The Shoot

A. Choose the correct answer:

1. **Which of the following is an adaptation seen in desert plants to reduce water loss?**

   A) Large, broad leaves
   B) Needle-like leaves
   C) Thin, soft stems
   D) Floating roots

2. **Why do some trees in hilly areas have cone-shaped structures?**

   A) To store water
   B) To shed snow easily
   C) To attract animals
   D) To absorb more sunlight

3. **Which of the following plants is an example of a desert plant?**

   A) Cactus
   B) Lotus
   C) Mango
   D) Pine

B. Fill in the Blanks:

1. Plants that grow in hot and dry regions have _____ leaves to reduce water loss.
2. Trees in cold hilly areas have _____ leaves to prevent snow from collecting on them.
3. The deep roots of desert plants help them to _____.

C. Case Study:

A group of students visited a botanical garden to study the adaptation of plants to different environments. They observed three types of plants:

- **Plant A** had thick, fleshy leaves and stored water in its stem.
- **Plant B** had needle-like leaves and grew in a hilly region with snowfall.
- **Plant C** had broad leaves and was found near a river.

After studying these plants, the students concluded that each plant had special features that helped it survive in its natural habitat.

Case Study Questions:

1. What type of adaptation did Plant A show, and why was it necessary?
2. How do needle-like leaves help Plant B survive in cold hilly regions?
3. Why did Plant C have broad leaves?
4. Based on this study, explain why plants need to adapt to their surroundings.

D. Short Answer Questions:

1. Why do desert plants have thick stems and spines instead of leaves?
2. How do deep roots help plants survive in dry areas?
3. What are some common adaptations found in hilly area plants?

E. Long Answer Questions:

1. Explain how plants adapt to different types of land environments such as deserts, mountains, and grasslands.
2. Describe the different ways in which plants conserve water in dry regions.
3. How do environmental factors like temperature, water, and soil affect the growth of terrestrial plants?