. Give support to the plant, for example, leaf tendrils in pea plant; modified to form spines which helps in reducing loss of water and also protects the talents from being eaten by animals, for example, spines in cactus

6. True, atom tendril in grapevine and leaf tendril in per plant

P. 86 Oral Questions For Formative Assessment

1. stamens, pistil or carpel

2. The honeybee gets the honey and in turn transfer the pollen grains from the anther to the stigma and thus the flower gets pollinated

3. After pollination, the ovary changes into fruit and ovules change in to seeds

P. 87 For Formative and summative Assessment

A. 1 b 2.d 3.c 4.b 5.b 6.d 7.c 8.c 9. a 10. c

B. 1. non-flowering	2. herbs	3. root system, shoot system		4. fibrous roots
5. stem	6. radish	7. prop roots	8. tendrils	9. lamina
10. reticulate	11. true	12.sepals	13. pollen grains	14. stigma

C. 1. Creepers: Plants with weak stems that cannot stand upright, for example, strawberry.

Climbers: Plants with weak stems that climb up with the help of a support, for example, grapevine, etc.

2. Ginger and onion

3. The veins in a leaf transport water, minerals and food, and also provide support to the leaf.

4, Pollination is the transfer of pollen grains from the anther to the stigma of either the same flower or of another flower of the same kind.

5. Prop roots are the roots growing from the stem or branches of plants like sugarcane and banyan tree. They provide extra support to the plant.

6. Leaves make food in the presence of sunlight with the help of water from the soil and carbon dioxide in the air. So the leaf is called the food factory of the plant.

D.

1. a. Functions of root (I) It fixes the plant firmly to the soil. (ii) It helps in carrying water and minerals from the soil to all parts of the plant, (iii) It binds the soil particles and prevents soil erosion,

b. Functions of stem (I) It keeps the plant upright. (ii) It bears branches, leaves, flowers and fruits. (iii) It transports water, minerals and the food manufactured by leaves, to all parts of the plant.

c. Functions of leaf :

(i) The main function of the leaf is to prepare food from water and carbon dioxide in the presence of a green pigment called chlorophyll which traps sunlight to provide energy,

(ii) Leaves are modified to form tendrils that give support to the plant.

(iii) Leaves are modified to form spines to reduce water loss.

d. Functions of flower

(i) The flower is the reproductive part of the plant,

(ii) After pollination, the flower produce seeds which serve to perpetuate the species.

2. Tap roots: A tap root consists of a main root from which a number of branching roots arise, For example, mustard, pea, and so on.

Fibrous roots: A fibrous root consists of a number of thin fibre-like roots arising from the base of the stem. For example, grass, maize, and so on.

3. Experiment to demonstrate the transportation of water in plants: The stem transports water to all parts of the plant. Cut a balsam plant at the base. Place it in a beaker half-filled with water. Put a few drops of red

fountain-pen ink in the water and stir. Let the plant stay in the beaker for a day. Examine it the next day. You will observe thin red lines in the stern and leaves. If the plant has flowers with white petals, we will notice thin red lines on the petals also, Thus, this activity shows that there are thin tubes present in the stem through which water is transported (or conducted) to all parts of the shoot system.

4. Leaves in a Cactus plant are modified to form spines to prevent loss of water from the surface of the leaves. The green stem in Cactus manufactures food and performs all the functions performed by the leaves in other plants.

5. Transpiration helps in cooling down the leaves. As the water escapes from the leaves, the roots pull more water to compensate for this loss .This water brings with it important nutrients required by the plant from the soil.

6. see diagram

HOTS Questions

1. No, because the small mango plant will grow up to be a tree. A herb always remains small.

2. Attractiveness of a flower is an adaptation to attract insects for pollination. This adaptation is not necessary in wind-pollinated flowers.

3. Green plants synthesize their food from simple non-living substances found in nature — water and carbon dioxide. Making food in the kitchen consists of transforming living things into a kind that we can easily digest.

