A. Multiple Choice Questions (MCQs):

1. Which adaptation helps cactus plants survive in the desert?
A) Large, broad leaves
B) Needle-like leaves to reduce water loss
C) Producing sweet nectar for animals
D) Growing in cold, snowy areas

2. Why do mangrove trees have aerial roots?
A) To store food
B) To absorb oxygen from the air
C) To climb other trees
D) To trap insects for nutrition

3. What is the purpose of thick, waxy leaves in desert plants?
A) To help them float on water
B) To protect them from insects
C) To reduce water loss
D) To make them look beautiful

B. Fill in the Blanks:

1. Plants growing in water are called _____ plants.

2. Desert plants store water in their _____ and _____.

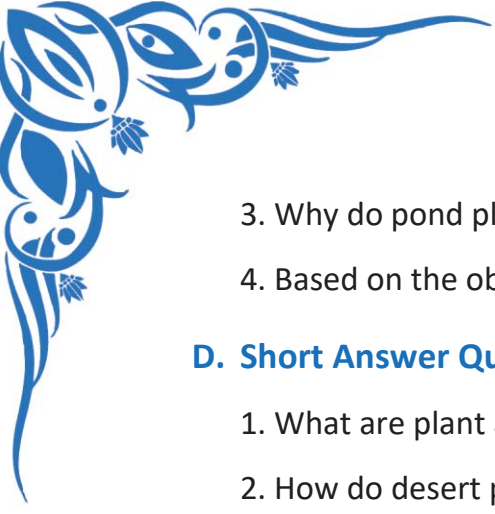3. The breathing roots of mangrove trees are known as _____.

C. Case Study:

A group of students visited a botanical garden where they observed different types of plants.

• They saw cactus plants with spines instead of leaves.

• In a swampy area, they noticed trees with roots growing above the ground.

• Near a pond, they found plants with floating leaves and hollow stems.

The students were curious about how these plants survive in their environments.

Case Study Questions:

1. Why do cactus plants have spines instead of leaves?

2. What is the function of the aerial roots seen in swampy areas?

3. Why do pond plants have hollow stems and floating leaves?

4. Based on the observations, how do plants adapt to different environments?

D. Short Answer Questions:

1. What are plant adaptations?

2. How do desert plants store water?

3. Why do some plants have special roots growing above the soil?

E. Long Answer Questions:

1. Explain how different plants adapt to survive in deserts, swamps, and aquatic environments.

2. How do plants protect themselves from harsh weather conditions?

3. Describe the various ways in which plants store water and nutrients for survival.