b) **Centrioles**

Description

- Pair of hollow cylinders located near nucleus; 0.2µm in diameter and 0.3 to 0.5nm in length
- Found in pairs at right angles to each other,
- From the transverse section of the centriole as seen under the TEM, 9 triplets of microtubules are fused together to give a rod-like structure.

Function

- Organize spindle fibres during cell division.
- Anchorage for cilia and flagella



Functions

- Protecting the cell from mechanical injury and invasion
- Withstanding the hydrostatic pressure exerted by the uptake of water by the cell

Other Parts

Cytoplasm

- Refers to all the organelles + cytosol (without nucleus)
- Cytosol → Aqueous solute rich matrix that contains
 - Essential lons & soluble organic molecules such as sugars and amino acids
 - Soluble proteins
 - Cytoskeleton
- Bounded by _
- Various metabolic reactions needed to sustain life takes place here

Test yourself

1. Label the various organelles and parts of the animal cell below

