

The Gametophyte of Lycopodium :-

The haploid spore is the mother cell of the gametophytic generation. All spores are similar in shape and size (Homosporous). The diameter of the spore is in the range of ~~0.3~~ 0.03 and 0.05 mm. The spore wall is differentiated into an outer lamellate layer with pitted surface and an inner granular layer.

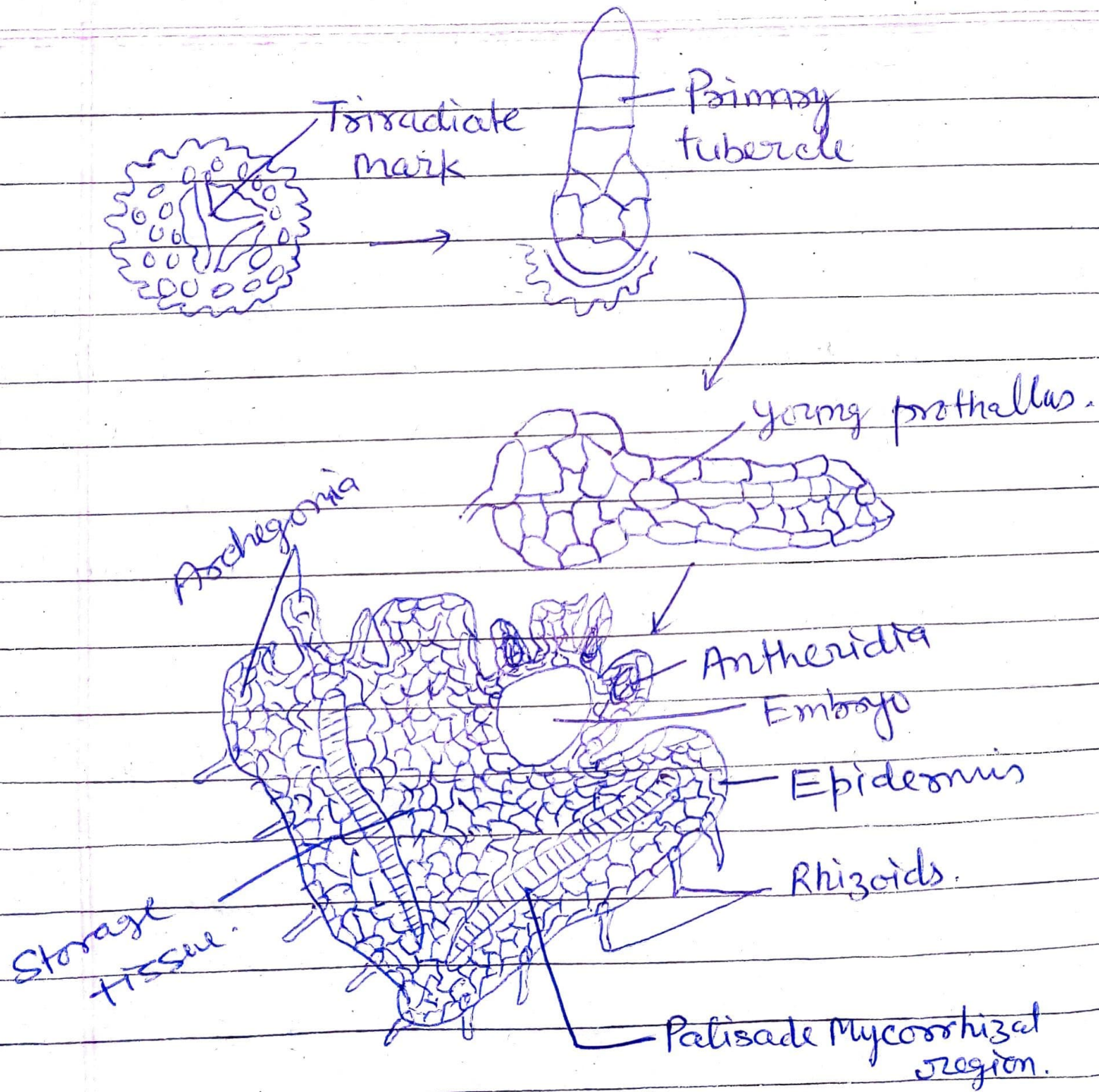
Structure of the mature Gametophyte =

There is great diversity in the form and structure of the mature gametophyte. Preliminary, three distinct types of prothalli are found in Lycopodium.

Cernuum type -

This type of gametophyte is found in species like *L. cernuum* and *L. inundatum* consist of a massive conical erect prothallus. The basal part of prothallus is buried in the soil and the upper part is exposed above the ground which bears sex organs.

This type of prothallus is a self nourishing body but additional nourishment is provided by endophytic fungus present in the center.



Development of Prothallus from Spore

Clavatum type -

This is non-green sub-