TISSUES

(i) Tissue is a group of cells similar in structure and function.

(ii) Tissues can be classified into plant and animal tissues.

PLANT TISSUES

(i) Plant tissues are of two main types. They are meristematic and permanent tissues.

(ii) Meristematic tissues are dividing tissues present in the growing regions of the plant.

(iii) Apical meristem plays a vital role in the primary growth of the plants. It increases the length of the plant while lateral meristem increases the diameter or thickness of the plant. It plays a vital role during secondary growth in dicot plants.

(iv) Permanent tissues are derived from meristem tissues when they lose the ability to divide. They are classified as simple and complex tissues.

(v) Parenchyma, collenchyma and sclerenchyma are three types of simple tissues. Xylem and Phloem are types of complex tissues.

(vi) The outermost and protective layer of the plant cell is called epidermis.

(vii) The small pores present in the epidermis of leaf are called stomata.

(viii) The guard cells, subsidiary cells and stomatal pore constitute stomatal apparatus.

(ix) Stomata regulate the exchange of gases and transpiration.

(x) Xylem is a water conducting tissue. It is made of sieve tubes, companion cells, phloem parenchyma and phloem sclerenchyma.

ANIMAL TISSUES

(i) Animal tissues can be epithelial, connective, muscular and nervous tissue.

(ii) Depending upon the shape and function, epithelial tissue is classified as squamous, cuboidal, columnar, ciliated and glandular.

(iii) The different types of connective tissue in our body include areolar tissue, adipose tissue, bone, tendon, ligament, cartilage and blood.

(iv) Bone is non-flexible connective tissue and forms the framework that supports the body. It is made of calcium and phosphorus compounds.

(v) Blood is a fluid connective tissue. The plasma contains RBCs, WBCs, and platelets.

(vi) Striated, smooth and cardiac are three types of muscle tissues.

(vii) Nervous tissue is made of neurons that receive and conduct impulses.

(viii) Nerve impulses pass between neurons through the synapse through neurotransmitter.

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