1. Q: What is photosynthesis? A: Photosynthesis is the process by which green plants use sunlight, carbon dioxide, and water to produce glucose (sugar) and oxygen. This occurs mainly in the chloroplasts using the pigment chlorophyll. 2. Q: What are the main parts of a plant? A: The main parts of a plant are the roots, stem, leaves, flowers, and fruits. Each part performs essential functions such as nutrient absorption, support, photosynthesis, and reproduction. 3. Q: What is the role of roots in a plant? A: Roots anchor the plant in the soil and absorb water and nutrients necessary for growth. They can also store food and help in vegetative propagation in some species. 4. Q: Why are leaves called the food factories of the plant? A: Leaves are called food factories because they are the primary site for photosynthesis, where plants make food (glucose) using sunlight. 5. Q: What is the function of the stomata? A: Stomata are tiny pores on the underside of leaves that allow for gas exchange. They help the plant take in carbon dioxide and release oxygen and water vapor during transpiration. 6. Q: What is germination? A: Germination is the process by which a seed develops into a new plant. It begins when the seed absorbs water, swells, and activates enzymes that start the growth of the embryo.