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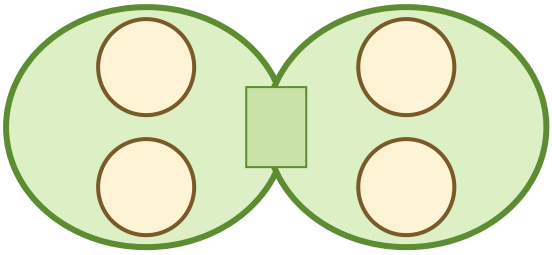
The Stamen and the Four-Chambered Anther

1. The stamen

A **stamen** has two parts: the long, slender **filament** and the **anther** at its top. Pollen is made in the anther.

2. The anther

A typical anther is **bilobed**, and each lobe has two chambers. So it has **4 microsporangia**, which later become pollen sacs.



3. The wall of a microsporangium

Layer (outside to inside)	Note
Epidermis	Outermost
Endothecium	Below the epidermis
Middle layers	Between endothecium and tapetum
Tapetum	Innermost; nourishes the developing pollen grains

The centre holds **sporogenous tissue**, which gives rise to pollen grains.

Solved example

Q. Why is an anther called four-chambered?
A. It has 2 lobes and each lobe has 2 microsporangia, giving 2 × 2 = 4 chambers.

Practice questions

1. (MCQ) The innermost wall layer of a microsporangium is (a) epidermis (b) endothecium (c) middle layer (d) tapetum
2. (Very short) Name the two parts of a stamen.
3. (Very short) How many microsporangia does a typical anther have?
4. (Short) What is the function of the tapetum?
5. (Short) List the wall layers from outside to inside.
6. (Very short) What fills the centre of a young microsporangium?

Answer key

1. (d).
2. Filament and anther.
3. Four.
4. It nourishes the developing pollen grains.
5. Epidermis, endothecium, middle layers, tapetum.
6. Sporogenous tissue.

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