(D) Similarities with Cordaitales ⇒

(1) Presence of double leaf traces in both.
(2) Presence of motile spermatozoids
(3) Presence of endosperm in the form of tent-pole in the mature ovule.

(E) Similarities with coniferales ⇒

(1) The cone like appearance of the tree
(2) Stem is monopodial & is extensively branched.
(3) Occurrence of dimorphic shoots like spur shoots & long shoots.
(4) Existence of dimorphic leaves namely scale & foliage
(5) Photosynthetic leaves are simple.
(6) Monoxylic wood of vascular cylinder is pycnoxylic.
(7) Presence of Bars of Sanio in the wood of ~~pinus ostrobus~~ pinus strobus
(8) Presence of uniseriate vascular rays & Circular bordered pits as in many Coniferales
(9) Leaves have Shuaken Nomata.
(10) Presence of two ear like structures of exine located laterally on the microspores of Cinkgo, resembling the winged pollens of pinus.
(11) Development of male gametophyte inside the

microsporangium prior to pollination is quite similar to pcnus.

(12) Longitudinal dehiscence of microsporangia.

(13) The integument at its micropylar end is bilipped as in several coniferales.

(14) The ovule is perfectly sessile & the integument is three layered.

(15) The collar of ovule can be compared to the aril of Taxus. (big) see.

Similarities with cycas ⇒

(1) The staminate strobilus resembling catkin inflorescence.

(2) The tip of staminate flower has two micro-sporangia each being unilocular.

(3) The wood with circular bordered pits. Bars of Sanio in between them.

(3) Presence of endospermic tent pole in the mature ovule of Gn. africanum. &

(4) Presence of dwarf & long shoots as well as scaly & foliage leaves.

fig (sabf)

Specific features of Ginkgo →

(1) Entire lunate & bilobed fan shaped leaves with open dichotomous venation. Lunate leaves are borne in clusters at the tip of spur shoots.