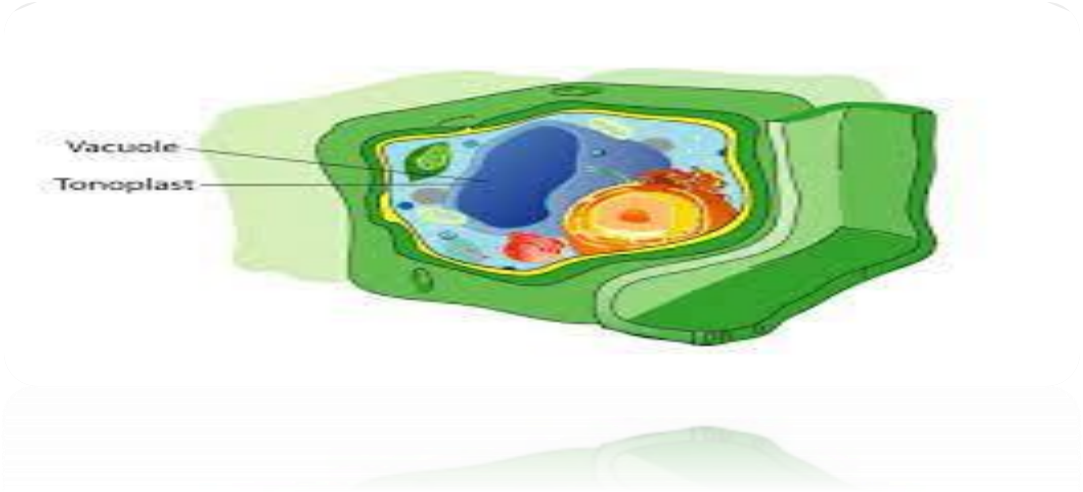

(9) cytoplasmic liquid phase:

filling the space between cytoplasmic organelles; It contains low-molecular-weight components necessary for many life activities, such as various proteins, glycolytic enzymes, nucleic acids, protein synthase, and vitamins. Not only ribosomes bound to the rough endoplasmic reticulum, but also ribosomes not bound to the membrane are located here and synthesize the proteins necessary for the cell. In addition, this liquid phase undergoes sol-gel transformation and becomes a field for cell movement.

(10) Cell membrane(plasma membrane):

A one-layer membrane structure directly enveloping the outer surface of the cytoplasm. Receptors such as various sugar chains are bound, and it has a mechanism that cells respond to information and stimuli from the outside world. It plays important roles such as membrane selective permeability, phagocytosis, immune response, intracellular and extracellular transport of various substances. Information from the external world is transmitted into the cell via the cell membrane, causing the intracellular metabolic system to work and gene expression to occur. These roles are played by receptors bound to the cell membrane and various intramembrane ion transport systems including ATPases.