✳ Comparative Account Of Sporophyte Of Cycadales, Coniferales, Ginkgoales & Gnetales.

order ➡ Sporophytic characters ⬇	Cycadales	Coniferales	Ginkgoales	Gnetales
Root	Tap-root, vertically upward dichotomous branching forms coral-like mass called coralloid roots / Corallorhiza	Primary root persists and forms elongated tap-root. some of the branches, which are dichotomous forms coralloid mass on which ectotrophic mycorhizae grows which are called as mycorrhizal roots, which is association of fungus with roots	Tap-root which is extensively branched and grows deep into soil. - Root caps and root hairs are also present.	Root is tap-root which is branched.
stem	Aerial, erect, woody unbranched, having scale leaves on main stem and a crown of foliage leaves at apex. Wood is monoxylic.	Erect showing excurrent habit, tall and branched. Two types of branches :- Branch of unlimited growth and Branch of limited growth i.e. long shoots and dwarf shoots. Long shoots consists of scale leaves while dwarf shoot has foliage leaves. Dwarf shoot with foliage leaves called spur. wood is pycnoxylic.	Stem is erect, tall slow growing and branched. Branching is lateral having two types of branches i.e. long shoots and dwarf shoots. Dwarf shoots are also called as spur shoots. wood is pycnoxylic.	Stem is branched and woody. Branches are of two types i.e. long shoots and dwarf shoots. Wood is pycnoxylic. Stem shows nodes and internodes. Nodes are swollen.
Leaves	Leaves are dimorphic scale leaves and foliage leaves. Foliage leaves are pinnately compound	Leaves are dimorphic scale and foliage leaves. Depending upon the presence of number of foliage ~~spur~~ leaves spur is monofoliate, bifoliate, trifoliate etc	Leaves are fan shaped deciduous showing open dichotomous venation.	Leaves are of two types scale leaves & foliage leaves scale leaves present on main stem i.e. long shoot while foliage leaves on dwarf shoot showing opposite decussate Phyllotaxy, Reticulate venation