6. **Animal tissues**: Sub divided as ***epithelial tissue, connective tissue, muscular tissue and nervous tissue.***

i. **Epithelial tissue**: It is a protective covering forming a continuous sheet. Simple epithelium is the one which is extremely thin in one layer, whereas stratified epithelium are arranged in pattern of layers.

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Depending on shape and function they are classified as:

a) **Squamous epithelium** in the lining of mouth and esophagus.
b) **Cuboidal epithelium** in the lining of kidney tubules and salivary glands.
c) **Columnar epithelium** in the intestine &Columnar epithelium with cilia in the lining of respiratory tract.
d) **Glandular epithelium** in the Glands aids in a special function as gland cells, which can secrete at the epithelial surface.

(Please refer to Fig. 6.9, NCERT Book Page-75).

ii) Connective Tissue: Five Types, such as;

a) Blood: The Blood is a fluid connective tissue. Blood plasma has RBCs (Red Blood Cells) WBCs (White Blood Cells) and platelets. Blood plasma contains proteins, salts and hormones. Blood flows and transports gases, digested food, hormones and waste materials.

b) Bone: The bone is a connective tissue with hard matrix, composed of calcium and phosphorus. A bone is connected by another bone with another connective tissue called ligaments. A bone is connected by muscle with another connective tissue called tendon.

c) Cartilage: The cartilage is a connective tissue with solid matrix composed of proteins and sugars. It is commonly seen in nose, ear, trachea, and larynx.

d) Areolar Connective Tissue: It is found between the skin and muscles, around the blood vessels. It supports internal organs and aids in repair of tissues.

e)Adipose Connective Tissue: It is filled with fat globules for the storage of fat. It acts as insulator. ***(Please refer to Fig. 6.10, NCERT Book Page-76).***

Muscular tissues: They have special contractile proteins responsible for movements. Three types, such as;

Striated muscles/skeletal muscles/voluntary muscles :

They are cylindrical, un-branched and multinucleated.They have dark bands and light bands.

Unstriated muscles/smooth muscles/involuntary muscles:

They are commonly called as Smooth muscles, having no striations (dark bands/ light bands are absent). Commonly found alimentary canal, uterus, Iris of an Eye. They are spindle shaped. Involuntary in nature

Cardiac Muscles: They are commonly called as Heart muscles, cylindrical,

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branched and uni-nucleate. Involuntary in nature.(Please refer to Fig. 6.11, NCERT Book Page-77).

Nervous Tissue: The tissue responds to stimuli. The brain, spinal cord and nerves are composed of nervous tissue or neurons. A neuron consists of Cell Body, cytoplasm, Nucleus, Dendrite, Axon, nerve ending. The neuron impulse allow us to move our muscles when we want to respond to stimuli. (Please refer to Fig. 6.12, NCERT Book Page-78).

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