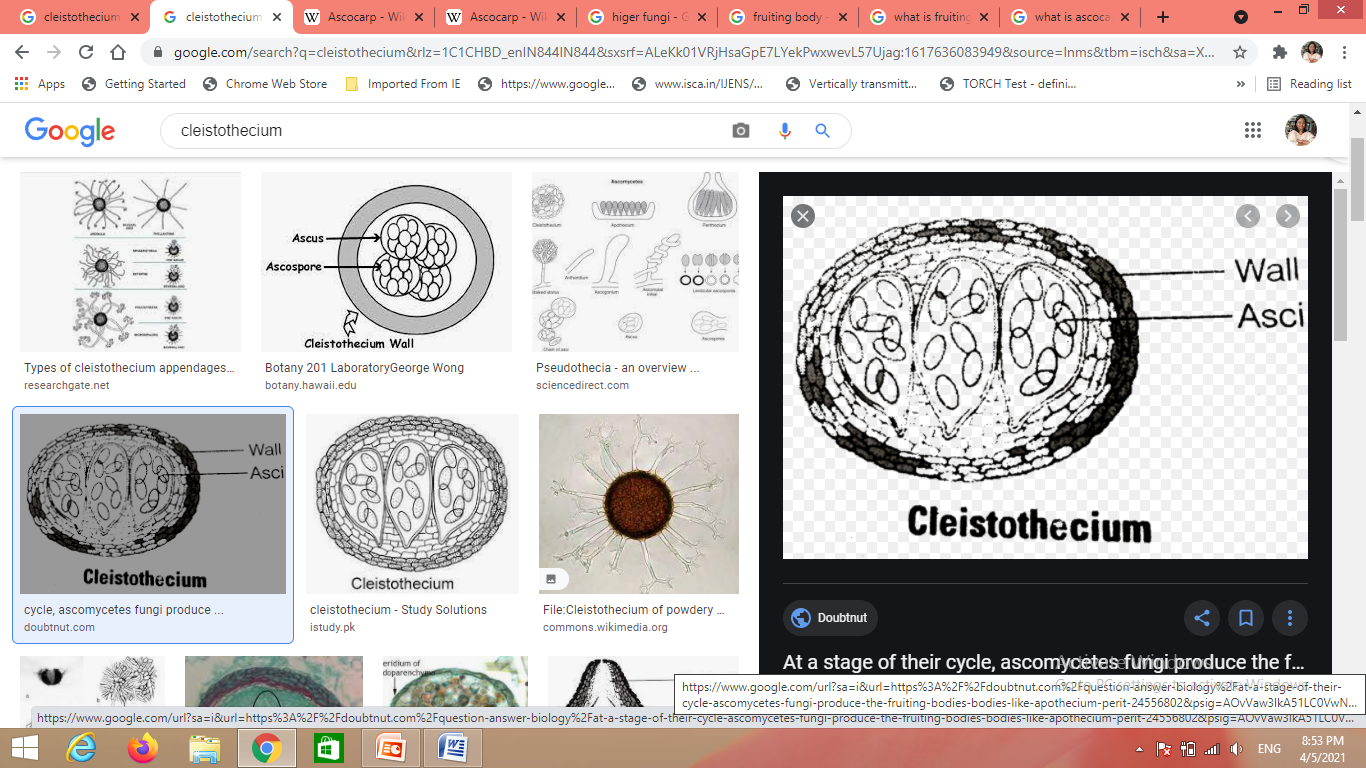
**Hyphal aggregations into reproductive structure**

Various types of reproductive structure are formed by the aggregation of hyphae in higher fungi groups such as Ascomycotina, Basidiomycotina and Deuteromycotina.

In ascomycotina the characteristic fruiting body, called ascocarp. An **ascocarp**, or **ascoma** (plural: **ascomata**), is the fruiting body ([sporocarp](https://en.wikipedia.org/wiki/Sporocarp_(fungi)" \o "Sporocarp (fungi))) of an [ascomycete](https://en.wikipedia.org/wiki/Ascomycete" \o "Ascomycete) phylum fungus. It consists of very tightly interwoven [hyphae](https://en.wikipedia.org/wiki/Hypha" \o "Hypha) and millions of embedded [asci](https://en.wikipedia.org/wiki/Ascus" \o "Ascus), each of which typically contains four to eight [ascospores](https://en.wikipedia.org/wiki/Ascospores" \o "Ascospores). Ascocarps are most commonly bowl-shaped (apothecia) but may take on a spherical or flask-like form that has a pore opening to release spores (perithecia) or no opening (cleistothecia).

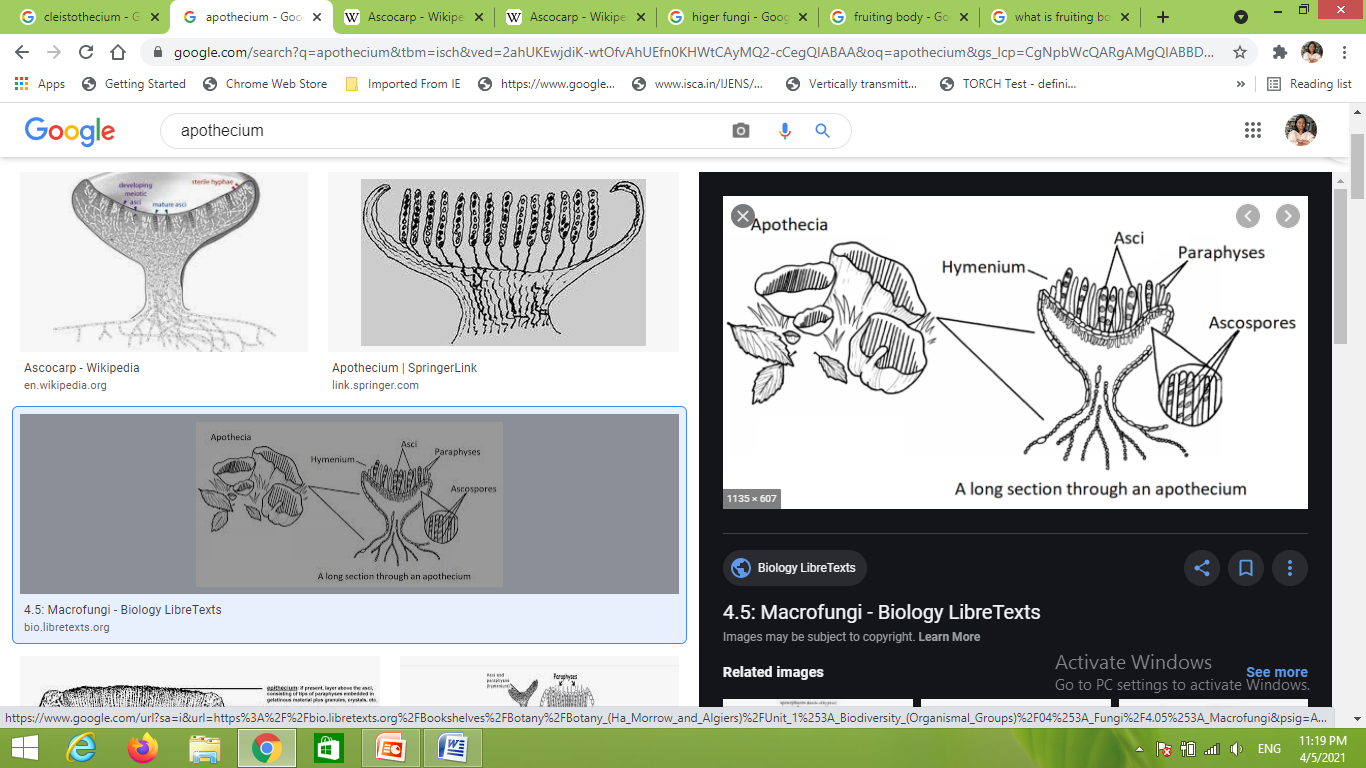
The following types of ascocarp are formed in Ascomycotina are-

1. Cleistothecium
2. Apothecium
3. Perithecium
4. Pseudothecium
5. **Cleistothecium-**



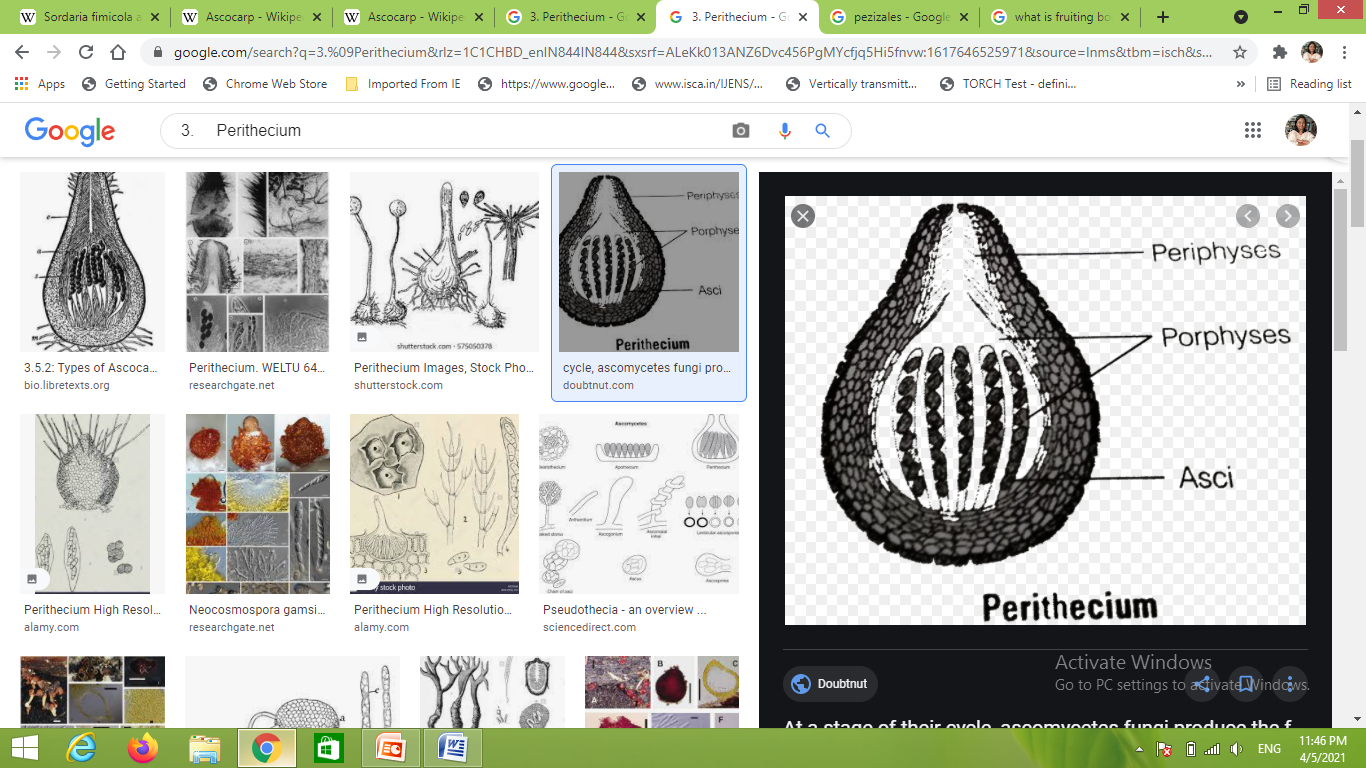
A Cleistothecium is a globose, completely closed fruit body with no special opening to the outside. Cleistothecium (Gr. Kleistos, closed; theke, case) is a fruiting body which is closed from all sides. There is no special opening. The Cleistothecium are common in Erysiphales and Eurotiales. Erysiphales are an order of Ascomycete fungi. Eurotiales are an order of sac fungi (Ascomycota).

1. Apothecium –



An apothecium is a wide, open, saucer-shaped or cup-shaped fruit body. An apothecium (Gr. Apotheke, store house) is an open cup-shaped or saucer-shaphed fruiting body of many Ascomycotina including Pezizales and Helotiales. The asci are present in the hymenium layer.

1. Perithecium-



These are flask shaped structures opening by a pore or *ostiole* (short papilla opening by a circular pore) at the top through which the ascospores escape. The *ostiolar canal* may be lined by hair-like structures called *periphyses*. The asci in perithecium are unitunicate i.e they contain single ascus wall. Perithecium are common in Sphaeriales and Hypocreales.

1. Pseudothecium- the perithecia with double ascus wall (i.e bitunicate) are called pseudothecia. They are common in Loculoascomycetes

