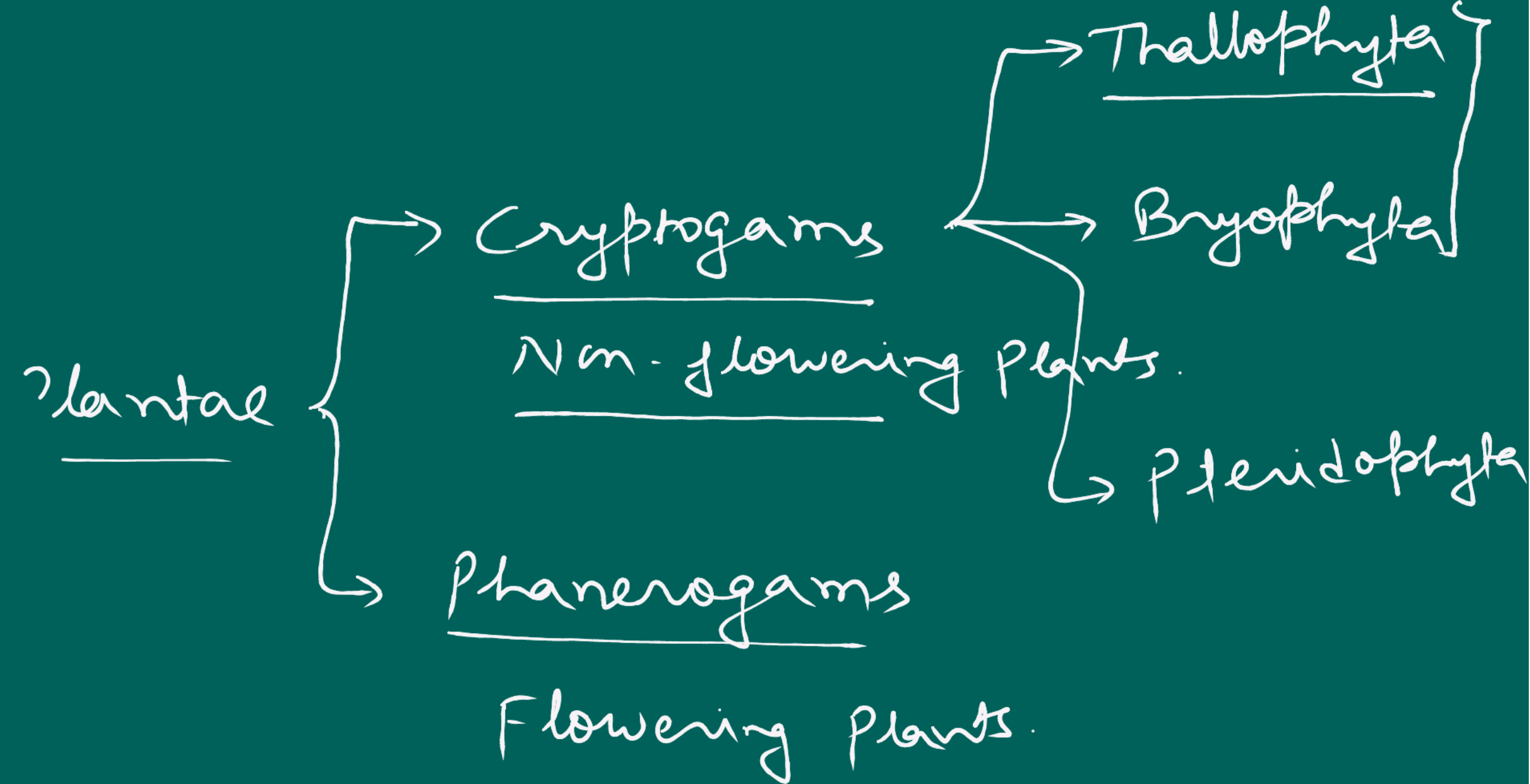
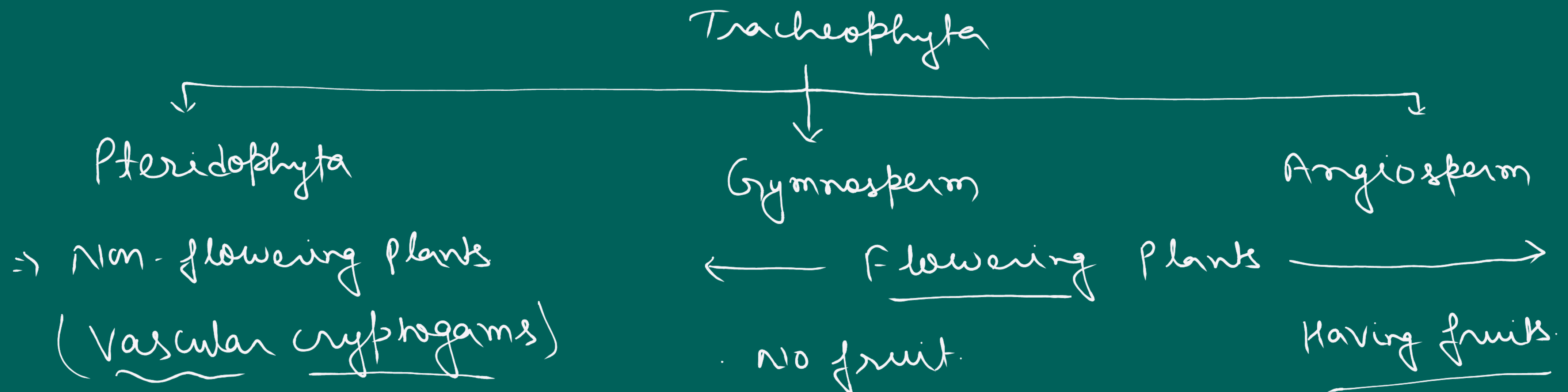




Tracheophyta

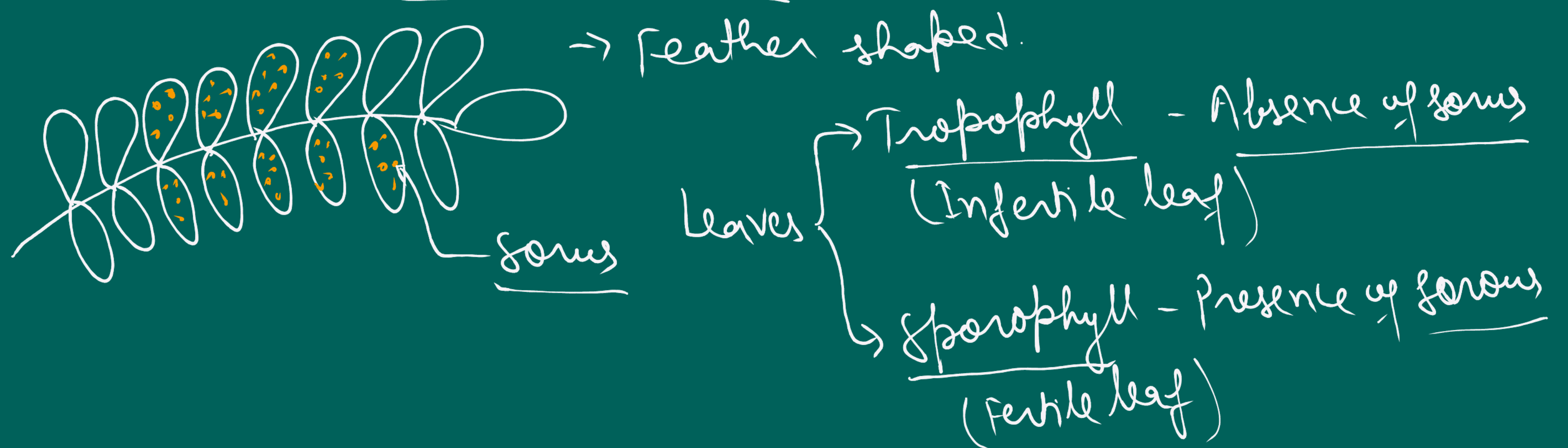
⇒ Presence of vascular bundle.

⇒ Root, stem & leaves are differentiated.



Pteridophyta :-

- ⇒ Non-flowering plants.
- ⇒ Root, stem & leaves are differentiated.
- ⇒ Presence of vascular bundle.
- ⇒ Stem - Rhizome type.
- ⇒ Leaves - Compound leaves.



→ Feather shaped.

- Leaves
- Trophophyll - Absence of sori
(Infertile leaf)
 - Sporophyll - Presence of sori
(Fertile leaf)

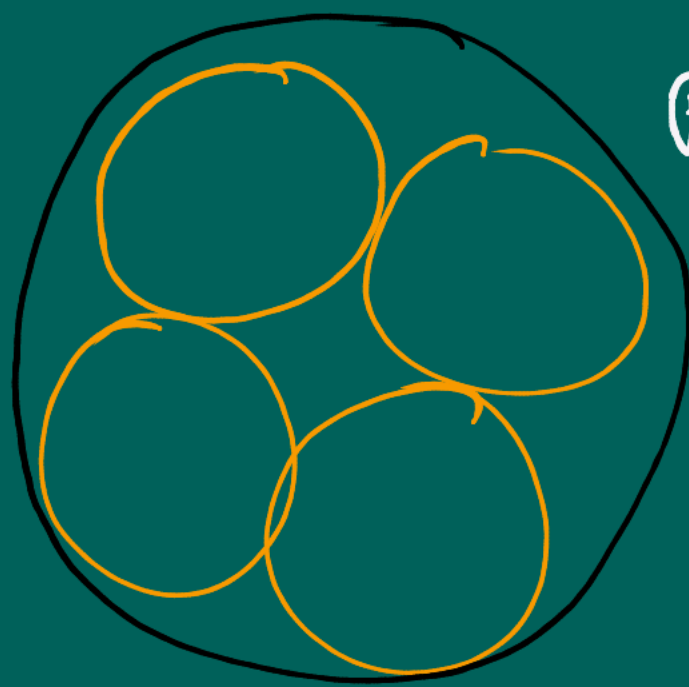
Sorus (Sori)
↓
pl.

Spore - Sporophyte.



Sporangium

(Sporangia - pl.)

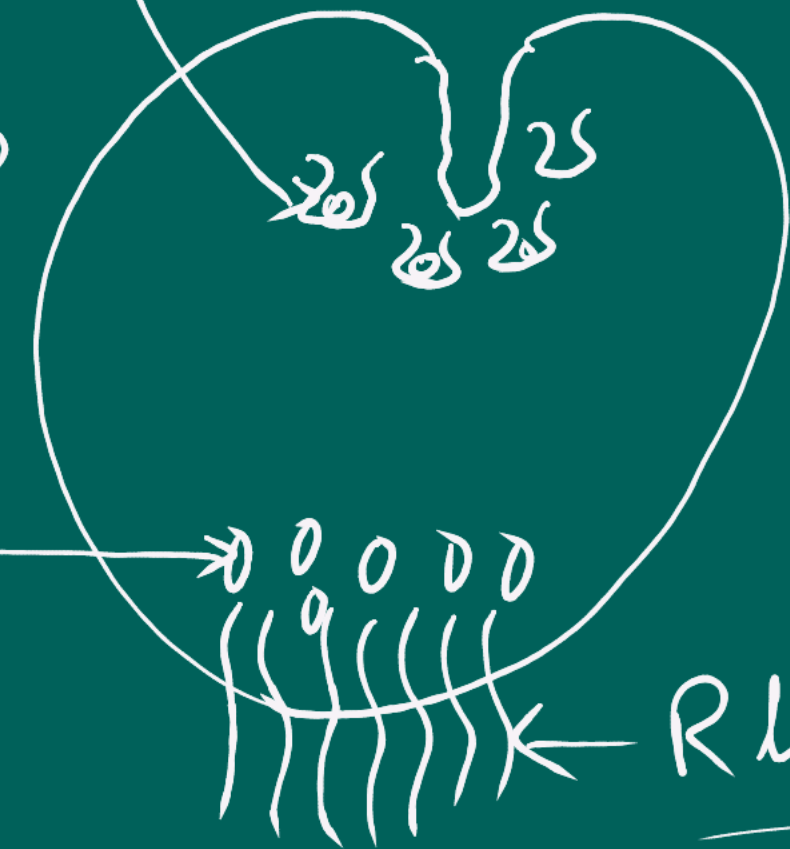


Sorus



Antheridium

Archegonium
(Female gamete)



Rhizoid

Prothallus

⇒ Alternation of generation.

⇒ Sporophyte is dominant.

⇒ Sporophyte & gametophyte are independent from each other.

Ex - Fern, Pteris, fiddlehead fern etc.

Gymnosperm - [Gymno - naked, sperm - seed]

- ⇒ Flowering plants.
- ⇒ Absence of ovary.
- ⇒ No true fruit.
- ⇒ Absence of seed coat.

[Absence of ovary, so seed is naked]

- ⇒ Leaves are modified ^{into} cone to keep seed.

- ⇒ Leaves have needle head.

- ⇒ Stem is covered with thick bark.

- ⇒ Coniferous plants. Plants appear as inverted cone shaped.

- ⇒ Monopodial growth.

- ⇒ Unisexual (Male & female cones are separated)

Ex - Cycas, Pinus etc.

