EXPERIMENT 1

Study Pollen Germination on a Slide:

Aim: To study pollen germination on a slide.

Apparatus and materials required: Fresh seasonal flower slides, microscope, beaker, cavity slide, boric acid, sucrose.

Procedure:

Prepare a nutrient solution by dissolving 10g sucrose and 10 mg boric acid in 100 ml water.

Take a few drops of this solution on a clear slide, dust a few pollen grains from the stamen of a mature flower in it.

Obverse the slide under the microscope after 5 minutes. Keep observing the slide regularly after intervals of half an hour.

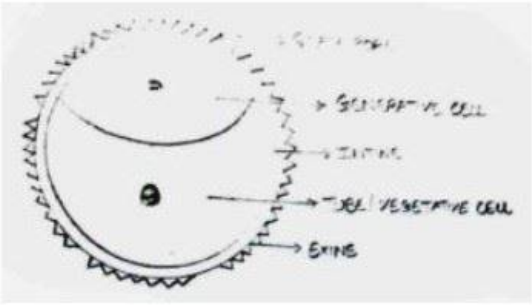
Observations:

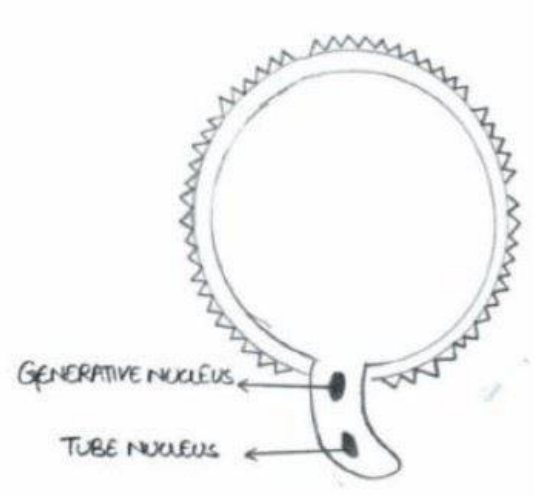
In a nutrient solution or nutrient-rich medium, the pollen grains germinate. The tube/vegetative cell enlarges and comes out the pollen grains through one of the germ pores to form a pollen tube. The generative cell nucleus soon passes into it and dives to make 2 sperm nuclei (male gametes). Each male gamete is lenticular to spherical in outline.

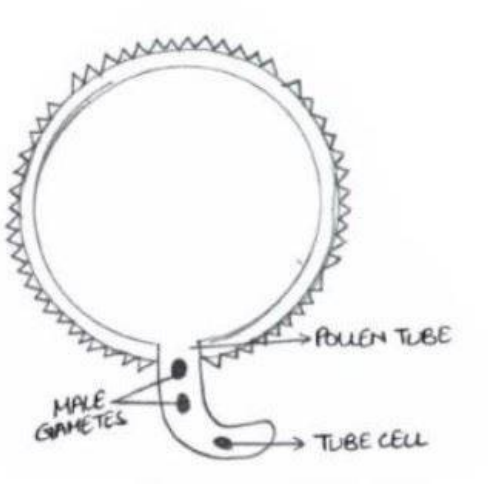
Precautions:

Flowers should be freshly picked

Use a clear cavity slide to observe pollen grain






POLLEN TUBE
MALE GAMETES
TUBE CELL