Cellular components

Living components

1. Nucleus.
2. Golgi complex: This organelle consists of a group of vesicles or cisterns not connected, but rather arranged in parallel with each other. The final shape of the Golgi complex is cup-shaped and it’s function primarily is secretory.
3. Mitochondria: They are spherical or oval structures called the energy houses because they are responsible for building the energy necessary for the metabolic activities of the cell which is in the form of the ATP compound.
4. Endoplasmic reticulum:
5. Rough endoplasmic reticulum.
6. Smooth endoplasmic reticulum.
7. Plastids:
8. Chromoplast.
9. Chloroplast.
10. Leucoplast.

Practical part: Examination of mitochondria in onion cells

1. Mix 2-3 drops of Janus green on a clean glass slide.
2. Prepare a thin piece of onion skin and place it on the stain to stain the mitochondria well. Put the slide cover.
3. Examine the slide with a light microscope. Look around the cell for mitochondria, which appear as small spheres blue in color, the color disappears within 5-10 minutes.