

There are two types of root systems: {Tap Root System, Fibrous Root System, Primary Root, Secondary lateral Root, Adventitious Root} 1) Tap root System: o One main root with lateral branching root. o It produces secondary xylem inward and secondary phloem outward ?Casparian Strip: Endodermal cells with suberin "rich fat" on radial & transverse walls, #It blocks absorbed soil water from passing between the cells to the xylem; thus, water and mineral nutrients must pass through the selectively permeable membranes of endodermis cells instead, an effective filtering system. B)Vascular tissue system :{Pericycle, Xylem, Phloem} Pericycle: o Parenchyma "thin wall". o In secondary growth : epidermis & cortex replaced bark tissue "Cork & phelloderm". \_\_\_\_\_ ?Root tissue:{ Non-Vascular Tissue Systems, VascularTissue System } A) Non-Vascular Tissue Systems: } Epidermis, Cortex } Epidermis : o Outermost tissue. Endodermis: The innermost layer of cortex, encircles Vascular tissue. o Adventitious Root: Root develop from stem, are initiated in parenchyma near differentiated ? .Vascular tissue. o Carrot-like